

Aurora Wind Project Sound and Shadow Flicker Summary

September 17th, 2018

On behalf of Aurora Wind Project, LLC (Aurora), Tradewind Energy, Inc. (Tradewind Energy) conducted a sound and shadow flicker analysis for the proposed Aurora Wind Project (Project) located in Williams County, North Dakota. The analysis was conducted for array A031 and assumed a variety of potential wind turbine models. The wind turbine models analyzed and presented in this report include: GE 2.5-127 on 89 meter (m) hub height (HH); Gamesa G132-3.465 on 84 m and 114 m HH; Acciona AW125-3150 on 87.5 m HH; Vestas V136-3.45/3.6 on 82 and 105 m HH; and Vestas V136-4.0/4.2 on 82 and 105 m HH. To present worst case scenarios, the sound modeling results presented utilize the shortest hub height listed for that turbine model, while the shadow flicker results are based on the highest hub height of that specific turbine model. In conjunction with the Project wind turbines being modeled, wind turbines from the nearby Lindahl Wind Project located northeast of the Project were modeled to provide a comprehensive analysis.

Tradewind Energy staff has expertise and experience in conducting such analyses for regulatory bodies. In particular, Dr. Brandon Storm, who conducted the sound and shadow flicker studies for this report, has his PhD in Wind Science and Engineering from Texas Tech University. Dr. Storm has taught advanced training courses for windPRO, the software package used in these analyses. WindPRO is used throughout the world and is a recognized leader in sound and shadow flicker studies. In addition, Dr. Storm has provided sound and shadow flicker reports and verbal testimony to the North Dakota Public Service Commission (Commission).

Shadow Flicker Analysis

Shadow flicker, the effect seen when turbine blades pass between an observer and the sun, is not regulated by Williams County nor the State of North Dakota. While there is no existing permitting threshold with regards to shadow flicker, thirty hours per year of shadow flicker is the standard that has been utilized by the Commission in the past and the goal of the Project.

A shadow flicker analysis was completed for all known occupied residences within 1.5 miles of any proposed wind turbine locations in array A031 (a total of 61 receptors) using the windPRO software. All 130 wind turbine locations within A031 were modeled, even though most of the wind turbine models presented would not utilize all locations. The Lindahl Wind Project wind turbines were also incorporated in the modeling. Each residence was modeled in greenhouse mode, which assumes flicker from any direction is visible up to a distance of 2,000 m (6,562 ft) from a wind turbine, and sunshine probability data was incorporated, along with wind speed and direction information. The statistical reduction on the shadow flicker hours from the worst case scenario (i.e., the wind turbine always facing the sun, always operating, and no cloudy days), referred to as realistic shadow flicker or anticipated shadow flicker, assumes reductions

based on probability of the sun shining and the wind turbine operating in a direction to cause flicker at the house.

Table 1 shows results for the nine locations with realistic shadow flicker hours above 20 hours per year for the G132-3.465 on 114m HH, which is the model with the highest shadow flicker potential. Results for the other 52 modeled receptors fell below this arbitrary threshold.

Table 1: Modeled shadow flicker parameters for homes within 1.5 miles of proposed turbines and have realistic shadow flicker hours above 20 hours in a year. Location projections are in UTM NAD83 zone 13.

| Receptor - Property Status | Easting | Northing | AW125-3.15 87.5m HH (hours/year) | GE 2.5-127 89m HH (hours/year) | V136-3.45/3.6/4.0/4.2 105m HH (hours/year) | G132-3.465 114m HH (hours/year) |
|-------------------------------------|----------------|-----------------|---|---|---|--|
| 57 - Participating | 633,480 | 5,378,691 | 16:28 | 16:54 | 20:25 | 20:27 |
| 6 - Non-Participating | 637,411 | 5,365,868 | 14:46 | 15:23 | 20:45 | 21:21 |
| 64 - Participating | 639,268 | 5,377,996 | 12:01 | 13:02 | 21:30 | 23:09 |
| 8 - Non-Participating | 638,435 | 5,378,666 | 19:45 | 20:20 | 24:47 | 25:00 |
| 42 - Participating | 628,500 | 5,384,644 | 20:48 | 21:30 | 26:44 | 26:09 |
| 44 - Participating | 629,997 | 5,384,325 | 22:25 | 23:23 | 29:40 | 26:27 |
| 47 - Participating | 634,615 | 5,381,825 | 19:35 | 20:16 | 26:18 | 26:44 |
| 10 - Non-Participating [^] | 643,279 | 5,372,615 | 26:57 | 27:47 | 34:26 | 35:21 |
| 45 - Participating [^] | 633,554 | 5,377,057 | 27:24 | 28:55 | 42:39 | 45:10 |

[^]Surrounding obstacles (e.g., trees, outbuildings) would likely reduce shadow flicker below 30 hr/yr.

Since a conservative greenhouse, bare earth modeling analysis was conducted, four of the eight receptors modeled as potentially having annual shadow flicker above 30 hours per year are not likely to experience shadow flicker levels as high as the modeled results. In particular, there are substantial trees and buildings surrounding the four residences that were not taken into account in the modeling. When blockage due to foliage and other obstacles are taken into account, it is anticipated those four locations will be below 30 hours a year.

If the two occupied residences that were modeled above 30 hours per year continue to exceed the 30 hour threshold when the final Project layout is modeled, Aurora will obtain shadow flicker acknowledgments from the homeowners, or will employ measures to ensure that the occupied residences experience no more than 30 hours per year of shadow flicker. Compliance could be demonstrated through detailed modeling of trees and outbuildings, or by curtailment (i.e., turning select turbines off during specific times), if necessary. Shadow detection mitigation systems utilize shadow flicker results from windPRO in conjunction with light sensors to determine if a turbine should be temporarily turned off to avoid flicker on a home. The turbine controller can also be hard-coded to shut down the wind turbine during a specific time to avoid shadow flicker if a shadow detection mitigation system is not feasible for the final turbine model.

Maps and windPRO reports are provided for the five turbine models presented within this report, noting that the V136-3.45/3.6 and V136-4.0/4.2 are not presented twice since both models have the same shadow flicker results.

Sound Analysis

The Commission has a wind turbine sound level limit of 50 dBA within 100 feet of an inhabited residence or community building, unless a written waiver is obtained from the owner of the occupied residence or community building. A sound analysis was completed for all known occupied residences and community buildings within 1.5 miles of any proposed wind turbine locations in array A031 (a total of 61 receptors) using the windPRO software. Each residence was modeled assuming the ISO 9613-2 General sound model with a 0.5 general ground attenuation factor, commonly used and accepted model and settings for wind turbine sound analyses. These model settings simulate typical atmospheric and ground attenuation for sound propagation. All proposed 130 Aurora wind turbine locations were modeled for five different wind turbine models with a sound emission ranging from 106.1 dBA to 110.0 dBA plus a 2 dBA uncertainty factor. The Lindahl Wind Project wind turbines were also modeled to ensure residences between the two projects would be properly represented.

Table 2 shows results for those receptors modeled as potentially having sound levels above 40 dBA using the loudest potential turbine model (i.e., GE 2.5-127 on 89m HH). All other receptors were modeled at levels below the arbitrary 40 dBA threshold.

Table 2: Modeled sound results for homes within 1.5 miles of proposed wind turbines above 40.0 dBA. Location projections are in UTM NAD83 zone 13

| Receptor - Property Status | Easting | Northing | G132-3.465 | V136-4.0/4.2 | V136-3.45/3.6 | AW125-3.15 | GE 2.5-127 | GE 2.5-127 |
|----------------------------|---------|-----------|------------------------|------------------------|------------------------|--------------------------|-----------------------|--|
| | | | 84 m HH Sound (dBA) | 82 m HH Sound (dBA) | 82 m HH Sound (dBA) | 87.5 m HH Sound (dBA) | 89m HH Sound (dBA) | 89m HH Distance to 50 dBA from Receptor (m/ft) |
| 54 – Participating | 643,167 | 5,375,685 | 35.7 | 36.7 | 37.4 | 38.4 | 40.0 | 1363 /4472 |
| 68 – Participating | 635,378 | 5,369,828 | 35.6 | 36.8 | 37.7 | 38.8 | 40.6 | 1373 /4505 |
| 17 - Non-Participating | 631,989 | 5,373,670 | 36.0 | 37.2 | 38.1 | 39.2 | 40.9 | 1139 /3737 |
| 4 - Non-Participating | 632,031 | 5,373,676 | 36.2 | 37.3 | 38.3 | 39.3 | 41.1 | 1100 /3609 |
| 24 - Non-Participating | 632,030 | 5,373,428 | 36.3 | 37.4 | 38.4 | 39.4 | 41.2 | 1068 /3504 |
| 3 - Non-Participating | 630,488 | 5,379,437 | 36.9 | 38.1 | 39.0 | 40.0 | 41.7 | 804 /2638 |
| 2 - Non-Participating | 647,930 | 5,371,801 | 40.7 | 40.9 | 41.1 | 41.3 | 41.8 | 884 /2900 |
| 31 - Non-Participating | 633,553 | 5,383,375 | 37.2 | 38.3 | 39.3 | 40.3 | 42 | 883 /2897 |
| 46 – Participating | 633,395 | 5,383,413 | 37.5 | 38.7 | 39.7 | 40.6 | 42.3 | 885 /2904 |
| 39 – Participating | 643,400 | 5,373,972 | 38.2 | 39.2 | 40.2 | 41.0 | 42.6 | 817 /2680 |
| 59 – Participating | 643,400 | 5,373,968 | 38.2 | 39.2 | 40.2 | 41.0 | 42.6 | 814 /2671 |
| 18 - Non-Participating | 637,954 | 5,365,740 | 38.1 | 39.3 | 40.4 | 41.2 | 42.8 | 751 /2464 |
| 7 - Non-Participating | 638,615 | 5,371,717 | 38.5 | 39.7 | 40.7 | 41.6 | 43.3 | 871 /2858 |
| 12 - Non-Participating | 630,584 | 5,371,240 | 38.7 | 39.9 | 41.1 | 41.7 | 43.4 | 416 /1365 |
| 53 – Participating | 642,413 | 5,373,644 | 39.6 | 40.7 | 41.8 | 42.5 | 44.1 | 445 /1460 |
| 6 - Non-Participating | 637,411 | 5,365,868 | 39.5 | 40.7 | 41.9 | 42.5 | 44.2 | 451 /1480 |
| 10 - Non-Participating | 643,279 | 5,372,615 | 39.8 | 41.0 | 42.1 | 42.7 | 44.3 | 436 /1430 |
| 16 - Non-Participating | 630,734 | 5,381,835 | 39.8 | 41.0 | 42.1 | 42.9 | 44.5 | 646 /2119 |
| 11 - Non-Participating | 643,282 | 5,373,088 | 40.1 | 41.3 | 42.4 | 43.0 | 44.6 | 362 /1188 |

Table 2: Continue

| Receptor - Property Status | Easting | Northing | G132-3.465 | V136-4.0/4.2 | V136-3.45/3.6 | AW125-3.15 | GE 2.5-127 | GE 2.5-127 |
|-------------------------------|---------|-----------|------------------------|------------------------|------------------------|--------------------------|-----------------------|--|
| | | | 84 m HH Sound (dBA) | 82 m HH Sound (dBA) | 82 m HH Sound (dBA) | 87.5 m HH Sound (dBA) | 89m HH Sound (dBA) | 89m HH Distance to 50 dBA from Receptor (m/ft) |
| 51 – Participating | 637,621 | 5,371,070 | 40.1 | 41.2 | 42.3 | 43.1 | 44.8 | 553 /1814 |
| 13 - Non-Participating | 630,347 | 5,380,996 | 40.1 | 41.3 | 42.4 | 43.1 | 44.8 | 348 /1142 |
| 40 – Participating | 643,453 | 5,372,099 | 40.6 | 41.7 | 42.8 | 43.5 | 45.1 | 410 /1345 |
| 62 – Participating | 643,453 | 5,372,097 | 40.6 | 41.7 | 42.8 | 43.5 | 45.1 | 409 /1342 |
| 27 - Non-Participating | 646,754 | 5,372,213 | 42.1 | 42.7 | 43.5 | 43.9 | 45.1 | 368 /1207 |
| 52 – Participating | 640,276 | 5,365,862 | 40.9 | 42.1 | 43.4 | 43.8 | 45.5 | 254 /833 |
| 47 – Participating | 634,615 | 5,381,825 | 41.2 | 42.4 | 43.5 | 44.3 | 45.9 | 415 /1362 |
| 5 - Non-Participating | 636,328 | 5,376,974 | 41.5 | 42.6 | 43.7 | 44.5 | 46.1 | 498 /1634 |
| 61 – Participating | 633,645 | 5,373,895 | 41.5 | 42.7 | 43.9 | 44.5 | 46.2 | 297 /974 |
| 50 – Participating | 636,416 | 5,382,006 | 41.7 | 43.0 | 44.1 | 44.7 | 46.4 | 323 /1060 |
| 64 – Participating | 639,268 | 5,377,996 | 41.9 | 43.1 | 44.3 | 44.8 | 46.5 | 210 /689 |
| 63 – Participating | 641,300 | 5,368,154 | 42.2 | 43.4 | 44.5 | 45.1 | 46.7 | 435 /1427 |
| 9 - Non-Participating | 640,413 | 5,369,191 | 42.2 | 43.4 | 44.6 | 45.1 | 46.8 | 246 /807 |
| 66 – Participating | 638,244 | 5,370,747 | 42.2 | 43.4 | 44.6 | 45.1 | 46.8 | 203 /666 |
| 8 - Non-Participating | 638,435 | 5,378,666 | 42.5 | 43.7 | 44.9 | 45.4 | 47.1 | 251 /823 |
| 55 – Participating | 635,760 | 5,381,775 | 42.5 | 43.7 | 44.9 | 45.5 | 47.1 | 333 /1093 |
| 42 – Participating | 628,500 | 5,384,644 | 42.6 | 43.8 | 45.0 | 45.6 | 47.2 | 274 /899 |
| 44 - Participating | 629,997 | 5,384,325 | 42.7 | 43.9 | 45.1 | 45.6 | 47.3 | 212 /696 |
| 67 - Participating | 637,448 | 5,370,698 | 42.8 | 44.0 | 45.2 | 45.7 | 47.4 | 160 /525 |
| 48 - Participating | 634,891 | 5,378,584 | 44.1 | 45.3 | 46.4 | 47.1 | 48.7 | 155 /509 |
| 49 - Participating | 636,455 | 5,380,259 | 44.1 | 45.4 | 46.6 | 47.1 | 48.8 | 152 /499 |
| 45 - Participating | 633,554 | 5,377,057 | 44.4 | 45.6 | 46.8 | 47.4 | 49.0 | 190 /623 |
| 57 - Participating | 633,480 | 5,378,691 | 44.6 | 45.8 | 47.1 | 47.6 | 49.2 | 77 /253 |

All receptors were modeled at sound levels below the 50 dBA limit, even with the 2 dBA uncertainty factor added to the wind turbine emission. If the final Project layout results in a modeled sound level above the 50 dBA limit at any receptor, Aurora will either obtain a written waiver of the sound avoidance requirement from the homeowner, or will take appropriate measures to ensure compliance (e.g., install Low Noise Trailing Edges (LNTE)).

Detailed maps and windPRO sound reports are included for reference.

Shadow Flicker Maps

Aurora Wind Project - Anticipated Realistic Shadow Flicker (Hours/Year)

AW125 3.15 87.5m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Shadow Receptors (Non-Participating)

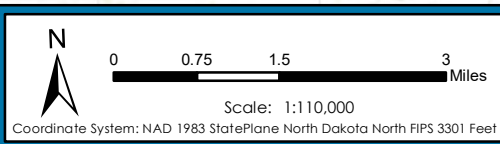
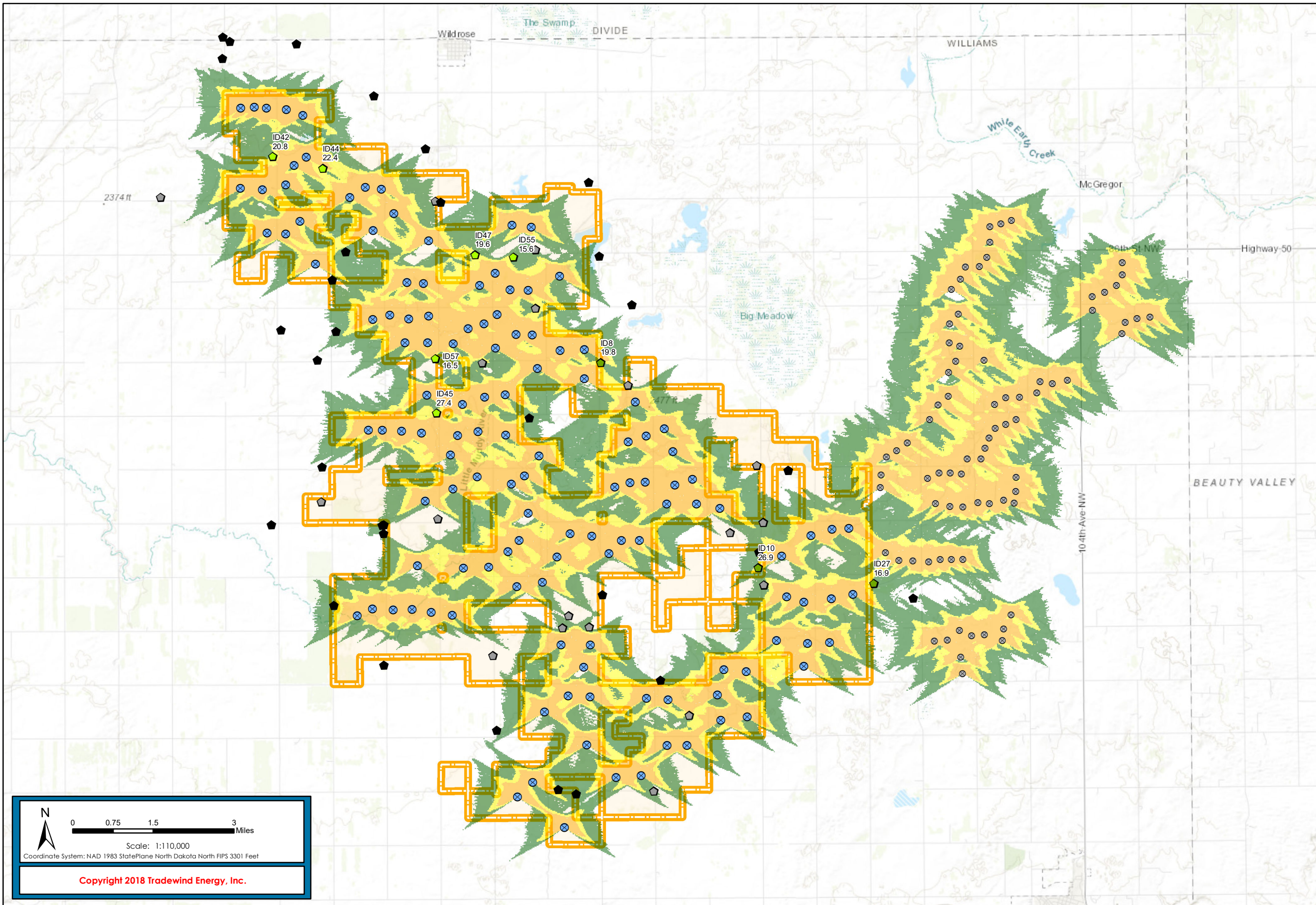
- Hours/Year
- 0.01-15.0
 - 15.01 - 30.00
 - 30.01+

Shadow Receptors (Participating)

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+

Realistic Shadow Flicker

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+



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The following companies and organizations provided data that contributed to the production of this map.

- U.S. Geological Survey (USGS)
- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Realistic Shadow Flicker (Hours/Year) GE 2.5 127 89m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Shadow Receptors (Non-Participating)

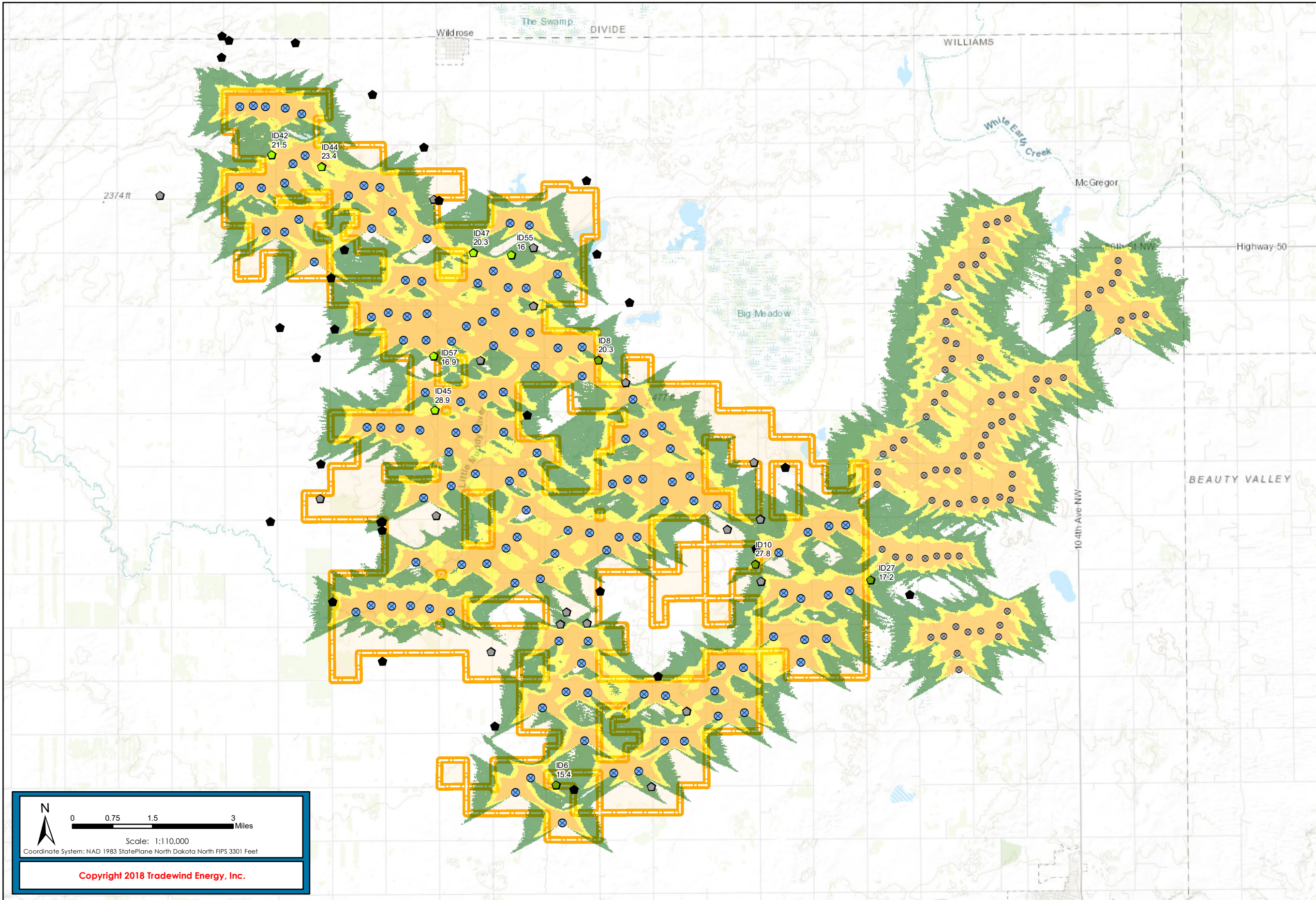
- Hours/Year
- 0.01-15.0
 - 15.01 - 30.00
 - 30.01+

Shadow Receptors (Participating)

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+

Realistic Shadow Flicker

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+



Scale: 1:110,000
 Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet
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- U.S. Geological Survey (USGS)
- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Realistic Shadow Flicker (Hours/Year)

V136 3.45/3.6/4.0/4.2 105m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Shadow Receptors (Non-Participating)

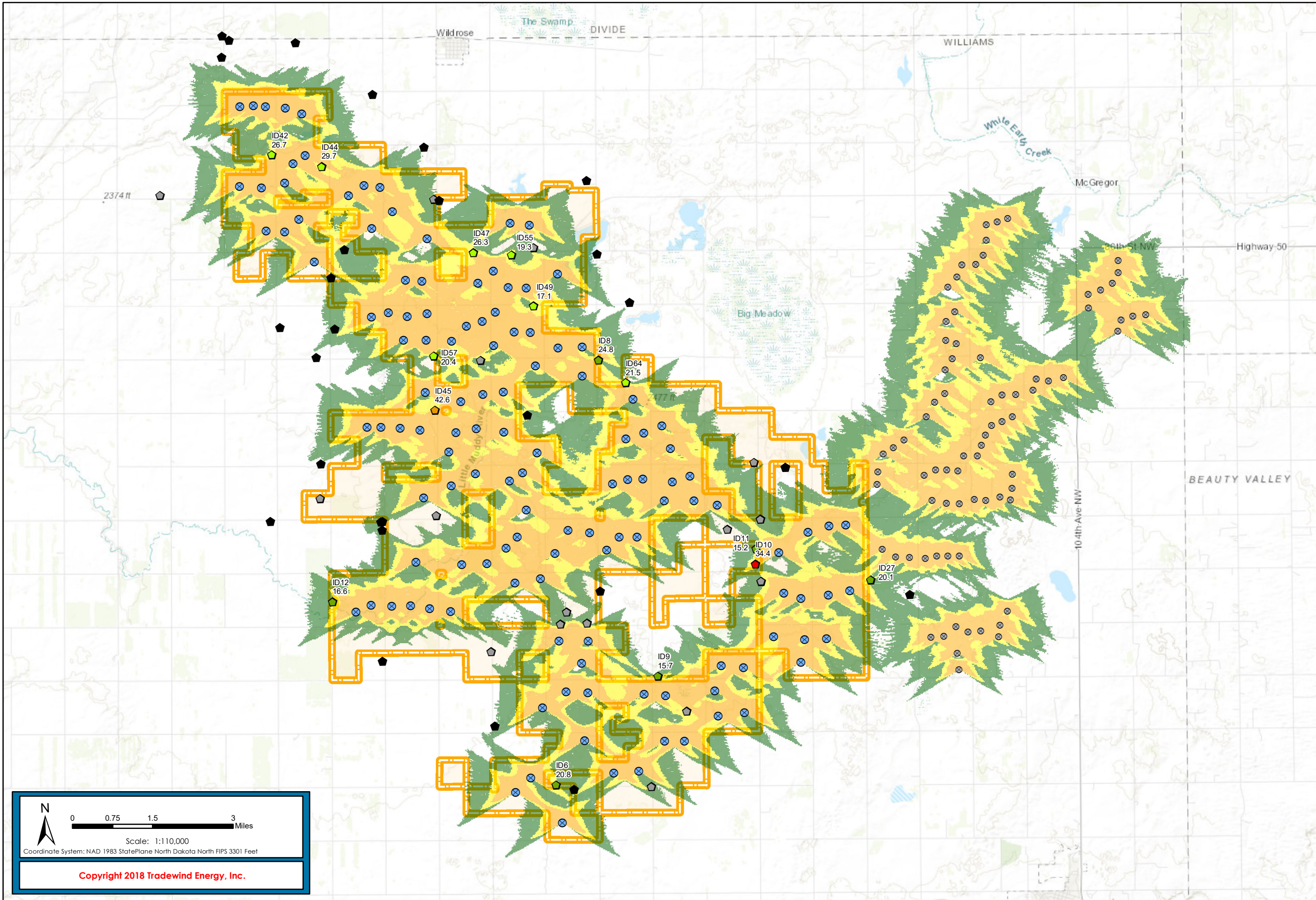
- Hours/Year
- 0.01-15.0
 - 15.01 - 30.00
 - 30.01+

Shadow Receptors (Participating)

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+

Realistic Shadow Flicker

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+



N

0 0.75 1.5 3 Miles

Scale: 1:110,000

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

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- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Realistic Shadow Flicker (Hours/Year) G132 3.465 114m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Shadow Receptors (Non-Participating)

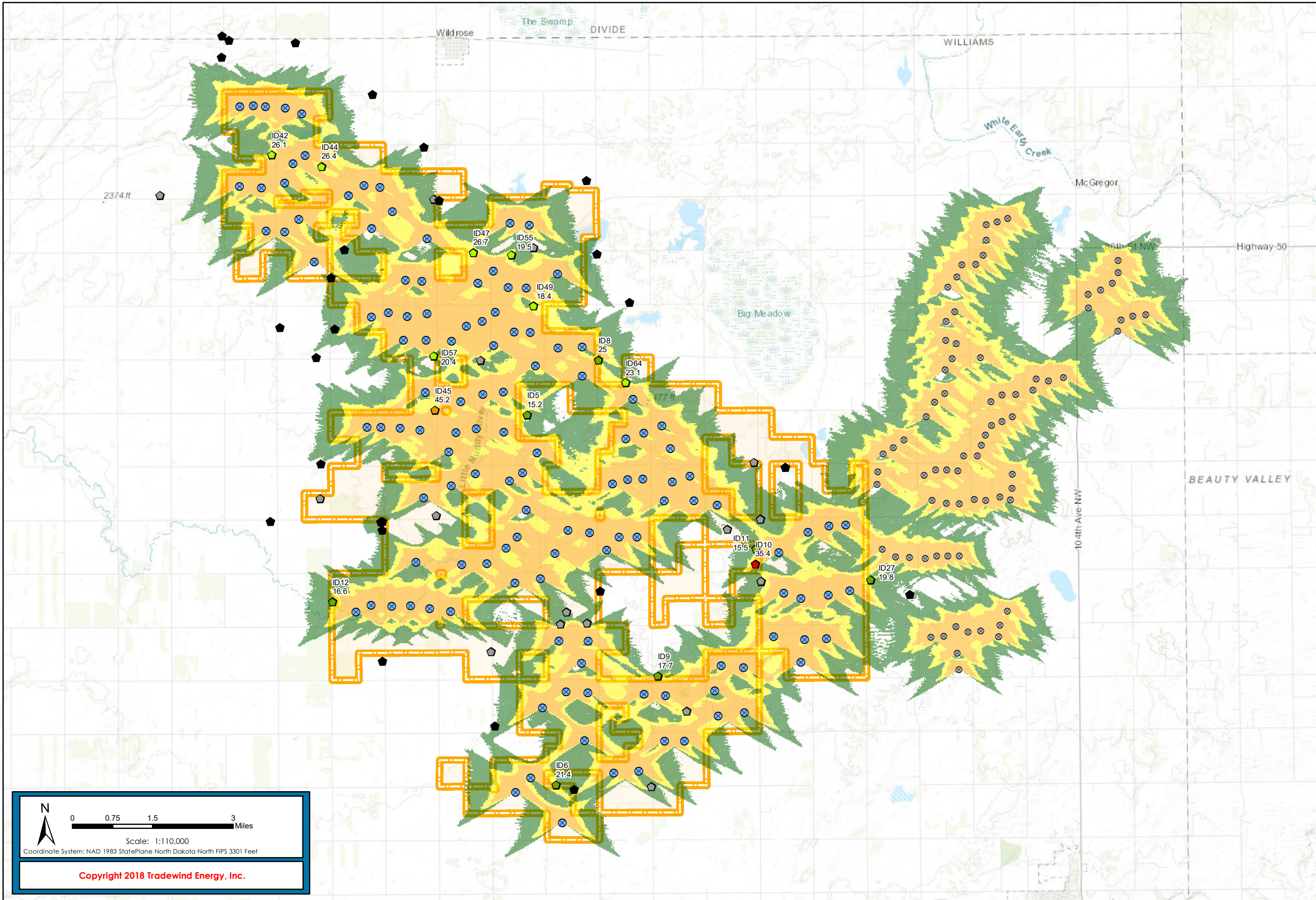
- Hours/Year
- 0.01-15.0
 - 15.01 - 30.00
 - 30.01+

Shadow Receptors (Participating)

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+

Realistic Shadow Flicker

- Hours/Year
- 0.01 - 15.00
 - 15.01 - 30.00
 - 30.01+



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- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

N

0 0.75 1.5 3 Miles

Scale: 1:110,000

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

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windPRO Shadow Flicker Reports

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | | RPM | | |
|----|---------|-----------|-------|----------------------|----------|-----------|------------------|-------------------|-------|--------------------|----------------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | | Rotor diameter [m] | Hub height [m] |
| | | | [m] | | | | | | | | |
| 27 | 636,095 | 5,373,292 | 733.9 | T-46 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|-----|---------|-----------|-------|--|----------|------------|-------------------------|--------------------------|----------------------|--------------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| | | | [m] | | | | | | | | |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 111 | 645,966 | 5,373,838 | 730.1 | T-155 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 112 | 644,144 | 5,371,765 | 710.2 | T-156 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 113 | 644,660 | 5,371,616 | 715.4 | T-157 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 114 | 645,479 | 5,371,724 | 719.3 | T-158 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 115 | 646,127 | 5,371,875 | 717.1 | T-159 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 116 | 639,890 | 5,366,309 | 710.2 | T-160 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 117 | 639,135 | 5,366,239 | 709.0 | T-161 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 118 | 637,617 | 5,364,719 | 707.6 | T-162 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 119 | 636,191 | 5,365,609 | 711.4 | T-163 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 120 | 636,640 | 5,366,042 | 710.2 | T-164 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 121 | 636,954 | 5,368,164 | 711.3 | T-165 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 122 | 633,495 | 5,371,087 | 689.0 | T-166 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 123 | 634,130 | 5,371,006 | 696.6 | T-167 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | Acciona | AW3150/125-3,150 | 3,150 | 125.0 | 87.5 | 18.7 |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|-----|---------|-----------|-------|--|----------|------------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | | | | | |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 148 | 649,468 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 | |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|-----|---------|-----------|-------|--|----------|--------------------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. Type-generator | | | | |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT... Yes | Yes | VESTAS V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

Shadow receptor-Input

| No. | Name | X(East) | Y(North) | Z | Width [m] | Height [m] | Height a.g.l. [m] | Degrees from south cw [°] | Slope of window [°] | Direction mode |
|-------|---------------------|---------|-----------|-------|-----------|------------|-------------------|---------------------------|---------------------|--------------------|
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| G 43 | - Participating | 630,148 | 5,374,326 | 691.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AE 55 | - Participating | 635,760 | 5,381,775 | 711.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AF 15 | - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AG 57 | - Participating | 633,480 | 5,378,691 | 739.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AH 59 | - Participating | 643,400 | 5,373,968 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AI 61 | - Participating | 633,645 | 5,373,895 | 713.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AJ 62 | - Participating | 643,453 | 5,372,097 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AK 63 | - Participating | 641,300 | 5,368,154 | 725.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AL 16 | - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AM 17 | - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AN 18 | - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AO 64 | - Participating | 639,268 | 5,377,996 | 720.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AP 19 | - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AQ 20 | - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---------------------------|---------|-----------|----------|-----|-------|--------|------------------|--------------------------|--------------------|--------------------|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AS 22 - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AT 23 - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AU 24 - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AV 27 - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AW 29 - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AX 30 - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AY 31 - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AZ 66 - Participating | 638,244 | 5,370,747 | 710.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BA 67 - Participating | 637,448 | 5,370,698 | 712.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BB 68 - Participating | 635,378 | 5,369,828 | 692.6 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BC 32 - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BD 33 - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BE 34 - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BF 35 - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BG 36 - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BH 37 - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BI 38 - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

Calculation Results

Shadow receptor

| No. | Name | Shadow, worst case | | | Shadow, expected values |
|---------------------------|------|--------------------------------------|--|--|--------------------------------------|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] |
| A 1 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 |
| B 39 - Participating | | 12:05 | 56 | 0:22 | 5:14 |
| C 2 - Non-Participating | | 5:48 | 44 | 0:14 | 2:09 |
| D 40 - Participating | | 26:54 | 58 | 0:46 | 9:26 |
| E 41 - Participating | | 0:00 | 0 | 0:00 | 0:00 |
| F 42 - Participating | | 59:04 | 144 | 0:44 | 20:47 |
| G 43 - Participating | | 0:00 | 0 | 0:00 | 0:00 |
| H 44 - Participating | | 55:25 | 158 | 0:40 | 22:25 |
| I 3 - Non-Participating | | 11:23 | 41 | 0:26 | 4:39 |
| J 4 - Non-Participating | | 17:30 | 63 | 0:22 | 7:14 |
| K 45 - Participating | | 79:44 | 169 | 1:02 | 27:23 |
| L 46 - Participating | | 7:59 | 47 | 0:20 | 2:54 |
| M 47 - Participating | | 56:35 | 150 | 0:40 | 19:35 |
| N 48 - Participating | | 20:22 | 121 | 0:19 | 9:08 |
| O 5 - Non-Participating | | 33:42 | 126 | 0:36 | 10:35 |
| P 49 - Participating | | 27:54 | 143 | 0:26 | 10:00 |
| Q 50 - Participating | | 16:39 | 68 | 0:22 | 4:58 |
| R 51 - Participating | | 7:02 | 52 | 0:13 | 3:31 |
| S 6 - Non-Participating | | 33:53 | 93 | 0:39 | 14:46 |
| T 52 - Participating | | 9:59 | 40 | 0:23 | 4:44 |
| U 7 - Non-Participating | | 2:10 | 18 | 0:11 | 0:57 |
| V 8 - Non-Participating | | 70:26 | 139 | 0:47 | 19:45 |
| W 9 - Non-Participating | | 37:01 | 91 | 0:42 | 10:13 |
| X 10 - Non-Participating | | 66:28 | 159 | 0:46 | 26:56 |
| Y 11 - Non-Participating | | 26:21 | 74 | 0:42 | 10:59 |
| Z 53 - Participating | | 1:28 | 15 | 0:08 | 0:31 |
| AA 54 - Participating | | 1:56 | 15 | 0:12 | 0:40 |
| AB 12 - Non-Participating | | 33:20 | 87 | 0:40 | 12:41 |
| AC 13 - Non-Participating | | 2:28 | 18 | 0:10 | 0:44 |
| AD 14 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 |
| AE 55 - Participating | | 58:17 | 117 | 0:47 | 15:36 |
| AF 15 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| No. | Name | Shadow, worst case | | | Shadow, expected values | |
|---------------------------|------|--------------------------------------|--|--|--------------------------------------|--|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] | |
| AG 57 - Participating | | 34:05 | 124 | 0:30 | 16:27 | |
| AH 59 - Participating | | 12:10 | 58 | 0:22 | 5:17 | |
| AI 61 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AJ 62 - Participating | | 26:47 | 58 | 0:46 | 9:24 | |
| AK 63 - Participating | | 24:50 | 106 | 0:32 | 11:05 | |
| AL 16 - Non-Participating | | 17:02 | 85 | 0:31 | 5:48 | |
| AM 17 - Non-Participating | | 17:41 | 66 | 0:21 | 7:21 | |
| AN 18 - Non-Participating | | 16:55 | 84 | 0:22 | 7:14 | |
| AO 64 - Participating | | 36:14 | 78 | 0:46 | 12:01 | |
| AP 19 - Non-Participating | | 6:18 | 29 | 0:20 | 1:51 | |
| AQ 20 - Non-Participating | | 4:17 | 26 | 0:12 | 1:01 | |
| AR 21 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AS 22 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AT 23 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AU 24 - Non-Participating | | 12:04 | 42 | 0:22 | 3:52 | |
| AV 27 - Non-Participating | | 50:40 | 143 | 0:54 | 16:56 | |
| AW 29 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AX 30 - Non-Participating | | 7:37 | 40 | 0:14 | 1:55 | |
| AY 31 - Non-Participating | | 5:35 | 38 | 0:16 | 2:05 | |
| AZ 66 - Participating | | 14:08 | 48 | 0:29 | 3:54 | |
| BA 67 - Participating | | 17:26 | 52 | 0:32 | 5:55 | |
| BB 68 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BC 32 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BD 33 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BE 34 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BF 35 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BG 36 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BH 37 - Non-Participating | | 5:58 | 31 | 0:18 | 2:28 | |
| BI 38 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|------|------------------------|----------------------|
| 1 | T-43 | 0:00 | 0:00 |
| 2 | T-41 | 8:22 | 3:53 |
| 3 | T-63 | 1:56 | 0:40 |
| 4 | T-62 | 0:00 | 0:00 |
| 5 | T-45 | 0:00 | 0:00 |
| 6 | T-35 | 2:10 | 0:57 |
| 7 | T-47 | 0:00 | 0:00 |
| 8 | T-56 | 0:00 | 0:00 |
| 9 | T-55 | 0:00 | 0:00 |
| 10 | T-39 | 0:00 | 0:00 |
| 11 | T-38 | 0:00 | 0:00 |
| 12 | T-37 | 0:00 | 0:00 |
| 13 | T-70 | 0:00 | 0:00 |
| 14 | T-77 | 0:00 | 0:00 |
| 15 | T-53 | 0:00 | 0:00 |
| 16 | T-67 | 1:56 | 0:36 |
| 17 | T-66 | 0:00 | 0:00 |
| 18 | T-69 | 15:38 | 4:31 |
| 19 | T-93 | 30:24 | 15:06 |
| 20 | T-80 | 66:15 | 18:01 |
| 21 | T-58 | 0:00 | 0:00 |
| 22 | T-73 | 0:00 | 0:00 |
| 23 | T-28 | 73:54 | 30:51 |
| 24 | T-78 | 31:04 | 9:45 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 3:20 AM/3.0.654

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|-------|------------------------|----------------------|
| 25 | T-76 | 0:00 | 0:00 |
| 26 | T-79 | 0:00 | 0:00 |
| 27 | T-46 | 0:00 | 0:00 |
| 28 | T-57 | 0:00 | 0:00 |
| 29 | T-71 | 7:26 | 2:28 |
| 30 | T-59 | 0:00 | 0:00 |
| 31 | T-60 | 0:00 | 0:00 |
| 32 | T-61 | 0:00 | 0:00 |
| 33 | T-40 | 0:00 | 0:00 |
| 34 | T-15 | 0:00 | 0:00 |
| 35 | T-16 | 0:00 | 0:00 |
| 36 | T-17 | 0:00 | 0:00 |
| 37 | T-12 | 0:00 | 0:00 |
| 38 | T-13 | 1:46 | 0:42 |
| 39 | T-26 | 0:00 | 0:00 |
| 40 | T-25 | 17:26 | 5:55 |
| 41 | T-10 | 2:21 | 0:53 |
| 42 | T-8 | 0:00 | 0:00 |
| 43 | T-94 | 3:28 | 1:39 |
| 44 | T-95 | 8:22 | 4:04 |
| 45 | T-96 | 0:00 | 0:00 |
| 46 | T-121 | 3:44 | 1:13 |
| 47 | T-142 | 50:49 | 19:54 |
| 48 | T-131 | 2:06 | 1:02 |
| 49 | T-129 | 0:00 | 0:00 |
| 50 | T-141 | 8:06 | 2:38 |
| 51 | T-123 | 0:00 | 0:00 |
| 52 | T-144 | 5:33 | 1:42 |
| 53 | T-145 | 5:13 | 1:43 |
| 54 | T-146 | 11:58 | 3:38 |
| 55 | T-122 | 0:00 | 0:00 |
| 56 | T-117 | 13:30 | 4:10 |
| 57 | T-130 | 1:26 | 0:37 |
| 58 | T-44 | 0:00 | 0:00 |
| 59 | T-72 | 25:09 | 6:55 |
| 60 | T-75 | 0:00 | 0:00 |
| 61 | T-34 | 7:02 | 3:31 |
| 62 | T-74 | 0:00 | 0:00 |
| 63 | T-81 | 1:49 | 0:29 |
| 64 | T-98 | 13:50 | 5:24 |
| 65 | T-85 | 0:00 | 0:00 |
| 66 | T-86 | 21:35 | 6:27 |
| 67 | T-87 | 3:18 | 1:25 |
| 68 | T-51 | 19:13 | 7:58 |
| 69 | T-23 | 1:53 | 0:55 |
| 70 | T-11 | 2:16 | 0:59 |
| 71 | T-22 | 39:57 | 12:03 |
| 72 | T-5 | 12:04 | 3:52 |
| 73 | T-9 | 13:38 | 5:46 |
| 74 | T-90 | 6:12 | 1:48 |
| 75 | T-91 | 0:00 | 0:00 |
| 76 | T-92 | 4:54 | 2:08 |
| 77 | T-106 | 3:01 | 0:49 |
| 78 | T-100 | 0:00 | 0:00 |
| 79 | T-107 | 20:22 | 6:06 |
| 80 | T-99 | 3:34 | 1:25 |
| 81 | T-143 | 27:51 | 12:59 |
| 82 | T-108 | 104:08 | 30:30 |
| 83 | T-109 | 4:18 | 1:32 |
| 84 | T-110 | 2:15 | 0:46 |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 85 | T-124 | 2:24 | 1:00 |
| 86 | T-88 | 7:52 | 3:34 |
| 87 | T-89 | 10:08 | 2:51 |
| 88 | T-14 | 0:00 | 0:00 |
| 89 | T-24 | 14:08 | 3:54 |
| 90 | T-42 | 0:00 | 0:00 |
| 91 | T-68 | 7:15 | 2:15 |
| 92 | T-21 | 0:00 | 0:00 |
| 93 | T-20 | 0:00 | 0:00 |
| 94 | T-19 | 0:00 | 0:00 |
| 95 | T-18 | 0:00 | 0:00 |
| 96 | T-83 | 28:25 | 11:47 |
| 97 | T-84 | 12:16 | 5:20 |
| 98 | T-54 | 0:00 | 0:00 |
| 99 | T-118 | 0:00 | 0:00 |
| 100 | T-120 | 5:19 | 2:22 |
| 101 | T-105 | 0:00 | 0:00 |
| 102 | T-97 | 8:57 | 3:33 |
| 103 | T-147 | 0:00 | 0:00 |
| 104 | T-148 | 0:00 | 0:00 |
| 105 | T-149 | 0:00 | 0:00 |
| 106 | T-150 | 0:00 | 0:00 |
| 107 | T-151 | 0:00 | 0:00 |
| 108 | T-152 | 19:22 | 6:06 |
| 109 | T-153 | 13:03 | 5:13 |
| 110 | T-154 | 0:00 | 0:00 |
| 111 | T-155 | 0:00 | 0:00 |
| 112 | T-156 | 32:52 | 11:12 |
| 113 | T-157 | 10:33 | 3:44 |
| 114 | T-158 | 5:30 | 1:41 |
| 115 | T-159 | 32:31 | 9:59 |
| 116 | T-160 | 0:00 | 0:00 |
| 117 | T-161 | 21:04 | 9:23 |
| 118 | T-162 | 0:00 | 0:00 |
| 119 | T-163 | 7:51 | 3:01 |
| 120 | T-164 | 25:52 | 11:42 |
| 121 | T-165 | 5:58 | 2:28 |
| 122 | T-166 | 0:00 | 0:00 |
| 123 | T-167 | 0:00 | 0:00 |
| 124 | T-168 | 2:12 | 0:57 |
| 125 | T-169 | 0:00 | 0:00 |
| 126 | T-170 | 25:13 | 9:06 |
| 127 | T-171 | 8:07 | 3:33 |
| 128 | T-172 | 8:00 | 2:40 |
| 129 | T-173 | 1:23 | 0:26 |
| 130 | T-174 | 13:49 | 3:26 |
| 131 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (1) | 0:00 | 0:00 |
| 132 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (2) | 0:00 | 0:00 |
| 133 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (3) | 0:00 | 0:00 |
| 134 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (4) | 0:00 | 0:00 |
| 135 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (5) | 0:00 | 0:00 |
| 136 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (6) | 0:00 | 0:00 |
| 137 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (7) | 0:00 | 0:00 |
| 138 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (8) | 0:00 | 0:00 |
| 139 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (9) | 0:00 | 0:00 |
| 140 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (10) | 0:00 | 0:00 |
| 141 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (11) | 0:00 | 0:00 |
| 142 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (12) | 0:00 | 0:00 |
| 143 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (13) | 0:00 | 0:00 |
| 144 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (14) | 0:00 | 0:00 |

To be continued on next page...

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 145 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (15) | 0:00 | 0:00 |
| 146 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (16) | 0:00 | 0:00 |
| 147 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (17) | 0:00 | 0:00 |
| 148 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (18) | 0:00 | 0:00 |
| 149 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (19) | 0:00 | 0:00 |
| 150 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (20) | 0:00 | 0:00 |
| 151 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (21) | 4:06 | 1:25 |
| 152 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (22) | 0:00 | 0:00 |
| 153 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (23) | 0:00 | 0:00 |
| 154 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (24) | 0:00 | 0:00 |
| 155 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (25) | 0:00 | 0:00 |
| 156 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (26) | 0:00 | 0:00 |
| 157 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (27) | 0:00 | 0:00 |
| 158 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (28) | 0:00 | 0:00 |
| 159 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (29) | 0:00 | 0:00 |
| 160 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (30) | 0:00 | 0:00 |
| 161 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (31) | 0:00 | 0:00 |
| 162 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (32) | 0:00 | 0:00 |
| 163 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (33) | 0:00 | 0:00 |
| 164 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (34) | 0:00 | 0:00 |
| 165 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (35) | 0:00 | 0:00 |
| 166 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (36) | 0:00 | 0:00 |
| 167 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (37) | 0:00 | 0:00 |
| 168 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (38) | 0:00 | 0:00 |
| 169 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (39) | 0:00 | 0:00 |
| 170 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (40) | 0:00 | 0:00 |
| 171 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (41) | 0:00 | 0:00 |
| 172 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (42) | 0:00 | 0:00 |
| 173 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (43) | 0:00 | 0:00 |
| 174 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (44) | 0:00 | 0:00 |
| 175 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (45) | 0:00 | 0:00 |
| 176 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (46) | 0:00 | 0:00 |
| 177 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (47) | 12:37 | 5:14 |
| 178 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (48) | 0:00 | 0:00 |
| 179 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (49) | 0:00 | 0:00 |
| 180 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (50) | 0:00 | 0:00 |
| 181 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (51) | 0:00 | 0:00 |
| 182 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (52) | 0:00 | 0:00 |
| 183 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (53) | 0:00 | 0:00 |
| 184 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (54) | 0:00 | 0:00 |
| 185 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (55) | 0:00 | 0:00 |
| 186 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (56) | 0:00 | 0:00 |
| 187 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (57) | 0:00 | 0:00 |
| 188 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (58) | 0:00 | 0:00 |
| 189 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (59) | 0:00 | 0:00 |
| 190 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (60) | 0:00 | 0:00 |
| 191 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (61) | 0:00 | 0:00 |
| 192 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (62) | 0:00 | 0:00 |
| 193 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (63) | 0:00 | 0:00 |
| 194 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (64) | 0:00 | 0:00 |
| 195 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (65) | 0:00 | 0:00 |
| 196 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (66) | 0:00 | 0:00 |
| 197 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (67) | 0:00 | 0:00 |
| 198 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (68) | 0:00 | 0:00 |
| 199 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (69) | 0:00 | 0:00 |
| 200 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (70) | 0:00 | 0:00 |
| 201 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (71) | 1:44 | 0:43 |
| 202 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (72) | 0:00 | 0:00 |
| 203 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (73) | 0:00 | 0:00 |
| 204 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (74) | 0:00 | 0:00 |

To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 3:20 AM/3.0.654

SHADOW - Main Result

Calculation: AW125-3.15 87.5m HH Shadow Flicker

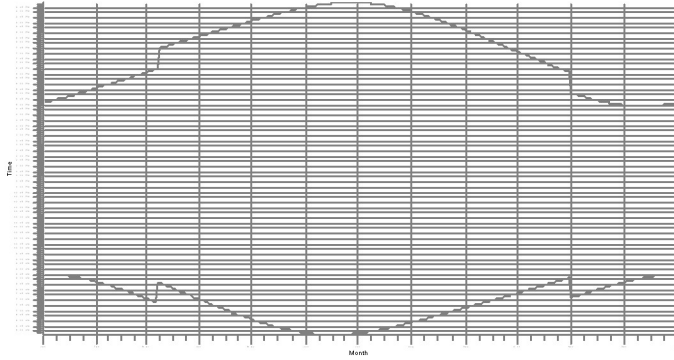
...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 205 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (75) | 0:00 | 0:00 |
| 206 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (76) | 0:00 | 0:00 |
| 207 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (77) | 0:00 | 0:00 |
| 208 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (78) | 0:00 | 0:00 |

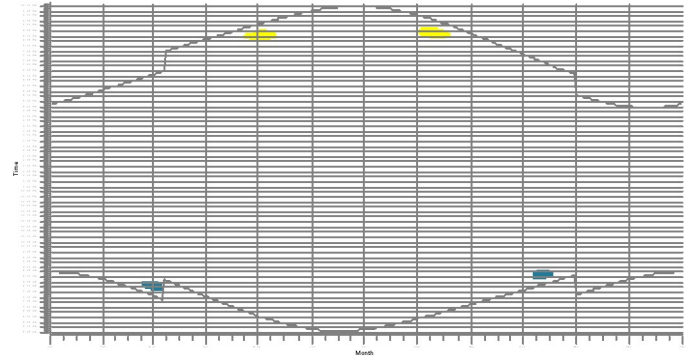
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

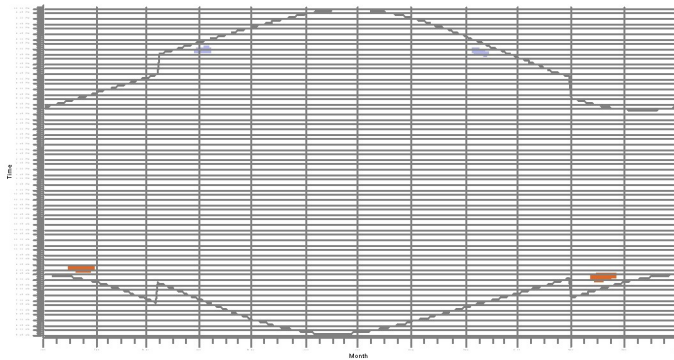
A: 1 - Non-Participating



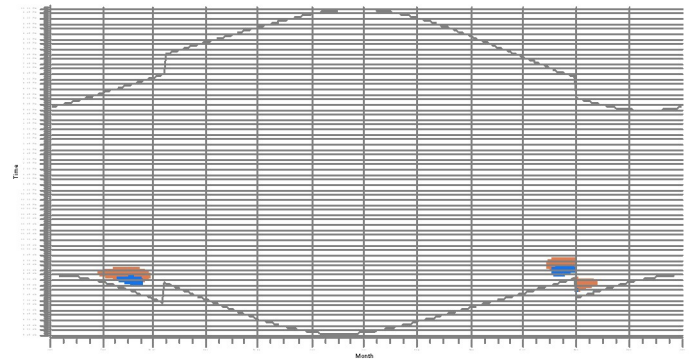
B: 39 - Participating



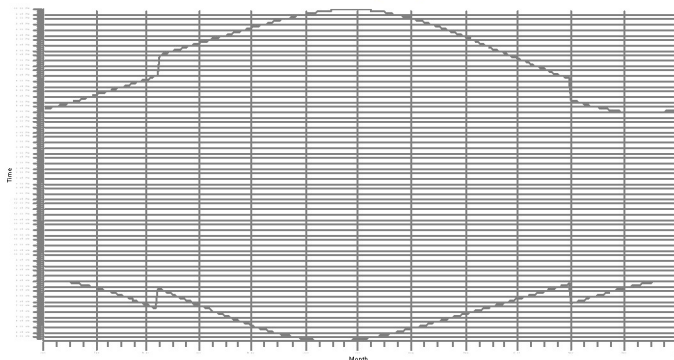
C: 2 - Non-Participating



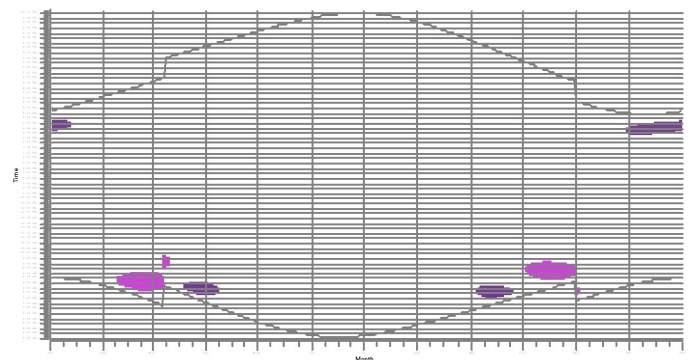
D: 40 - Participating



E: 41 - Participating



F: 42 - Participating



Project:
Aurora

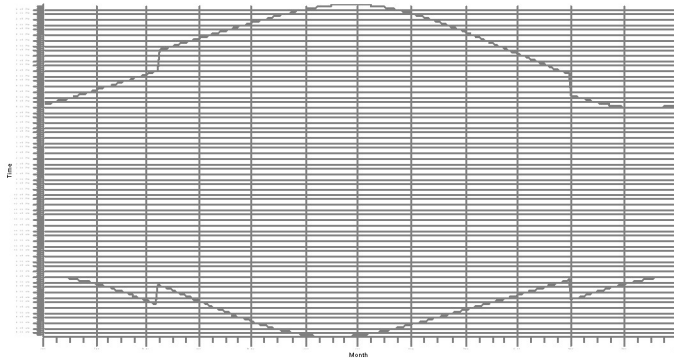
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 3:20 AM/3.0.654

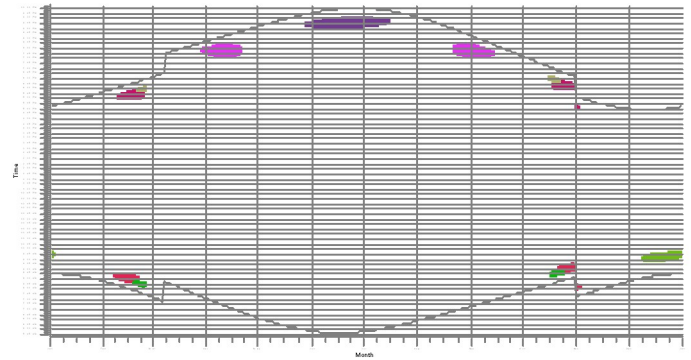
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

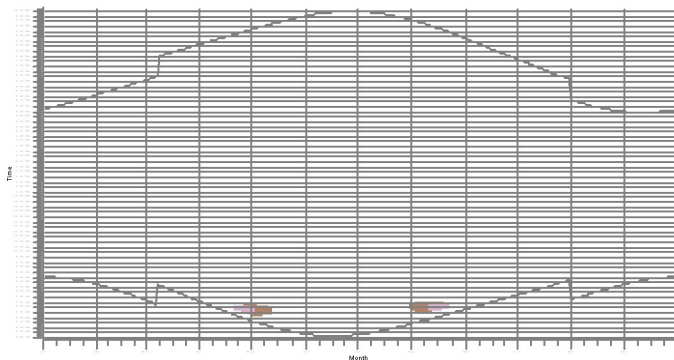
G: 43 - Participating



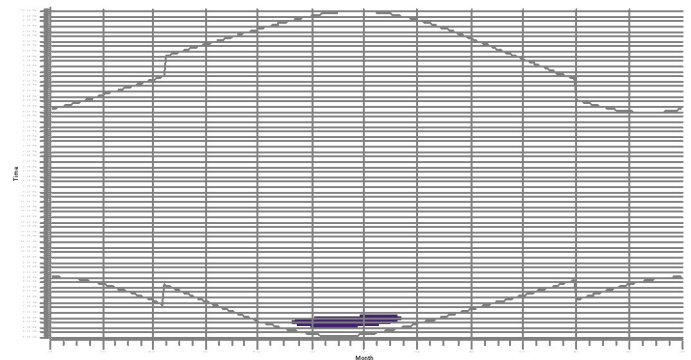
H: 44 - Participating



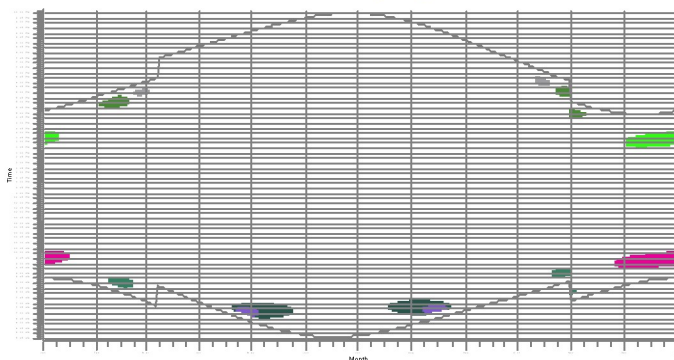
I: 3 - Non-Participating



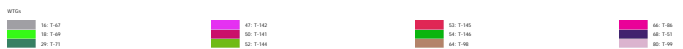
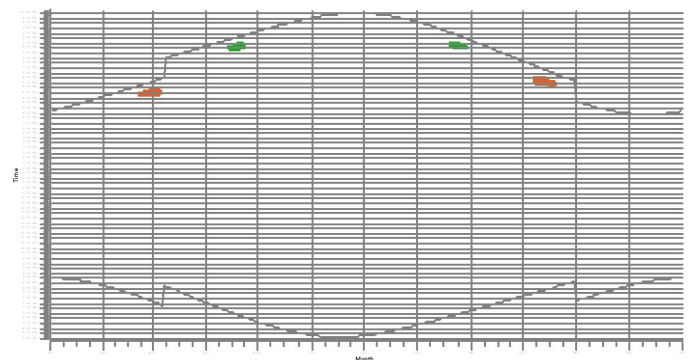
J: 4 - Non-Participating



K: 45 - Participating



L: 46 - Participating



Project:
Aurora

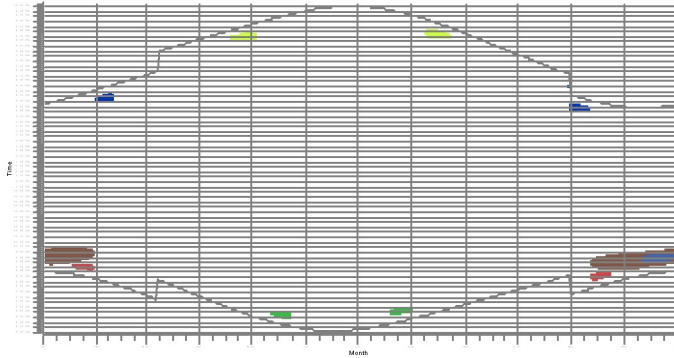
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 3:20 AM/3.0.654

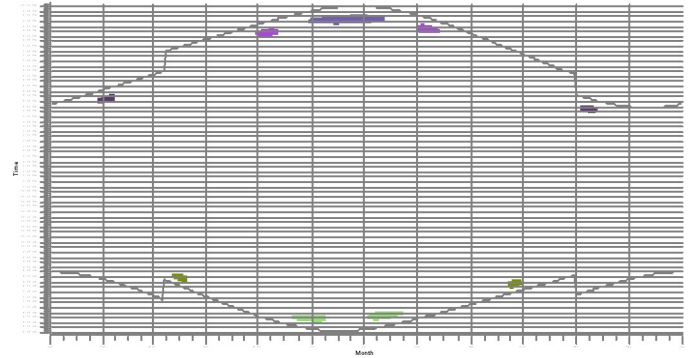
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

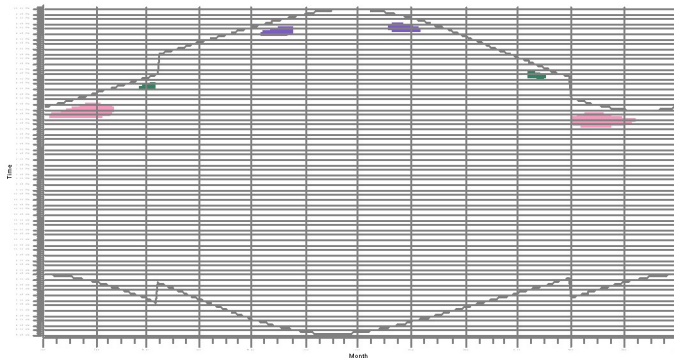
M: 47 - Participating



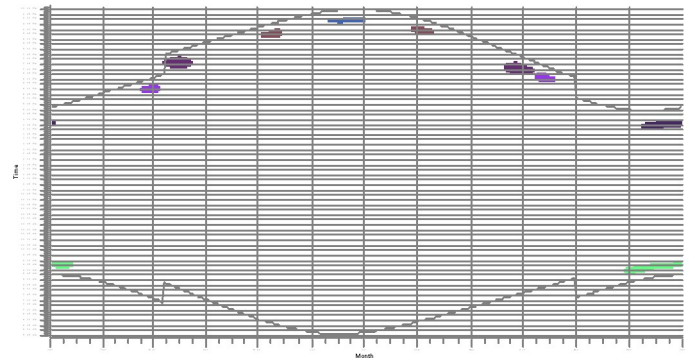
N: 48 - Participating



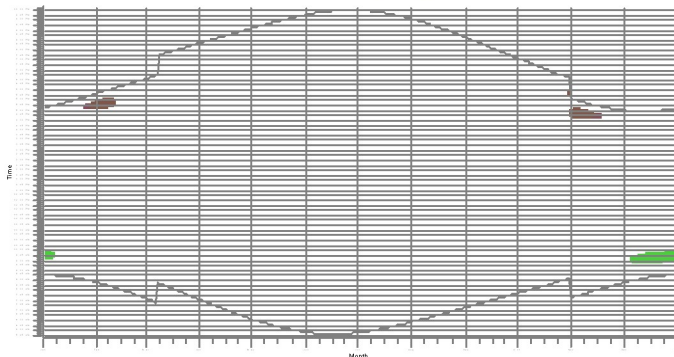
O: 5 - Non-Participating



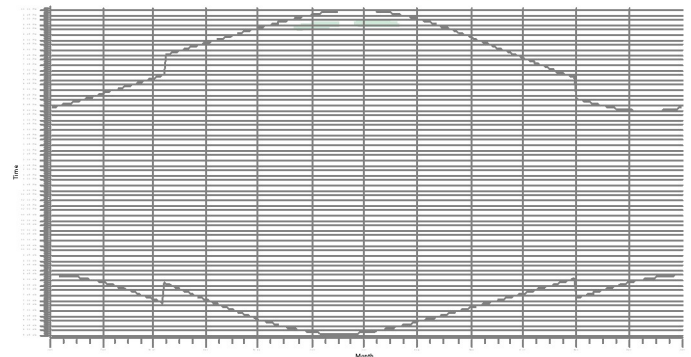
P: 49 - Participating



Q: 50 - Participating



R: 51 - Participating



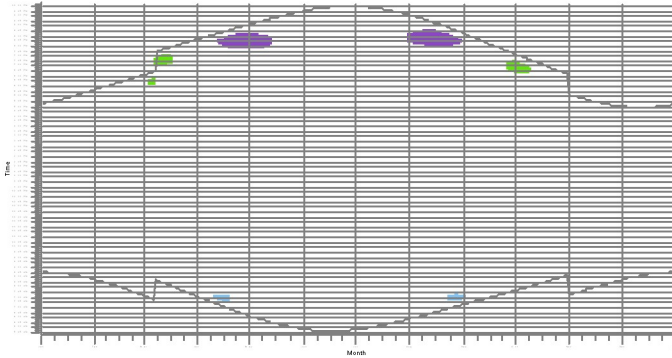
WFD: 00-1:31 (green), 01-1:54 (purple), 02-1:52 (pink), 03-1:41 (dark blue), 04-1:47 (light blue), 05-1:46 (dark red), 06-1:30 (light green), 07-1:44 (dark purple), 08-1:36 (light blue), 09-1:47 (dark red), 10-1:52 (light green), 11-1:44 (dark purple), 12-1:30 (light blue), 13-1:47 (dark red), 14-1:46 (dark purple), 15-1:36 (light blue), 16-1:47 (dark red), 17-1:52 (light green), 18-1:44 (dark purple), 19-1:30 (light blue), 20-1:47 (dark red), 21-1:46 (dark purple), 22-1:36 (light blue), 23-1:47 (dark red).

00-1:30 (brown), 01-1:34 (green), 02-1:30 (blue), 03-1:49 (purple), 04-1:47 (pink), 05-1:32 (light green), 06-1:30 (light blue), 07-1:44 (dark purple), 08-1:36 (light blue), 09-1:47 (dark red), 10-1:52 (light green), 11-1:44 (dark purple), 12-1:30 (light blue), 13-1:47 (dark red), 14-1:46 (dark purple), 15-1:36 (light blue), 16-1:47 (dark red), 17-1:52 (light green), 18-1:44 (dark purple), 19-1:30 (light blue), 20-1:47 (dark red), 21-1:46 (dark purple), 22-1:36 (light blue), 23-1:47 (dark red).

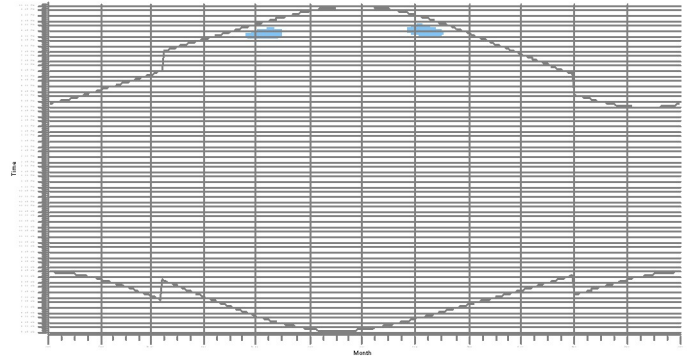
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

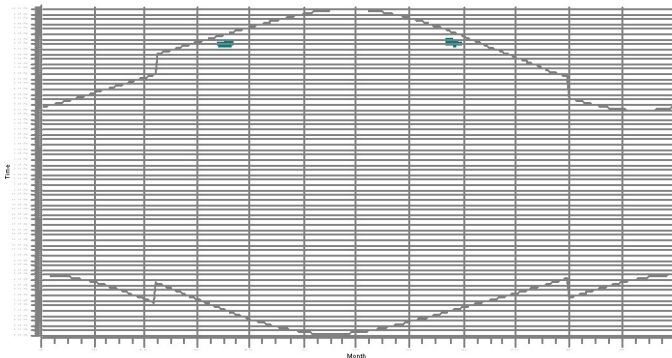
S: 6 - Non-Participating



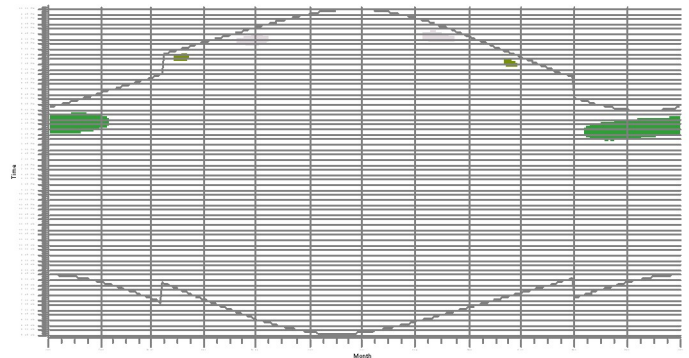
T: 52 - Participating



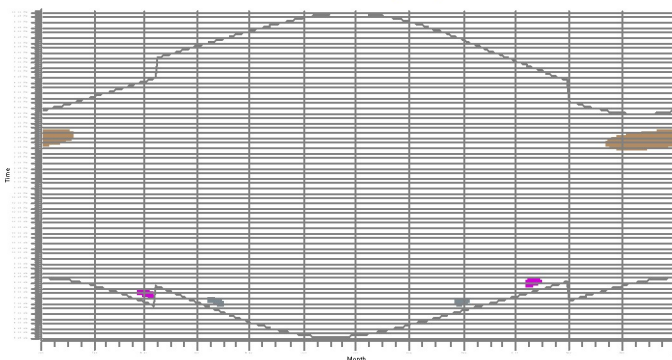
U: 7 - Non-Participating



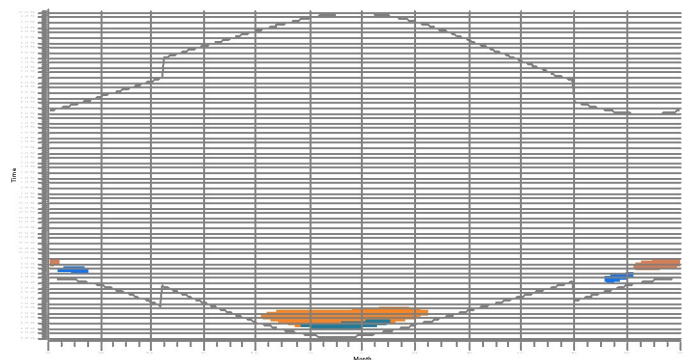
V: 8 - Non-Participating



W: 9 - Non-Participating



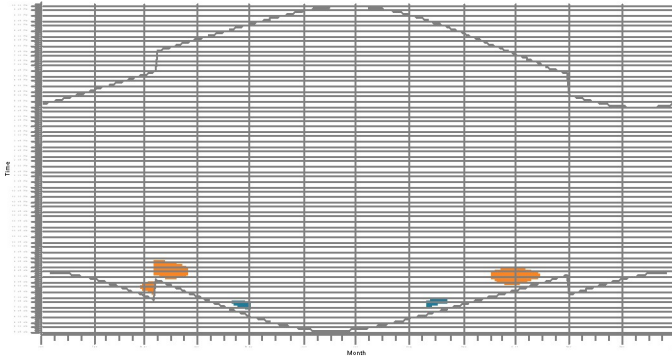
X: 10 - Non-Participating



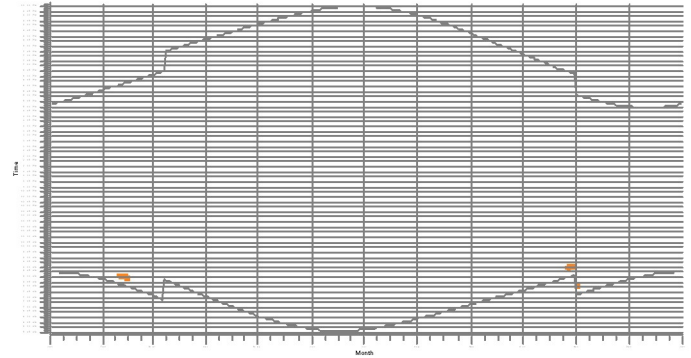
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

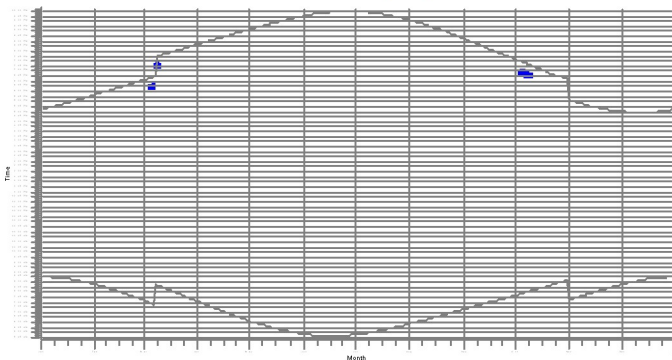
Y: 11 - Non-Participating



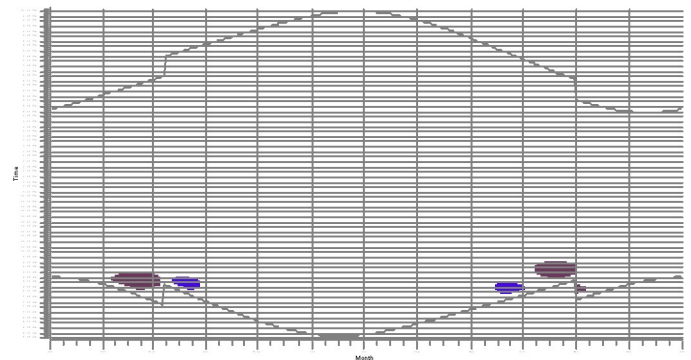
Z: 53 - Participating



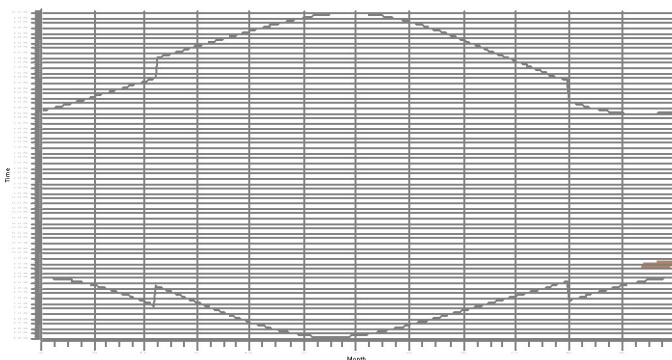
AA: 54 - Participating



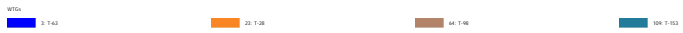
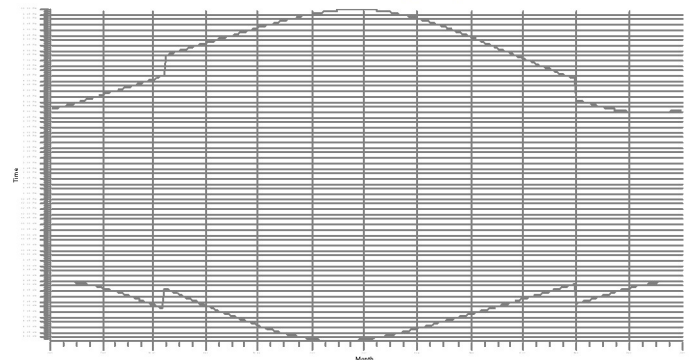
AB: 12 - Non-Participating



AC: 13 - Non-Participating



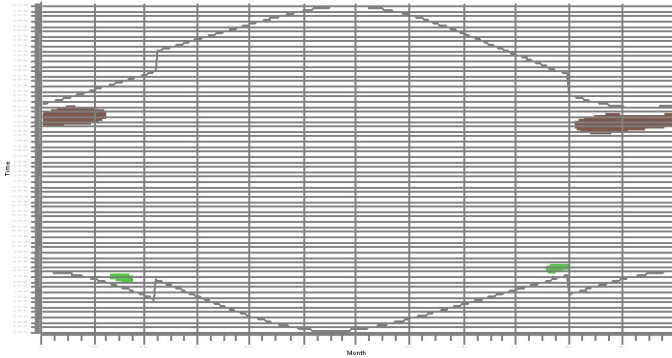
AD: 14 - Non-Participating



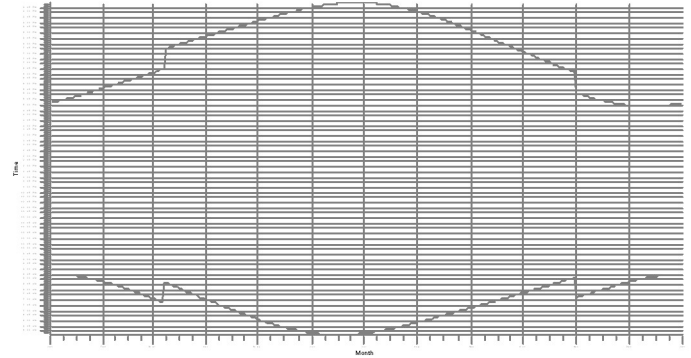
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

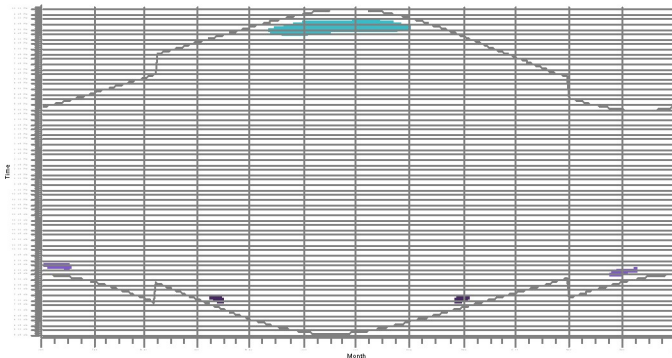
AE: 55 - Participating



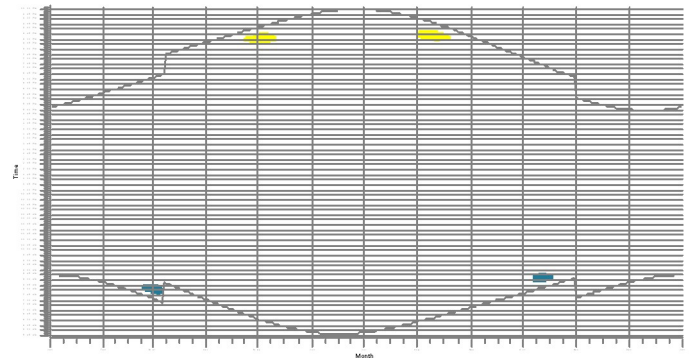
AF: 15 - Non-Participating



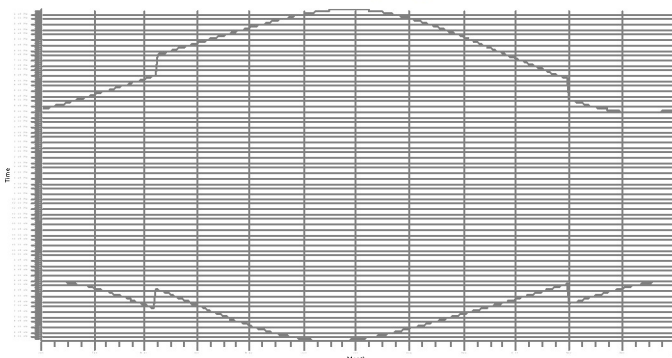
AG: 57 - Participating



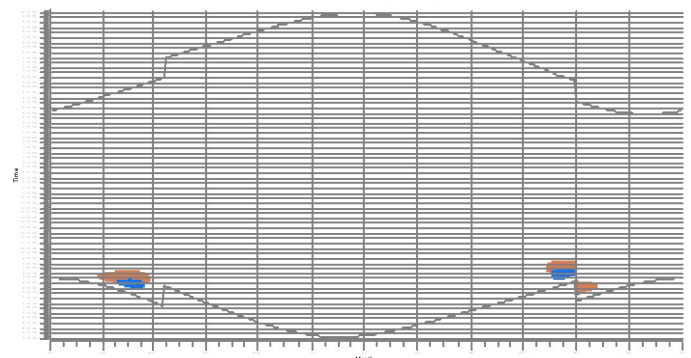
AH: 59 - Participating



AI: 61 - Participating



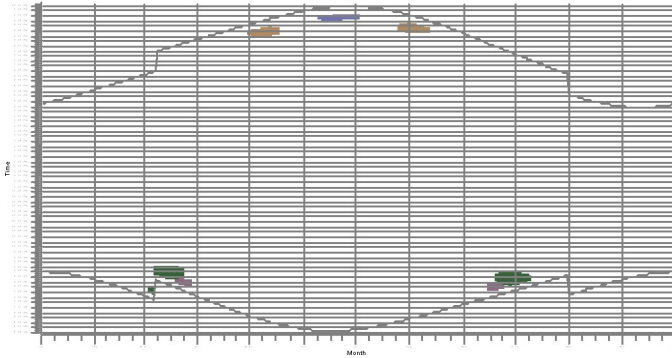
AJ: 62 - Participating



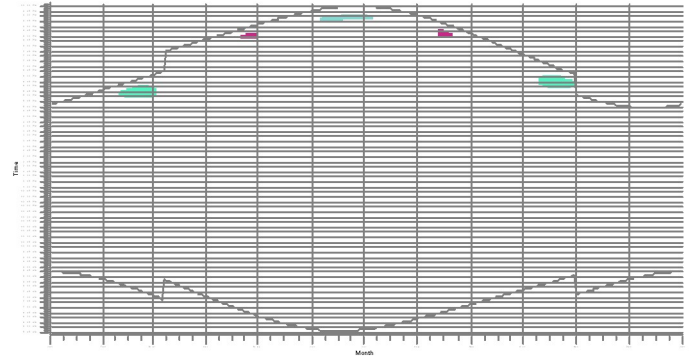
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

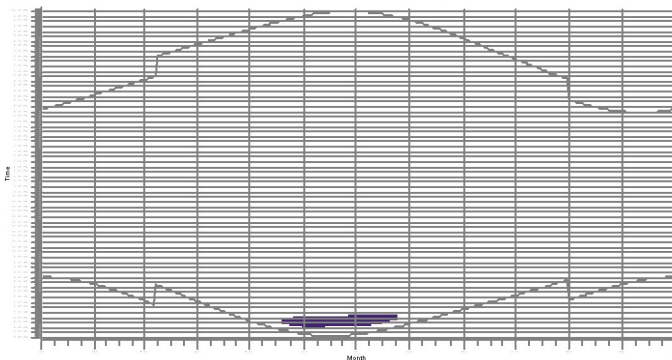
AK: 63 - Participating



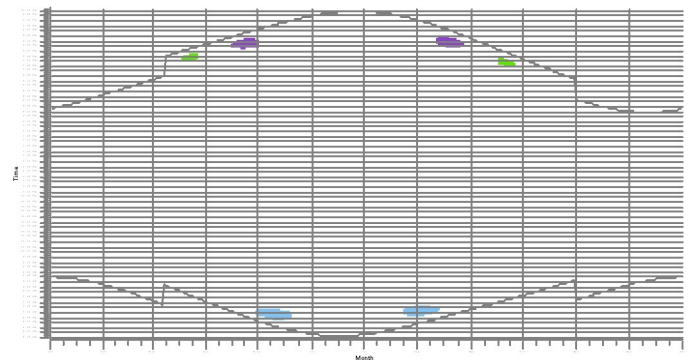
AL: 16 - Non-Participating



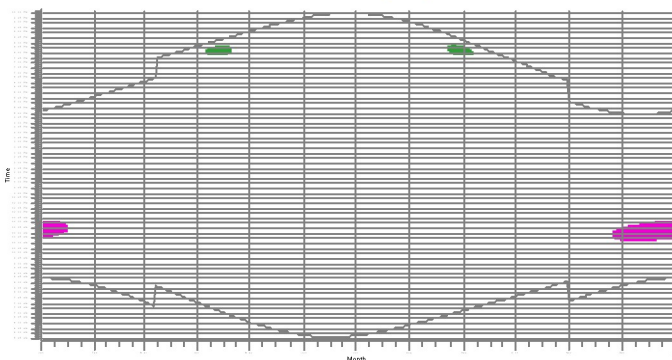
AM: 17 - Non-Participating



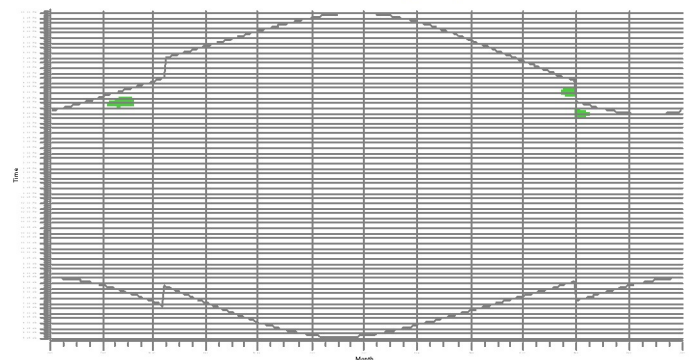
AN: 18 - Non-Participating



AO: 64 - Participating



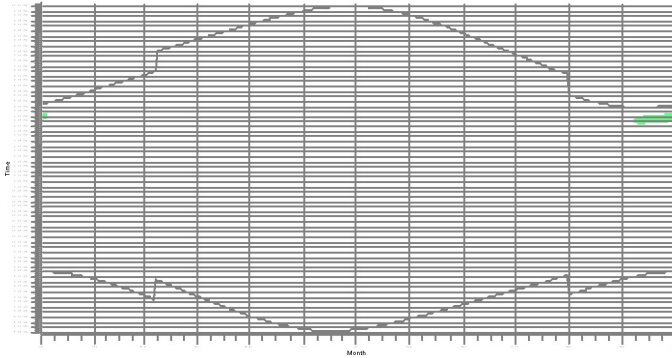
AP: 19 - Non-Participating



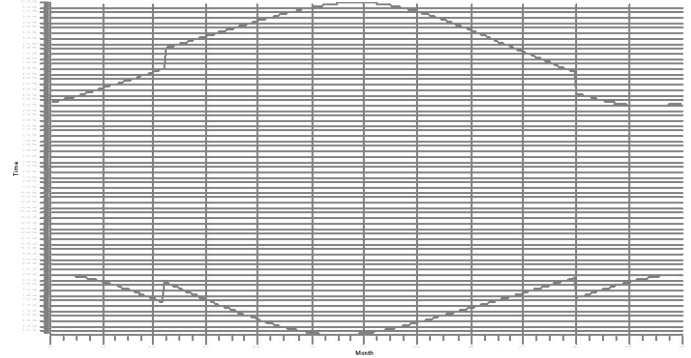
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

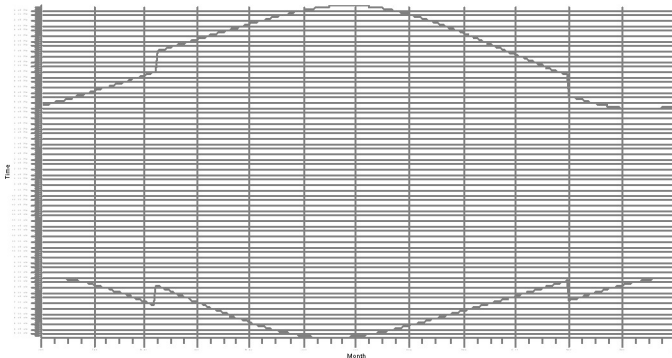
AQ: 20 - Non-Participating



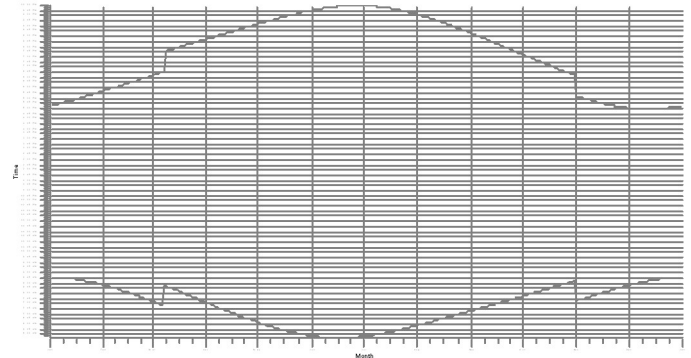
AR: 21 - Non-Participating



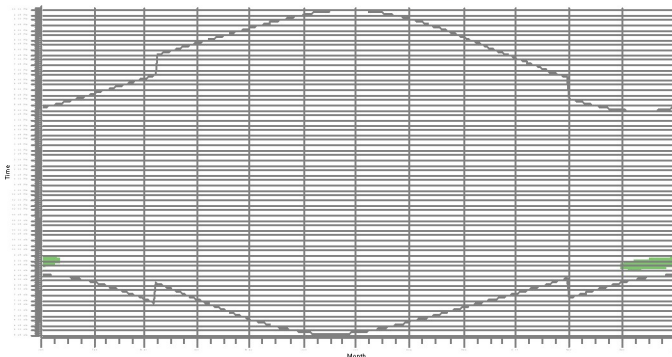
AS: 22 - Non-Participating



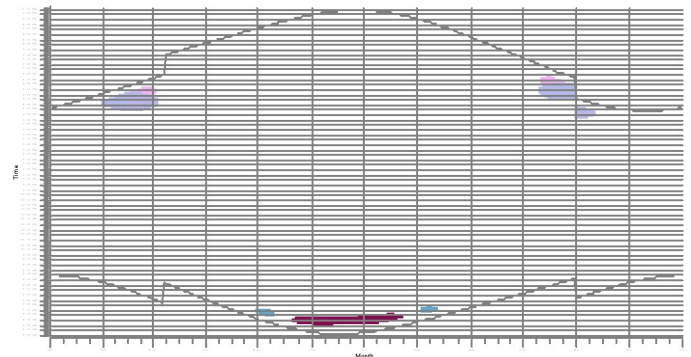
AT: 23 - Non-Participating



AU: 24 - Non-Participating



AV: 27 - Non-Participating



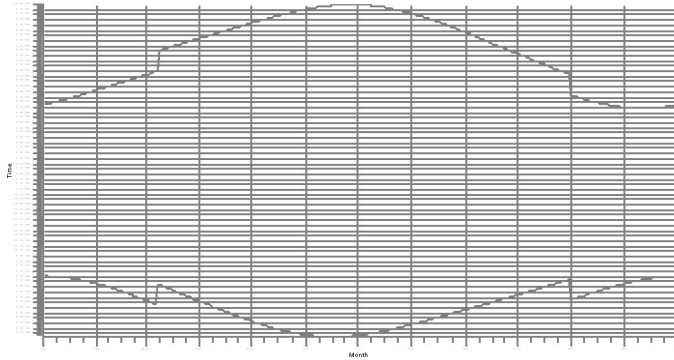
WFO: 0: 1.6 0: 1.6m 114: 1.0m 114: 1.0m

171: 143146 V100 2000 100.0 00 Nub: 80.0 m (20): 120.0 m (27) 201: 143146 V100 2000 100.0 00 Nub: 80.0 m (20): 120.0 m (27)

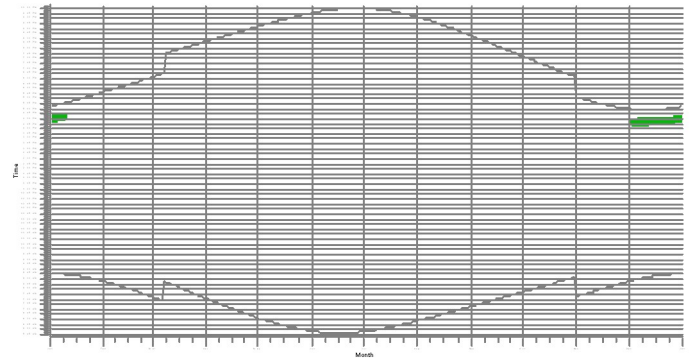
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

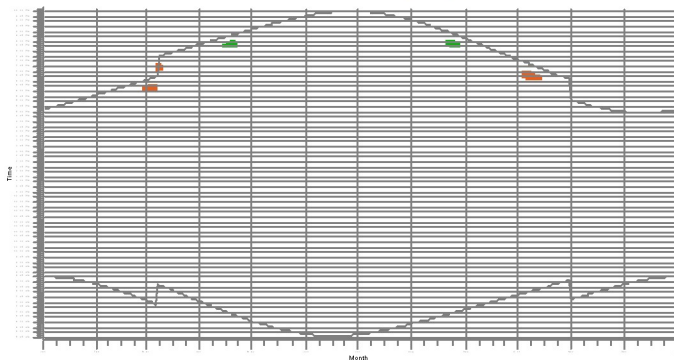
AW: 29 - Non-Participating



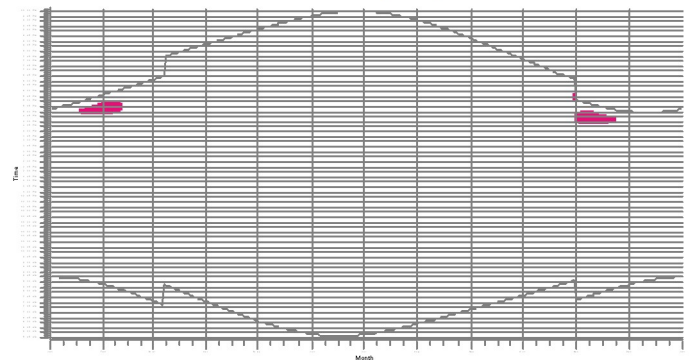
AX: 30 - Non-Participating



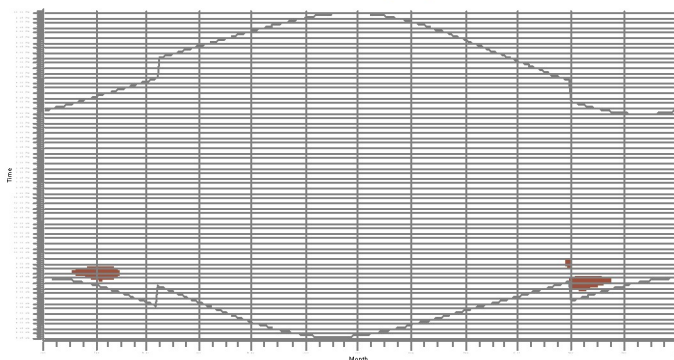
AY: 31 - Non-Participating



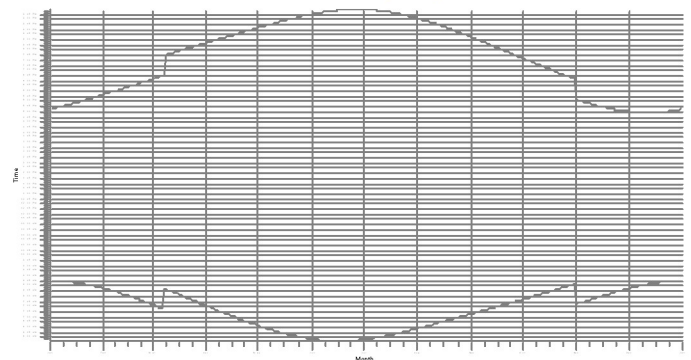
AZ: 66 - Participating



BA: 67 - Participating



BB: 68 - Participating

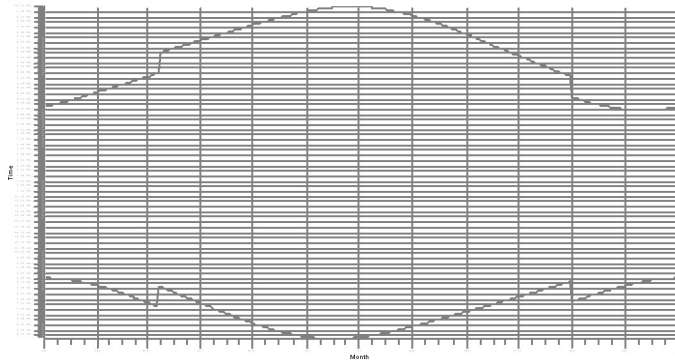


WFO: 40-1-25 40-1-16 40-1-24 100-1-02

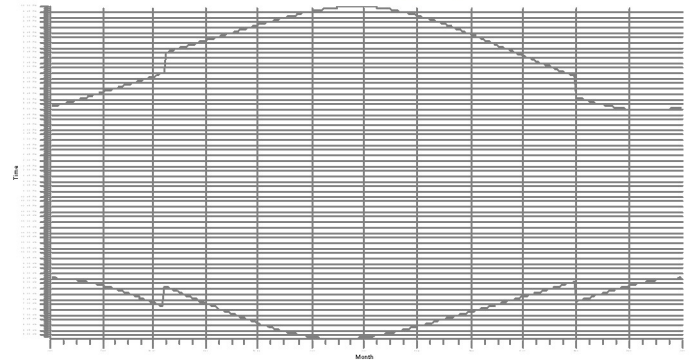
SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

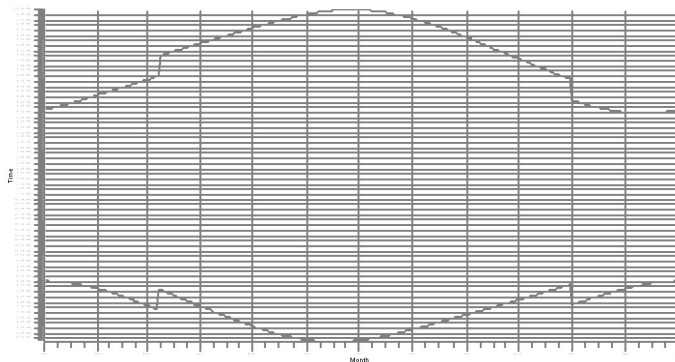
BC: 32 - Non-Participating



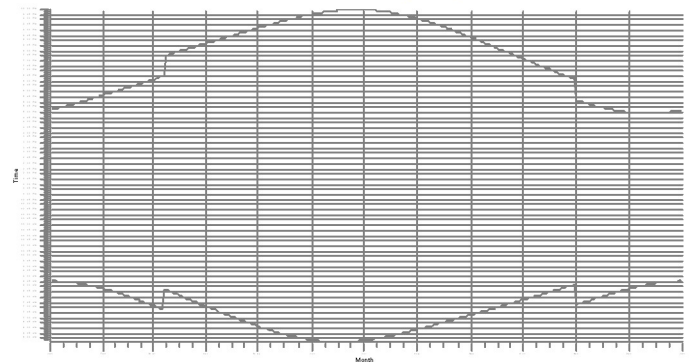
BD: 33 - Non-Participating



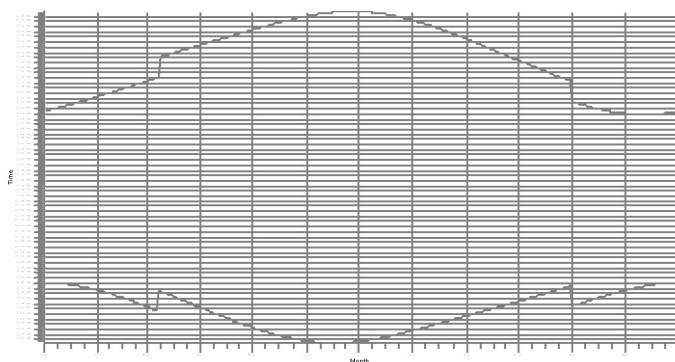
BE: 34 - Non-Participating



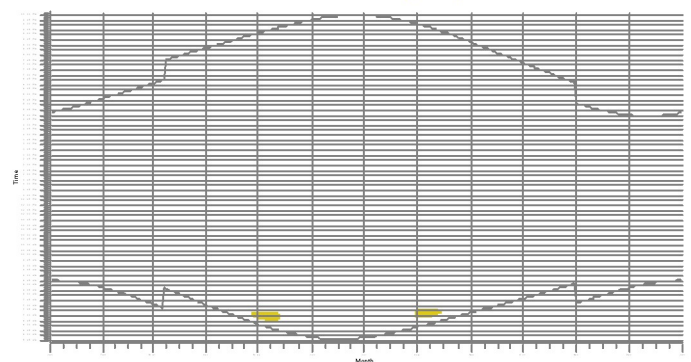
BF: 35 - Non-Participating



BG: 36 - Non-Participating



BH: 37 - Non-Participating



WFO
121.1-166

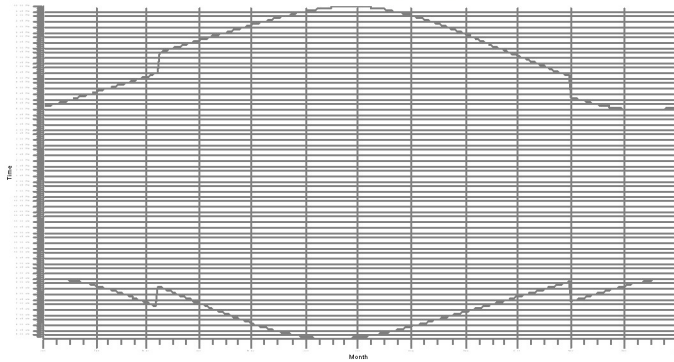
Project: Aurora
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 3:20 AM/3.0.654

SHADOW - Calendar, graphical

Calculation: AW125-3.15 87.5m HH Shadow Flicker

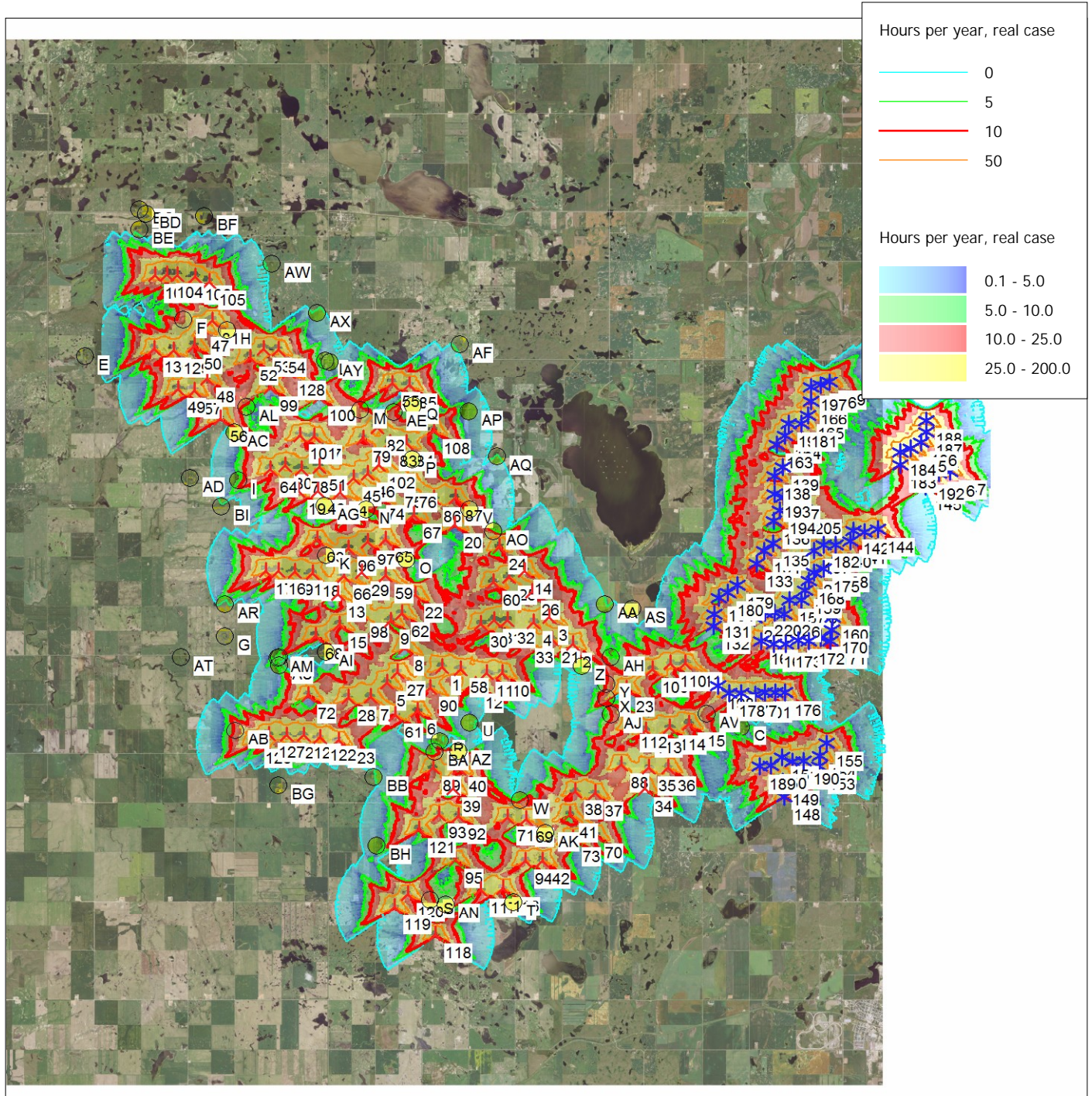
BI: 38 - Non-Participating



wf6

SHADOW - Map

Calculation: AW125-3.15 87.5m HH Shadow Flicker



0 2.5 5 7.5 10km

Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 640,676 North: 5,375,910

▲ New WTG

★ Existing WTG

● Shadow receptor

Flicker map level: Height Contours: 150921_TWE_LindahIWest_10ftHCLsfrom10mNED.wpo (3)

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

Assumptions for shadow calculations

| | |
|---|-----------|
| Maximum distance for influence | 2,000 m |
| Minimum sun height over horizon for influence | 3 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [BISMARCK]

| | | | | | | | | | | | |
|------|------|------|------|-------|-------|-------|-------|------|------|------|------|
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 4.92 | 5.13 | 7.45 | 8.03 | 10.20 | 11.21 | 11.69 | 10.35 | 8.68 | 5.69 | 4.02 | 3.69 |

Operational hours are calculated from WTGs in calculation and wind distribution:
 0162 3/18 SDO

Operational time

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
| 717 | 455 | 305 | 337 | 519 | 943 | 718 | 577 | 729 | 1,000 | 1,119 | 1,167 | 8,587 |

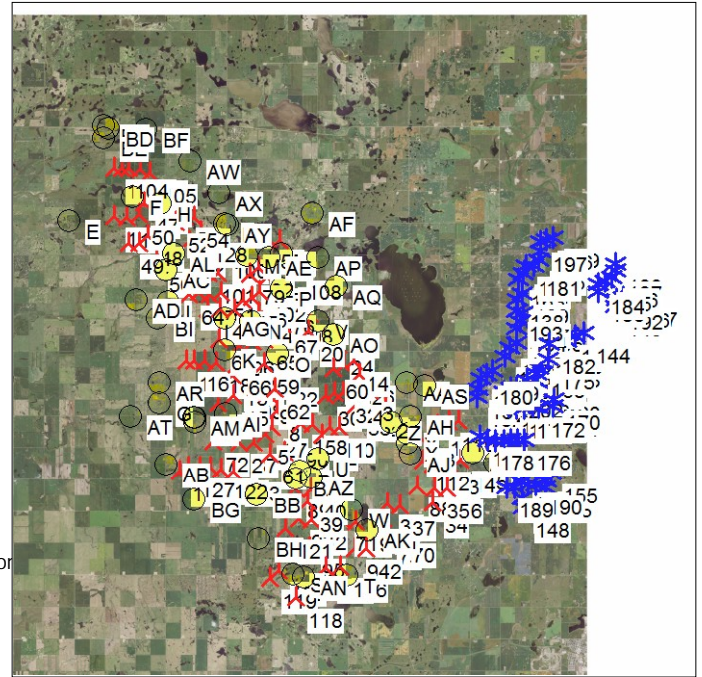
Idle start wind speed: Cut in wind speed from power curve

A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:
 Height contours used: Height Contours: 150921_TWE_LindahlWest_10ftHCLsfrom
 Obstacles used in calculation
 Eye height: 1.5 m
 Grid resolution: 10.0 m

All coordinates are in
 UTM WGS84 Zone: 13

WTGs

| X(East) | Y(North) | Z | Row data/Description |
|---------|----------|-----------|----------------------|
| [m] | | | |
| 1 | 637,619 | 5,373,512 | 727.5 T-43 |
| 2 | 642,085 | 5,374,363 | 728.5 T-41 |
| 3 | 641,252 | 5,375,220 | 737.7 T-63 |
| 4 | 640,729 | 5,375,038 | 740.7 T-62 |
| 5 | 635,764 | 5,372,945 | 724.6 T-45 |
| 6 | 636,817 | 5,372,047 | 728.5 T-35 |
| 7 | 635,193 | 5,372,473 | 710.2 T-47 |
| 8 | 636,346 | 5,374,109 | 734.6 T-56 |
| 9 | 635,830 | 5,374,972 | 728.5 T-55 |
| 10 | 639,692 | 5,373,363 | 740.7 T-39 |
| 11 | 639,157 | 5,373,344 | 739.4 T-38 |
| 12 | 638,790 | 5,372,951 | 734.6 T-37 |
| 13 | 633,988 | 5,375,810 | 737.6 T-70 |
| 14 | 640,372 | 5,376,713 | 738.1 T-77 |
| 15 | 634,074 | 5,374,798 | 721.2 T-53 |
| 16 | 631,934 | 5,376,511 | 729.8 T-67 |
| 17 | 631,510 | 5,376,507 | 731.5 T-66 |
| 18 | 633,108 | 5,376,447 | 723.9 T-69 |
| 19 | 632,563 | 5,379,145 | 737.6 T-93 |
| 20 | 637,951 | 5,378,169 | 715.2 T-80 |
| 21 | 641,389 | 5,374,486 | 743.7 T-58 |
| 22 | 636,640 | 5,375,835 | 734.6 T-73 |
| 23 | 643,972 | 5,372,967 | 712.3 T-28 |
| 24 | 639,495 | 5,377,499 | 738.7 T-78 |
| 25 | 639,840 | 5,376,489 | 737.6 T-76 |
| 26 | 640,649 | 5,376,031 | 731.5 T-79 |



Scale 1:400,000
 ▲ New WTG
 ● Shadow receptor
 * Existing WTG

| Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | WTG type | |
|-------|----------------|------------------|-------------------|--------------------|----------------|-----------|----------|-----|
| | | | | | | | WTG type | RPM |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |
| Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 | | |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 4:32 AM/3.0.654

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|----|---------|-----------|-------|----------------------|----------|----------------|-------------------------|--------------------------|----------------------|--------------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| | | | [m] | | | | | | | | |
| 27 | 636,095 | 5,373,292 | 733.9 | T-46 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|-----|---------|-----------|-------|--|----------|----------------|------------------|-------------------------|--------------------------|----------------------|--------------|
| | | | | | Valid | Manufact. | | | | | |
| | | | [m] | | | | | | | | |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 111 | 645,966 | 5,373,838 | 730.1 | T-155 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 112 | 644,144 | 5,371,765 | 710.2 | T-156 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 113 | 644,660 | 5,371,616 | 715.4 | T-157 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 114 | 645,479 | 5,371,724 | 719.3 | T-158 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 115 | 646,127 | 5,371,875 | 717.1 | T-159 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 116 | 639,890 | 5,366,309 | 710.2 | T-160 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 117 | 639,135 | 5,366,239 | 709.0 | T-161 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 118 | 637,617 | 5,364,719 | 707.6 | T-162 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 119 | 636,191 | 5,365,609 | 711.4 | T-163 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 120 | 636,640 | 5,366,042 | 710.2 | T-164 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 121 | 636,954 | 5,368,164 | 711.3 | T-165 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 122 | 633,495 | 5,371,087 | 689.0 | T-166 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 123 | 634,130 | 5,371,006 | 696.6 | T-167 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | 15.7 |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| Row | X(East) | Y(North) | Z | Row data/Description | WTG type | | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|-----|---------|-----------|-------|--|----------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | | | | | |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 148 | 649,468 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|-----|---------|-----------|-------|--|----------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | | | | | |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 ... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

Shadow receptor-Input

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|-------|---------------------|---------|-----------|-------|-------|--------|---------------|-----------------------|-----------------|--------------------|
| | | [m] | [m] | [m] | [m] | [m] | [m] | [°] | [°] | |
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| G 43 | - Participating | 630,148 | 5,374,326 | 691.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AE 55 | - Participating | 635,760 | 5,381,775 | 711.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AF 15 | - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AG 57 | - Participating | 633,480 | 5,378,691 | 739.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AH 59 | - Participating | 643,400 | 5,373,968 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AI 61 | - Participating | 633,645 | 5,373,895 | 713.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AJ 62 | - Participating | 643,453 | 5,372,097 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AK 63 | - Participating | 641,300 | 5,368,154 | 725.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AL 16 | - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AM 17 | - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AN 18 | - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AO 64 | - Participating | 639,268 | 5,377,996 | 720.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AP 19 | - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AQ 20 | - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---------------------------|---------|-----------|----------|-----|-------|--------|------------------|--------------------------|--------------------|--------------------|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AS 22 - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AT 23 - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AU 24 - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AV 27 - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AW 29 - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AX 30 - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AY 31 - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AZ 66 - Participating | 638,244 | 5,370,747 | 710.8 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BA 67 - Participating | 637,448 | 5,370,698 | 712.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BB 68 - Participating | 635,378 | 5,369,828 | 692.6 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BC 32 - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BD 33 - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BE 34 - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BF 35 - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BG 36 - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BH 37 - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BI 38 - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.0 | 11.0 | 1.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

Calculation Results

Shadow receptor

| No. | Name | Shadow, worst case | | | Shadow, expected values | |
|---------------------------|------|--------------------------------------|--|--|--------------------------------------|--|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] | |
| A 1 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| B 39 - Participating | | 12:38 | 59 | 0:22 | 5:26 | |
| C 2 - Non-Participating | | 5:55 | 44 | 0:14 | 2:11 | |
| D 40 - Participating | | 27:47 | 58 | 0:47 | 9:41 | |
| E 41 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| F 42 - Participating | | 61:26 | 147 | 0:45 | 21:29 | |
| G 43 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| H 44 - Participating | | 58:22 | 163 | 0:42 | 23:23 | |
| I 3 - Non-Participating | | 11:58 | 42 | 0:26 | 4:52 | |
| J 4 - Non-Participating | | 17:45 | 63 | 0:23 | 7:18 | |
| K 45 - Participating | | 84:54 | 173 | 1:05 | 28:54 | |
| L 46 - Participating | | 8:29 | 47 | 0:20 | 3:04 | |
| M 47 - Participating | | 58:49 | 155 | 0:40 | 20:15 | |
| N 48 - Participating | | 21:36 | 123 | 0:20 | 9:36 | |
| O 5 - Non-Participating | | 35:14 | 127 | 0:36 | 11:02 | |
| P 49 - Participating | | 29:52 | 146 | 0:26 | 10:36 | |
| Q 50 - Participating | | 18:02 | 73 | 0:22 | 5:22 | |
| R 51 - Participating | | 8:04 | 60 | 0:13 | 4:01 | |
| S 6 - Non-Participating | | 35:30 | 94 | 0:40 | 15:22 | |
| T 52 - Participating | | 10:35 | 42 | 0:24 | 4:59 | |
| U 7 - Non-Participating | | 2:22 | 18 | 0:12 | 1:02 | |
| V 8 - Non-Participating | | 72:48 | 141 | 0:47 | 20:19 | |
| W 9 - Non-Participating | | 39:06 | 94 | 0:43 | 10:43 | |
| X 10 - Non-Participating | | 69:06 | 160 | 0:47 | 27:46 | |
| Y 11 - Non-Participating | | 27:27 | 75 | 0:43 | 11:22 | |
| Z 53 - Participating | | 1:39 | 17 | 0:09 | 0:34 | |
| AA 54 - Participating | | 2:03 | 16 | 0:12 | 0:42 | |
| AB 12 - Non-Participating | | 34:26 | 88 | 0:41 | 13:02 | |
| AC 13 - Non-Participating | | 3:02 | 20 | 0:11 | 0:54 | |
| AD 14 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AE 55 - Participating | | 60:07 | 120 | 0:48 | 16:00 | |
| AF 15 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| No. | Name | Shadow, worst case | | | Shadow, expected values | |
|---------------------------|------|--------------------------------------|--|--|--------------------------------------|--------------------------------------|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] | Shadow hours per year [h/year] |
| AG 57 - Participating | | 35:16 | 124 | 0:31 | 16:53 | |
| AH 59 - Participating | | 12:38 | 59 | 0:22 | 5:28 | |
| AI 61 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AJ 62 - Participating | | 27:50 | 59 | 0:47 | 9:43 | |
| AK 63 - Participating | | 26:22 | 108 | 0:32 | 11:42 | |
| AL 16 - Non-Participating | | 17:58 | 87 | 0:31 | 6:06 | |
| AM 17 - Non-Participating | | 18:11 | 67 | 0:22 | 7:30 | |
| AN 18 - Non-Participating | | 17:54 | 86 | 0:22 | 7:37 | |
| AO 64 - Participating | | 39:28 | 80 | 0:48 | 13:01 | |
| AP 19 - Non-Participating | | 6:40 | 30 | 0:21 | 1:57 | |
| AQ 20 - Non-Participating | | 4:39 | 28 | 0:12 | 1:06 | |
| AR 21 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AS 22 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AT 23 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AU 24 - Non-Participating | | 12:42 | 42 | 0:22 | 4:03 | |
| AV 27 - Non-Participating | | 51:59 | 144 | 0:56 | 17:14 | |
| AW 29 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| AX 30 - Non-Participating | | 8:12 | 42 | 0:15 | 2:04 | |
| AY 31 - Non-Participating | | 5:57 | 39 | 0:17 | 2:12 | |
| AZ 66 - Participating | | 14:44 | 49 | 0:30 | 4:03 | |
| BA 67 - Participating | | 18:05 | 53 | 0:32 | 6:06 | |
| BB 68 - Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BC 32 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BD 33 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BE 34 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BF 35 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BG 36 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |
| BH 37 - Non-Participating | | 6:15 | 31 | 0:19 | 2:34 | |
| BI 38 - Non-Participating | | 0:00 | 0 | 0:00 | 0:00 | |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|------|------------------------|----------------------|
| 1 | T-43 | 0:00 | 0:00 |
| 2 | T-41 | 8:41 | 4:00 |
| 3 | T-63 | 2:03 | 0:42 |
| 4 | T-62 | 0:00 | 0:00 |
| 5 | T-45 | 0:00 | 0:00 |
| 6 | T-35 | 2:22 | 1:02 |
| 7 | T-47 | 0:00 | 0:00 |
| 8 | T-56 | 0:00 | 0:00 |
| 9 | T-55 | 0:00 | 0:00 |
| 10 | T-39 | 0:00 | 0:00 |
| 11 | T-38 | 0:00 | 0:00 |
| 12 | T-37 | 0:00 | 0:00 |
| 13 | T-70 | 0:00 | 0:00 |
| 14 | T-77 | 0:00 | 0:00 |
| 15 | T-53 | 0:00 | 0:00 |
| 16 | T-67 | 2:07 | 0:40 |
| 17 | T-66 | 0:00 | 0:00 |
| 18 | T-69 | 17:29 | 5:02 |
| 19 | T-93 | 31:14 | 15:25 |
| 20 | T-80 | 68:26 | 18:31 |
| 21 | T-58 | 0:00 | 0:00 |
| 22 | T-73 | 0:00 | 0:00 |
| 23 | T-28 | 76:14 | 31:38 |
| 24 | T-78 | 33:54 | 10:36 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 4:32 AM/3.0.654

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|-------|------------------------|----------------------|
| 25 | T-76 | 0:00 | 0:00 |
| 26 | T-79 | 0:00 | 0:00 |
| 27 | T-46 | 0:00 | 0:00 |
| 28 | T-57 | 0:00 | 0:00 |
| 29 | T-71 | 7:52 | 2:36 |
| 30 | T-59 | 0:00 | 0:00 |
| 31 | T-60 | 0:00 | 0:00 |
| 32 | T-61 | 0:00 | 0:00 |
| 33 | T-40 | 0:00 | 0:00 |
| 34 | T-15 | 0:00 | 0:00 |
| 35 | T-16 | 0:00 | 0:00 |
| 36 | T-17 | 0:00 | 0:00 |
| 37 | T-12 | 0:00 | 0:00 |
| 38 | T-13 | 1:51 | 0:44 |
| 39 | T-26 | 0:00 | 0:00 |
| 40 | T-25 | 18:05 | 6:06 |
| 41 | T-10 | 2:27 | 0:55 |
| 42 | T-8 | 0:00 | 0:00 |
| 43 | T-94 | 3:40 | 1:44 |
| 44 | T-95 | 8:44 | 4:12 |
| 45 | T-96 | 0:00 | 0:00 |
| 46 | T-121 | 3:56 | 1:16 |
| 47 | T-142 | 52:49 | 20:35 |
| 48 | T-131 | 2:16 | 1:06 |
| 49 | T-129 | 0:00 | 0:00 |
| 50 | T-141 | 8:27 | 2:44 |
| 51 | T-123 | 0:00 | 0:00 |
| 52 | T-144 | 6:32 | 2:00 |
| 53 | T-145 | 5:30 | 1:48 |
| 54 | T-146 | 12:52 | 3:53 |
| 55 | T-122 | 0:00 | 0:00 |
| 56 | T-117 | 14:06 | 4:21 |
| 57 | T-130 | 1:36 | 0:42 |
| 58 | T-44 | 0:00 | 0:00 |
| 59 | T-72 | 26:04 | 7:07 |
| 60 | T-75 | 0:00 | 0:00 |
| 61 | T-34 | 8:04 | 4:01 |
| 62 | T-74 | 0:00 | 0:00 |
| 63 | T-81 | 1:59 | 0:32 |
| 64 | T-98 | 14:59 | 5:46 |
| 65 | T-85 | 0:00 | 0:00 |
| 66 | T-86 | 22:49 | 6:46 |
| 67 | T-87 | 3:35 | 1:31 |
| 68 | T-51 | 19:39 | 8:05 |
| 69 | T-23 | 2:06 | 1:01 |
| 70 | T-11 | 2:28 | 1:04 |
| 71 | T-22 | 42:20 | 12:42 |
| 72 | T-5 | 12:42 | 4:03 |
| 73 | T-9 | 14:16 | 6:00 |
| 74 | T-90 | 6:52 | 2:00 |
| 75 | T-91 | 0:16 | 0:04 |
| 76 | T-92 | 5:17 | 2:18 |
| 77 | T-106 | 3:14 | 0:53 |
| 78 | T-100 | 0:00 | 0:00 |
| 79 | T-107 | 21:15 | 6:21 |
| 80 | T-99 | 3:44 | 1:28 |
| 81 | T-143 | 28:40 | 13:16 |
| 82 | T-108 | 107:16 | 31:13 |
| 83 | T-109 | 5:04 | 1:47 |
| 84 | T-110 | 2:28 | 0:50 |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 85 | T-124 | 2:38 | 1:05 |
| 86 | T-88 | 8:17 | 3:44 |
| 87 | T-89 | 10:44 | 3:00 |
| 88 | T-14 | 0:00 | 0:00 |
| 89 | T-24 | 14:44 | 4:03 |
| 90 | T-42 | 0:00 | 0:00 |
| 91 | T-68 | 7:35 | 2:21 |
| 92 | T-21 | 0:00 | 0:00 |
| 93 | T-20 | 0:00 | 0:00 |
| 94 | T-19 | 0:00 | 0:00 |
| 95 | T-18 | 0:00 | 0:00 |
| 96 | T-83 | 29:41 | 12:14 |
| 97 | T-84 | 13:16 | 5:44 |
| 98 | T-54 | 0:00 | 0:00 |
| 99 | T-118 | 0:00 | 0:00 |
| 100 | T-120 | 5:40 | 2:31 |
| 101 | T-105 | 0:00 | 0:00 |
| 102 | T-97 | 9:22 | 3:42 |
| 103 | T-147 | 0:00 | 0:00 |
| 104 | T-148 | 0:00 | 0:00 |
| 105 | T-149 | 0:00 | 0:00 |
| 106 | T-150 | 0:00 | 0:00 |
| 107 | T-151 | 0:00 | 0:00 |
| 108 | T-152 | 20:51 | 6:32 |
| 109 | T-153 | 13:45 | 5:28 |
| 110 | T-154 | 0:00 | 0:00 |
| 111 | T-155 | 0:00 | 0:00 |
| 112 | T-156 | 34:44 | 11:46 |
| 113 | T-157 | 11:07 | 3:54 |
| 114 | T-158 | 5:48 | 1:46 |
| 115 | T-159 | 33:41 | 10:17 |
| 116 | T-160 | 0:00 | 0:00 |
| 117 | T-161 | 22:23 | 9:54 |
| 118 | T-162 | 0:00 | 0:00 |
| 119 | T-163 | 8:23 | 3:13 |
| 120 | T-164 | 26:57 | 12:07 |
| 121 | T-165 | 6:15 | 2:34 |
| 122 | T-166 | 0:00 | 0:00 |
| 123 | T-167 | 0:00 | 0:00 |
| 124 | T-168 | 2:17 | 0:59 |
| 125 | T-169 | 0:00 | 0:00 |
| 126 | T-170 | 26:00 | 9:20 |
| 127 | T-171 | 8:26 | 3:40 |
| 128 | T-172 | 8:24 | 2:47 |
| 129 | T-173 | 1:26 | 0:27 |
| 130 | T-174 | 14:31 | 3:36 |
| 131 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (1) | 0:00 | 0:00 |
| 132 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (2) | 0:00 | 0:00 |
| 133 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (3) | 0:00 | 0:00 |
| 134 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (4) | 0:00 | 0:00 |
| 135 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (5) | 0:00 | 0:00 |
| 136 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (6) | 0:00 | 0:00 |
| 137 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (7) | 0:00 | 0:00 |
| 138 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (8) | 0:00 | 0:00 |
| 139 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (9) | 0:00 | 0:00 |
| 140 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (10) | 0:00 | 0:00 |
| 141 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (11) | 0:00 | 0:00 |
| 142 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (12) | 0:00 | 0:00 |
| 143 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (13) | 0:00 | 0:00 |
| 144 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (14) | 0:00 | 0:00 |

To be continued on next page...

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 145 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (15) | 0:00 | 0:00 |
| 146 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (16) | 0:00 | 0:00 |
| 147 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (17) | 0:00 | 0:00 |
| 148 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (18) | 0:00 | 0:00 |
| 149 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (19) | 0:00 | 0:00 |
| 150 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (20) | 0:00 | 0:00 |
| 151 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (21) | 4:06 | 1:25 |
| 152 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (22) | 0:00 | 0:00 |
| 153 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (23) | 0:00 | 0:00 |
| 154 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (24) | 0:00 | 0:00 |
| 155 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (25) | 0:00 | 0:00 |
| 156 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (26) | 0:00 | 0:00 |
| 157 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (27) | 0:00 | 0:00 |
| 158 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (28) | 0:00 | 0:00 |
| 159 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (29) | 0:00 | 0:00 |
| 160 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (30) | 0:00 | 0:00 |
| 161 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (31) | 0:00 | 0:00 |
| 162 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (32) | 0:00 | 0:00 |
| 163 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (33) | 0:00 | 0:00 |
| 164 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (34) | 0:00 | 0:00 |
| 165 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (35) | 0:00 | 0:00 |
| 166 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (36) | 0:00 | 0:00 |
| 167 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (37) | 0:00 | 0:00 |
| 168 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (38) | 0:00 | 0:00 |
| 169 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (39) | 0:00 | 0:00 |
| 170 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (40) | 0:00 | 0:00 |
| 171 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (41) | 0:00 | 0:00 |
| 172 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (42) | 0:00 | 0:00 |
| 173 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (43) | 0:00 | 0:00 |
| 174 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (44) | 0:00 | 0:00 |
| 175 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (45) | 0:00 | 0:00 |
| 176 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (46) | 0:00 | 0:00 |
| 177 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (47) | 12:37 | 5:12 |
| 178 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (48) | 0:00 | 0:00 |
| 179 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (49) | 0:00 | 0:00 |
| 180 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (50) | 0:00 | 0:00 |
| 181 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (51) | 0:00 | 0:00 |
| 182 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (52) | 0:00 | 0:00 |
| 183 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (53) | 0:00 | 0:00 |
| 184 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (54) | 0:00 | 0:00 |
| 185 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (55) | 0:00 | 0:00 |
| 186 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (56) | 0:00 | 0:00 |
| 187 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (57) | 0:00 | 0:00 |
| 188 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (58) | 0:00 | 0:00 |
| 189 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (59) | 0:00 | 0:00 |
| 190 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (60) | 0:00 | 0:00 |
| 191 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (61) | 0:00 | 0:00 |
| 192 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (62) | 0:00 | 0:00 |
| 193 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (63) | 0:00 | 0:00 |
| 194 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (64) | 0:00 | 0:00 |
| 195 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (65) | 0:00 | 0:00 |
| 196 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (66) | 0:00 | 0:00 |
| 197 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (67) | 0:00 | 0:00 |
| 198 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (68) | 0:00 | 0:00 |
| 199 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (69) | 0:00 | 0:00 |
| 200 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (70) | 0:00 | 0:00 |
| 201 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (71) | 1:44 | 0:42 |
| 202 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (72) | 0:00 | 0:00 |
| 203 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (73) | 0:00 | 0:00 |
| 204 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (74) | 0:00 | 0:00 |

To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308

Kevin Walter / kwalter@tradewindenergy.com

Calculated:

9/15/2018 4:32 AM/3.0.654

SHADOW - Main Result

Calculation: GE 2.5-127 89m HH Shadow Flicker

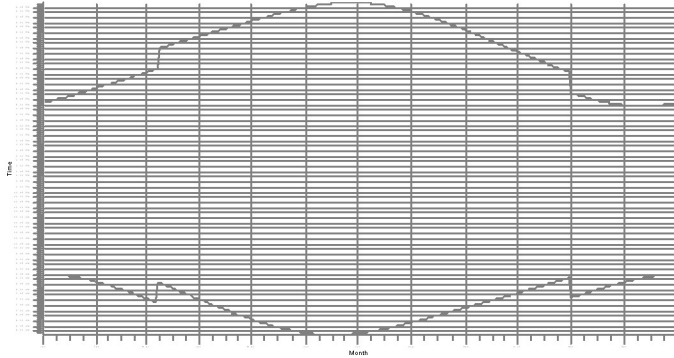
...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 205 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (75) | 0:00 | 0:00 |
| 206 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (76) | 0:00 | 0:00 |
| 207 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (77) | 0:00 | 0:00 |
| 208 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (78) | 0:00 | 0:00 |

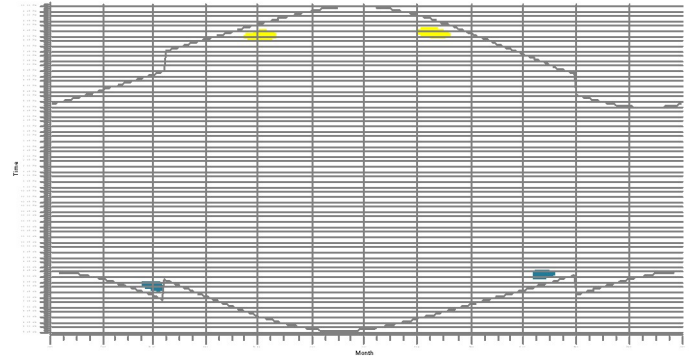
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

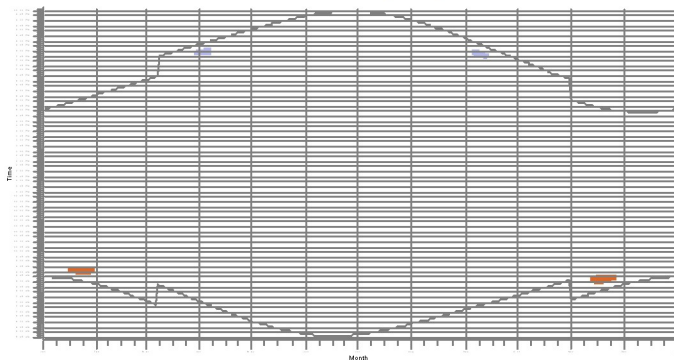
A: 1 - Non-Participating



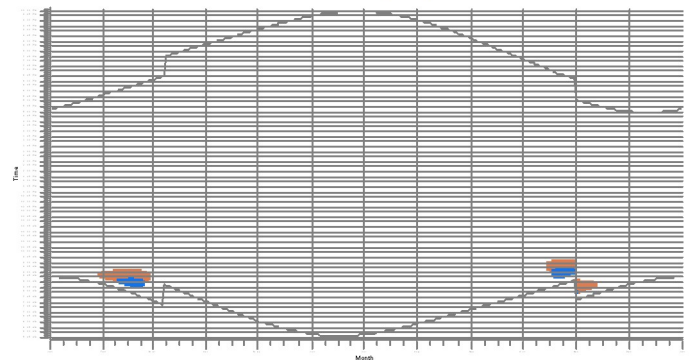
B: 39 - Participating



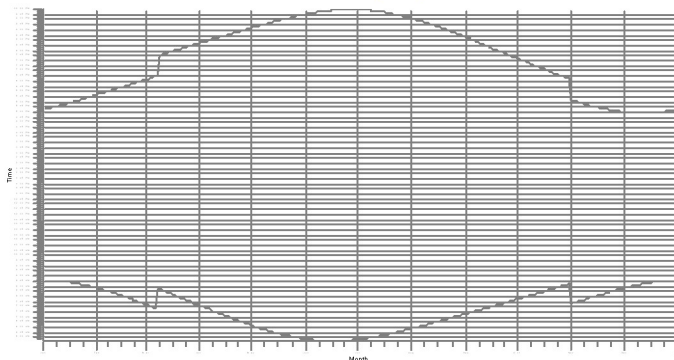
C: 2 - Non-Participating



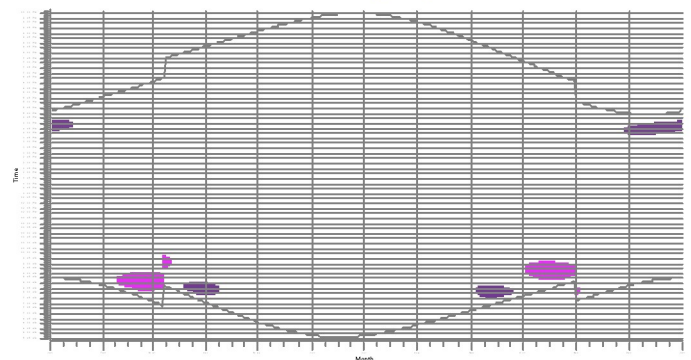
D: 40 - Participating



E: 41 - Participating



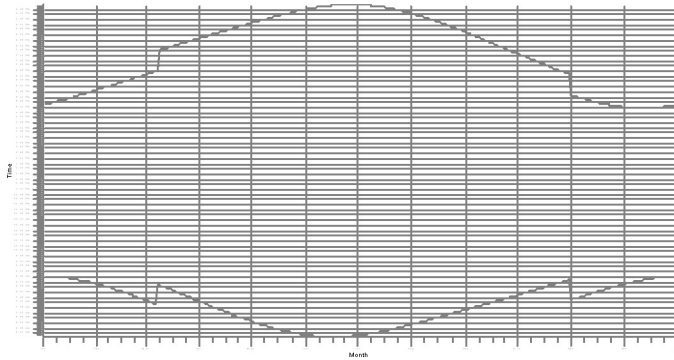
F: 42 - Participating



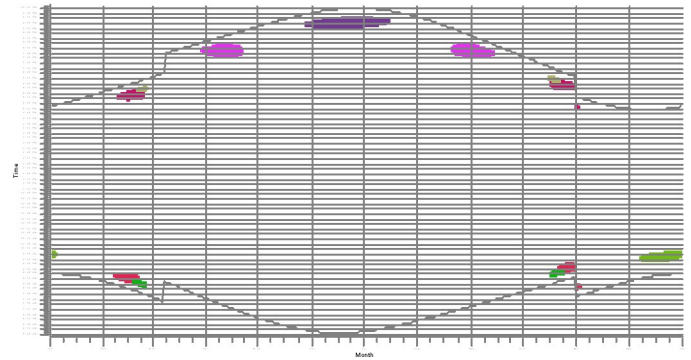
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

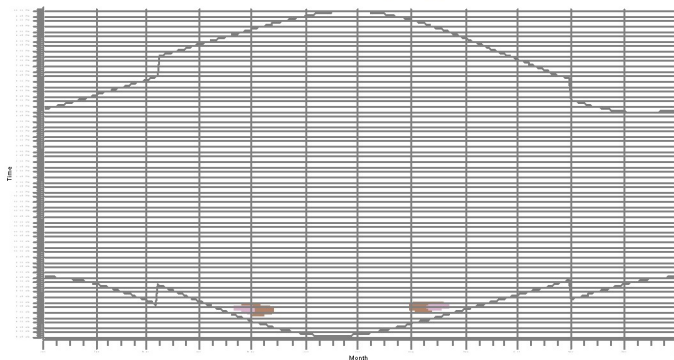
G: 43 - Participating



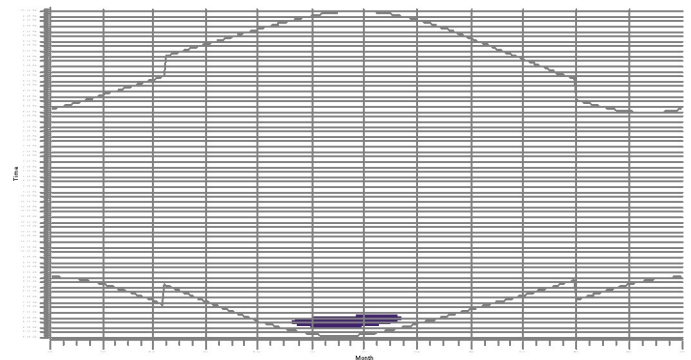
H: 44 - Participating



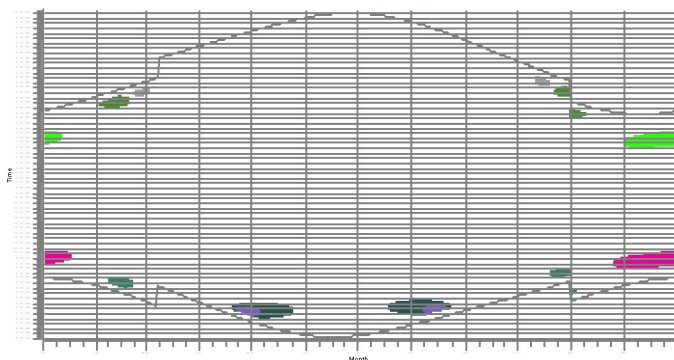
I: 3 - Non-Participating



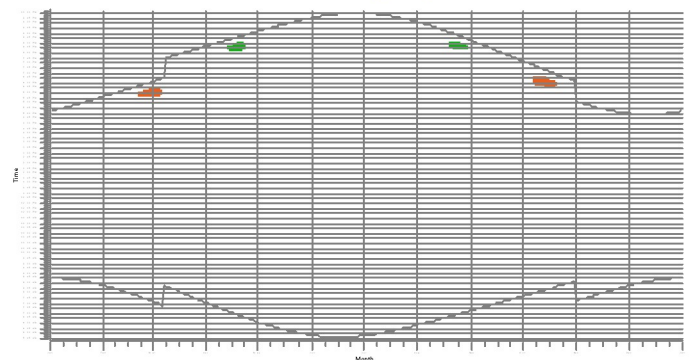
J: 4 - Non-Participating



K: 45 - Participating



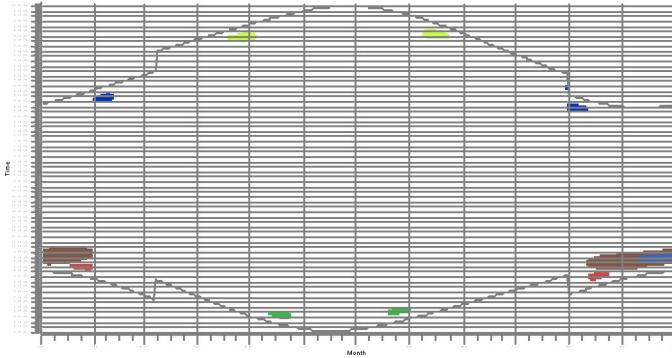
L: 46 - Participating



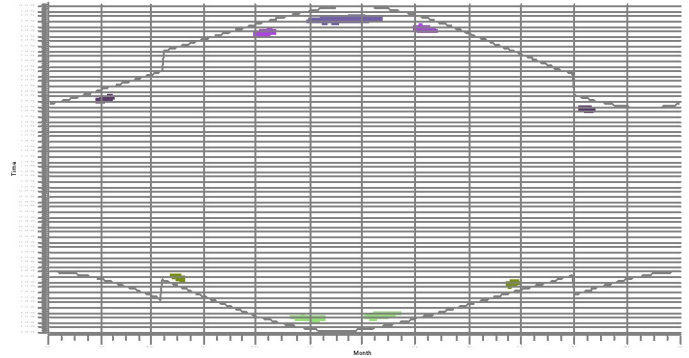
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

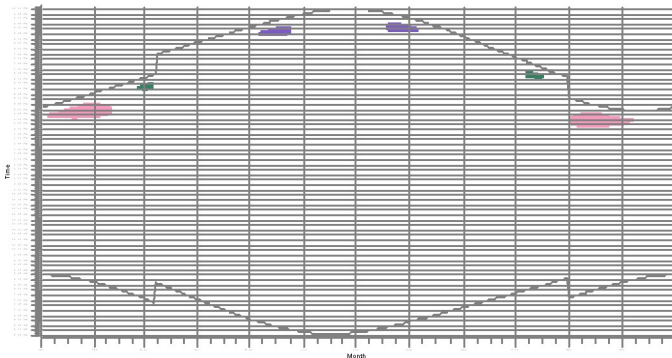
M: 47 - Participating



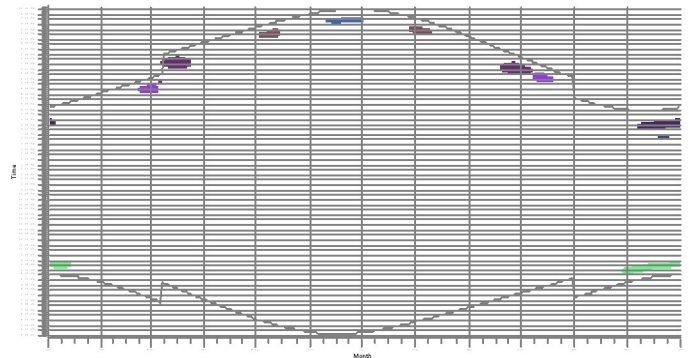
N: 48 - Participating



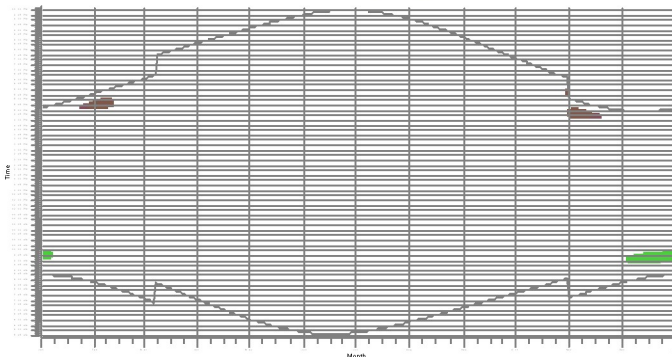
O: 5 - Non-Participating



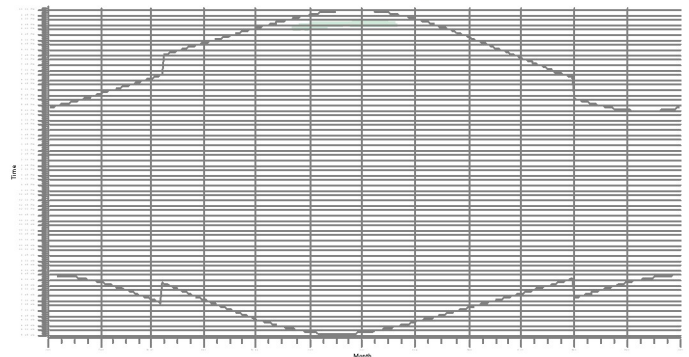
P: 49 - Participating



Q: 50 - Participating



R: 51 - Participating



Project:
Aurora

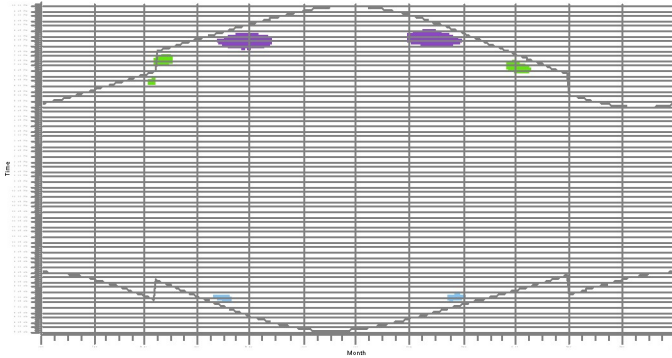
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 4:32 AM/3.0.654

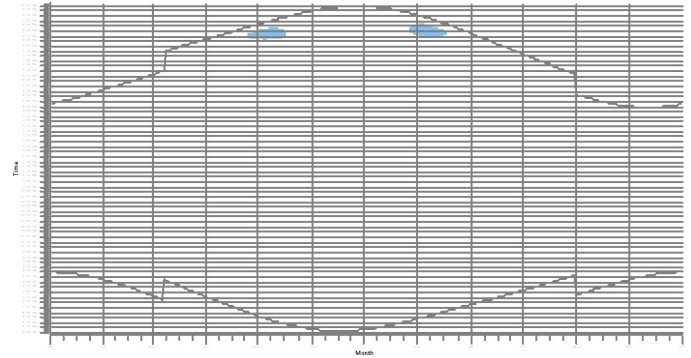
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

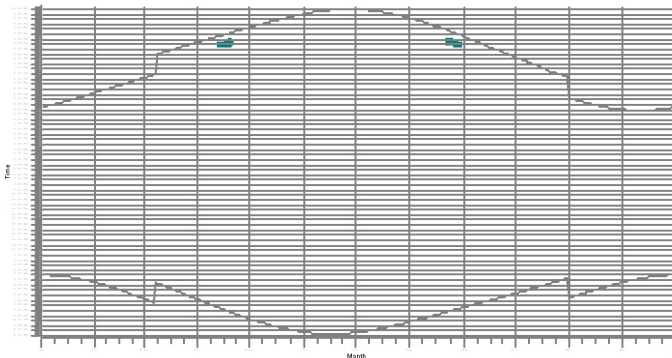
S: 6 - Non-Participating



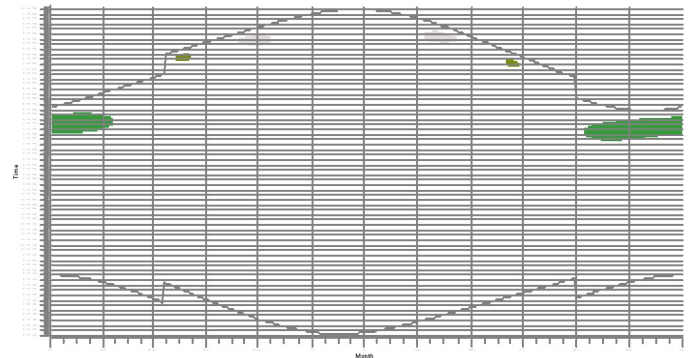
T: 52 - Participating



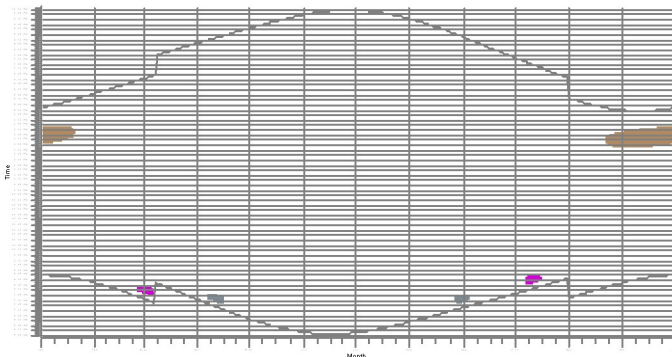
U: 7 - Non-Participating



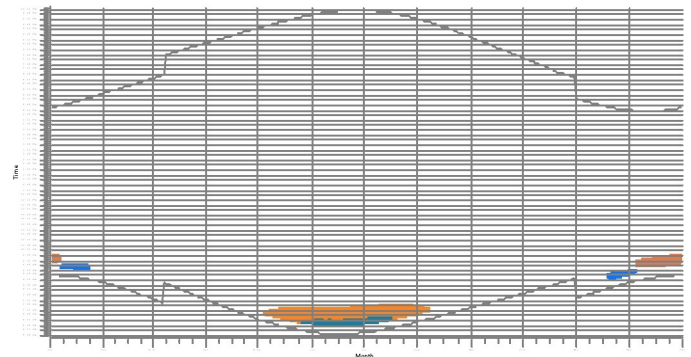
V: 8 - Non-Participating



W: 9 - Non-Participating



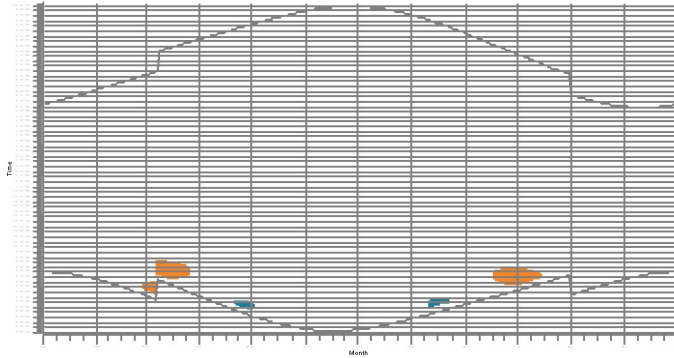
X: 10 - Non-Participating



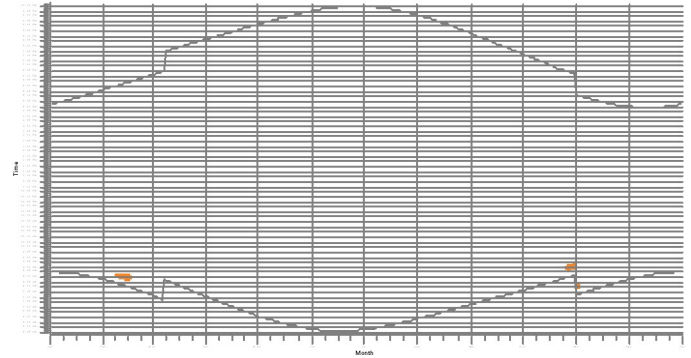
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

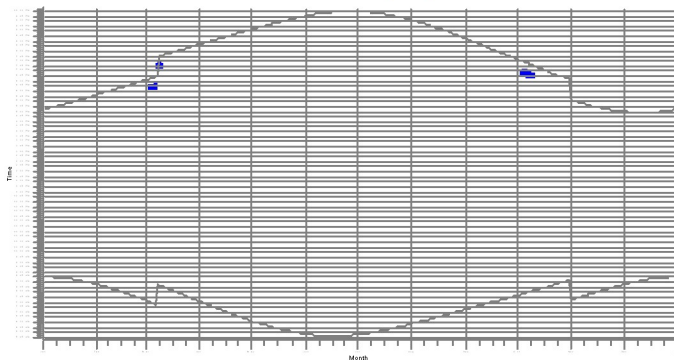
Y: 11 - Non-Participating



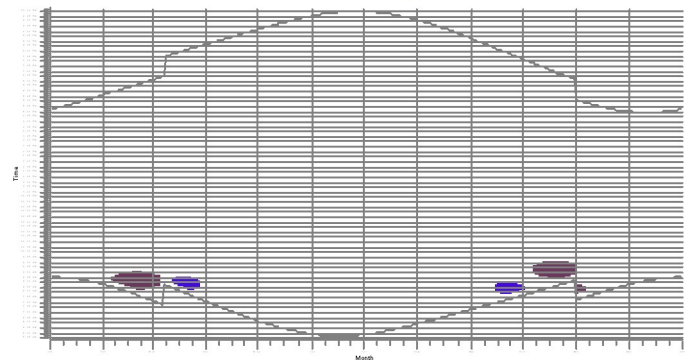
Z: 53 - Participating



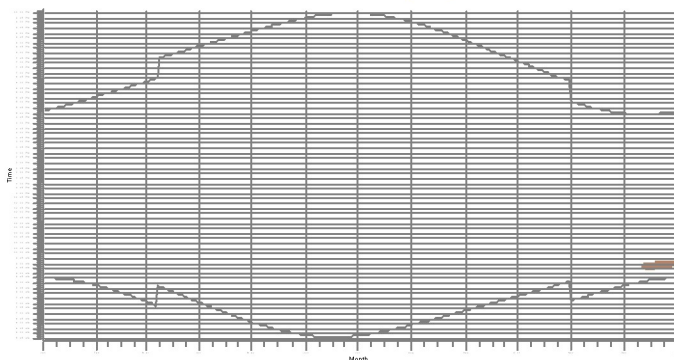
AA: 54 - Participating



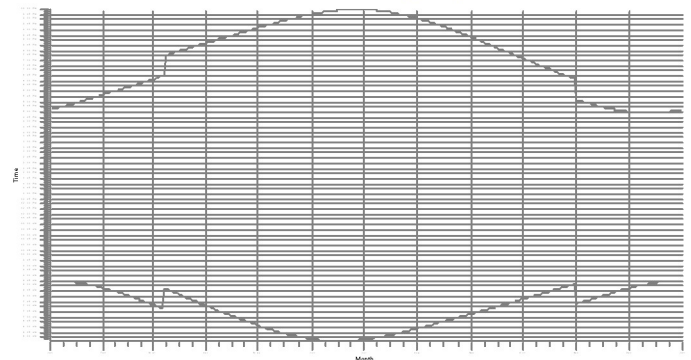
AB: 12 - Non-Participating



AC: 13 - Non-Participating



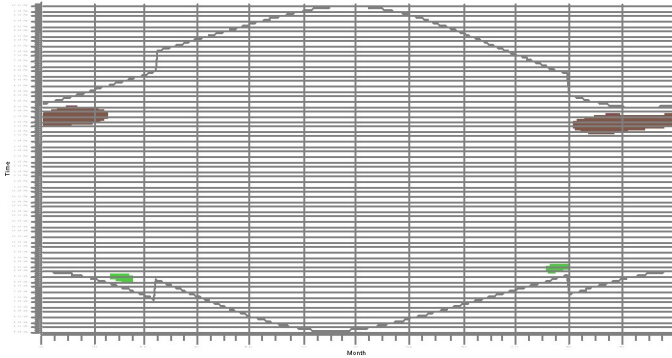
AD: 14 - Non-Participating



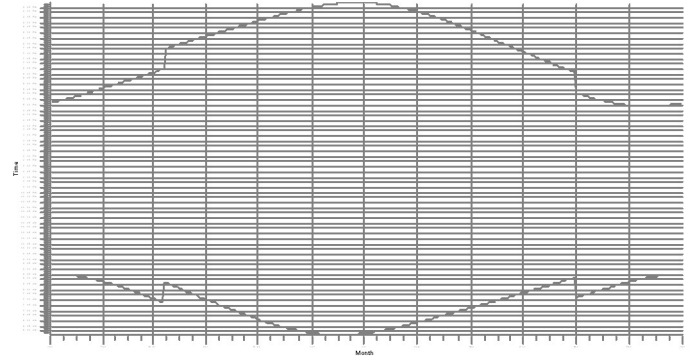
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

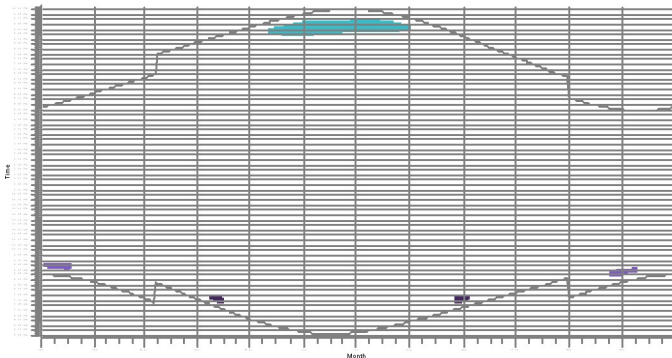
AE: 55 - Participating



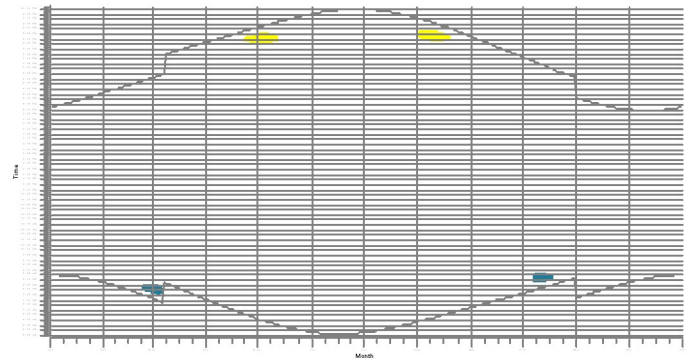
AF: 15 - Non-Participating



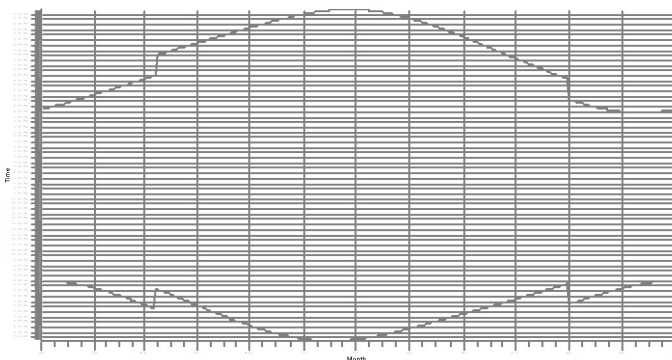
AG: 57 - Participating



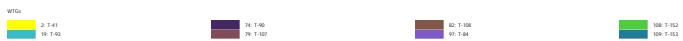
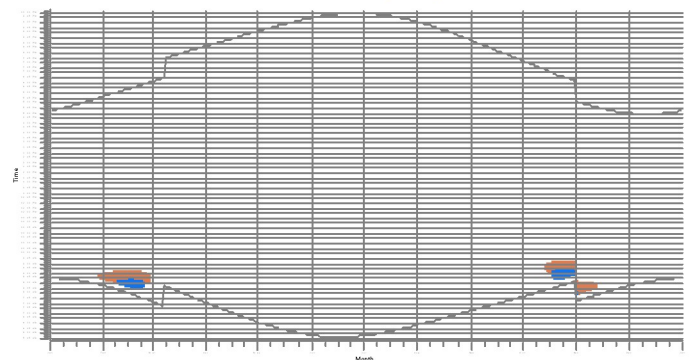
AH: 59 - Participating



AI: 61 - Participating

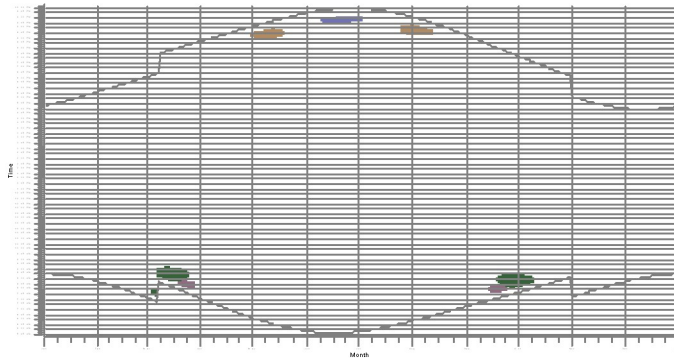


AJ: 62 - Participating

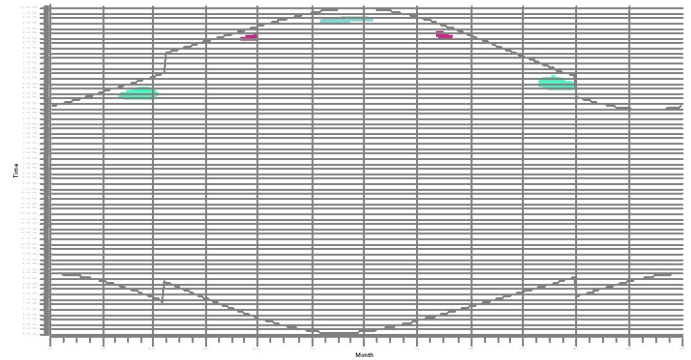


SHADOW - Calendar, graphical
 Calculation: GE 2.5-127 89m HH Shadow Flicker

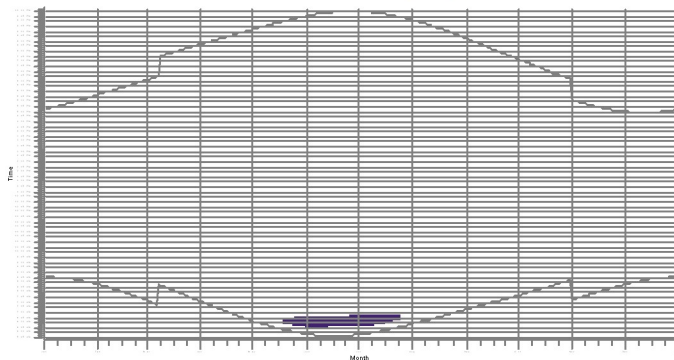
AK: 63 - Participating



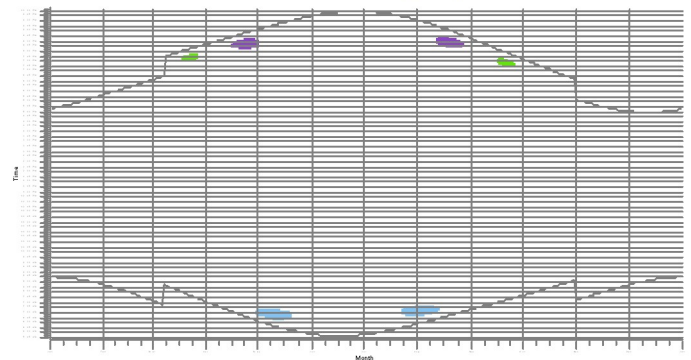
AL: 16 - Non-Participating



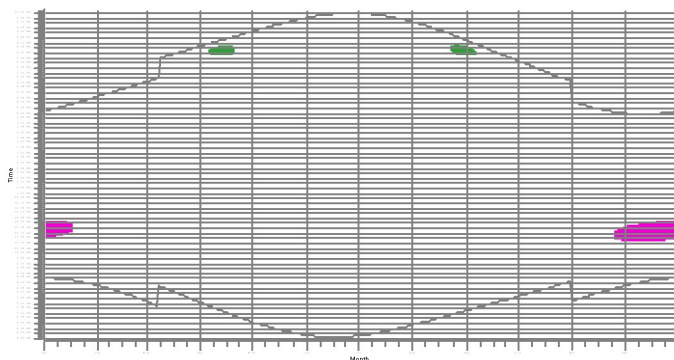
AM: 17 - Non-Participating



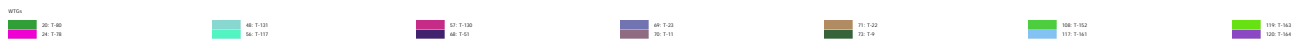
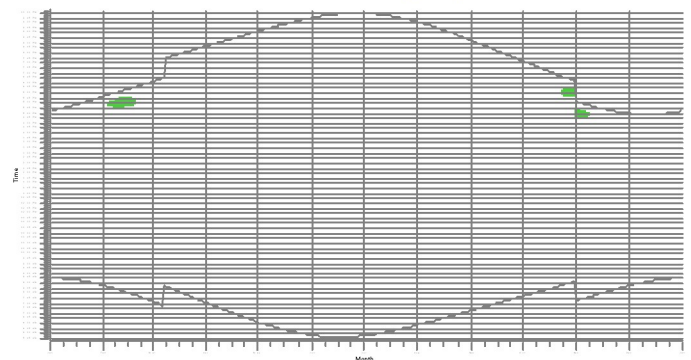
AN: 18 - Non-Participating



AO: 64 - Participating



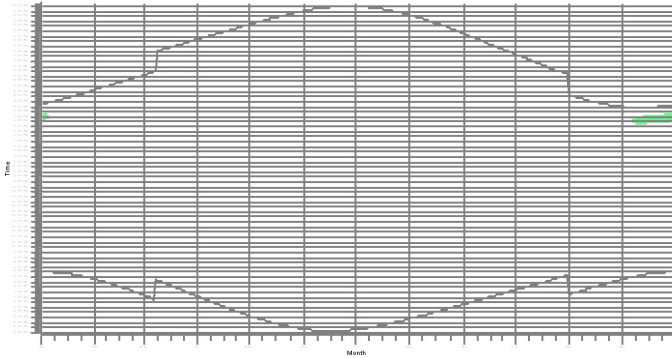
AP: 19 - Non-Participating



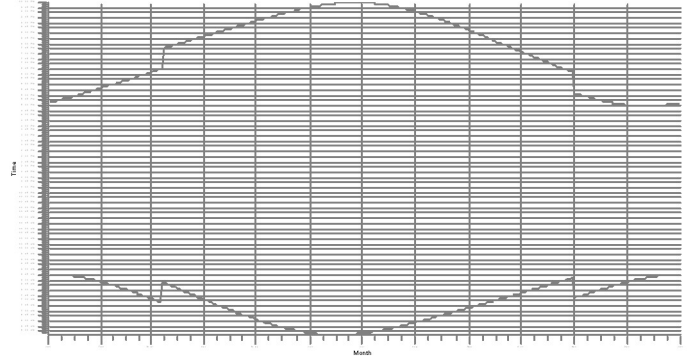
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

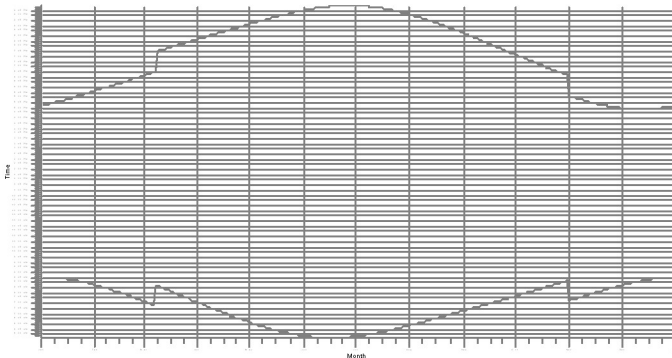
AQ: 20 - Non-Participating



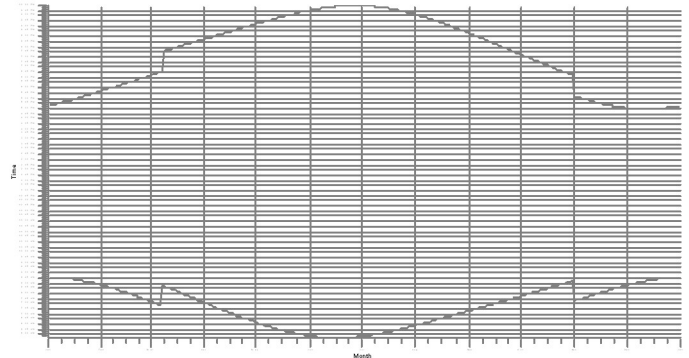
AR: 21 - Non-Participating



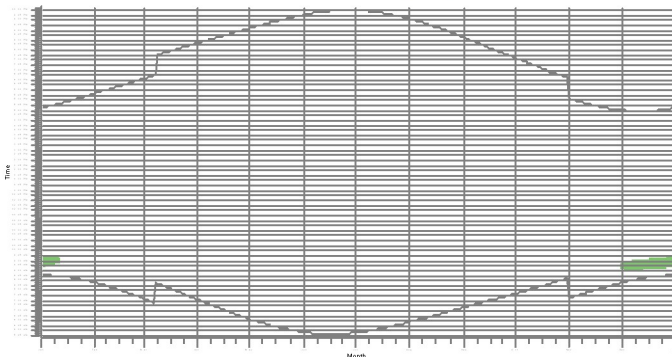
AS: 22 - Non-Participating



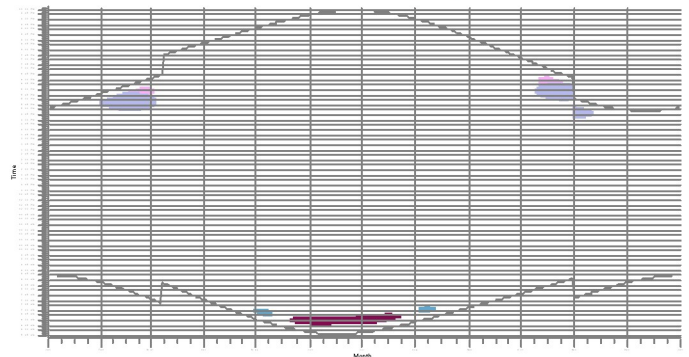
AT: 23 - Non-Participating



AU: 24 - Non-Participating



AV: 27 - Non-Participating



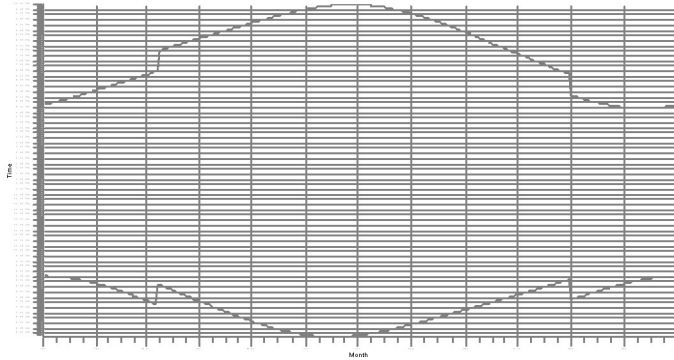
WFO: 0: 1.6 0: 1.6 114: 1.04 114: 1.04

171: 143346 V100 2000 100.0 00 Nsh 80.0 w (20): 120.0 Hg (27) 201: 143346 V100 2000 100.0 00 Nsh 80.0 w (20): 120.0 Hg (27)

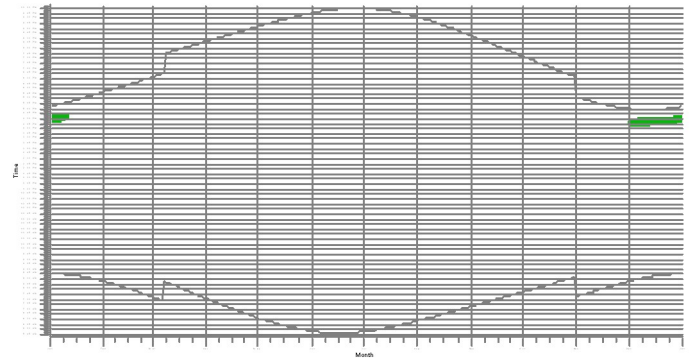
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

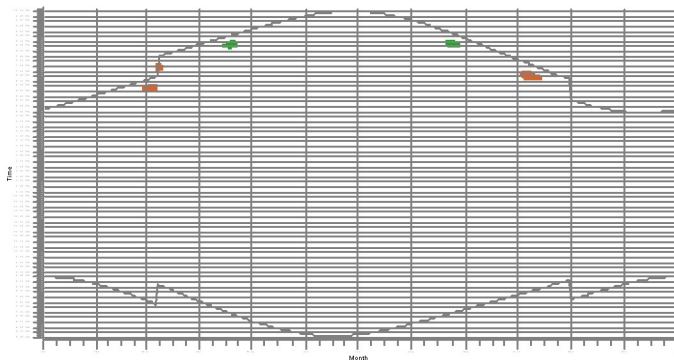
AW: 29 - Non-Participating



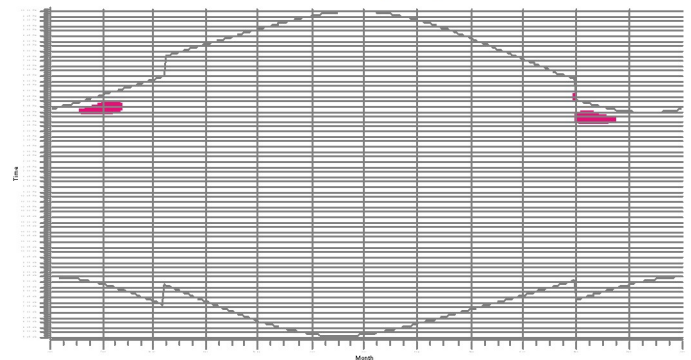
AX: 30 - Non-Participating



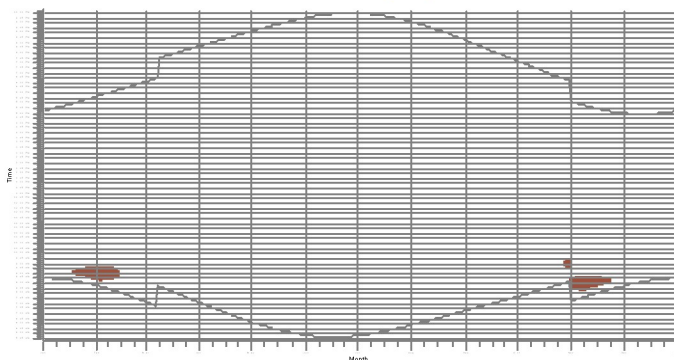
AY: 31 - Non-Participating



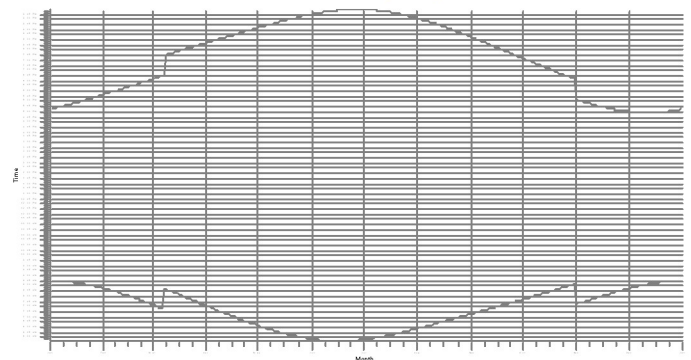
AZ: 66 - Participating



BA: 67 - Participating



BB: 68 - Participating

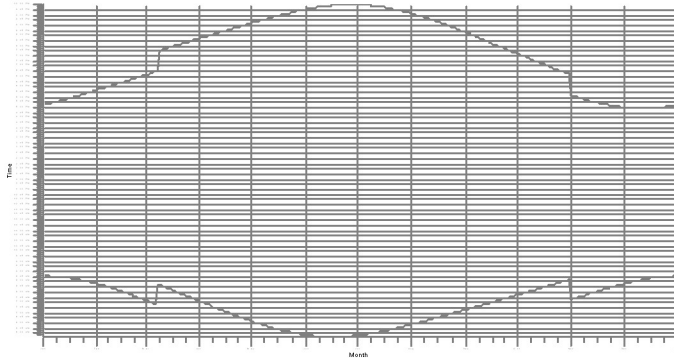


WFO: 40-1-25 40-1-16 40-1-24 100-1-02

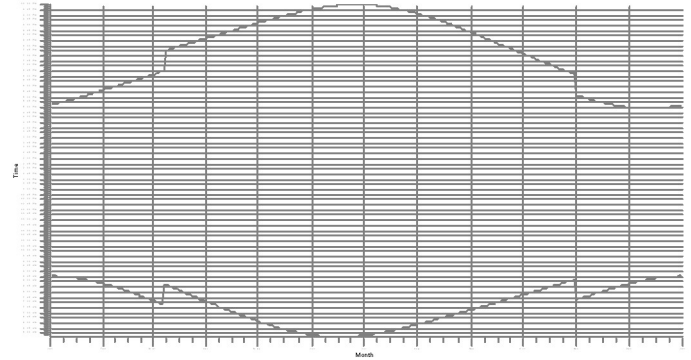
SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

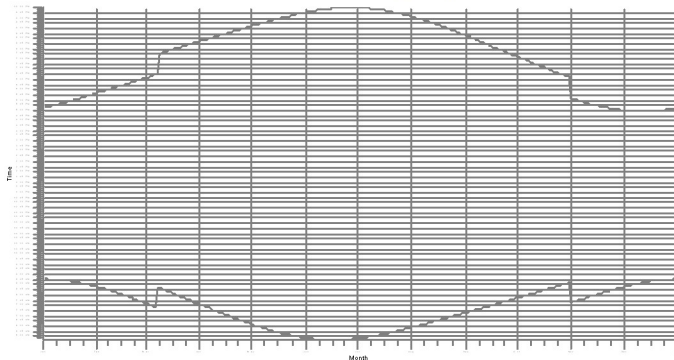
BC: 32 - Non-Participating



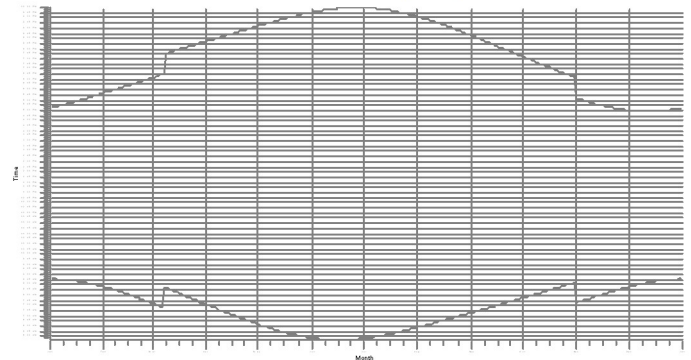
BD: 33 - Non-Participating



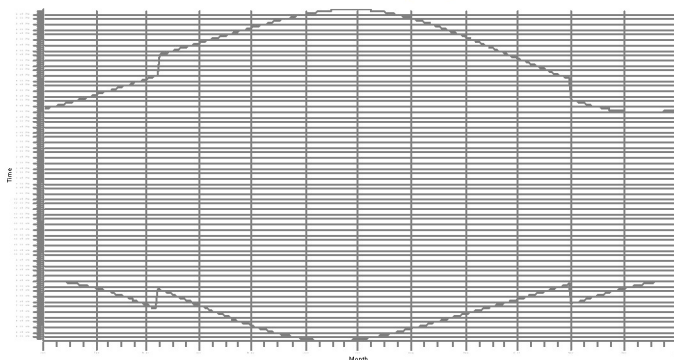
BE: 34 - Non-Participating



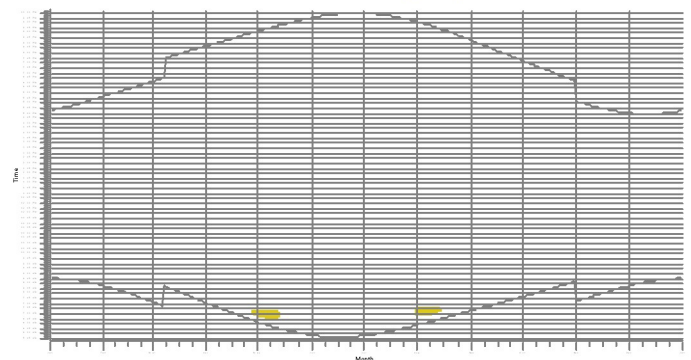
BF: 35 - Non-Participating



BG: 36 - Non-Participating



BH: 37 - Non-Participating



WFO: 121.1-144

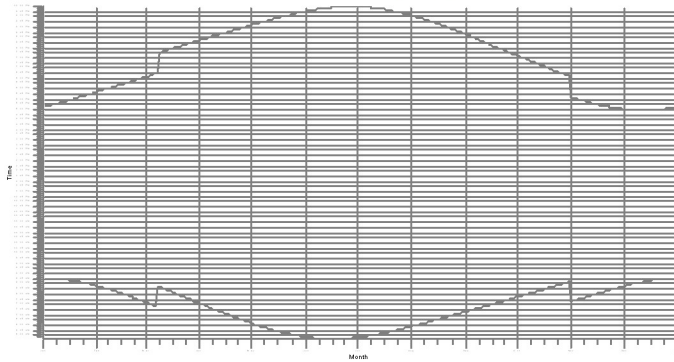
Project: Aurora
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 4:32 AM/3.0.654

SHADOW - Calendar, graphical

Calculation: GE 2.5-127 89m HH Shadow Flicker

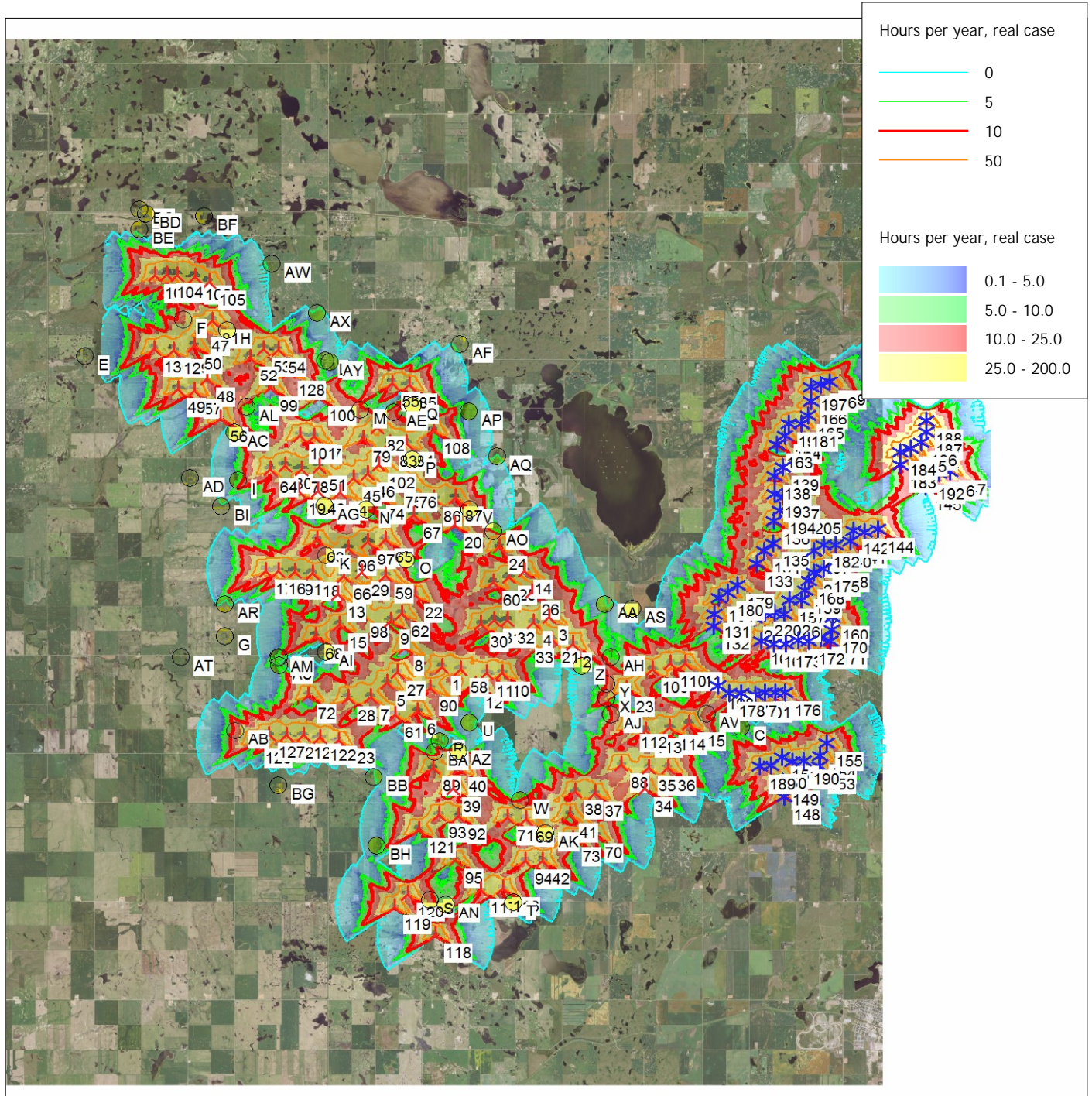
BI: 38 - Non-Participating



wfo

SHADOW - Map

Calculation: GE 2.5-127 89m HH Shadow Flicker



Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 640,676 North: 5,375,910

▲ New WTG

★ Existing WTG

● Shadow receptor

Flicker map level: Height Contours: 150921_TWE_LindahIWest_10ftHCLsfrom10mNED.wpo (3)

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

Assumptions for shadow calculations

| | |
|---|-----------|
| Maximum distance for influence | 2,000 m |
| Minimum sun height over horizon for influence | 3 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [BISMARCK]

| | | | | | | | | | | | |
|------|------|------|------|-------|-------|-------|-------|------|------|------|------|
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 4.92 | 5.13 | 7.45 | 8.03 | 10.20 | 11.21 | 11.69 | 10.35 | 8.68 | 5.69 | 4.02 | 3.69 |

Operational hours are calculated from WTGs in calculation and wind distribution:

0162 3/18 SDO

Operational time

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
| 722 | 459 | 308 | 340 | 523 | 950 | 724 | 582 | 734 | 1,008 | 1,127 | 1,176 | 8,652 |

Idle start wind speed: Cut in wind speed from power curve

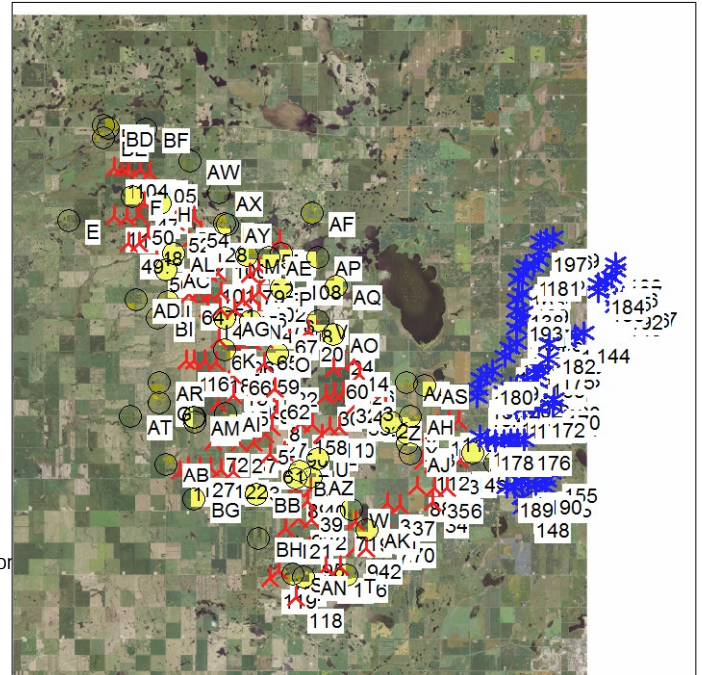
A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:
 Height contours used: Height Contours: 150921_TWE_LindahlWest_10ftHCLsfrom
 Obstacles used in calculation
 Eye height: 1.5 m
 Grid resolution: 10.0 m

All coordinates are in UTM WGS84 Zone: 13

WTGs

| | X(East) | Y(North) | Z | Row data/Description |
|----|---------|-----------|-------|----------------------|
| | [m] | | | |
| 1 | 637,619 | 5,373,512 | 727.5 | T-43 |
| 2 | 642,085 | 5,374,363 | 728.5 | T-41 |
| 3 | 641,252 | 5,375,220 | 737.7 | T-63 |
| 4 | 640,729 | 5,375,038 | 740.7 | T-62 |
| 5 | 635,764 | 5,372,945 | 724.6 | T-45 |
| 6 | 636,817 | 5,372,047 | 728.5 | T-35 |
| 7 | 635,193 | 5,372,473 | 710.2 | T-47 |
| 8 | 636,346 | 5,374,109 | 734.6 | T-56 |
| 9 | 635,830 | 5,374,972 | 728.5 | T-55 |
| 10 | 639,692 | 5,373,363 | 740.7 | T-39 |
| 11 | 639,157 | 5,373,344 | 739.4 | T-38 |
| 12 | 638,790 | 5,372,951 | 734.6 | T-37 |
| 13 | 633,988 | 5,375,810 | 737.6 | T-70 |
| 14 | 640,372 | 5,376,713 | 738.1 | T-77 |
| 15 | 634,074 | 5,374,798 | 721.2 | T-53 |
| 16 | 631,934 | 5,376,511 | 729.8 | T-67 |
| 17 | 631,510 | 5,376,507 | 731.5 | T-66 |
| 18 | 633,108 | 5,376,447 | 723.9 | T-69 |
| 19 | 632,563 | 5,379,145 | 737.6 | T-93 |
| 20 | 637,951 | 5,378,169 | 715.2 | T-80 |
| 21 | 641,389 | 5,374,486 | 743.7 | T-58 |
| 22 | 636,640 | 5,375,835 | 734.6 | T-73 |
| 23 | 643,972 | 5,372,967 | 712.3 | T-28 |
| 24 | 639,495 | 5,377,499 | 738.7 | T-78 |
| 25 | 639,840 | 5,376,489 | 737.6 | T-76 |
| 26 | 640,649 | 5,376,031 | 731.5 | T-79 |
| 27 | 636,095 | 5,373,292 | 733.9 | T-46 |

To be continued on next page...



Scale 1:400,000
 ▲ New WTG * Existing WTG
 ● Shadow receptor

| WTG type | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
|----------|--------|----------------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | | | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |
| Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 | | |

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | | | | |
|----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
| | | | [m] | | | | | | | | |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|-----|---------|-----------|-------|--|----------|-----------|-------------------|--------------------|----------------|-----------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| | | | [m] | | | | | | | | |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 111 | 645,966 | 5,373,838 | 730.1 | T-155 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 112 | 644,144 | 5,371,765 | 710.2 | T-156 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 113 | 644,660 | 5,371,616 | 715.4 | T-157 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 114 | 645,479 | 5,371,724 | 719.3 | T-158 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 115 | 646,127 | 5,371,875 | 717.1 | T-159 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 116 | 639,890 | 5,366,309 | 710.2 | T-160 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 117 | 639,135 | 5,366,239 | 709.0 | T-161 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 118 | 637,617 | 5,364,719 | 707.6 | T-162 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 119 | 636,191 | 5,365,609 | 711.4 | T-163 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 120 | 636,640 | 5,366,042 | 710.2 | T-164 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 121 | 636,954 | 5,368,164 | 711.3 | T-165 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 122 | 633,495 | 5,371,087 | 689.0 | T-166 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 123 | 634,130 | 5,371,006 | 696.6 | T-167 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 105.0 | 0.0 |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|-----|---------|-----------|-------|--|----------|-----------|-------------------|--------------------|----------------|-----------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| | | | [m] | | | | | | | | |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 148 | 649,468 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|-----|---------|-----------|-------|--|----------|-----------|-------------------|--------------------|----------------|-----------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

Shadow receptor-Input

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|-------|---------------------|---------|-----------|-------|-------|--------|---------------|-----------------------|-----------------|--------------------|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| G 43 | - Participating | 630,148 | 5,374,326 | 691.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AE 55 | - Participating | 635,760 | 5,381,775 | 711.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AF 15 | - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AG 57 | - Participating | 633,480 | 5,378,691 | 739.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AH 59 | - Participating | 643,400 | 5,373,968 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AI 61 | - Participating | 633,645 | 5,373,895 | 713.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AJ 62 | - Participating | 643,453 | 5,372,097 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AK 63 | - Participating | 641,300 | 5,368,154 | 725.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AL 16 | - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AM 17 | - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AN 18 | - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AO 64 | - Participating | 639,268 | 5,377,996 | 720.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AP 19 | - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AQ 20 | - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AR 21 | - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AS 22 | - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AT 23 | - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AU 24 | - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AV 27 | - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|-------|---------------------|---------|-----------|-------|-------|--------|---------------|-----------------------|-----------------|--------------------|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AW 29 | - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AX 30 | - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AY 31 | - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AZ 66 | - Participating | 638,244 | 5,370,747 | 710.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BA 67 | - Participating | 637,448 | 5,370,698 | 712.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BB 68 | - Participating | 635,378 | 5,369,828 | 692.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BC 32 | - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BD 33 | - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BE 34 | - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BF 35 | - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BG 36 | - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BH 37 | - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BI 38 | - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

Calculation Results

Shadow receptor

| No. | Name | Shadow, worst case | | | Shadow, expected values |
|-------|---------------------|--------------------------------|----------------------------------|----------------------------------|--------------------------------|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] |
| A 1 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| B 39 | - Participating | 17:11 | 67 | 0:25 | 7:28 |
| C 2 | - Non-Participating | 6:53 | 46 | 0:14 | 2:37 |
| D 40 | - Participating | 34:49 | 63 | 0:53 | 12:19 |
| E 41 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| F 42 | - Participating | 75:40 | 161 | 0:48 | 26:44 |
| G 43 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| H 44 | - Participating | 75:58 | 174 | 0:54 | 29:39 |
| I 3 | - Non-Participating | 16:02 | 50 | 0:29 | 6:36 |
| J 4 | - Non-Participating | 19:57 | 62 | 0:25 | 8:16 |
| K 45 | - Participating | 125:25 | 201 | 1:19 | 42:38 |
| L 46 | - Participating | 12:05 | 55 | 0:24 | 4:27 |
| M 47 | - Participating | 75:01 | 171 | 0:48 | 26:17 |
| N 48 | - Participating | 32:07 | 139 | 0:27 | 14:03 |
| O 5 | - Non-Participating | 45:50 | 143 | 0:39 | 14:47 |
| P 49 | - Participating | 51:48 | 154 | 0:49 | 17:07 |
| Q 50 | - Participating | 29:00 | 91 | 0:30 | 8:55 |
| R 51 | - Participating | 12:41 | 62 | 0:17 | 6:20 |
| S 6 | - Non-Participating | 47:15 | 108 | 0:43 | 20:44 |
| T 52 | - Participating | 14:36 | 49 | 0:28 | 6:57 |
| U 7 | - Non-Participating | 3:32 | 22 | 0:15 | 1:33 |
| V 8 | - Non-Participating | 86:38 | 159 | 0:50 | 24:47 |
| W 9 | - Non-Participating | 56:06 | 112 | 0:50 | 15:39 |
| X 10 | - Non-Participating | 86:00 | 164 | 0:56 | 34:25 |
| Y 11 | - Non-Participating | 36:08 | 87 | 0:47 | 15:12 |
| Z 53 | - Participating | 2:53 | 20 | 0:13 | 1:01 |
| AA 54 | - Participating | 2:57 | 19 | 0:15 | 1:02 |
| AB 12 | - Non-Participating | 42:50 | 97 | 0:44 | 16:32 |
| AC 13 | - Non-Participating | 7:16 | 32 | 0:17 | 2:17 |
| AD 14 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| AE 55 | - Participating | 71:47 | 129 | 0:51 | 19:19 |
| AF 15 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| AG 57 | - Participating | 42:54 | 138 | 0:35 | 20:24 |
| AH 59 | - Participating | 17:08 | 67 | 0:25 | 7:29 |
| AI 61 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| AJ 62 | - Participating | 34:43 | 64 | 0:53 | 12:18 |
| AK 63 | - Participating | 32:49 | 101 | 0:37 | 14:41 |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| No. | Name | Shadow, worst case | | | Shadow, expected values | |
|-------|---------------------|--------------------------------------|--|--|--------------------------------------|--|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] | |
| AL 16 | - Non-Participating | 23:26 | 98 | 0:34 | 8:11 | |
| AM 17 | - Non-Participating | 20:47 | 66 | 0:24 | 8:38 | |
| AN 18 | - Non-Participating | 25:27 | 96 | 0:26 | 10:57 | |
| AO 64 | - Participating | 64:22 | 102 | 0:59 | 21:30 | |
| AP 19 | - Non-Participating | 8:57 | 34 | 0:24 | 2:39 | |
| AQ 20 | - Non-Participating | 7:47 | 36 | 0:16 | 1:55 | |
| AR 21 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AS 22 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AT 23 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AU 24 | - Non-Participating | 17:44 | 50 | 0:25 | 5:46 | |
| AV 27 | - Non-Participating | 60:07 | 147 | 1:06 | 20:02 | |
| AW 29 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AX 30 | - Non-Participating | 11:20 | 48 | 0:18 | 2:54 | |
| AY 31 | - Non-Participating | 8:54 | 48 | 0:21 | 3:21 | |
| AZ 66 | - Participating | 19:11 | 55 | 0:34 | 5:21 | |
| BA 67 | - Participating | 22:42 | 57 | 0:35 | 7:46 | |
| BB 68 | - Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BC 32 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BD 33 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BE 34 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BF 35 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BG 36 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BH 37 | - Non-Participating | 8:43 | 38 | 0:22 | 3:38 | |
| BI 38 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|------|------------------------|----------------------|
| 1 | T-43 | 0:00 | 0:00 |
| 2 | T-41 | 11:37 | 5:25 |
| 3 | T-63 | 2:57 | 1:02 |
| 4 | T-62 | 0:00 | 0:00 |
| 5 | T-45 | 0:00 | 0:00 |
| 6 | T-35 | 3:32 | 1:33 |
| 7 | T-47 | 0:00 | 0:00 |
| 8 | T-56 | 0:00 | 0:00 |
| 9 | T-55 | 0:00 | 0:00 |
| 10 | T-39 | 0:00 | 0:00 |
| 11 | T-38 | 0:00 | 0:00 |
| 12 | T-37 | 0:00 | 0:00 |
| 13 | T-70 | 0:00 | 0:00 |
| 14 | T-77 | 0:00 | 0:00 |
| 15 | T-53 | 0:00 | 0:00 |
| 16 | T-67 | 3:17 | 1:03 |
| 17 | T-66 | 0:00 | 0:00 |
| 18 | T-69 | 31:35 | 9:17 |
| 19 | T-93 | 35:45 | 17:47 |
| 20 | T-80 | 79:53 | 22:03 |
| 21 | T-58 | 0:00 | 0:00 |
| 22 | T-73 | 0:00 | 0:00 |
| 23 | T-28 | 91:20 | 38:13 |
| 24 | T-78 | 57:05 | 18:12 |
| 25 | T-76 | 0:00 | 0:00 |
| 26 | T-79 | 0:00 | 0:00 |
| 27 | T-46 | 0:00 | 0:00 |
| 28 | T-57 | 0:00 | 0:00 |
| 29 | T-71 | 11:27 | 3:48 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 2:06 AM/3.0.654

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|-------|------------------------|----------------------|
| 30 | T-59 | 0:00 | 0:00 |
| 31 | T-60 | 0:00 | 0:00 |
| 32 | T-61 | 0:00 | 0:00 |
| 33 | T-40 | 0:00 | 0:00 |
| 34 | T-15 | 0:00 | 0:00 |
| 35 | T-16 | 0:00 | 0:00 |
| 36 | T-17 | 0:00 | 0:00 |
| 37 | T-12 | 0:00 | 0:00 |
| 38 | T-13 | 2:49 | 1:08 |
| 39 | T-26 | 0:00 | 0:00 |
| 40 | T-25 | 22:42 | 7:46 |
| 41 | T-10 | 3:39 | 1:23 |
| 42 | T-8 | 0:00 | 0:00 |
| 43 | T-94 | 5:28 | 2:36 |
| 44 | T-95 | 9:10 | 4:15 |
| 45 | T-96 | 0:00 | 0:00 |
| 46 | T-121 | 5:22 | 1:46 |
| 47 | T-142 | 63:40 | 25:20 |
| 48 | T-131 | 2:54 | 1:26 |
| 49 | T-129 | 0:00 | 0:00 |
| 50 | T-141 | 11:05 | 3:38 |
| 51 | T-123 | 0:00 | 0:00 |
| 52 | T-144 | 13:45 | 4:23 |
| 53 | T-145 | 7:37 | 2:31 |
| 54 | T-146 | 18:31 | 5:44 |
| 55 | T-122 | 0:00 | 0:00 |
| 56 | T-117 | 17:48 | 5:36 |
| 57 | T-130 | 2:44 | 1:12 |
| 58 | T-44 | 0:00 | 0:00 |
| 59 | T-72 | 31:54 | 8:46 |
| 60 | T-75 | 0:00 | 0:00 |
| 61 | T-34 | 12:41 | 6:20 |
| 62 | T-74 | 0:00 | 0:00 |
| 63 | T-81 | 3:10 | 0:52 |
| 64 | T-98 | 23:13 | 8:51 |
| 65 | T-85 | 0:00 | 0:00 |
| 66 | T-86 | 32:35 | 9:41 |
| 67 | T-87 | 5:45 | 2:28 |
| 68 | T-51 | 22:05 | 9:10 |
| 69 | T-23 | 0:28 | 0:13 |
| 70 | T-11 | 3:36 | 1:34 |
| 71 | T-22 | 60:21 | 18:22 |
| 72 | T-5 | 17:44 | 5:46 |
| 73 | T-9 | 18:02 | 7:41 |
| 74 | T-90 | 11:58 | 3:32 |
| 75 | T-91 | 10:38 | 2:48 |
| 76 | T-92 | 11:08 | 4:57 |
| 77 | T-106 | 4:41 | 1:19 |
| 78 | T-100 | 0:00 | 0:00 |
| 79 | T-107 | 28:18 | 8:41 |
| 80 | T-99 | 5:29 | 2:12 |
| 81 | T-143 | 30:44 | 14:08 |
| 82 | T-108 | 127:33 | 37:29 |
| 83 | T-109 | 9:26 | 3:04 |
| 84 | T-110 | 3:59 | 1:22 |
| 85 | T-124 | 4:36 | 1:55 |
| 86 | T-88 | 11:28 | 5:15 |
| 87 | T-89 | 16:34 | 4:35 |
| 88 | T-14 | 0:00 | 0:00 |
| 89 | T-24 | 19:11 | 5:21 |

To be continued on next page...

SHADOW - Main Result

Calculation: V136 105m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 90 | T-42 | 0:00 | 0:00 |
| 91 | T-68 | 10:38 | 3:21 |
| 92 | T-21 | 0:00 | 0:00 |
| 93 | T-20 | 0:00 | 0:00 |
| 94 | T-19 | 0:00 | 0:00 |
| 95 | T-18 | 0:00 | 0:00 |
| 96 | T-83 | 39:56 | 16:40 |
| 97 | T-84 | 20:48 | 9:01 |
| 98 | T-54 | 0:00 | 0:00 |
| 99 | T-118 | 0:00 | 0:00 |
| 100 | T-120 | 7:54 | 3:34 |
| 101 | T-105 | 0:00 | 0:00 |
| 102 | T-97 | 11:48 | 4:43 |
| 103 | T-147 | 0:00 | 0:00 |
| 104 | T-148 | 0:00 | 0:00 |
| 105 | T-149 | 0:00 | 0:00 |
| 106 | T-150 | 0:00 | 0:00 |
| 107 | T-151 | 0:00 | 0:00 |
| 108 | T-152 | 33:11 | 10:39 |
| 109 | T-153 | 19:19 | 7:46 |
| 110 | T-154 | 0:00 | 0:00 |
| 111 | T-155 | 0:00 | 0:00 |
| 112 | T-156 | 47:57 | 16:27 |
| 113 | T-157 | 15:35 | 5:30 |
| 114 | T-158 | 7:47 | 2:26 |
| 115 | T-159 | 41:00 | 12:52 |
| 116 | T-160 | 0:00 | 0:00 |
| 117 | T-161 | 31:31 | 14:05 |
| 118 | T-162 | 0:00 | 0:00 |
| 119 | T-163 | 11:45 | 4:36 |
| 120 | T-164 | 35:12 | 16:03 |
| 121 | T-165 | 8:43 | 3:38 |
| 122 | T-166 | 0:00 | 0:00 |
| 123 | T-167 | 0:00 | 0:00 |
| 124 | T-168 | 3:23 | 1:29 |
| 125 | T-169 | 0:00 | 0:00 |
| 126 | T-170 | 31:46 | 11:39 |
| 127 | T-171 | 11:04 | 4:51 |
| 128 | T-172 | 11:22 | 3:49 |
| 129 | T-173 | 2:23 | 0:46 |
| 130 | T-174 | 19:35 | 4:56 |
| 131 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (1) | 0:00 | 0:00 |
| 132 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (2) | 0:00 | 0:00 |
| 133 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (3) | 0:00 | 0:00 |
| 134 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (4) | 0:00 | 0:00 |
| 135 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (5) | 0:00 | 0:00 |
| 136 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (6) | 0:00 | 0:00 |
| 137 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (7) | 0:00 | 0:00 |
| 138 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (8) | 0:00 | 0:00 |
| 139 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (9) | 0:00 | 0:00 |
| 140 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (10) | 0:00 | 0:00 |
| 141 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (11) | 0:00 | 0:00 |
| 142 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (12) | 0:00 | 0:00 |
| 143 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (13) | 0:00 | 0:00 |
| 144 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (14) | 0:00 | 0:00 |
| 145 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (15) | 0:00 | 0:00 |
| 146 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (16) | 0:00 | 0:00 |
| 147 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (17) | 0:00 | 0:00 |
| 148 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (18) | 0:00 | 0:00 |
| 149 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (19) | 0:00 | 0:00 |

To be continued on next page...

SHADOW - Main Result

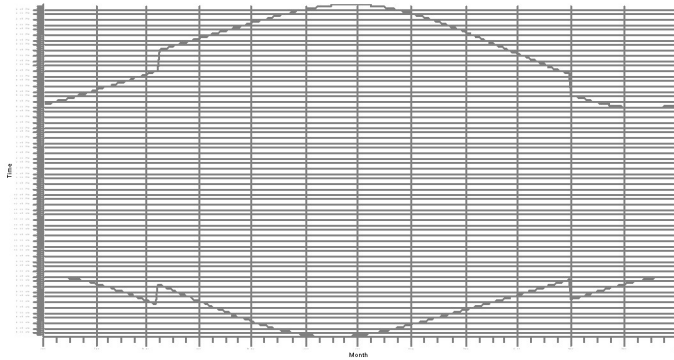
Calculation: V136 105m HH Shadow Flicker

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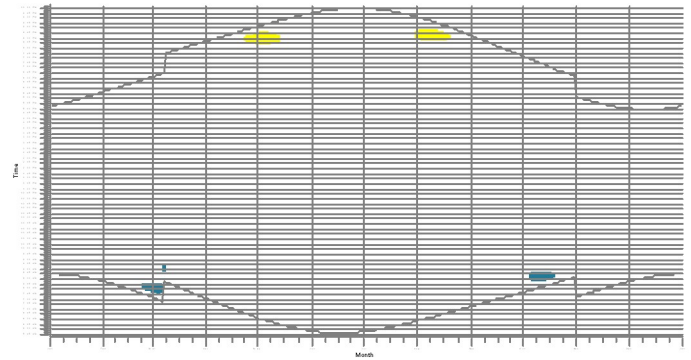
| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 150 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (20) | 0:00 | 0:00 |
| 151 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (21) | 4:06 | 1:25 |
| 152 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (22) | 0:00 | 0:00 |
| 153 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (23) | 0:00 | 0:00 |
| 154 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (24) | 0:00 | 0:00 |
| 155 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (25) | 0:00 | 0:00 |
| 156 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (26) | 0:00 | 0:00 |
| 157 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (27) | 0:00 | 0:00 |
| 158 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (28) | 0:00 | 0:00 |
| 159 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (29) | 0:00 | 0:00 |
| 160 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (30) | 0:00 | 0:00 |
| 161 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (31) | 0:00 | 0:00 |
| 162 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (32) | 0:00 | 0:00 |
| 163 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (33) | 0:00 | 0:00 |
| 164 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (34) | 0:00 | 0:00 |
| 165 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (35) | 0:00 | 0:00 |
| 166 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (36) | 0:00 | 0:00 |
| 167 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (37) | 0:00 | 0:00 |
| 168 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (38) | 0:00 | 0:00 |
| 169 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (39) | 0:00 | 0:00 |
| 170 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (40) | 0:00 | 0:00 |
| 171 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (41) | 0:00 | 0:00 |
| 172 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (42) | 0:00 | 0:00 |
| 173 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (43) | 0:00 | 0:00 |
| 174 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (44) | 0:00 | 0:00 |
| 175 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (45) | 0:00 | 0:00 |
| 176 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (46) | 0:00 | 0:00 |
| 177 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (47) | 12:37 | 5:15 |
| 178 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (48) | 0:00 | 0:00 |
| 179 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (49) | 0:00 | 0:00 |
| 180 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (50) | 0:00 | 0:00 |
| 181 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (51) | 0:00 | 0:00 |
| 182 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (52) | 0:00 | 0:00 |
| 183 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (53) | 0:00 | 0:00 |
| 184 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (54) | 0:00 | 0:00 |
| 185 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (55) | 0:00 | 0:00 |
| 186 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (56) | 0:00 | 0:00 |
| 187 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (57) | 0:00 | 0:00 |
| 188 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (58) | 0:00 | 0:00 |
| 189 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (59) | 0:00 | 0:00 |
| 190 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (60) | 0:00 | 0:00 |
| 191 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (61) | 0:00 | 0:00 |
| 192 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (62) | 0:00 | 0:00 |
| 193 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (63) | 0:00 | 0:00 |
| 194 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (64) | 0:00 | 0:00 |
| 195 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (65) | 0:00 | 0:00 |
| 196 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (66) | 0:00 | 0:00 |
| 197 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (67) | 0:00 | 0:00 |
| 198 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (68) | 0:00 | 0:00 |
| 199 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (69) | 0:00 | 0:00 |
| 200 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (70) | 0:00 | 0:00 |
| 201 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (71) | 1:44 | 0:43 |
| 202 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (72) | 0:00 | 0:00 |
| 203 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (73) | 0:00 | 0:00 |
| 204 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (74) | 0:00 | 0:00 |
| 205 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (75) | 0:00 | 0:00 |
| 206 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (76) | 0:00 | 0:00 |
| 207 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (77) | 0:00 | 0:00 |
| 208 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (78) | 0:00 | 0:00 |

SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

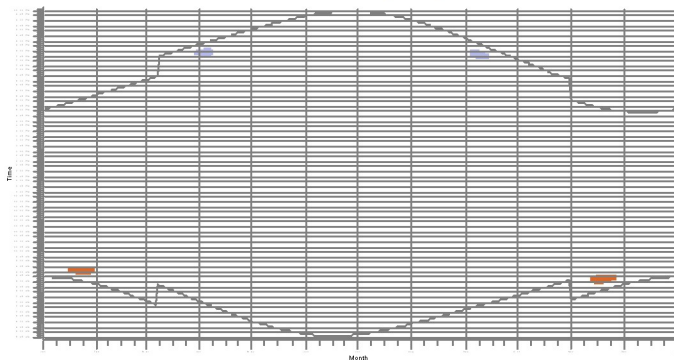
A: 1 - Non-Participating



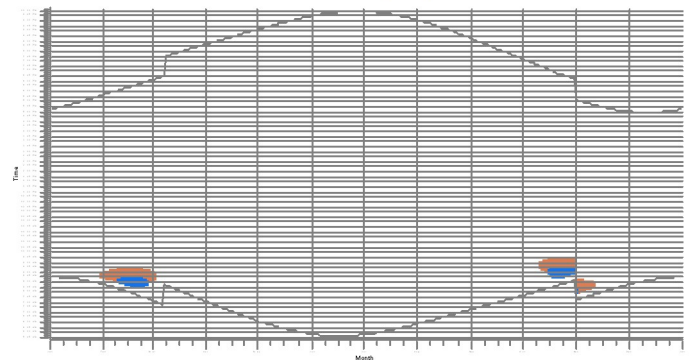
B: 39 - Participating



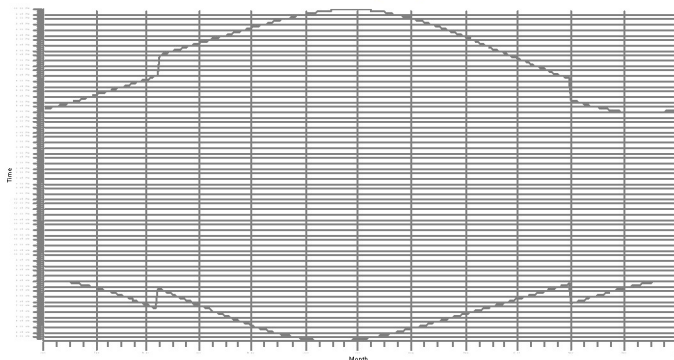
C: 2 - Non-Participating



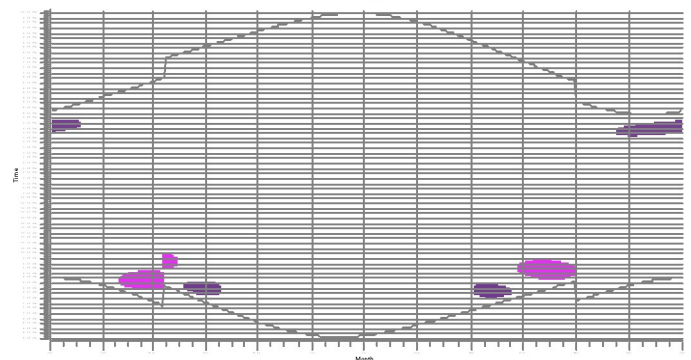
D: 40 - Participating



E: 41 - Participating

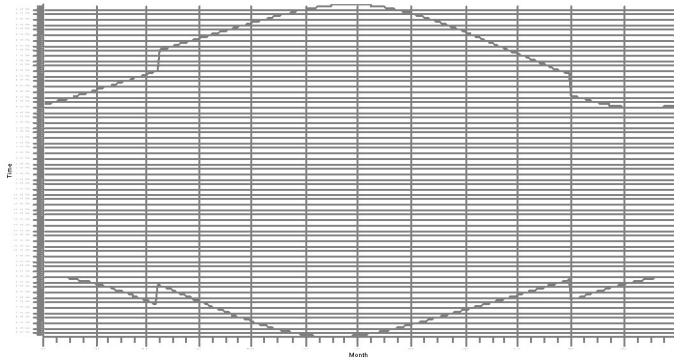


F: 42 - Participating

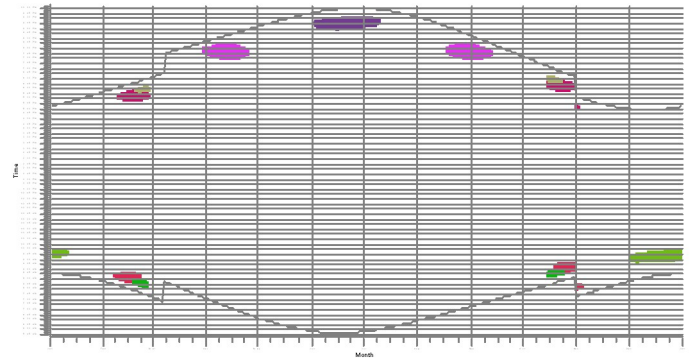


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

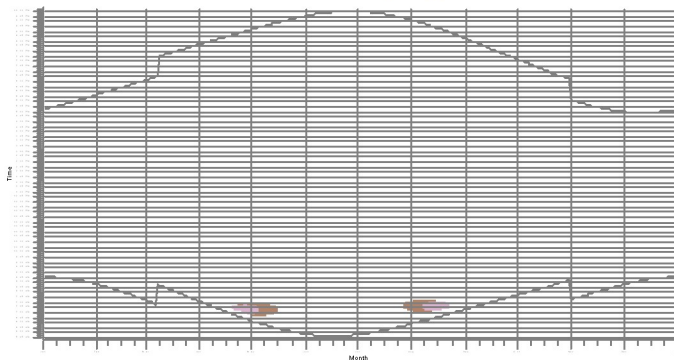
G: 43 - Participating



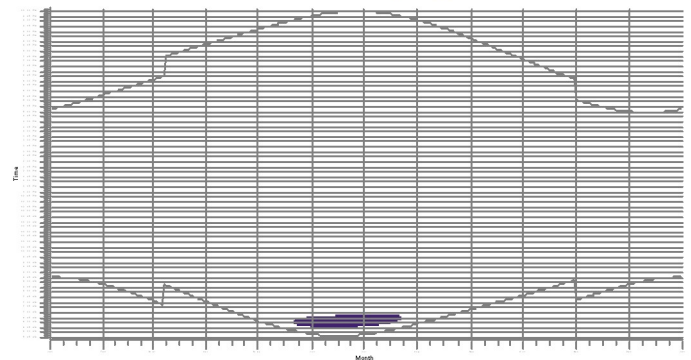
H: 44 - Participating



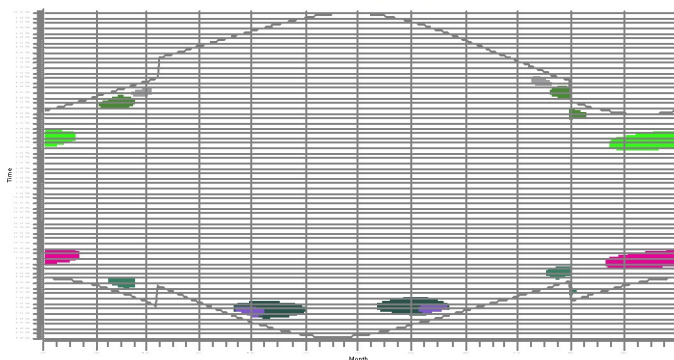
I: 3 - Non-Participating



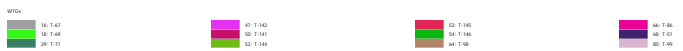
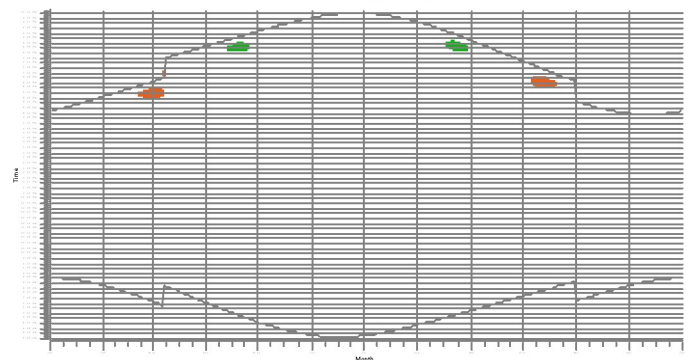
J: 4 - Non-Participating



K: 45 - Participating

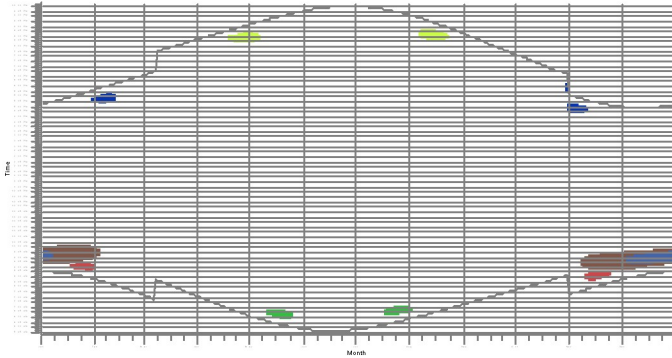


L: 46 - Participating

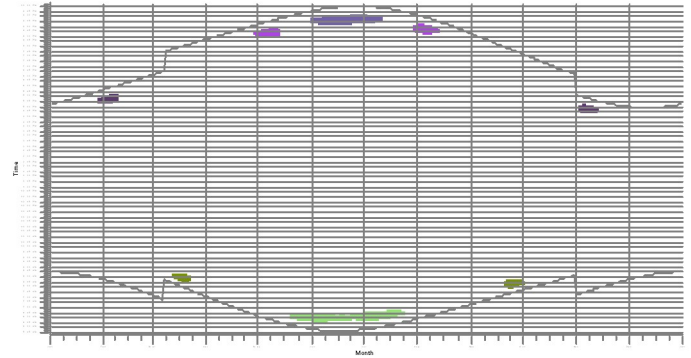


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

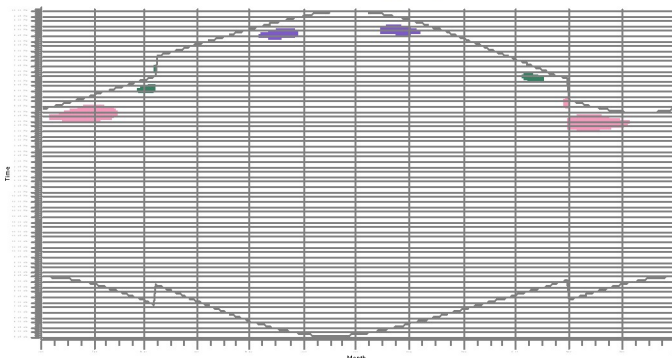
M: 47 - Participating



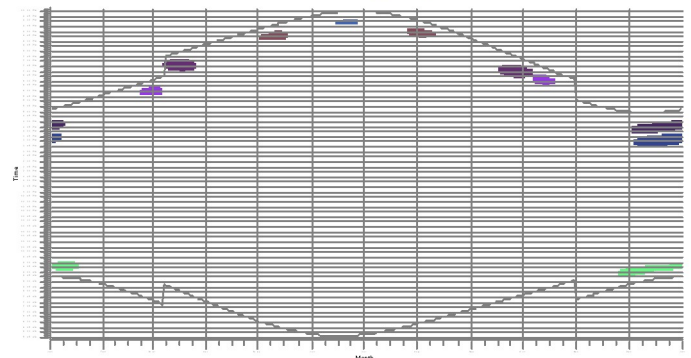
N: 48 - Participating



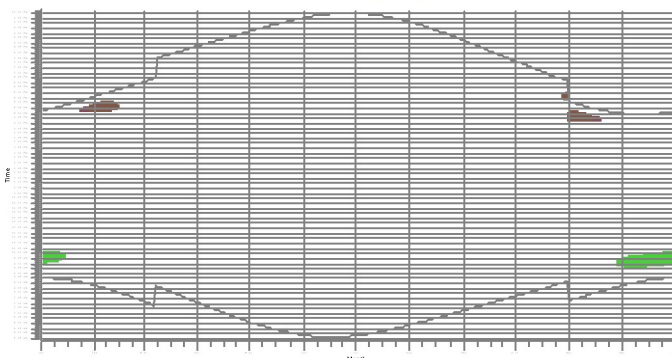
O: 5 - Non-Participating



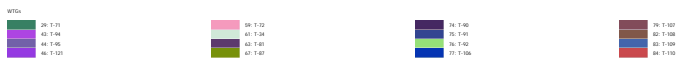
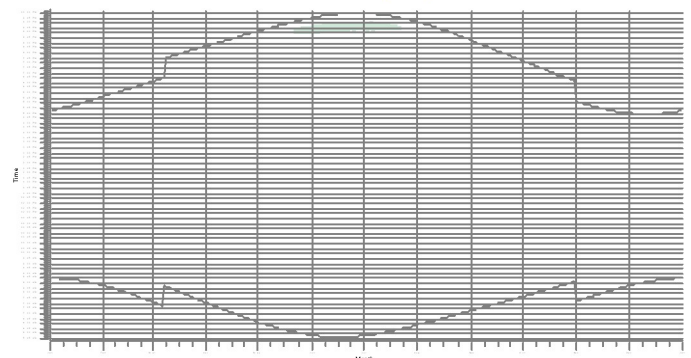
P: 49 - Participating



Q: 50 - Participating

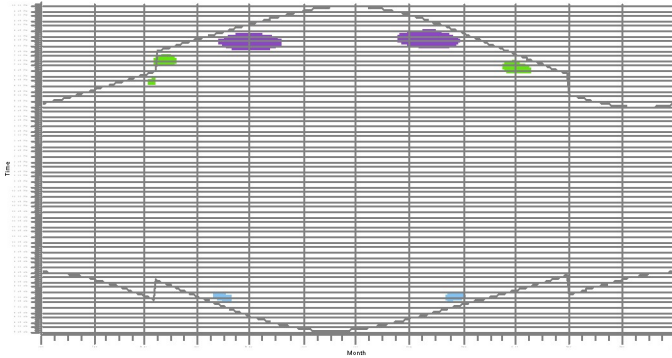


R: 51 - Participating

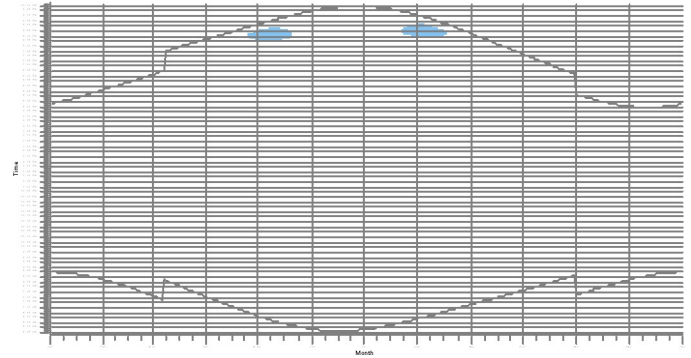


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

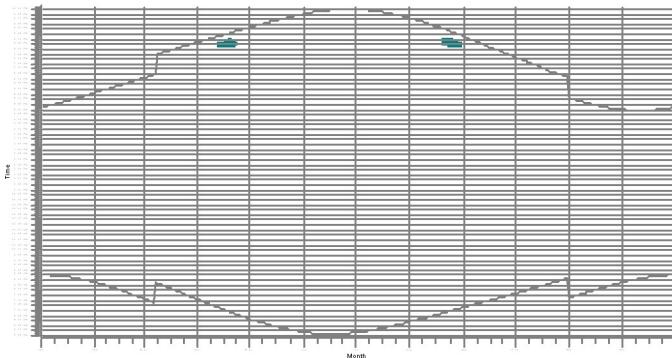
S: 6 - Non-Participating



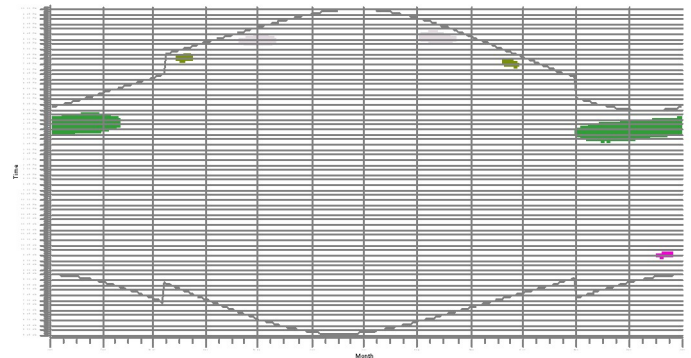
T: 52 - Participating



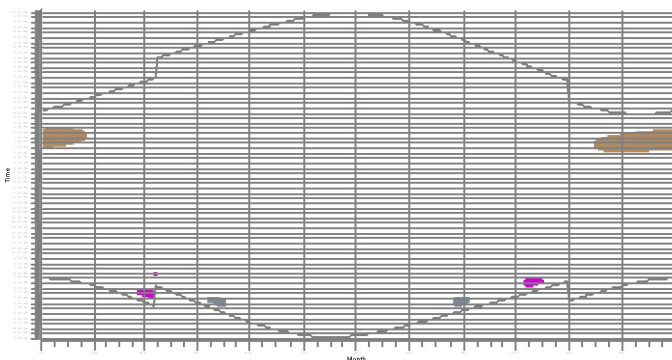
U: 7 - Non-Participating



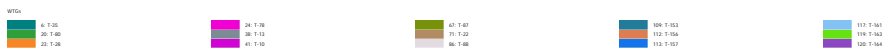
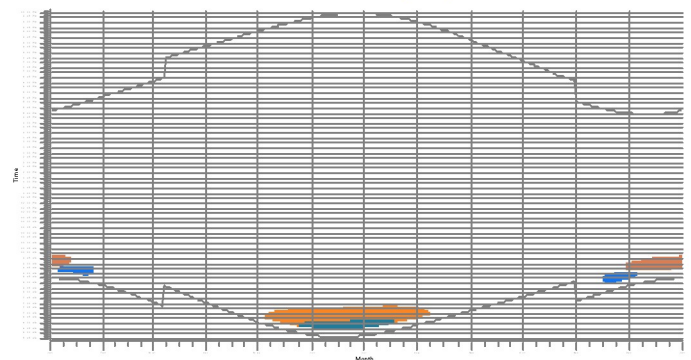
V: 8 - Non-Participating



W: 9 - Non-Participating

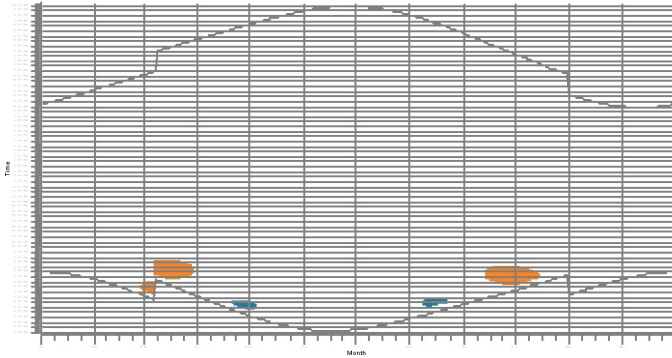


X: 10 - Non-Participating

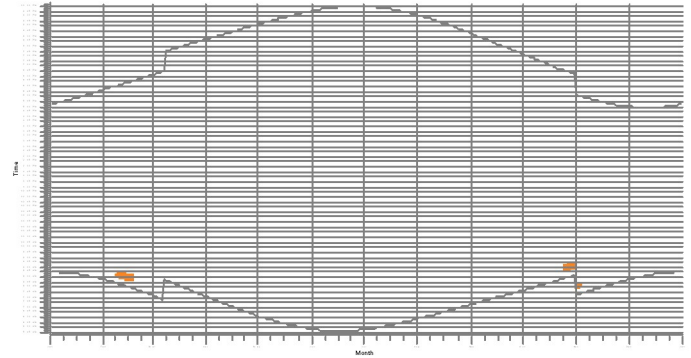


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

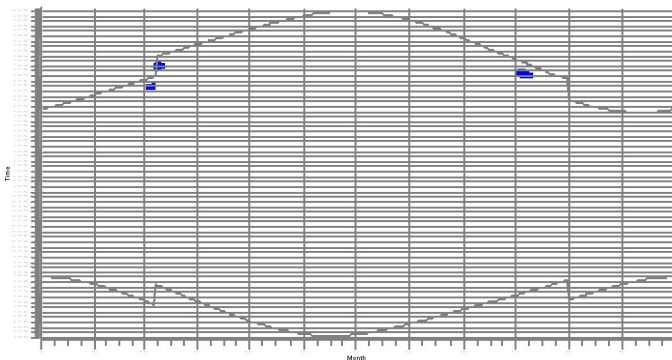
Y: 11 - Non-Participating



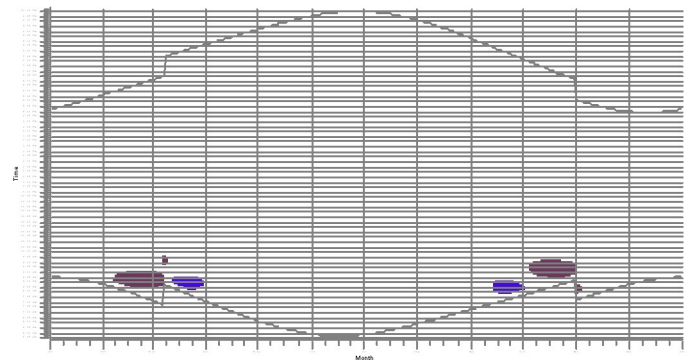
Z: 53 - Participating



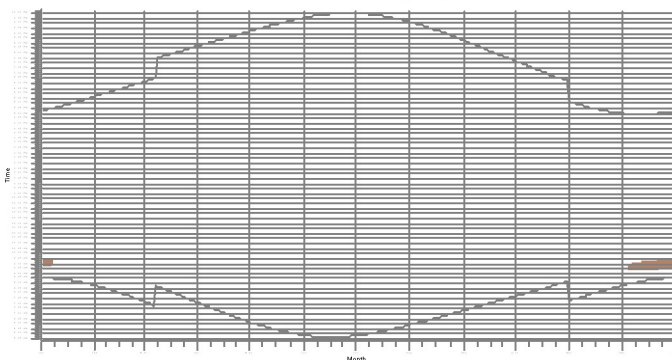
AA: 54 - Participating



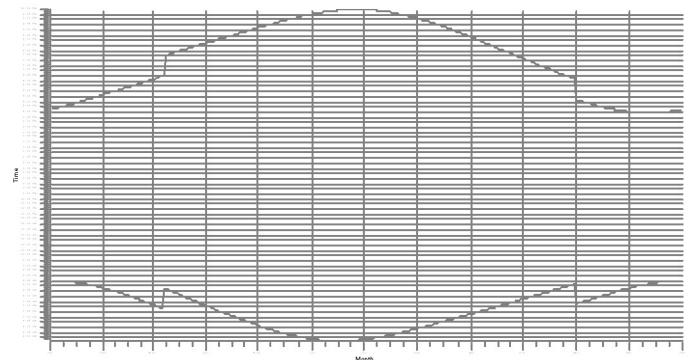
AB: 12 - Non-Participating



AC: 13 - Non-Participating

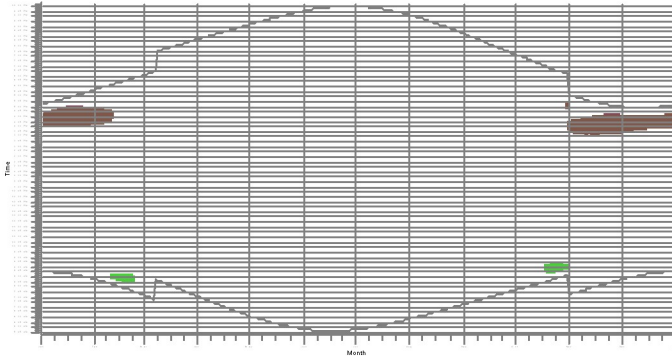


AD: 14 - Non-Participating

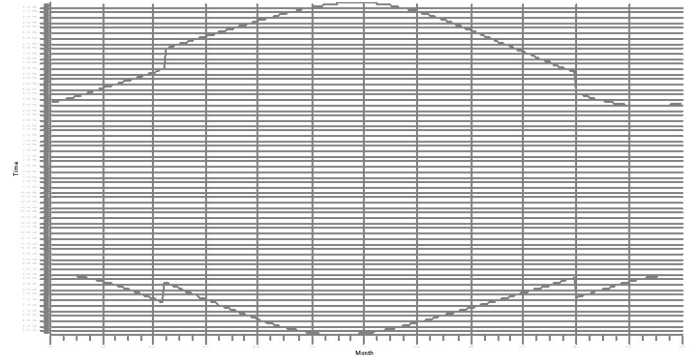


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

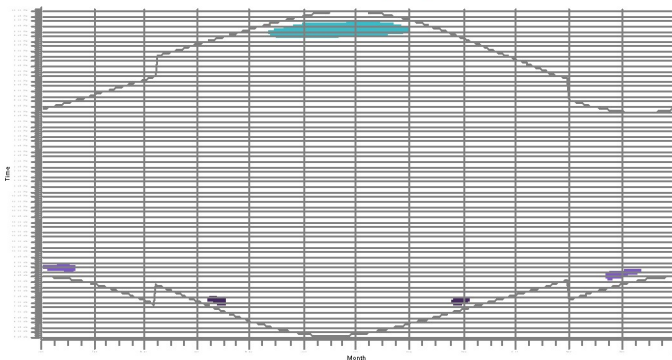
AE: 55 - Participating



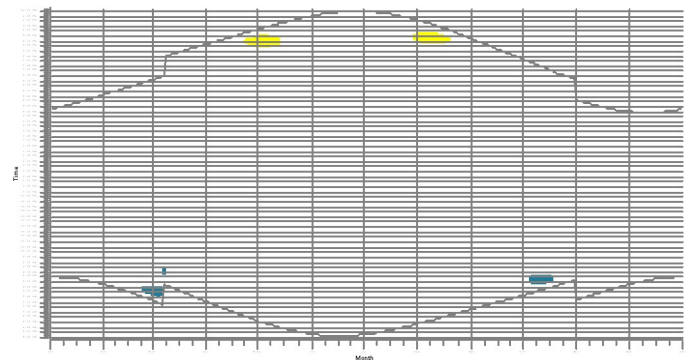
AF: 15 - Non-Participating



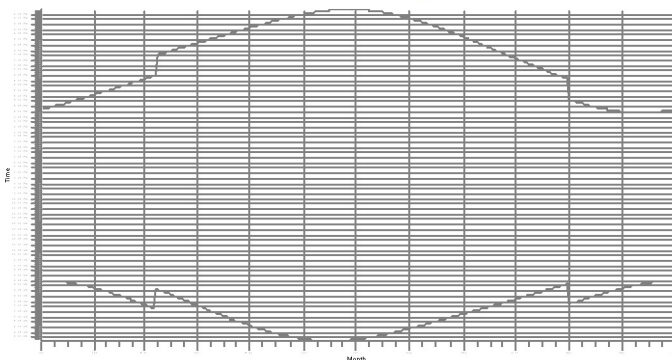
AG: 57 - Participating



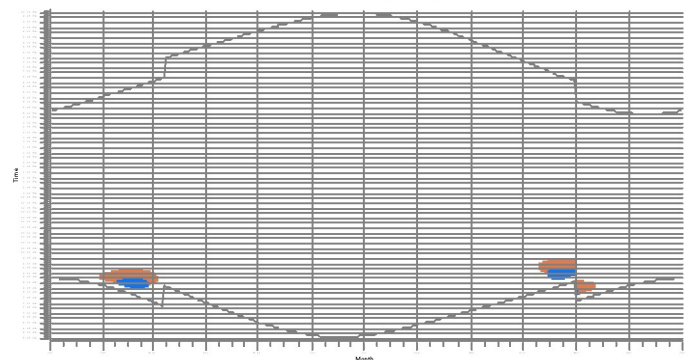
AH: 59 - Participating



AI: 61 - Participating

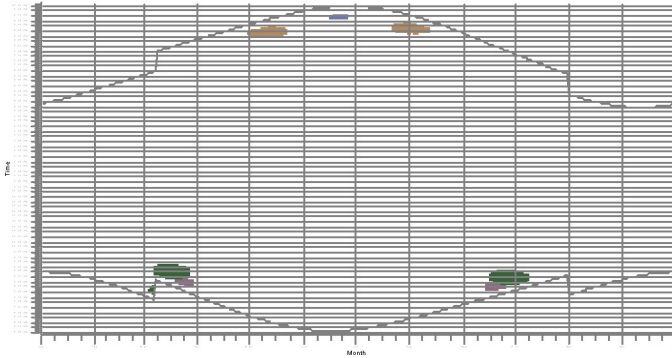


AJ: 62 - Participating

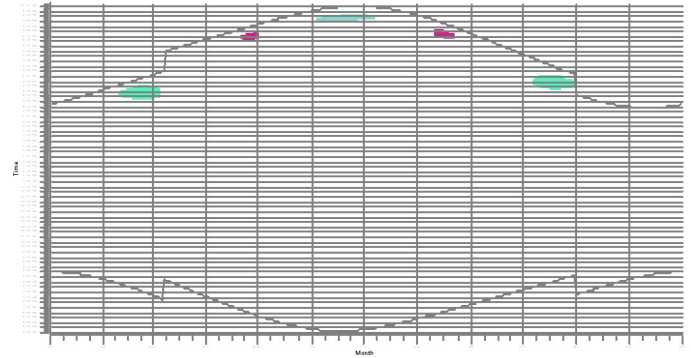


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

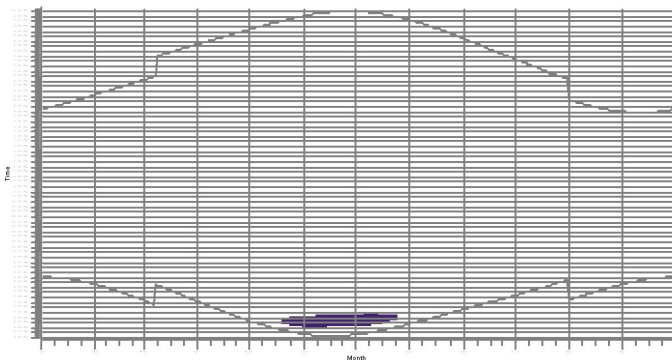
AK: 63 - Participating



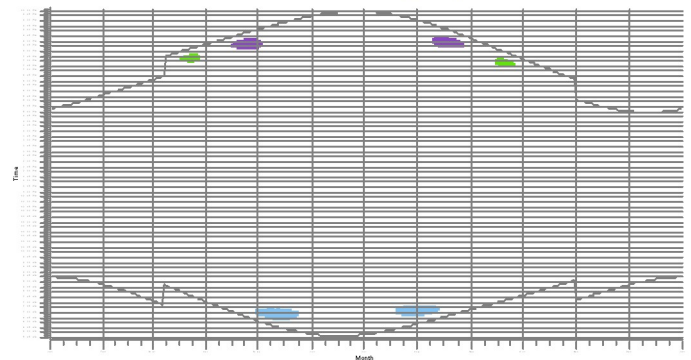
AL: 16 - Non-Participating



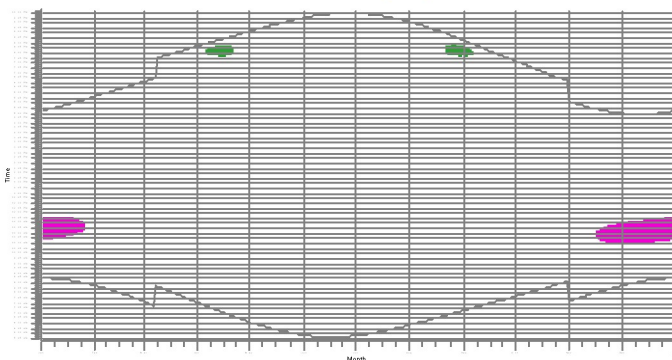
AM: 17 - Non-Participating



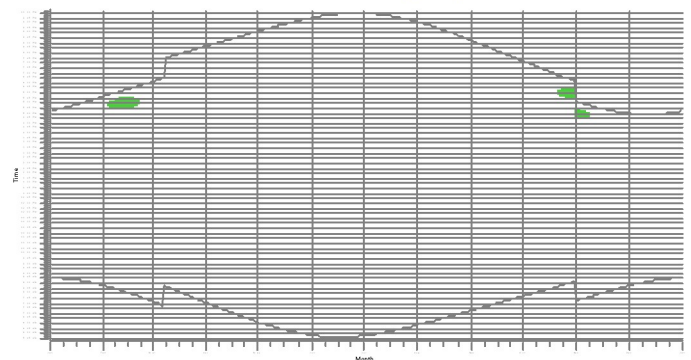
AN: 18 - Non-Participating



AO: 64 - Participating

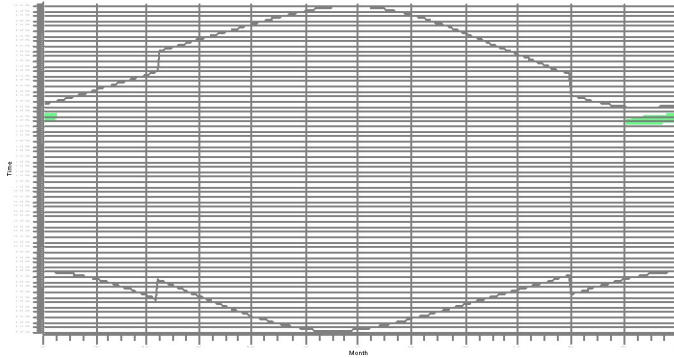


AP: 19 - Non-Participating

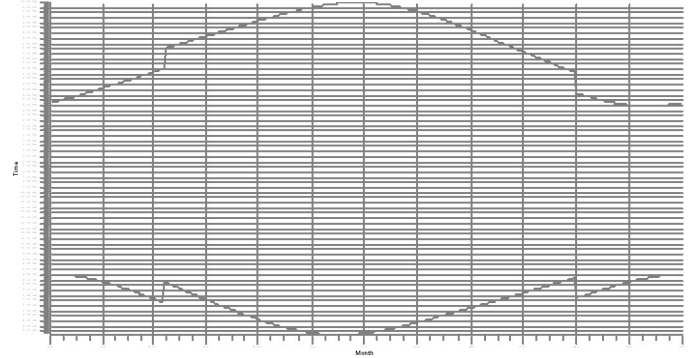


SHADOW - Calendar, graphical
 Calculation: V136 105m HH Shadow Flicker

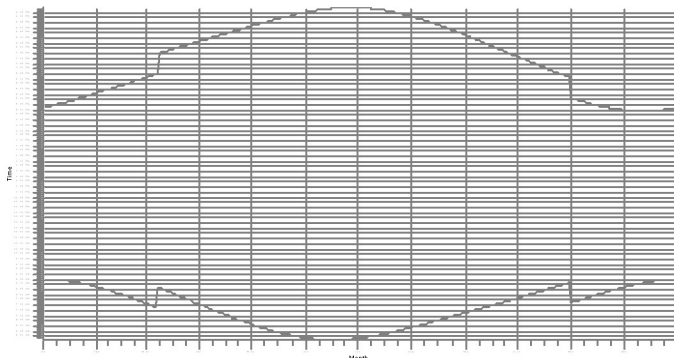
AQ: 20 - Non-Participating



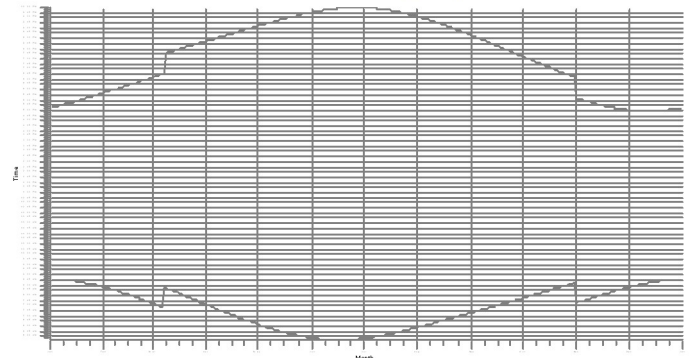
AR: 21 - Non-Participating



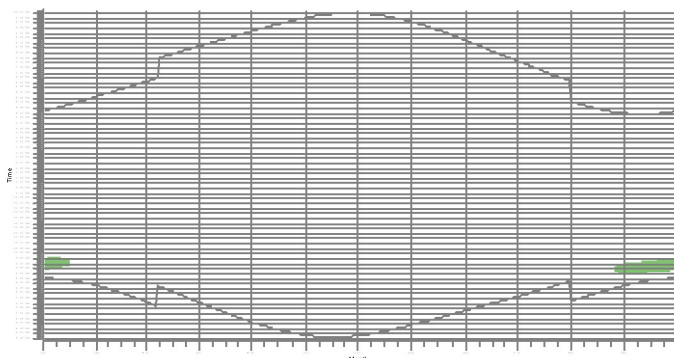
AS: 22 - Non-Participating



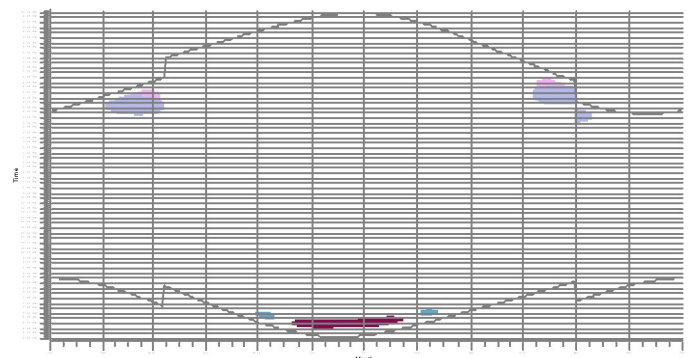
AT: 23 - Non-Participating



AU: 24 - Non-Participating



AV: 27 - Non-Participating



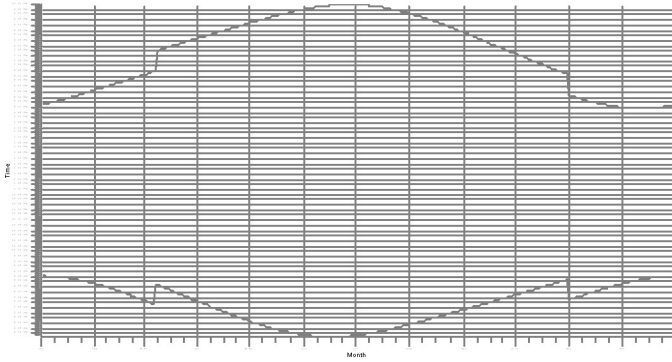
WFO: 0: 1.6 0: 1.6 114: 1.04 114: 1.04

171: 143346 V100 2000 100.0 00 Nub: 80.0 w (20): 120.0 w (20) 201: 143346 V100 2000 100.0 00 Nub: 80.0 w (20): 120.0 w (20)

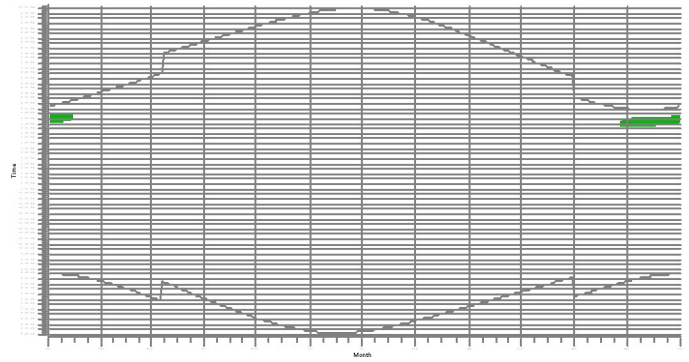
SHADOW - Calendar, graphical

Calculation: V136 105m HH Shadow Flicker

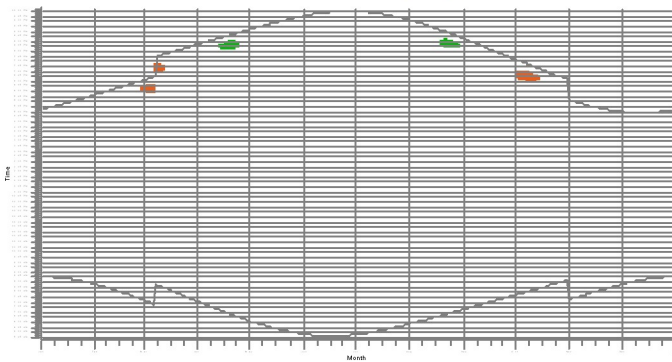
AW: 29 - Non-Participating



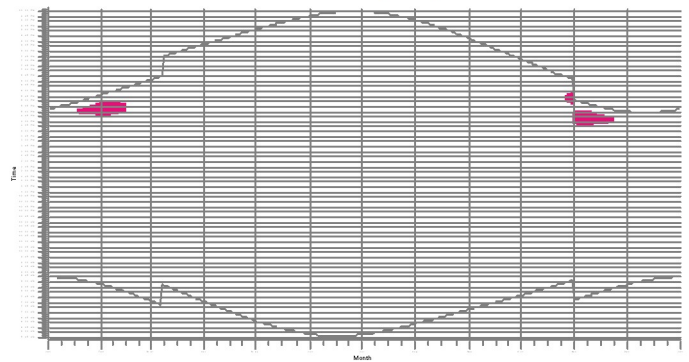
AX: 30 - Non-Participating



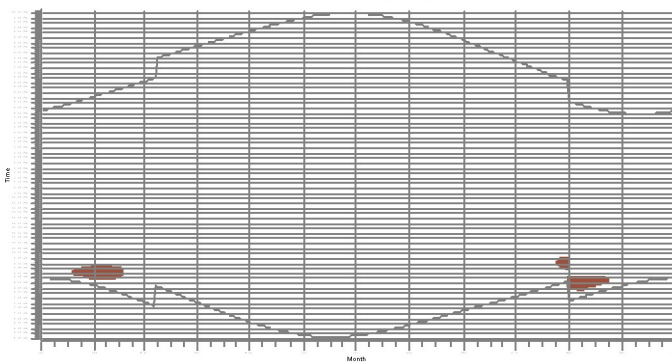
AY: 31 - Non-Participating



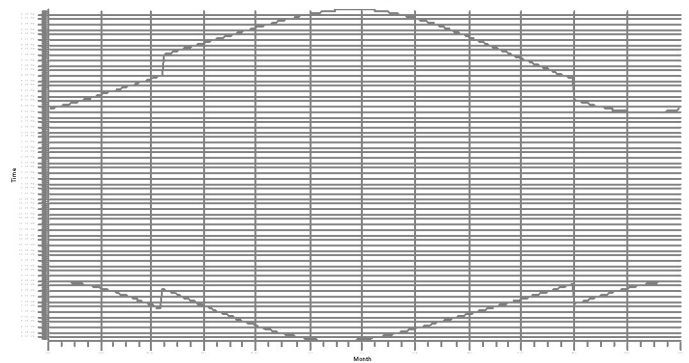
AZ: 66 - Participating



BA: 67 - Participating



BB: 68 - Participating

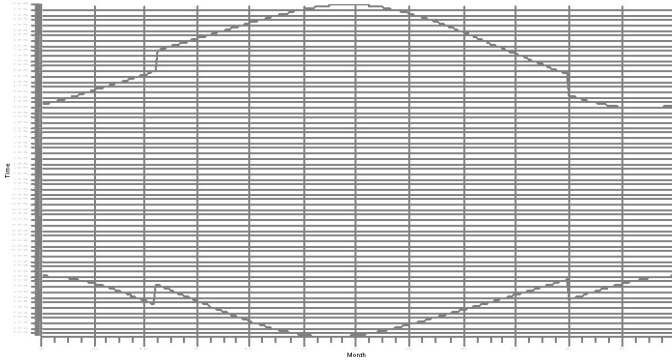


WFO: 40 1:25 40 1:16 40 1:24 100 1:02

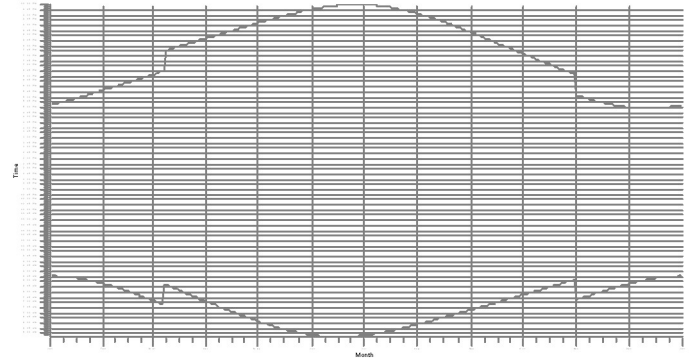
SHADOW - Calendar, graphical

Calculation: V136 105m HH Shadow Flicker

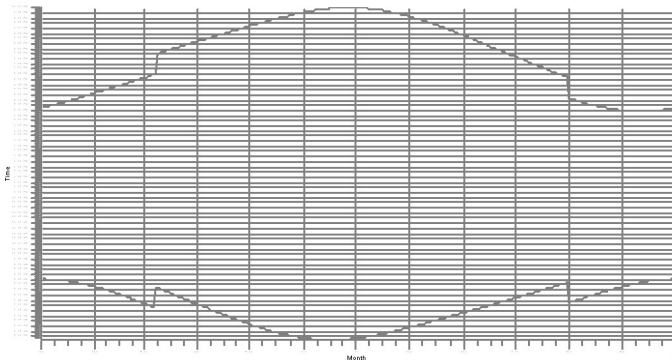
BC: 32 - Non-Participating



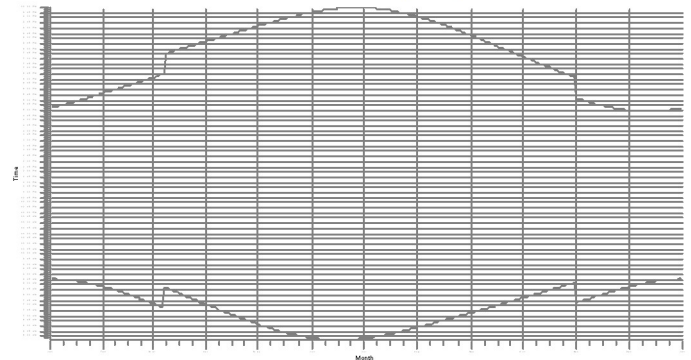
BD: 33 - Non-Participating



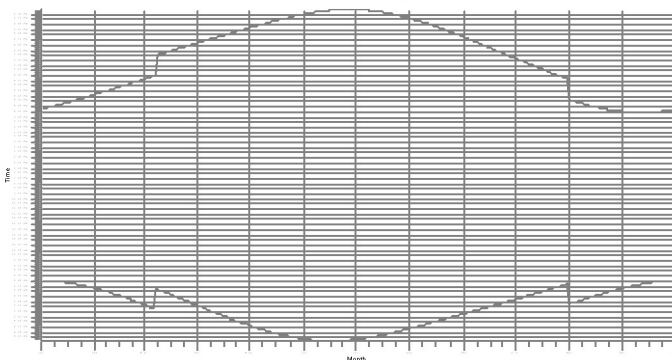
BE: 34 - Non-Participating



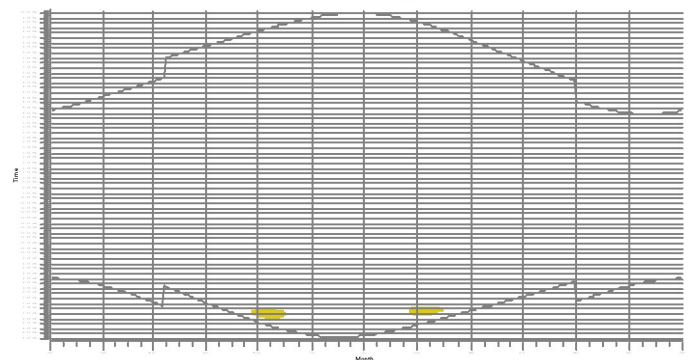
BF: 35 - Non-Participating



BG: 36 - Non-Participating



BH: 37 - Non-Participating



WFO
121.1-166

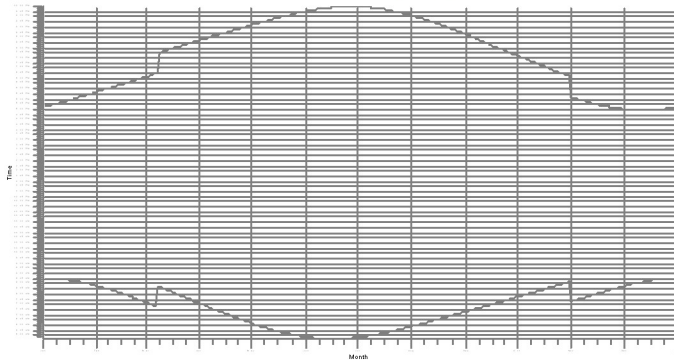
Project: Aurora
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 2:06 AM/3.0.654

SHADOW - Calendar, graphical

Calculation: V136 105m HH Shadow Flicker

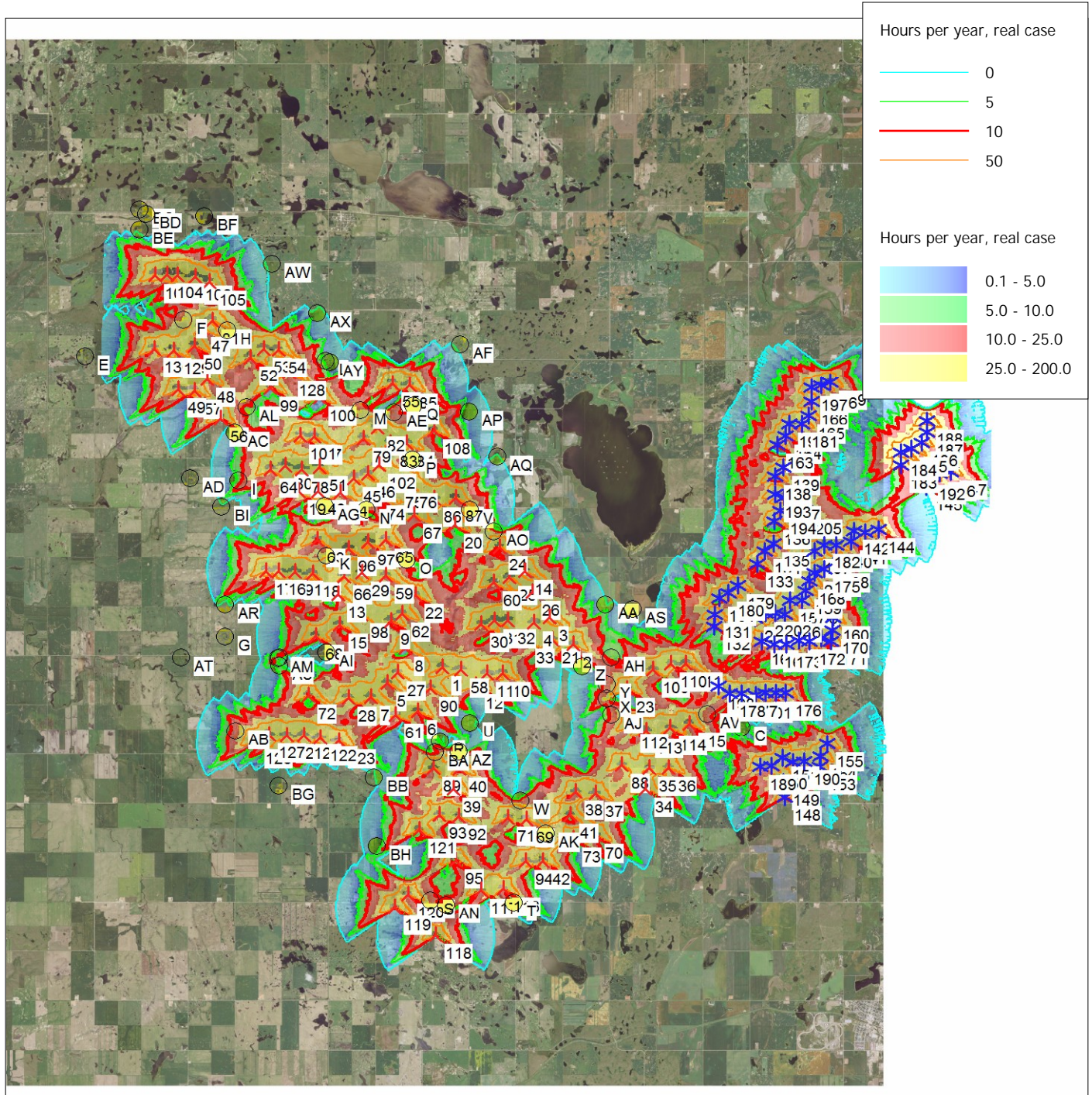
BI: 38 - Non-Participating



wf6

SHADOW - Map

Calculation: V136 105m HH Shadow Flicker



0 2.5 5 7.5 10km

Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 640,676 North: 5,375,910

▲ New WTG

★ Existing WTG

● Shadow receptor

Flicker map level: Height Contours: 150921_TWE_LindahIWest_10ftHCLsfrom10mNED.wpo (3)

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | | | | |
|----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
| | | | [m] | | | | | | | | |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | | | | |
|-----|---------|-----------|-------|--|----------|-----------|----------------|-------------------|--------------------|----------------|-----------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] |
| | | | [m] | | | | | | | | |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 111 | 645,966 | 5,373,838 | 730.1 | T-155 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 112 | 644,144 | 5,371,765 | 710.2 | T-156 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 113 | 644,660 | 5,371,616 | 715.4 | T-157 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 114 | 645,479 | 5,371,724 | 719.3 | T-158 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 115 | 646,127 | 5,371,875 | 717.1 | T-159 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 116 | 639,890 | 5,366,309 | 710.2 | T-160 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 117 | 639,135 | 5,366,239 | 709.0 | T-161 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 118 | 637,617 | 5,364,719 | 707.6 | T-162 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 119 | 636,191 | 5,365,609 | 711.4 | T-163 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 120 | 636,640 | 5,366,042 | 710.2 | T-164 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 121 | 636,954 | 5,368,164 | 711.3 | T-165 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 122 | 633,495 | 5,371,087 | 689.0 | T-166 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 123 | 634,130 | 5,371,006 | 696.6 | T-167 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | 10.5 |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

Table with columns: X(East), Y(North), Z, Row data/Description, WTG type (Valid, Manufact.), Type-generator, Power, Rotor diameter, Hub height, RPM. Rows 146-204 showing VESTAS V100 2000 turbine specifications.

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | RPM [RPM] | |
|-----|---------|-----------|-------|--|----------|-----------|-------------------|--------------------|----------------|-----------|----------------|
| | | | | | Valid | Manufact. | | | | | Type-generator |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 13... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | 14.9 |

Shadow receptor-Input

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|-------|---------------------|---------|-----------|-------|-------|--------|---------------|-----------------------|-----------------|--------------------|
| | | [m] | [m] | [m] | [m] | [m] | [m] | [°] | [°] | |
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| G 43 | - Participating | 630,148 | 5,374,326 | 691.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AE 55 | - Participating | 635,760 | 5,381,775 | 711.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AF 15 | - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AG 57 | - Participating | 633,480 | 5,378,691 | 739.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AH 59 | - Participating | 643,400 | 5,373,968 | 711.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AI 61 | - Participating | 633,645 | 5,373,895 | 713.7 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AJ 62 | - Participating | 643,453 | 5,372,097 | 716.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AK 63 | - Participating | 641,300 | 5,368,154 | 725.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AL 16 | - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AM 17 | - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AN 18 | - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AO 64 | - Participating | 639,268 | 5,377,996 | 720.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AP 19 | - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AQ 20 | - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AR 21 | - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AS 22 | - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AT 23 | - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AU 24 | - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AV 27 | - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| No. | Name | X(East) | Y(North) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|-------|---------------------|---------|-----------|-------|-------|--------|------------------|--------------------------|--------------------|--------------------|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AW 29 | - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AX 30 | - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AY 31 | - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| AZ 66 | - Participating | 638,244 | 5,370,747 | 710.8 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BA 67 | - Participating | 637,448 | 5,370,698 | 712.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BB 68 | - Participating | 635,378 | 5,369,828 | 692.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BC 32 | - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BD 33 | - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BE 34 | - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BF 35 | - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BG 36 | - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BH 37 | - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |
| BI 38 | - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.0 | 11.0 | 1.0 | 0.0 | 90.0 | "Green house mode" |

Calculation Results

Shadow receptor

| No. | Name | Shadow, worst case | | | Shadow, expected values |
|-------|---------------------|--------------------------------------|--|--|--------------------------------------|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] |
| A 1 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| B 39 | - Participating | 17:46 | 67 | 0:24 | 7:45 |
| C 2 | - Non-Participating | 7:15 | 48 | 0:14 | 2:46 |
| D 40 | - Participating | 35:25 | 61 | 0:53 | 12:36 |
| E 41 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| F 42 | - Participating | 73:56 | 160 | 0:47 | 26:09 |
| G 43 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| H 44 | - Participating | 70:29 | 158 | 0:57 | 26:26 |
| I 3 | - Non-Participating | 16:43 | 51 | 0:29 | 6:54 |
| J 4 | - Non-Participating | 19:30 | 60 | 0:25 | 8:05 |
| K 45 | - Participating | 132:56 | 209 | 1:20 | 45:09 |
| L 46 | - Participating | 12:46 | 55 | 0:24 | 4:43 |
| M 47 | - Participating | 76:04 | 174 | 0:49 | 26:44 |
| N 48 | - Participating | 32:54 | 139 | 0:27 | 14:14 |
| O 5 | - Non-Participating | 46:28 | 141 | 0:38 | 15:09 |
| P 49 | - Participating | 56:15 | 145 | 0:52 | 18:22 |
| Q 50 | - Participating | 31:23 | 94 | 0:30 | 9:43 |
| R 51 | - Participating | 13:20 | 62 | 0:18 | 6:40 |
| S 6 | - Non-Participating | 48:30 | 111 | 0:42 | 21:20 |
| T 52 | - Participating | 15:16 | 49 | 0:28 | 7:17 |
| U 7 | - Non-Participating | 3:50 | 22 | 0:16 | 1:41 |
| V 8 | - Non-Participating | 86:31 | 164 | 0:48 | 25:00 |
| W 9 | - Non-Participating | 62:59 | 117 | 1:06 | 17:43 |
| X 10 | - Non-Participating | 88:30 | 162 | 0:57 | 35:21 |
| Y 11 | - Non-Participating | 36:45 | 85 | 0:46 | 15:31 |
| Z 53 | - Participating | 3:18 | 22 | 0:15 | 1:10 |
| AA 54 | - Participating | 3:07 | 20 | 0:15 | 1:05 |
| AB 12 | - Non-Participating | 42:38 | 92 | 0:42 | 16:35 |
| AC 13 | - Non-Participating | 8:15 | 35 | 0:18 | 2:36 |
| AD 14 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| AE 55 | - Participating | 72:17 | 130 | 0:50 | 19:32 |
| AF 15 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 |
| AG 57 | - Participating | 43:11 | 135 | 0:34 | 20:27 |
| AH 59 | - Participating | 17:50 | 68 | 0:24 | 7:48 |
| AI 61 | - Participating | 0:00 | 0 | 0:00 | 0:00 |
| AJ 62 | - Participating | 35:14 | 61 | 0:53 | 12:33 |
| AK 63 | - Participating | 33:16 | 91 | 0:38 | 14:55 |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| No. | Name | Shadow, worst case | | | Shadow, expected values | |
|-------|---------------------|--------------------------------------|--|--|--------------------------------------|--|
| | | Shadow hours per year [h/year] | Shadow days per year [days/year] | Max shadow hours per day [h/day] | Shadow hours per year [h/year] | |
| AL 16 | - Non-Participating | 23:42 | 97 | 0:33 | 8:19 | |
| AM 17 | - Non-Participating | 20:33 | 64 | 0:24 | 8:33 | |
| AN 18 | - Non-Participating | 26:41 | 97 | 0:26 | 11:29 | |
| AO 64 | - Participating | 69:12 | 106 | 0:59 | 23:09 | |
| AP 19 | - Non-Participating | 9:18 | 35 | 0:25 | 2:45 | |
| AQ 20 | - Non-Participating | 8:35 | 38 | 0:16 | 2:07 | |
| AR 21 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AS 22 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AT 23 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AU 24 | - Non-Participating | 18:30 | 54 | 0:25 | 6:02 | |
| AV 27 | - Non-Participating | 58:48 | 144 | 1:07 | 19:45 | |
| AW 29 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| AX 30 | - Non-Participating | 12:08 | 50 | 0:18 | 3:07 | |
| AY 31 | - Non-Participating | 9:38 | 49 | 0:21 | 3:38 | |
| AZ 66 | - Participating | 19:36 | 54 | 0:33 | 5:28 | |
| BA 67 | - Participating | 26:00 | 71 | 0:34 | 8:39 | |
| BB 68 | - Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BC 32 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BD 33 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BE 34 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BF 35 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BG 36 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |
| BH 37 | - Non-Participating | 9:09 | 37 | 0:22 | 3:49 | |
| BI 38 | - Non-Participating | 0:00 | 0 | 0:00 | 0:00 | |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case | Expected |
|-----|------|------------|----------|
| | | [h/year] | [h/year] |
| 1 | T-43 | 0:00 | 0:00 |
| 2 | T-41 | 11:58 | 5:35 |
| 3 | T-63 | 3:07 | 1:05 |
| 4 | T-62 | 0:00 | 0:00 |
| 5 | T-45 | 0:00 | 0:00 |
| 6 | T-35 | 3:50 | 1:41 |
| 7 | T-47 | 0:00 | 0:00 |
| 8 | T-56 | 0:00 | 0:00 |
| 9 | T-55 | 0:00 | 0:00 |
| 10 | T-39 | 0:00 | 0:00 |
| 11 | T-38 | 0:00 | 0:00 |
| 12 | T-37 | 0:00 | 0:00 |
| 13 | T-70 | 0:00 | 0:00 |
| 14 | T-77 | 0:00 | 0:00 |
| 15 | T-53 | 0:00 | 0:00 |
| 16 | T-67 | 3:40 | 1:11 |
| 17 | T-66 | 0:00 | 0:00 |
| 18 | T-69 | 34:46 | 10:14 |
| 19 | T-93 | 35:13 | 17:31 |
| 20 | T-80 | 77:48 | 21:41 |
| 21 | T-58 | 0:00 | 0:00 |
| 22 | T-73 | 0:00 | 0:00 |
| 23 | T-28 | 90:48 | 38:02 |
| 24 | T-78 | 63:12 | 20:06 |
| 25 | T-76 | 0:00 | 0:00 |
| 26 | T-79 | 0:00 | 0:00 |
| 27 | T-46 | 0:00 | 0:00 |
| 28 | T-57 | 0:00 | 0:00 |
| 29 | T-71 | 12:11 | 4:03 |

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Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 5:45 AM/3.0.654

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|-------|------------------------|----------------------|
| 30 | T-59 | 0:00 | 0:00 |
| 31 | T-60 | 0:00 | 0:00 |
| 32 | T-61 | 0:00 | 0:00 |
| 33 | T-40 | 0:00 | 0:00 |
| 34 | T-15 | 0:00 | 0:00 |
| 35 | T-16 | 0:00 | 0:00 |
| 36 | T-17 | 0:00 | 0:00 |
| 37 | T-12 | 0:00 | 0:00 |
| 38 | T-13 | 3:08 | 1:16 |
| 39 | T-26 | 0:00 | 0:00 |
| 40 | T-25 | 22:40 | 7:46 |
| 41 | T-10 | 3:54 | 1:29 |
| 42 | T-8 | 0:00 | 0:00 |
| 43 | T-94 | 5:50 | 2:47 |
| 44 | T-95 | 7:36 | 3:29 |
| 45 | T-96 | 0:00 | 0:00 |
| 46 | T-121 | 5:36 | 1:51 |
| 47 | T-142 | 61:06 | 24:32 |
| 48 | T-131 | 2:45 | 1:21 |
| 49 | T-129 | 0:00 | 0:00 |
| 50 | T-141 | 11:26 | 3:45 |
| 51 | T-123 | 0:00 | 0:00 |
| 52 | T-144 | 15:30 | 4:58 |
| 53 | T-145 | 7:57 | 2:38 |
| 54 | T-146 | 19:52 | 6:09 |
| 55 | T-122 | 0:00 | 0:00 |
| 56 | T-117 | 17:51 | 5:38 |
| 57 | T-130 | 3:06 | 1:22 |
| 58 | T-44 | 0:00 | 0:00 |
| 59 | T-72 | 31:24 | 8:38 |
| 60 | T-75 | 0:00 | 0:00 |
| 61 | T-34 | 13:20 | 6:40 |
| 62 | T-74 | 0:00 | 0:00 |
| 63 | T-81 | 3:30 | 0:57 |
| 64 | T-98 | 24:46 | 9:26 |
| 65 | T-85 | 0:00 | 0:00 |
| 66 | T-86 | 34:06 | 10:08 |
| 67 | T-87 | 6:13 | 2:41 |
| 68 | T-51 | 21:53 | 9:05 |
| 69 | T-23 | 4:01 | 1:01 |
| 70 | T-11 | 3:51 | 1:41 |
| 71 | T-22 | 63:20 | 19:30 |
| 72 | T-5 | 18:30 | 6:02 |
| 73 | T-9 | 18:01 | 7:43 |
| 74 | T-90 | 13:11 | 3:55 |
| 75 | T-91 | 13:29 | 3:36 |
| 76 | T-92 | 12:30 | 5:29 |
| 77 | T-106 | 4:58 | 1:25 |
| 78 | T-100 | 0:00 | 0:00 |
| 79 | T-107 | 29:10 | 9:02 |
| 80 | T-99 | 5:46 | 2:19 |
| 81 | T-143 | 22:22 | 9:54 |
| 82 | T-108 | 125:00 | 36:49 |
| 83 | T-109 | 10:14 | 3:15 |
| 84 | T-110 | 4:15 | 1:27 |
| 85 | T-124 | 5:06 | 2:08 |
| 86 | T-88 | 11:58 | 5:29 |
| 87 | T-89 | 17:58 | 4:57 |
| 88 | T-14 | 0:00 | 0:00 |
| 89 | T-24 | 22:56 | 6:22 |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

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| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 90 | T-42 | 0:00 | 0:00 |
| 91 | T-68 | 11:05 | 3:30 |
| 92 | T-21 | 0:00 | 0:00 |
| 93 | T-20 | 0:00 | 0:00 |
| 94 | T-19 | 0:00 | 0:00 |
| 95 | T-18 | 0:00 | 0:00 |
| 96 | T-83 | 41:28 | 17:22 |
| 97 | T-84 | 22:36 | 9:48 |
| 98 | T-54 | 0:00 | 0:00 |
| 99 | T-118 | 0:00 | 0:00 |
| 100 | T-120 | 8:16 | 3:44 |
| 101 | T-105 | 0:00 | 0:00 |
| 102 | T-97 | 11:48 | 4:44 |
| 103 | T-147 | 0:00 | 0:00 |
| 104 | T-148 | 0:00 | 0:00 |
| 105 | T-149 | 0:00 | 0:00 |
| 106 | T-150 | 0:00 | 0:00 |
| 107 | T-151 | 0:00 | 0:00 |
| 108 | T-152 | 35:53 | 11:33 |
| 109 | T-153 | 20:27 | 8:14 |
| 110 | T-154 | 0:00 | 0:00 |
| 111 | T-155 | 0:00 | 0:00 |
| 112 | T-156 | 49:14 | 16:57 |
| 113 | T-157 | 16:28 | 5:49 |
| 114 | T-158 | 8:06 | 2:32 |
| 115 | T-159 | 39:30 | 12:33 |
| 116 | T-160 | 0:00 | 0:00 |
| 117 | T-161 | 33:07 | 14:48 |
| 118 | T-162 | 0:00 | 0:00 |
| 119 | T-163 | 12:15 | 4:48 |
| 120 | T-164 | 35:54 | 16:26 |
| 121 | T-165 | 9:09 | 3:49 |
| 122 | T-166 | 0:00 | 0:00 |
| 123 | T-167 | 0:00 | 0:00 |
| 124 | T-168 | 3:41 | 1:37 |
| 125 | T-169 | 0:00 | 0:00 |
| 126 | T-170 | 31:09 | 11:30 |
| 127 | T-171 | 11:27 | 5:01 |
| 128 | T-172 | 12:03 | 4:03 |
| 129 | T-173 | 2:40 | 0:51 |
| 130 | T-174 | 20:17 | 5:08 |
| 131 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (1) | 0:00 | 0:00 |
| 132 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (2) | 0:00 | 0:00 |
| 133 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (3) | 0:00 | 0:00 |
| 134 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (4) | 0:00 | 0:00 |
| 135 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (5) | 0:00 | 0:00 |
| 136 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (6) | 0:00 | 0:00 |
| 137 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (7) | 0:00 | 0:00 |
| 138 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (8) | 0:00 | 0:00 |
| 139 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (9) | 0:00 | 0:00 |
| 140 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (10) | 0:00 | 0:00 |
| 141 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (11) | 0:00 | 0:00 |
| 142 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (12) | 0:00 | 0:00 |
| 143 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (13) | 0:00 | 0:00 |
| 144 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (14) | 0:00 | 0:00 |
| 145 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (15) | 0:00 | 0:00 |
| 146 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (16) | 0:00 | 0:00 |
| 147 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (17) | 0:00 | 0:00 |
| 148 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (18) | 0:00 | 0:00 |
| 149 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (19) | 0:00 | 0:00 |

To be continued on next page...

SHADOW - Main Result

Calculation: SG132-3.465 114m HH Shadow Flicker

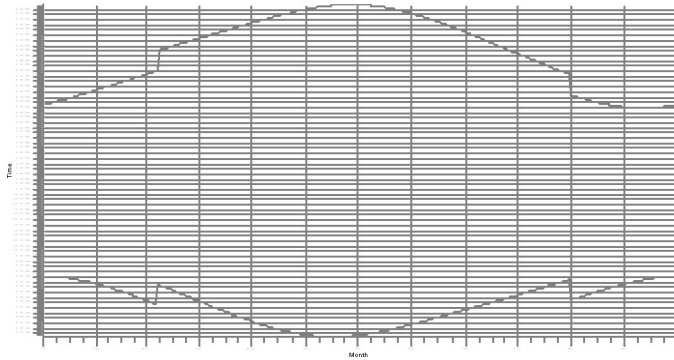
...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|-----|--|------------------------|----------------------|
| 150 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (20) | 0:00 | 0:00 |
| 151 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (21) | 4:06 | 1:25 |
| 152 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (22) | 0:00 | 0:00 |
| 153 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (23) | 0:00 | 0:00 |
| 154 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (24) | 0:00 | 0:00 |
| 155 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (25) | 0:00 | 0:00 |
| 156 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (26) | 0:00 | 0:00 |
| 157 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (27) | 0:00 | 0:00 |
| 158 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (28) | 0:00 | 0:00 |
| 159 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (29) | 0:00 | 0:00 |
| 160 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (30) | 0:00 | 0:00 |
| 161 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (31) | 0:00 | 0:00 |
| 162 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (32) | 0:00 | 0:00 |
| 163 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (33) | 0:00 | 0:00 |
| 164 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (34) | 0:00 | 0:00 |
| 165 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (35) | 0:00 | 0:00 |
| 166 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (36) | 0:00 | 0:00 |
| 167 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (37) | 0:00 | 0:00 |
| 168 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (38) | 0:00 | 0:00 |
| 169 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (39) | 0:00 | 0:00 |
| 170 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (40) | 0:00 | 0:00 |
| 171 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (41) | 0:00 | 0:00 |
| 172 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (42) | 0:00 | 0:00 |
| 173 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (43) | 0:00 | 0:00 |
| 174 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (44) | 0:00 | 0:00 |
| 175 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (45) | 0:00 | 0:00 |
| 176 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (46) | 0:00 | 0:00 |
| 177 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (47) | 12:37 | 5:15 |
| 178 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (48) | 0:00 | 0:00 |
| 179 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (49) | 0:00 | 0:00 |
| 180 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (50) | 0:00 | 0:00 |
| 181 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (51) | 0:00 | 0:00 |
| 182 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (52) | 0:00 | 0:00 |
| 183 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (53) | 0:00 | 0:00 |
| 184 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (54) | 0:00 | 0:00 |
| 185 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (55) | 0:00 | 0:00 |
| 186 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (56) | 0:00 | 0:00 |
| 187 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (57) | 0:00 | 0:00 |
| 188 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (58) | 0:00 | 0:00 |
| 189 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (59) | 0:00 | 0:00 |
| 190 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (60) | 0:00 | 0:00 |
| 191 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (61) | 0:00 | 0:00 |
| 192 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (62) | 0:00 | 0:00 |
| 193 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (63) | 0:00 | 0:00 |
| 194 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (64) | 0:00 | 0:00 |
| 195 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (65) | 0:00 | 0:00 |
| 196 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (66) | 0:00 | 0:00 |
| 197 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (67) | 0:00 | 0:00 |
| 198 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (68) | 0:00 | 0:00 |
| 199 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (69) | 0:00 | 0:00 |
| 200 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (70) | 0:00 | 0:00 |
| 201 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (71) | 1:44 | 0:43 |
| 202 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (72) | 0:00 | 0:00 |
| 203 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (73) | 0:00 | 0:00 |
| 204 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (74) | 0:00 | 0:00 |
| 205 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (75) | 0:00 | 0:00 |
| 206 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (76) | 0:00 | 0:00 |
| 207 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (77) | 0:00 | 0:00 |
| 208 | VESTAS V100 2000 100.0 !O! hub: 80.0 m (TOT: 130.0 m) (78) | 0:00 | 0:00 |

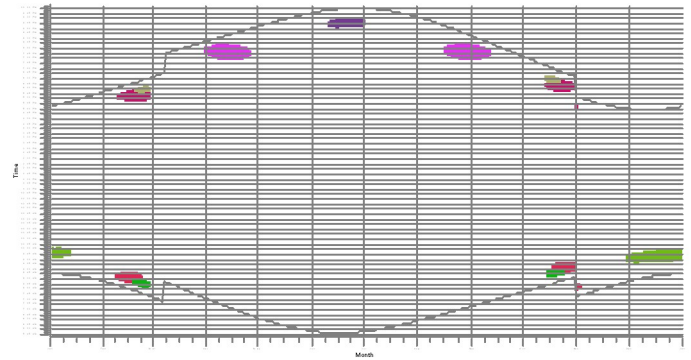
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

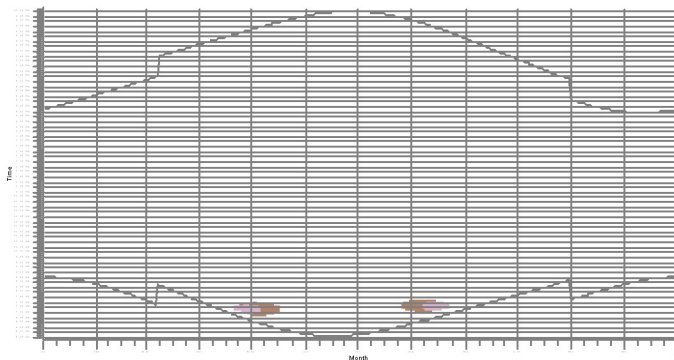
G: 43 - Participating



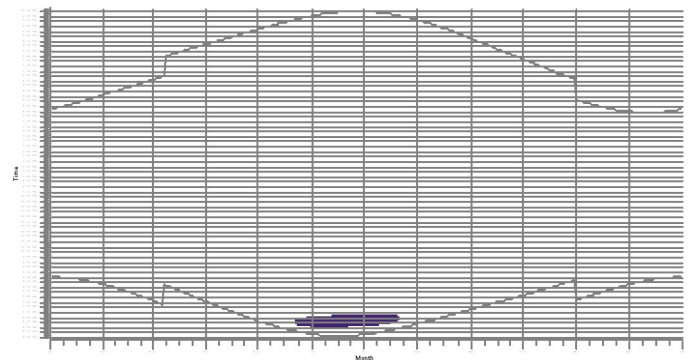
H: 44 - Participating



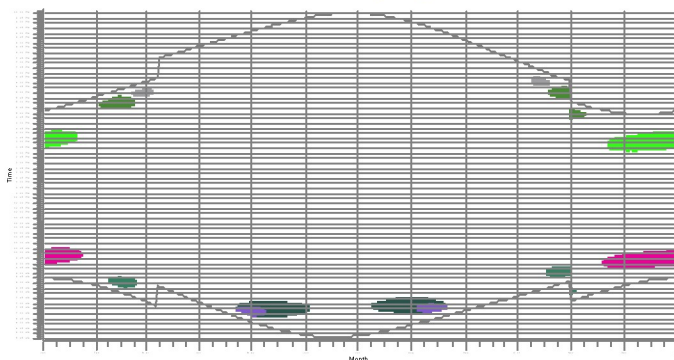
I: 3 - Non-Participating



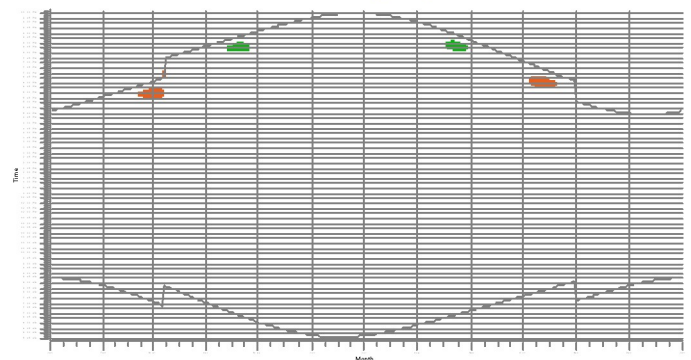
J: 4 - Non-Participating



K: 45 - Participating



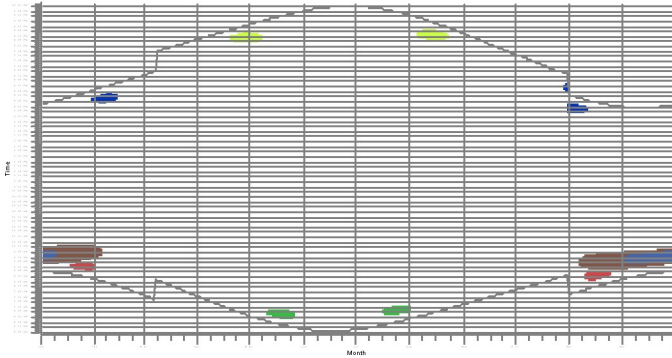
L: 46 - Participating



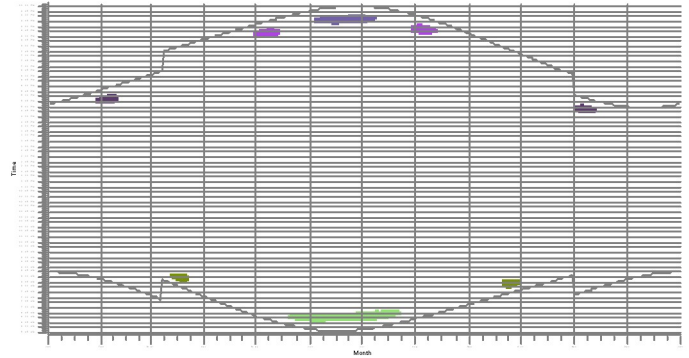
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

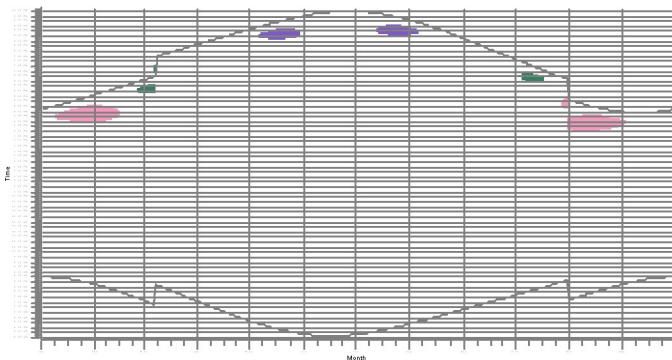
M: 47 - Participating



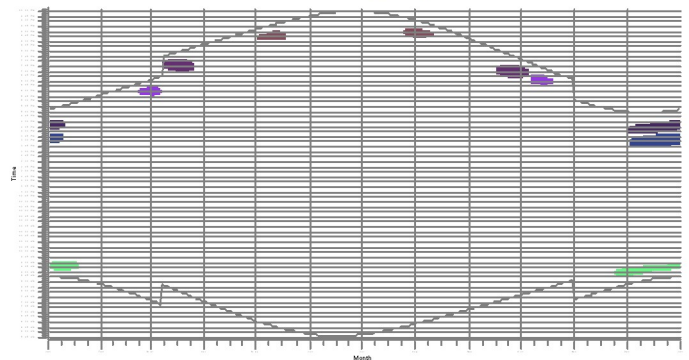
N: 48 - Participating



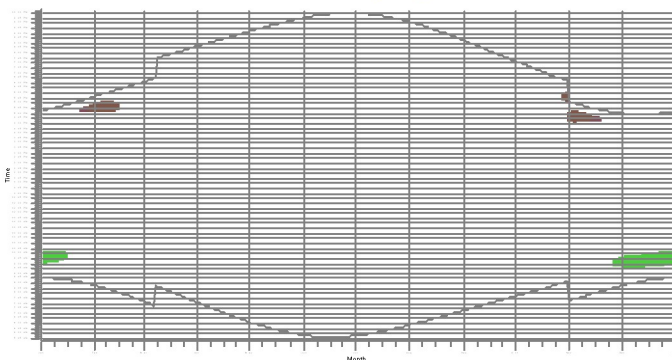
O: 5 - Non-Participating



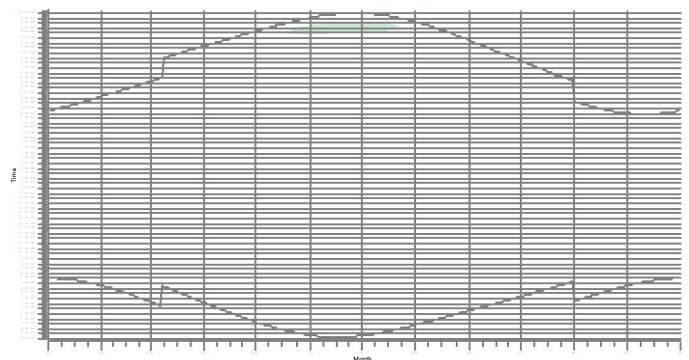
P: 49 - Participating



Q: 50 - Participating



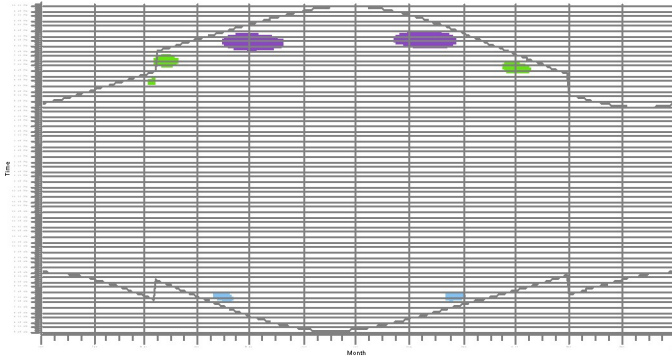
R: 51 - Participating



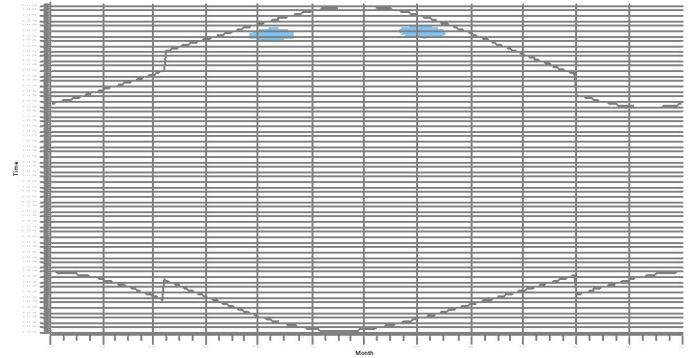
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

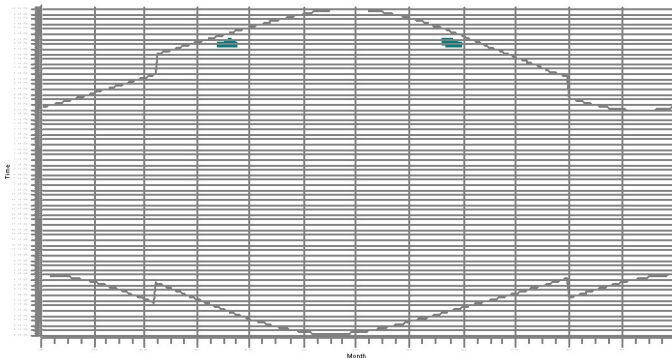
S: 6 - Non-Participating



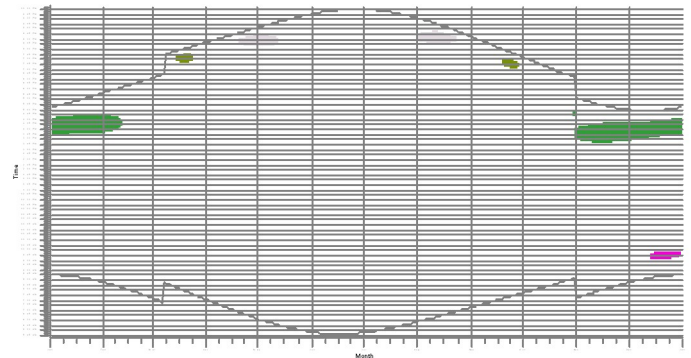
T: 52 - Participating



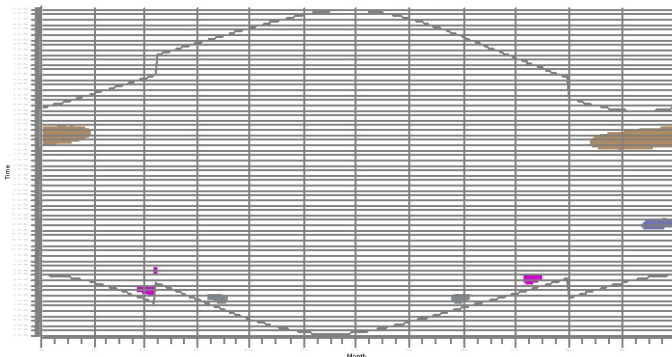
U: 7 - Non-Participating



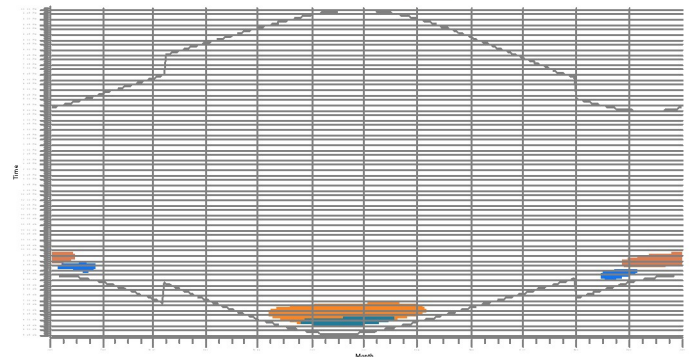
V: 8 - Non-Participating



W: 9 - Non-Participating

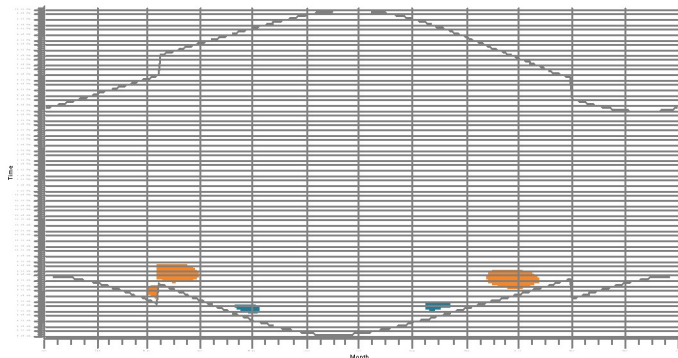


X: 10 - Non-Participating

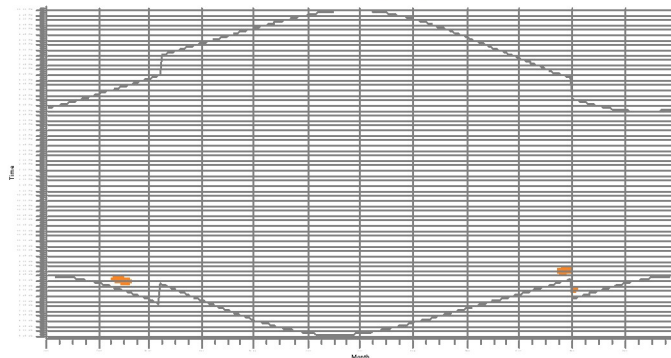


SHADOW - Calendar, graphical
 Calculation: SG132-3.465 114m HH Shadow Flicker

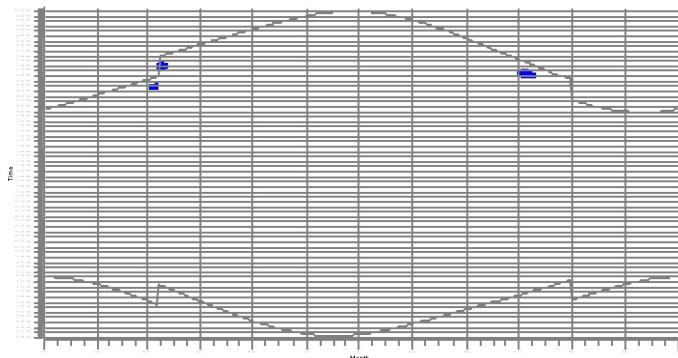
Y: 11 - Non-Participating



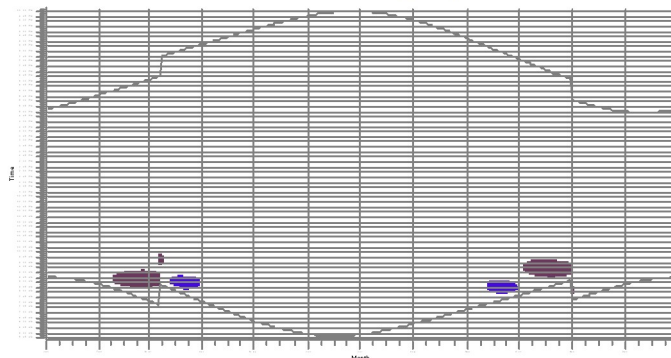
Z: 53 - Participating



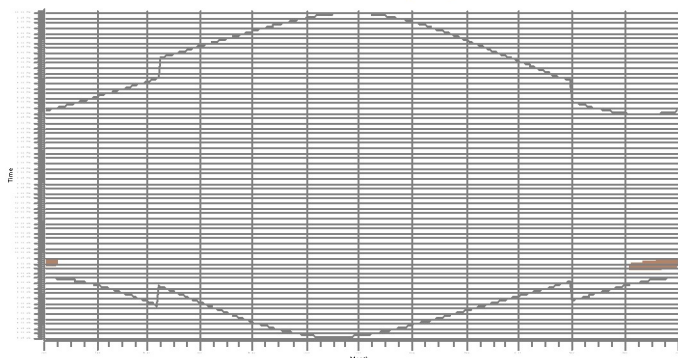
AA: 54 - Participating



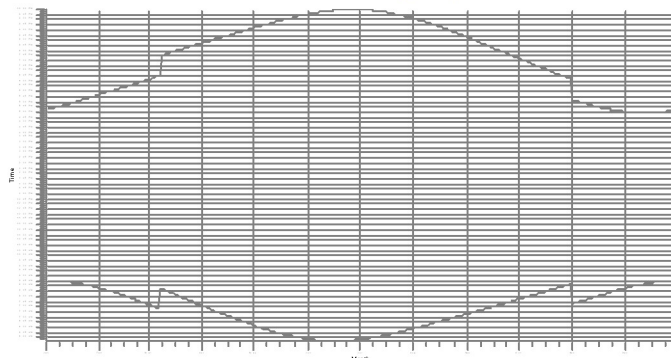
AB: 12 - Non-Participating



AC: 13 - Non-Participating



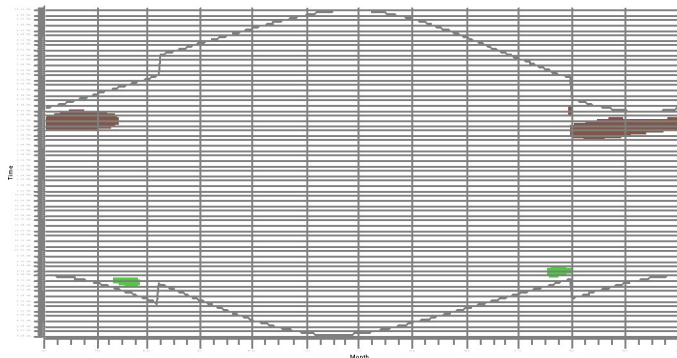
AD: 14 - Non-Participating



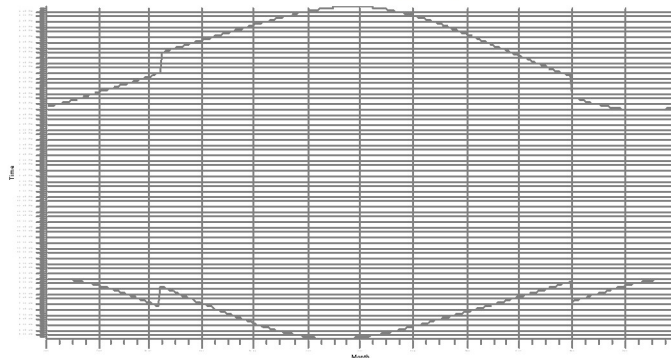
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

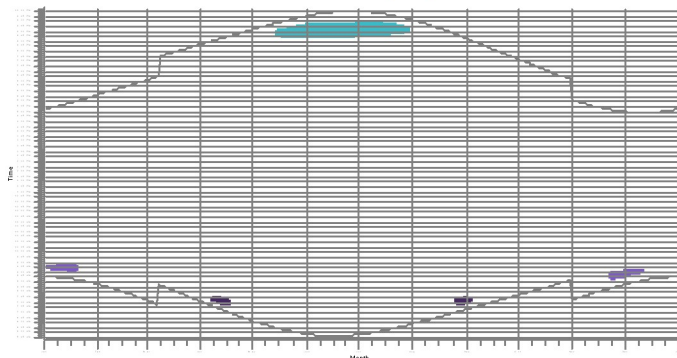
AE: 55 - Participating



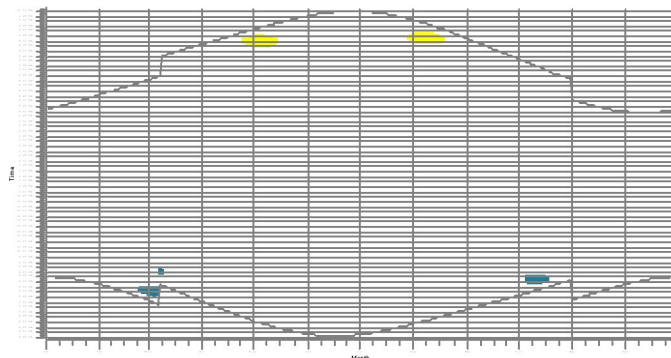
AF: 15 - Non-Participating



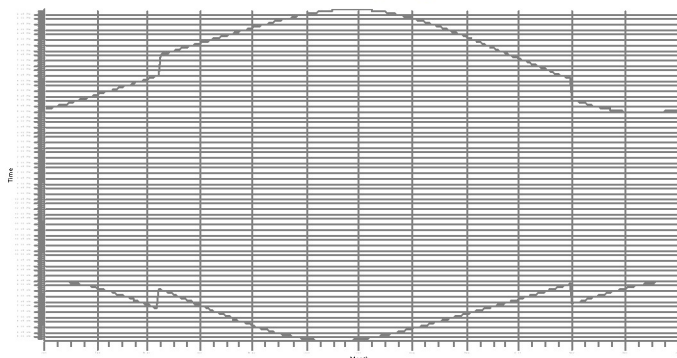
AG: 57 - Participating



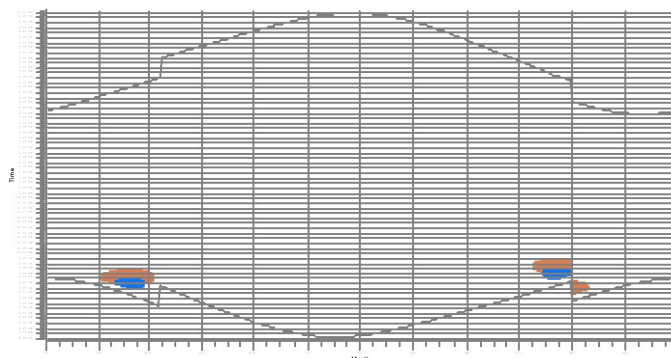
AH: 59 - Participating



AI: 61 - Participating



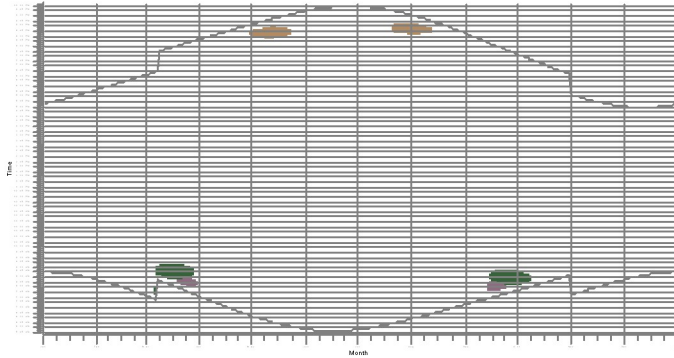
AJ: 62 - Participating



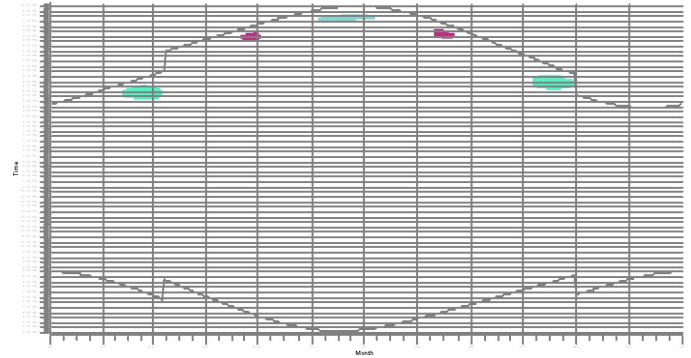
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

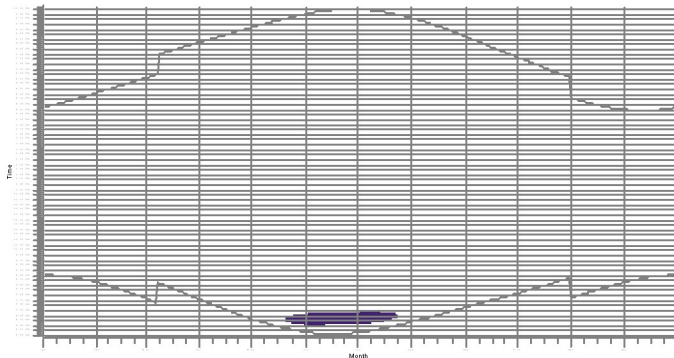
AK: 63 - Participating



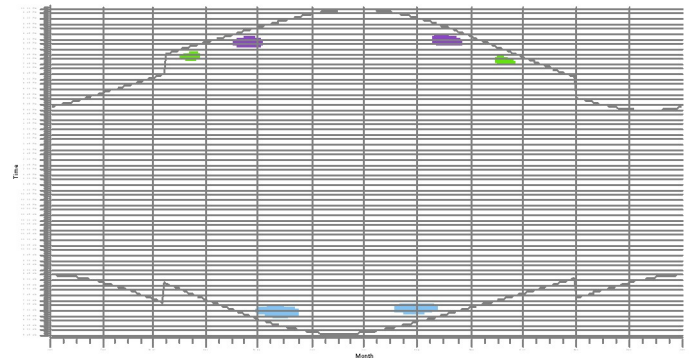
AL: 16 - Non-Participating



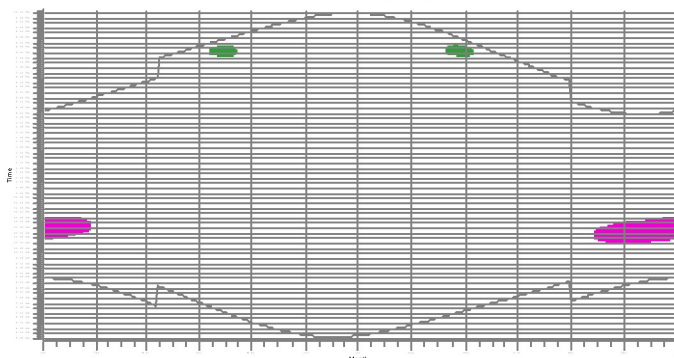
AM: 17 - Non-Participating



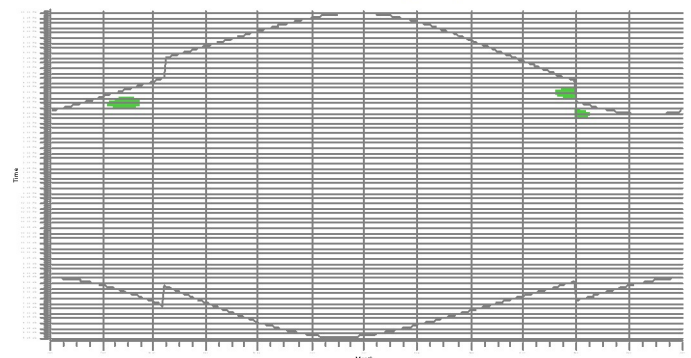
AN: 18 - Non-Participating



AO: 64 - Participating



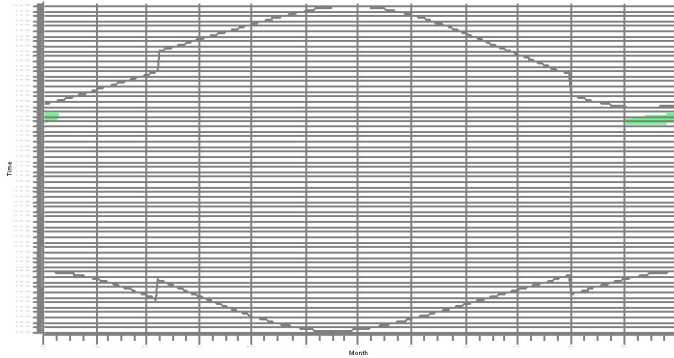
AP: 19 - Non-Participating



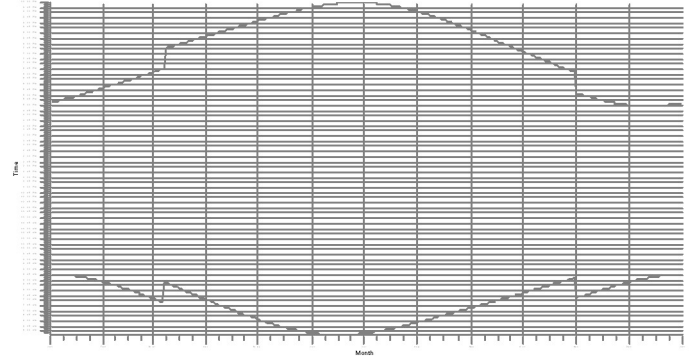
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

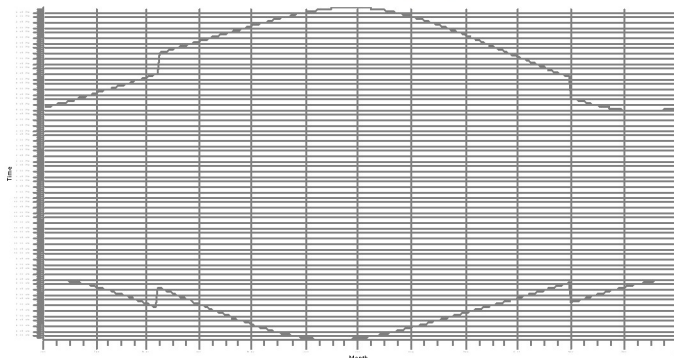
AQ: 20 - Non-Participating



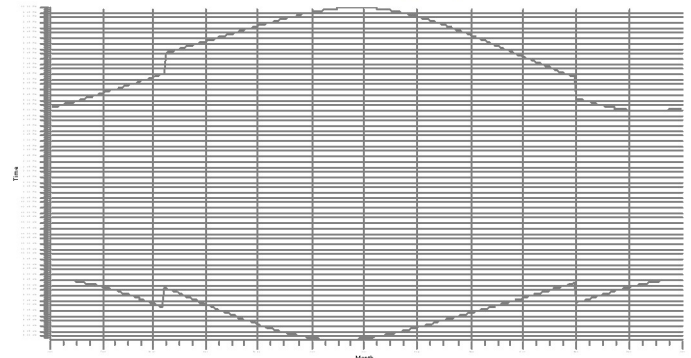
AR: 21 - Non-Participating



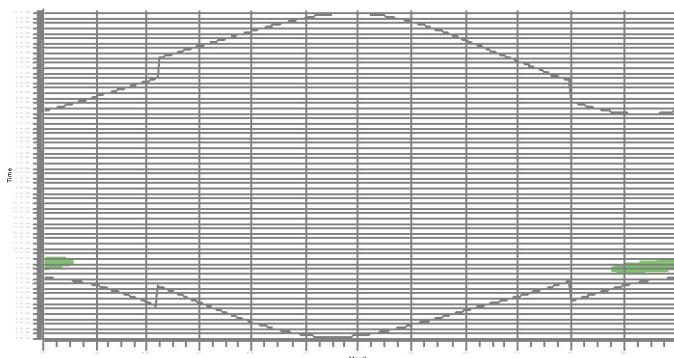
AS: 22 - Non-Participating



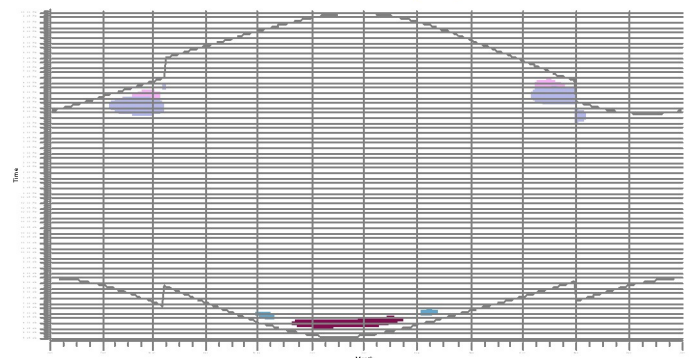
AT: 23 - Non-Participating



AU: 24 - Non-Participating



AV: 27 - Non-Participating

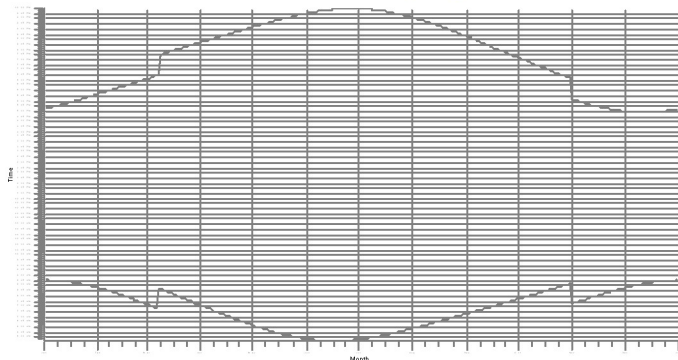


WPA: 0.1 1.0 114.1 116.1

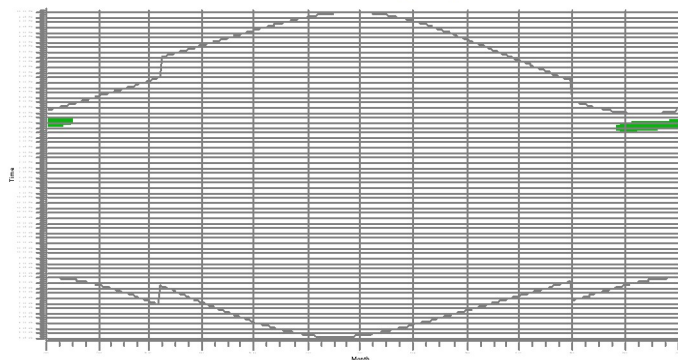
171: 145346 V100 2000 100.0 00 Nub: 80.0 w (20): 120.0 hg (27) 201: 145346 V100 2000 100.0 00 Nub: 80.0 w (20): 120.0 hg (27)

SHADOW - Calendar, graphical
 Calculation: SG132-3.465 114m HH Shadow Flicker

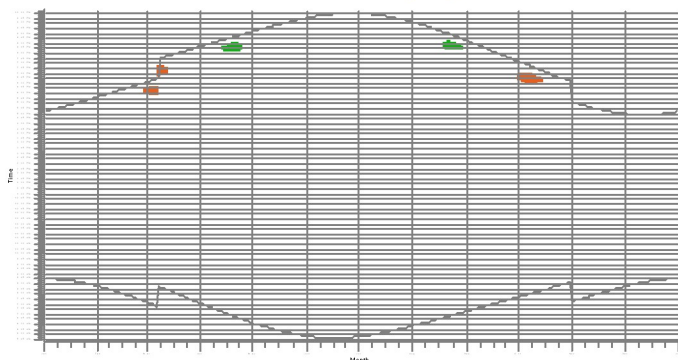
AW: 29 - Non-Participating



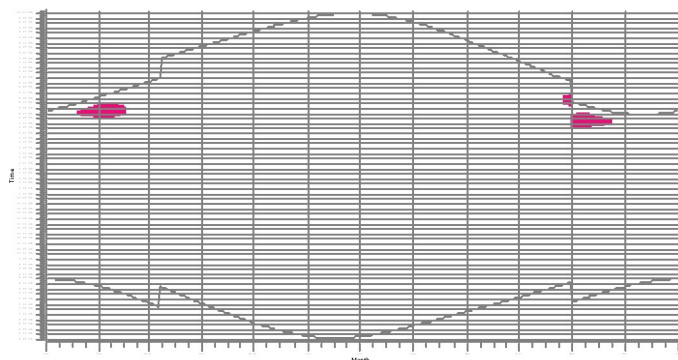
AX: 30 - Non-Participating



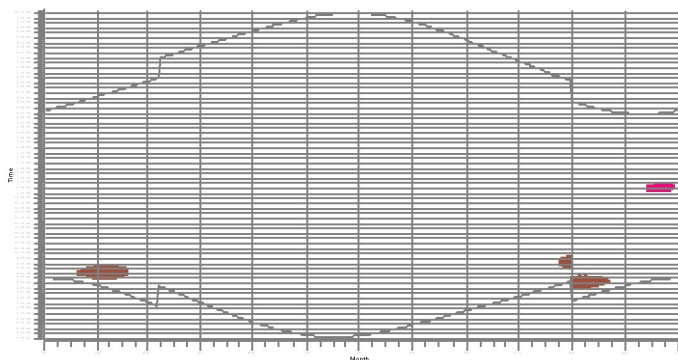
AY: 31 - Non-Participating



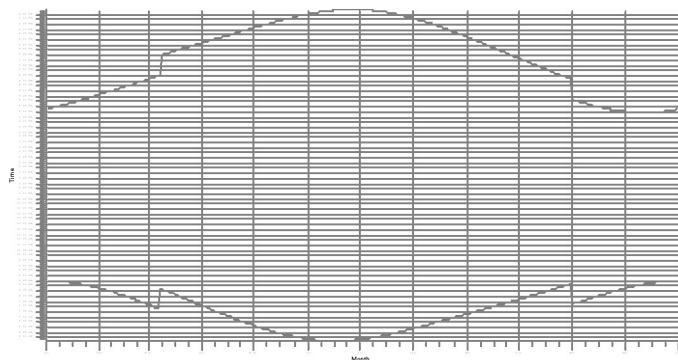
AZ: 66 - Participating



BA: 67 - Participating



BB: 68 - Participating

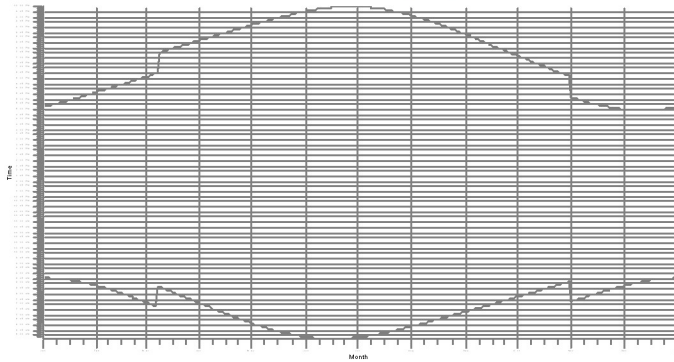


WFO: 40 1:25 40 1:14 40 1:24 100 1:02

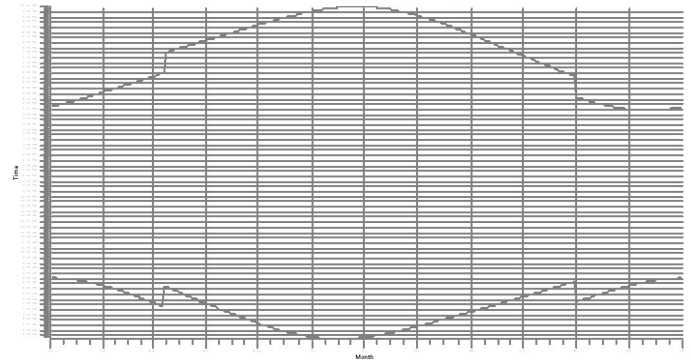
SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

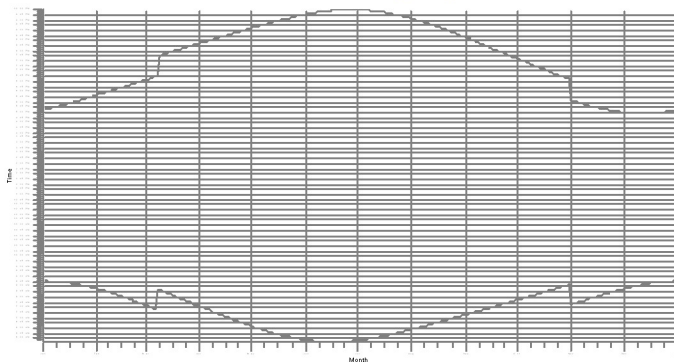
BC: 32 - Non-Participating



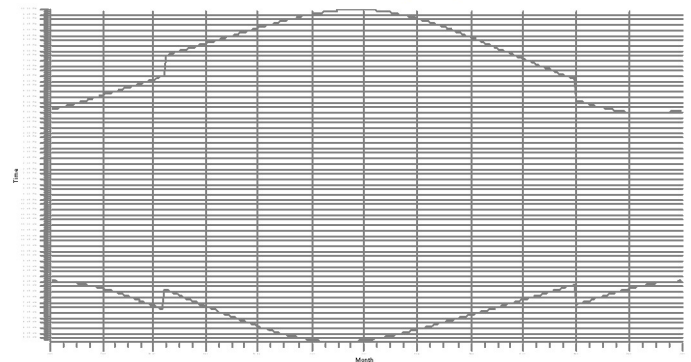
BD: 33 - Non-Participating



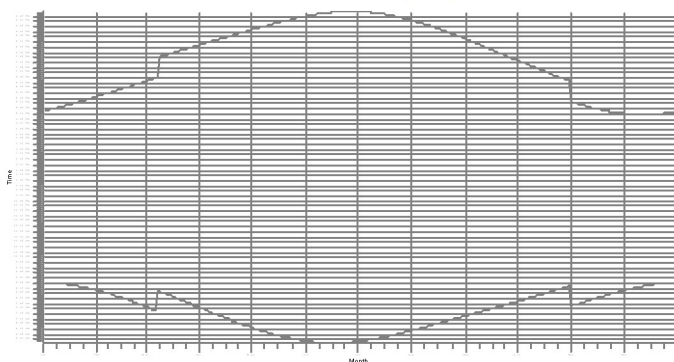
BE: 34 - Non-Participating



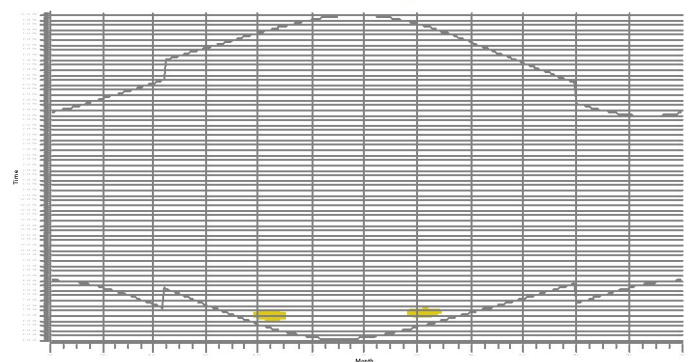
BF: 35 - Non-Participating



BG: 36 - Non-Participating



BH: 37 - Non-Participating



WFO
121.1-144

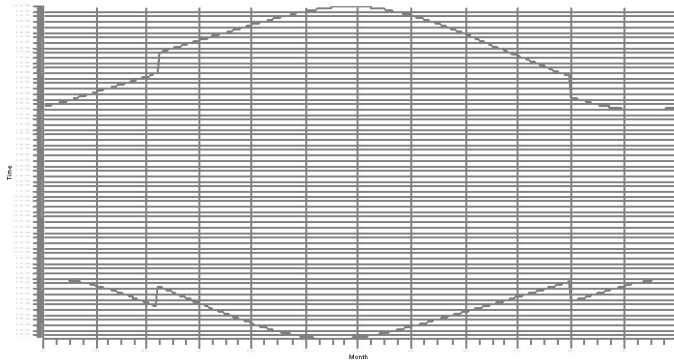
Project: Aurora
Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 5:45 AM/3.0.654

SHADOW - Calendar, graphical

Calculation: SG132-3.465 114m HH Shadow Flicker

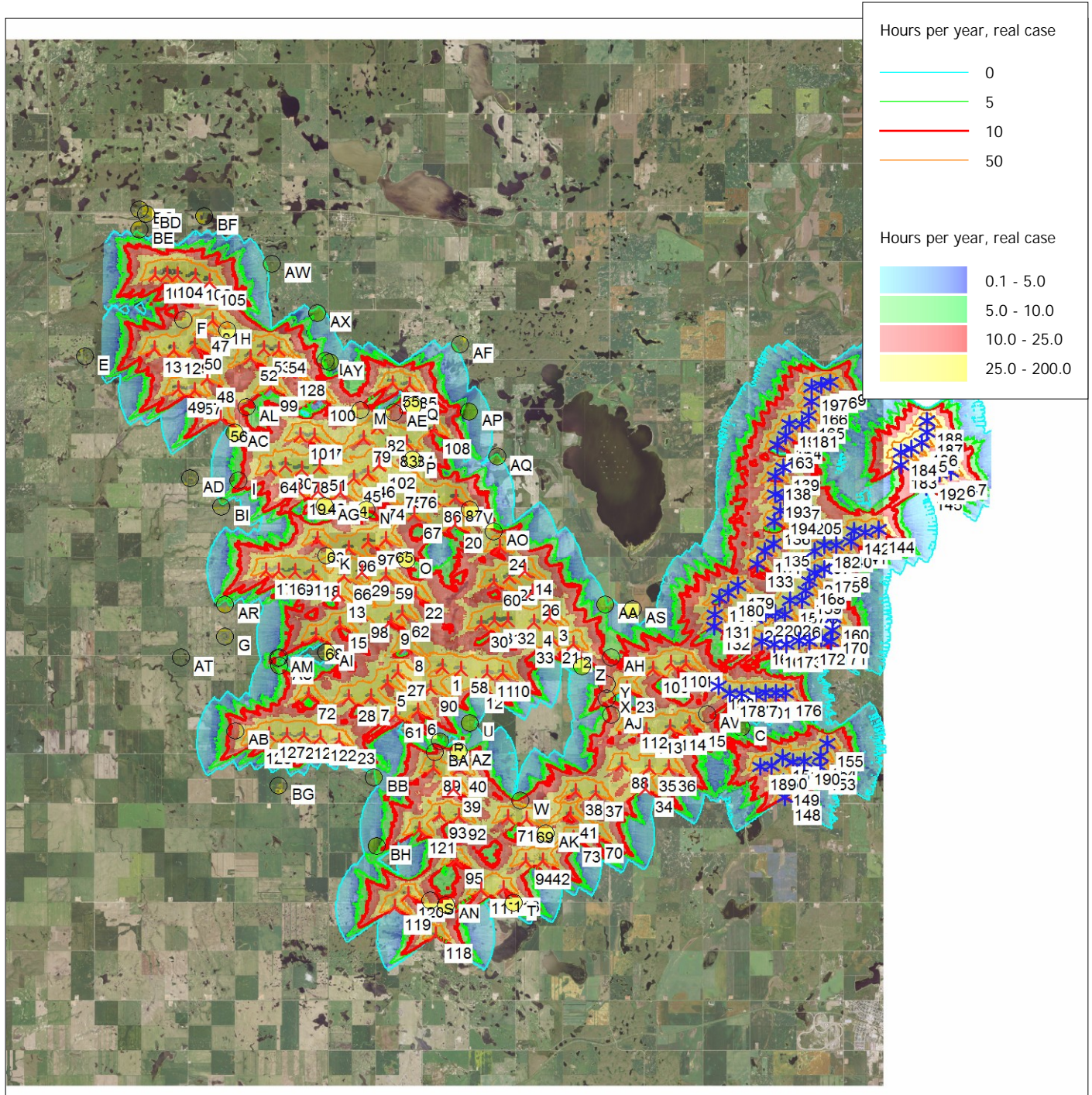
BI: 38 - Non-Participating



wf6

SHADOW - Map

Calculation: SG132-3.465 114m HH Shadow Flicker



0 2.5 5 7.5 10km

Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 640,676 North: 5,375,910

▲ New WTG

★ Existing WTG

● Shadow receptor

Flicker map level: Height Contours: 150921_TWE_LindahIWest_10ftHCLsfrom10mNED.wpo (3)

Sound Maps

Aurora Wind Project - Anticipated Maximum Sound Levels

G132 3.465 114m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Sound Receptor (Non-Participating)

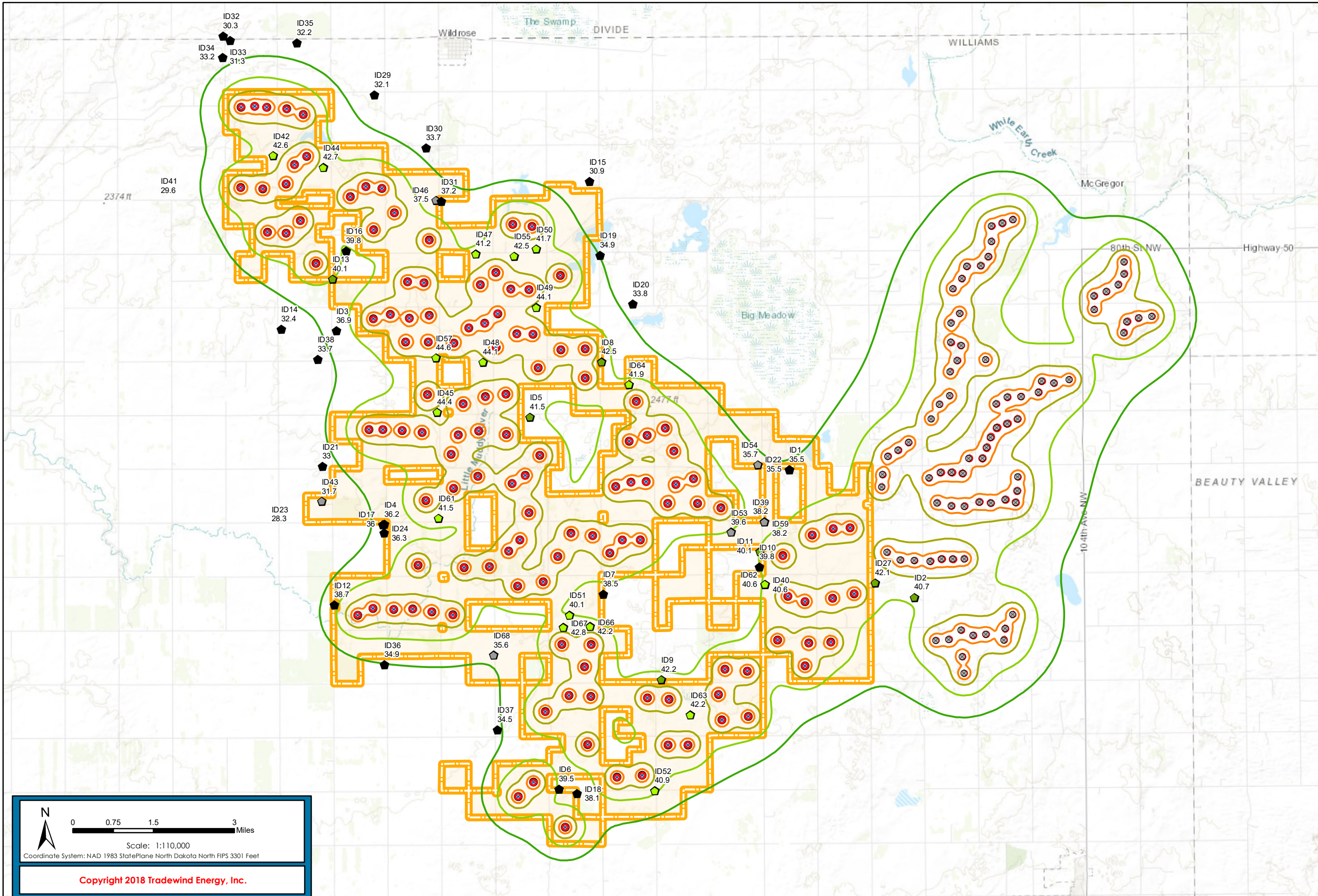
- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Receptor (Participating)

- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Isolines

- Sound Level (dBA)
- 35
 - 40
 - 45
 - 50
 - 55



N

0 0.75 1.5 3 Miles

Scale: 1:110,000

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

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The following companies and organizations provided data that contributed to the production of this map.

- U.S. Geological Survey (USGS)
- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Maximum Sound Levels

V136 4.0/4.2 82m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Sound Receptor (Non-Participating)

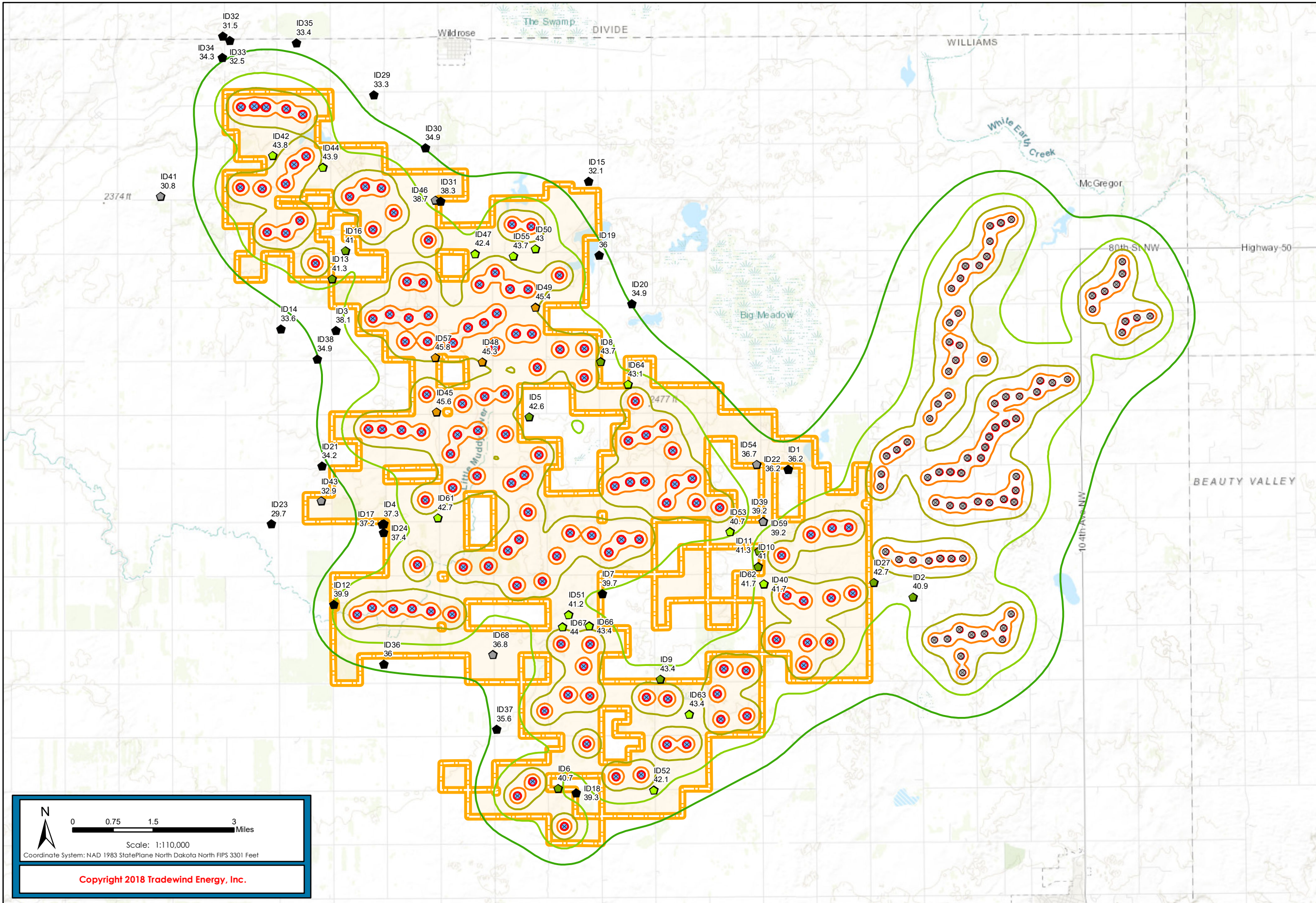
- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Receptor (Participating)

- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Isolines

- Sound Level (dBA)
- 35
 - 40
 - 45
 - 50
 - 55



Scale: 1:110,000
 Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet
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- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Maximum Sound Levels

V136 3.45/3.6 82m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Sound Receptor (Non-Participating)

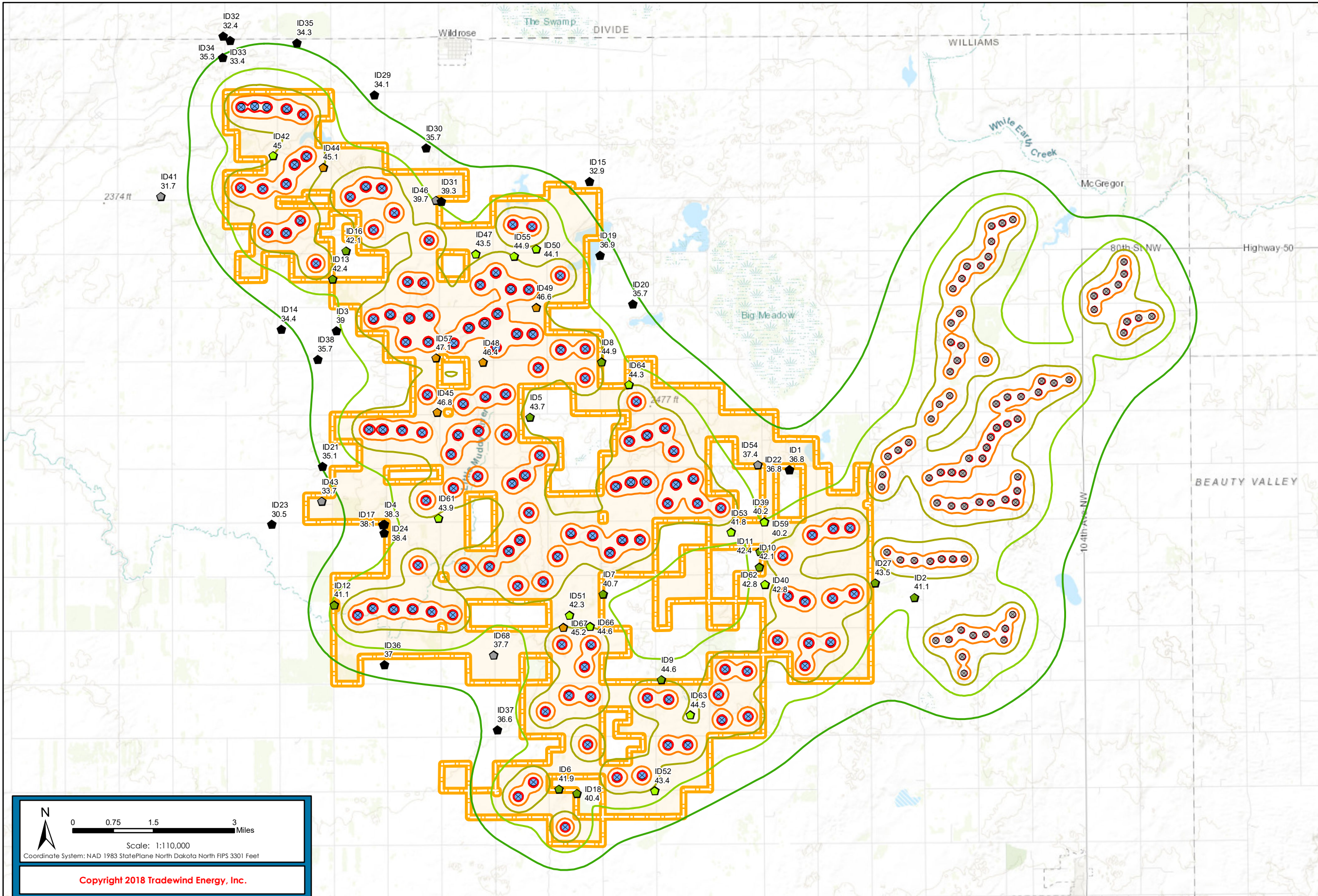
- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Receptor (Participating)

- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Isolines

- Sound Level (dBA)
- 35
 - 40
 - 45
 - 50
 - 55



Scale: 1:110,000
 Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet
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- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

Aurora Wind Project - Anticipated Maximum Sound Levels

AW125 3.15 87.5m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Sound Receptor (Non-Participating)

- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Receptor (Participating)

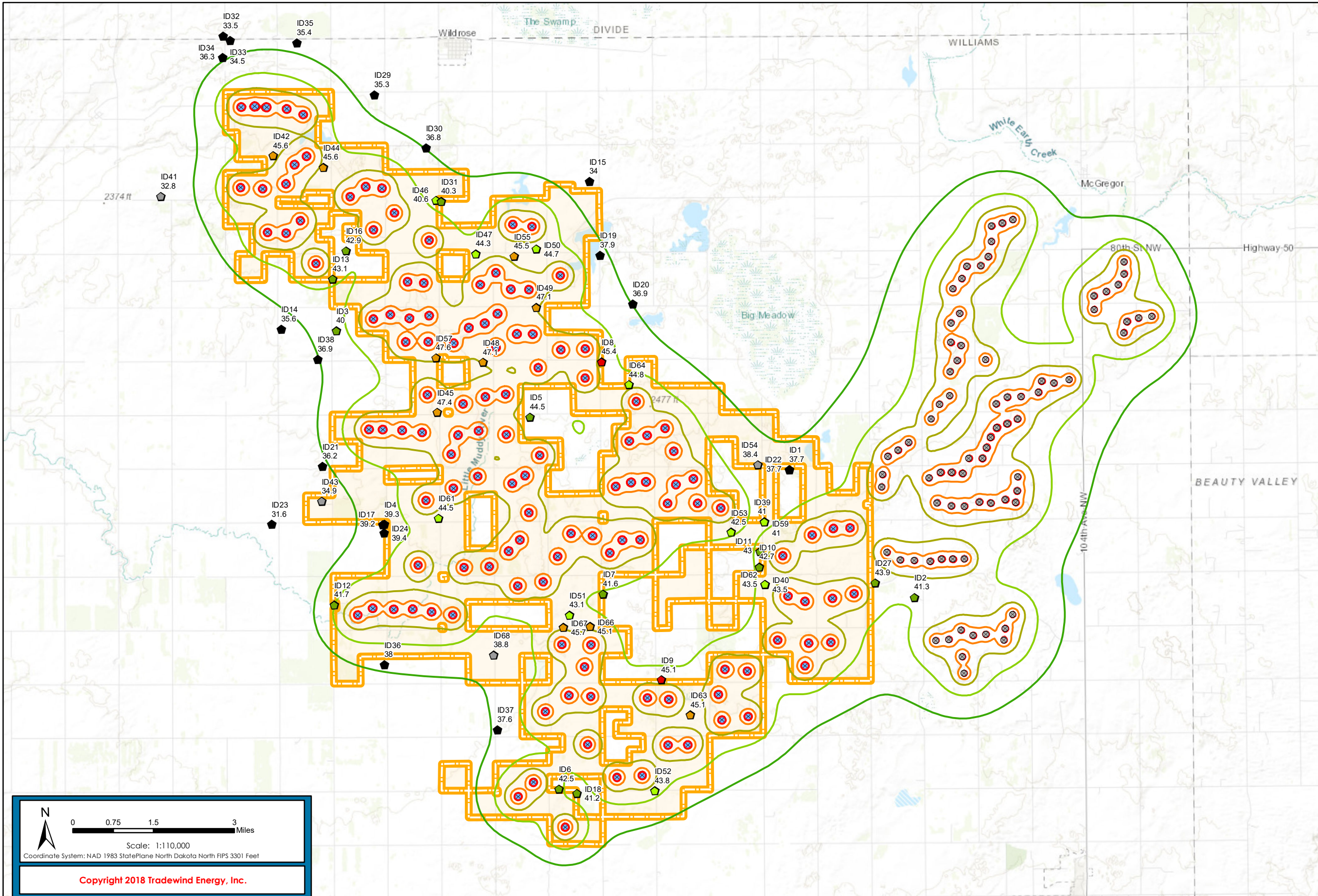
- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Isolines

- Sound Level (dBA)
- 35
 - 40
 - 45
 - 50
 - 55

The following companies and organizations provided data that contributed to the production of this map.

- U.S. Geological Survey (USGS)
- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.



0 0.75 1.5 3 Miles
 Scale: 1:110,000
 Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

Copyright 2018 Tradewind Energy, Inc.

Aurora Wind Project - Anticipated Maximum Sound Levels GE 2.5 127 89m HH



Legend

- Aurora
- Aurora Wind Project Turbine (A031)
- Lindahl Wind Project Turbine

Sound Receptor (Non-Participating)

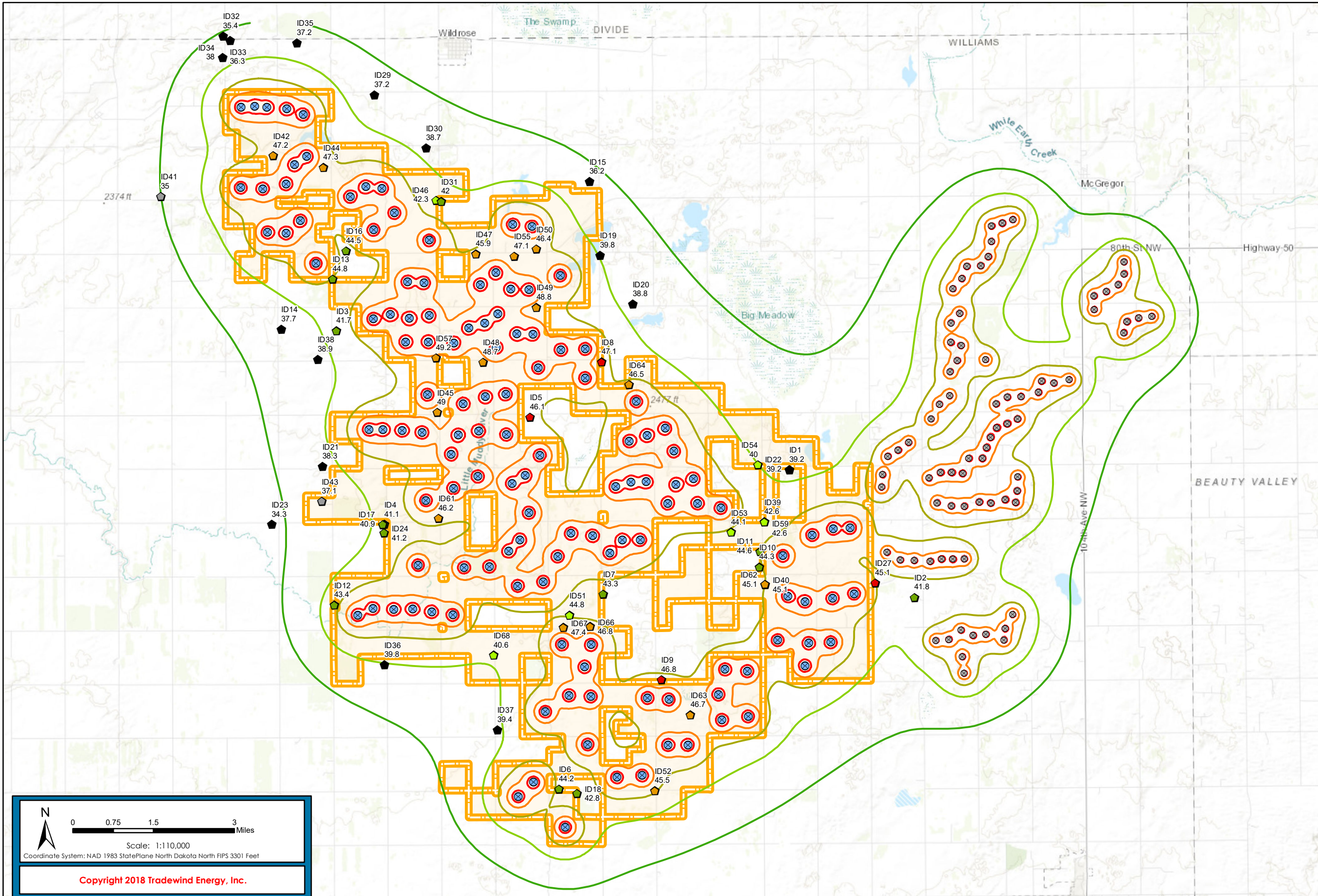
- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Receptor (Participating)

- Sound Level (dBA)
- Below 39.99
 - 40.00 - 45.00
 - 45.01+

Sound Isolines

- Sound Level (dBA)
- 35
 - 40
 - 45
 - 50
 - 55



0 0.75 1.5 3 Miles

 Scale: 1:110,000

 Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet

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The following companies and organizations provided data that contributed to the production of this map.

- U.S. Geological Survey (USGS)
- Environmental Systems Research Institute (ESRI)
- U.S. Department of Agriculture (USDA)
- U.S. Federal Aviation Administration (FAA)
- WhiteStar Corporation
- CoreLogic
- Ventyx Inc.

windPRO Sound Reports

DECIBEL - Main Result

Calculation: SG132-3.465

Noise calculation model:

ISO 9613-2 General

Wind speed:

95% rated power

Ground attenuation:

General, fixed, Ground factor: 0.5

Meteorological coefficient, CO:

0.0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

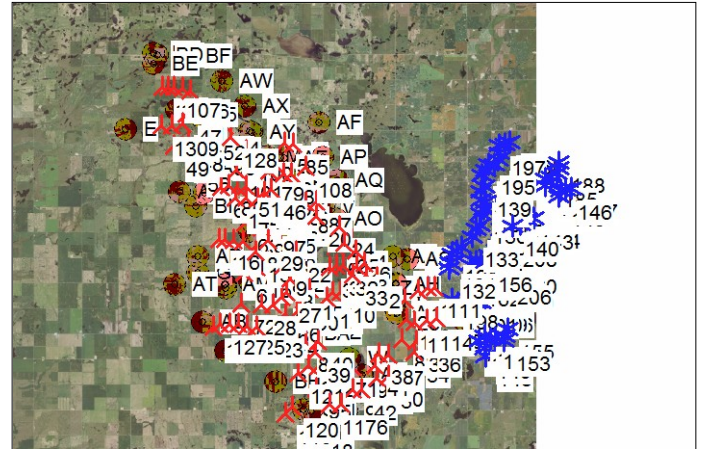
Pure and Impulse tone penalty are added to WTG source noise

Height above ground level, when no value in NSA object:

1.5 m Don't allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:

0.0 dB(A)



Scale 1:500,000
 ▲ New WTG
 ★ Existing WTG
 ■ Noise sensitive area

WTGs

| X(East) | Y(North) | Z | Row data/Description | WTG type | | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | Lwa,ref [dB(A)] | Pure tones |
|---------|----------|-----------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------|---|------------------|-----------------|------------|
| | | | | Valid | Manufact. | Type-generator | | | | Creator | Name | | | |
| 1 | 637,619 | 5,373,512 | 727.5 T-43 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 2 | 642,085 | 5,374,363 | 728.5 T-41 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 3 | 641,252 | 5,375,220 | 737.7 T-63 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 4 | 640,729 | 5,375,038 | 740.7 T-62 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 5 | 635,764 | 5,372,945 | 724.6 T-45 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 6 | 636,817 | 5,372,047 | 728.5 T-35 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 7 | 635,193 | 5,372,473 | 710.2 T-47 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 8 | 636,346 | 5,374,109 | 734.6 T-56 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 9 | 635,830 | 5,374,972 | 728.5 T-55 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 10 | 639,692 | 5,373,363 | 740.7 T-39 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 11 | 639,157 | 5,373,344 | 739.4 T-38 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 12 | 638,790 | 5,372,951 | 734.6 T-37 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 13 | 633,988 | 5,375,810 | 737.6 T-70 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 14 | 640,372 | 5,376,713 | 738.1 T-77 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 15 | 634,074 | 5,374,798 | 721.2 T-53 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 16 | 631,934 | 5,376,511 | 728.5 T-67 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 17 | 631,510 | 5,376,507 | 731.5 T-66 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 18 | 633,108 | 5,376,447 | 737.6 T-69 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 19 | 632,563 | 5,379,145 | 737.6 T-93 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 20 | 637,951 | 5,378,169 | 715.2 T-80 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 21 | 641,389 | 5,374,486 | 743.7 T-58 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 22 | 636,640 | 5,375,835 | 734.6 T-73 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 23 | 643,972 | 5,372,967 | 712.3 T-28 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 24 | 639,495 | 5,377,499 | 738.7 T-78 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 25 | 639,840 | 5,376,489 | 737.6 T-76 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 26 | 640,649 | 5,376,031 | 731.5 T-79 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 27 | 636,095 | 5,373,292 | 733.9 T-46 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 28 | 634,438 | 5,372,432 | 701.0 T-57 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 29 | 634,798 | 5,376,526 | 725.4 T-71 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 30 | 638,928 | 5,374,941 | 737.6 T-59 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 31 | 639,384 | 5,375,074 | 737.6 T-60 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 32 | 639,838 | 5,375,100 | 737.6 T-61 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 33 | 640,492 | 5,374,466 | 743.6 T-40 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 34 | 644,695 | 5,369,685 | 736.0 T-15 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 35 | 644,792 | 5,370,371 | 743.7 T-16 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 36 | 645,456 | 5,370,405 | 735.1 T-17 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 37 | 642,975 | 5,369,494 | 737.6 T-12 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 38 | 642,303 | 5,369,536 | 734.9 T-13 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 39 | 638,102 | 5,369,527 | 710.5 T-26 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 40 | 638,282 | 5,370,192 | 712.5 T-25 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 41 | 642,122 | 5,368,780 | 734.6 T-10 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 42 | 641,239 | 5,367,252 | 719.1 T-8 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 43 | 633,243 | 5,379,162 | 737.6 T-94 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 44 | 634,001 | 5,379,136 | 737.6 T-95 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 45 | 634,443 | 5,379,605 | 731.5 T-96 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 46 | 634,918 | 5,379,749 | 728.5 T-121 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 47 | 629,136 | 5,384,387 | 713.2 T-142 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |

To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
 16105 W. 113th Street, Suite 105
 US-LENEXA, KS 66219
 +1 913 424 5308
 Kevin Walter / kwalter@tradewindenergy.com
 Calculated:
 9/15/2018 12:54 AM/3.0.654

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

| X(East) | Y(North) | Z | Row data/Description | WTG type | | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones |
|---------|----------|-----------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------|---|------------------|-----------------|------------|
| | | | | Valid | Manufact. | Type-generator | | | | Creator | Name | | | |
| 48 | 629,347 | 5,382,713 | 710.2 T-131 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 49 | 628,366 | 5,382,343 | 707.1 T-129 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 50 | 628,893 | 5,383,804 | 717.2 T-141 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 51 | 633,253 | 5,379,950 | 729.4 T-123 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 52 | 630,815 | 5,383,459 | 711.9 T-144 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 53 | 631,275 | 5,383,767 | 710.7 T-145 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 54 | 631,767 | 5,383,732 | 713.2 T-146 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 55 | 635,699 | 5,382,724 | 710.2 T-122 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 56 | 629,834 | 5,381,441 | 713.0 T-117 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 57 | 628,526 | 5,382,328 | 703.0 T-130 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 58 | 638,268 | 5,373,457 | 731.5 T-44 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 59 | 635,628 | 5,376,434 | 728.5 T-72 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 60 | 639,307 | 5,376,310 | 731.5 T-75 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 61 | 636,056 | 5,371,908 | 719.3 T-34 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 62 | 636,215 | 5,375,218 | 713.5 T-74 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 63 | 633,243 | 5,377,581 | 731.5 T-81 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 64 | 631,582 | 5,379,814 | 726.8 T-98 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 65 | 635,586 | 5,377,640 | 725.5 T-85 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 66 | 634,183 | 5,376,389 | 733.5 T-86 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 67 | 636,542 | 5,378,452 | 715.1 T-87 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 68 | 633,261 | 5,374,418 | 716.3 T-51 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 69 | 640,641 | 5,368,602 | 728.5 T-23 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 70 | 643,024 | 5,368,138 | 728.5 T-11 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 71 | 639,998 | 5,368,634 | 725.4 T-22 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 72 | 633,064 | 5,372,478 | 698.0 T-5 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 73 | 642,243 | 5,368,015 | 730.6 T-9 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 74 | 635,270 | 5,379,029 | 725.4 T-90 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 75 | 635,883 | 5,379,448 | 720.6 T-91 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 76 | 636,364 | 5,379,455 | 716.0 T-92 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 77 | 633,072 | 5,380,925 | 729.9 T-106 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 78 | 632,659 | 5,379,855 | 737.2 T-100 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 79 | 634,758 | 5,380,905 | 718.9 T-107 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 80 | 632,089 | 5,379,958 | 731.5 T-99 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 81 | 629,494 | 5,384,648 | 709.6 T-143 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 82 | 635,222 | 5,381,271 | 716.3 T-108 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 83 | 635,678 | 5,380,785 | 716.0 T-109 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 84 | 636,220 | 5,380,785 | 716.3 T-110 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 85 | 636,276 | 5,382,673 | 710.2 T-124 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 86 | 637,208 | 5,379,005 | 710.9 T-88 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 87 | 637,941 | 5,379,046 | 712.3 T-89 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 88 | 643,859 | 5,370,443 | 732.3 T-14 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 89 | 637,408 | 5,370,185 | 701.0 T-24 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 90 | 637,234 | 5,372,817 | 719.9 T-42 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 91 | 632,509 | 5,376,501 | 722.8 T-68 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 92 | 638,306 | 5,368,644 | 716.3 T-21 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 93 | 637,648 | 5,368,666 | 713.2 T-20 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 94 | 640,643 | 5,367,238 | 719.3 T-19 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 95 | 638,242 | 5,367,207 | 710.2 T-18 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 96 | 634,318 | 5,377,326 | 731.6 T-83 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 97 | 634,979 | 5,377,549 | 725.3 T-84 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 98 | 634,798 | 5,375,163 | 713.2 T-54 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 99 | 631,532 | 5,382,484 | 707.7 T-118 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 100 | 633,206 | 5,382,201 | 722.4 T-120 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 101 | 632,585 | 5,380,949 | 731.5 T-105 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 102 | 635,298 | 5,380,049 | 728.5 T-97 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 103 | 627,504 | 5,386,079 | 711.3 T-147 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 104 | 627,911 | 5,386,105 | 710.2 T-148 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 105 | 629,368 | 5,385,888 | 704.0 T-149 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 106 | 628,867 | 5,386,049 | 710.2 T-150 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 107 | 628,269 | 5,386,086 | 711.9 T-151 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 108 | 637,149 | 5,381,224 | 704.1 T-152 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 109 | 644,833 | 5,373,605 | 713.9 T-153 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 110 | 645,462 | 5,373,811 | 728.5 T-154 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 111 | 645,966 | 5,373,838 | 730.1 T-155 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 112 | 644,144 | 5,371,765 | 710.2 T-156 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 113 | 644,660 | 5,371,616 | 715.4 T-157 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 114 | 645,479 | 5,371,724 | 719.3 T-158 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 115 | 646,127 | 5,371,875 | 717.1 T-159 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 116 | 639,890 | 5,366,309 | 710.2 T-160 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 117 | 639,135 | 5,366,239 | 709.0 T-161 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) | 108.0 | No |
| 118 | 637,617 | 5,364,719 | 707.6 T-162 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m | | | |

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter | kwalter@tradewindenergy.com
Calculated:
9/15/2018 12:54 AM/3.0.654

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones |
|-----|---------|-----------|-------|-----------------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------|---|------------------|-----------------|------------|
| | | | | | Valid | Manufact. | Type-generator | | | | Creator | Name | | | |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | GAMESA | G132-3,465 | 3,465 | 132.0 | 114.0 | USER | Loudest Octave + 2dB (106.1+2) (13 m/s) | (95%) 108.0 | No | |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 148 | 649,868 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 107.0 | No | |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0 !... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) 1 | | |

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones |
|-----|---------|-----------|-------|---------------------------------|----------|------------|----------------|-------------------|--------------------|----------------|--------------------|-------|------------------|-----------------|------------|
| | | | | | Valid | Manufact. | Type-generator | | | | Creator | Name | | | |
| 200 | 648,724 | 5,372,961 | 720.0 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0 !... Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |

Calculation Results

Sound Level

| No. | Name | X(East) | Y(North) | Z [m] | Imission height [m] | Demands Noise [dB(A)] | Sound Level From WTGs [dB(A)] | Distance to noise demand [m] | Demands fulfilled ? Noise |
|---------------------------|---------|-----------|----------|-------|---------------------|-----------------------|-------------------------------|------------------------------|---------------------------|
| | | | | | | | | | |
| A 1 - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.5 | 50.0 | 35.4 | 1,896 | Yes | |
| B 39 - Participating | 643,400 | 5,373,971 | 711.5 | 1.5 | 50.0 | 38.1 | 982 | Yes | |
| C 2 - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.5 | 50.0 | 40.7 | 890 | Yes | |
| D 40 - Participating | 643,453 | 5,372,099 | 716.3 | 1.5 | 50.0 | 40.5 | 587 | Yes | |
| E 41 - Participating | 625,162 | 5,383,364 | 711.9 | 1.5 | 50.0 | 29.4 | 2,216 | Yes | |
| F 42 - Participating | 628,500 | 5,384,644 | 704.1 | 1.5 | 50.0 | 42.5 | 492 | Yes | |
| G 43 - Participating | 630,148 | 5,374,327 | 691.9 | 1.5 | 50.0 | 31.4 | 2,390 | Yes | |
| H 44 - Participating | 629,997 | 5,384,325 | 711.4 | 1.5 | 50.0 | 42.6 | 408 | Yes | |
| I 3 - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.5 | 50.0 | 36.8 | 978 | Yes | |
| J 4 - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.5 | 50.0 | 36.0 | 1,265 | Yes | |
| K 45 - Participating | 633,554 | 5,377,057 | 735.4 | 1.5 | 50.0 | 44.3 | 427 | Yes | |
| L 46 - Participating | 633,395 | 5,383,413 | 715.7 | 1.5 | 50.0 | 37.4 | 1,052 | Yes | |
| M 47 - Participating | 634,615 | 5,381,825 | 716.9 | 1.5 | 50.0 | 41.2 | 634 | Yes | |
| N 48 - Participating | 634,891 | 5,378,584 | 728.5 | 1.5 | 50.0 | 44.0 | 392 | Yes | |
| O 5 - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.5 | 50.0 | 41.4 | 699 | Yes | |
| P 49 - Participating | 636,455 | 5,380,259 | 709.9 | 1.5 | 50.0 | 44.1 | 387 | Yes | |
| Q 50 - Participating | 636,416 | 5,382,006 | 707.4 | 1.5 | 50.0 | 41.7 | 504 | Yes | |
| R 51 - Participating | 637,621 | 5,371,070 | 716.6 | 1.5 | 50.0 | 40.0 | 732 | Yes | |
| S 6 - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.5 | 50.0 | 39.5 | 613 | Yes | |
| T 52 - Participating | 640,276 | 5,365,862 | 710.2 | 1.5 | 50.0 | 40.8 | 415 | Yes | |
| U 7 - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.5 | 50.0 | 38.4 | 1,060 | Yes | |
| V 8 - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.5 | 50.0 | 42.4 | 444 | Yes | |
| W 9 - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.5 | 50.0 | 42.1 | 449 | Yes | |
| X 10 - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.5 | 50.0 | 39.8 | 598 | Yes | |
| Y 11 - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.5 | 50.0 | 40.1 | 522 | Yes | |
| Z 53 - Participating | 642,413 | 5,373,644 | 734.1 | 1.5 | 50.0 | 39.5 | 610 | Yes | |
| AA 54 - Participating | 643,167 | 5,375,685 | 714.9 | 1.5 | 50.0 | 35.6 | 1,533 | Yes | |
| AB 12 - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.5 | 50.0 | 38.6 | 580 | Yes | |
| AC 13 - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.5 | 50.0 | 40.0 | 507 | Yes | |
| AD 14 - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.5 | 50.0 | 32.1 | 2,041 | Yes | |
| AE 55 - Participating | 635,760 | 5,381,775 | 711.0 | 1.5 | 50.0 | 42.5 | 551 | Yes | |
| AF 15 - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.5 | 50.0 | 30.7 | 2,011 | Yes | |
| AG 57 - Participating | 633,480 | 5,378,691 | 739.8 | 1.5 | 50.0 | 44.6 | 334 | Yes | |
| AH 59 - Participating | 643,400 | 5,373,968 | 711.4 | 1.5 | 50.0 | 38.1 | 979 | Yes | |
| AI 61 - Participating | 633,645 | 5,373,895 | 713.7 | 1.5 | 50.0 | 41.4 | 473 | Yes | |
| AJ 62 - Participating | 643,453 | 5,372,097 | 716.3 | 1.5 | 50.0 | 40.5 | 586 | Yes | |
| AK 63 - Participating | 641,300 | 5,368,154 | 725.4 | 1.5 | 50.0 | 42.1 | 618 | Yes | |
| AL 16 - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.5 | 50.0 | 39.7 | 809 | Yes | |
| AM 17 - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.5 | 50.0 | 35.9 | 1,304 | Yes | |
| AN 18 - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.5 | 50.0 | 38.1 | 904 | Yes | |
| AO 64 - Participating | 639,268 | 5,377,996 | 720.6 | 1.5 | 50.0 | 41.7 | 375 | Yes | |
| AP 19 - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.5 | 50.0 | 34.7 | 1,167 | Yes | |
| AQ 20 - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.5 | 50.0 | 33.6 | 1,776 | Yes | |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.5 | 50.0 | 32.9 | 1,594 | Yes | |

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

Table with columns: No., Name, X(East), Y(North), Z [m], Imission height [m], Demands Noise [dB(A)], Sound Level From WTGs [dB(A)], Distance to noise demand [m], Demands fulfilled ? Noise. Lists various noise sensitive areas (AS 22 to BI 38) with their respective coordinates and noise level data.

Distances (m)

Table with columns: WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. A grid of distance values in meters for each wind turbine (WTG) across 22 different directions (A-V).

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

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Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data points for each row and column.

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

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Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data points representing decibel levels for various wind turbine weights and directions.

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

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Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V and rows 181-208. A second table below has columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR and rows 1-39.

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

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Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. It contains a grid of numerical data points for each combination of these categories.

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DECIBEL - Main Result

Calculation: SG132-3.465

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| WTG | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 109 | 6247 | 1843 | 1635 | 2421 | 2665 | 14445 | 16264 | 17035 | 12210 | 12500 | 12440 | 1479 | 11193 | 2044 | 6497 | 16326 | 12844 | 10449 | 7089 | 10506 | 8754 | 14797 |
| 110 | 6845 | 2490 | 2297 | 3054 | 2963 | 15100 | 16737 | 17560 | 12553 | 12690 | 12938 | 2069 | 11818 | 2641 | 7024 | 16772 | 13474 | 11024 | 7475 | 10752 | 9010 | 15400 |
| 111 | 7242 | 2953 | 2787 | 3559 | 3353 | 15601 | 17182 | 18029 | 12930 | 12972 | 13396 | 2570 | 12322 | 3058 | 7355 | 17204 | 13978 | 11392 | 7884 | 11073 | 9341 | 15899 |
| 112 | 4533 | 1213 | 1580 | 2556 | 4040 | 13571 | 16602 | 17134 | 13058 | 13753 | 12716 | 2325 | 10714 | 767 | 4597 | 16771 | 12303 | 8638 | 7913 | 11648 | 9898 | 14461 |
| 113 | 4891 | 1704 | 2017 | 3027 | 4334 | 14082 | 17114 | 17662 | 13507 | 14123 | 13231 | 2668 | 11249 | 1299 | 4824 | 17274 | 12836 | 8916 | 8354 | 12040 | 10286 | 14997 |
| 114 | 5664 | 2374 | 2586 | 3618 | 4586 | 14904 | 17748 | 18354 | 13982 | 14436 | 13875 | 3059 | 12032 | 2060 | 5497 | 17879 | 13629 | 9614 | 8827 | 12401 | 10645 | 15766 |
| 115 | 6314 | 2943 | 3093 | 4114 | 4824 | 15557 | 18227 | 18882 | 14335 | 14657 | 14367 | 3438 | 12645 | 2683 | 6096 | 18335 | 14251 | 10220 | 9193 | 12666 | 10913 | 16364 |
| 116 | 2929 | 7159 | 7581 | 7757 | 9932 | 10533 | 17516 | 17183 | 16009 | 17849 | 13943 | 8425 | 9827 | 6797 | 2322 | 18025 | 10799 | 2018 | 11704 | 15627 | 14118 | 13314 |
| 117 | 3216 | 7604 | 8007 | 8098 | 10271 | 9906 | 17176 | 16761 | 15899 | 17853 | 13676 | 8827 | 9421 | 7278 | 2890 | 17715 | 10309 | 1282 | 11758 | 15639 | 14177 | 12820 |
| 118 | 5274 | 9717 | 10107 | 10133 | 12291 | 9591 | 17828 | 17162 | 17158 | 19339 | 14572 | 10908 | 10000 | 9408 | 5037 | 18449 | 10573 | 1076 | 13380 | 17154 | 15790 | 13018 |
| 119 | 5536 | 9966 | 10306 | 10162 | 12255 | 7947 | 16460 | 15686 | 16172 | 18531 | 13360 | 11038 | 8669 | 9738 | 5707 | 17119 | 9090 | 1768 | 12764 | 16389 | 15136 | 11489 |
| 120 | 4914 | 9342 | 9684 | 9546 | 11645 | 7981 | 16225 | 15526 | 15758 | 18062 | 13038 | 10417 | 8405 | 9115 | 5116 | 16861 | 8934 | 1349 | 12240 | 15906 | 14623 | 11373 |
| 121 | 3608 | 7734 | 8019 | 7736 | 9756 | 7074 | 14434 | 13914 | 13664 | 15924 | 11086 | 8674 | 6619 | 7597 | 4346 | 15020 | 7414 | 2622 | 10102 | 13763 | 12481 | 9921 |
| 122 | 7174 | 9903 | 9990 | 9278 | 10710 | 2915 | 10398 | 9585 | 10926 | 13719 | 7604 | 10316 | 2812 | 10010 | 8338 | 11097 | 2990 | 6963 | 9004 | 11807 | 11005 | 5444 |
| 123 | 6540 | 9290 | 9386 | 8693 | 10177 | 3554 | 10683 | 9978 | 10892 | 13603 | 7712 | 9732 | 2930 | 9387 | 7717 | 11349 | 3417 | 6508 | 8676 | 11636 | 10752 | 5916 |
| 124 | 8286 | 11019 | 11096 | 10361 | 11725 | 1779 | 10061 | 9040 | 11167 | 14082 | 7634 | 11397 | 3041 | 11135 | 9426 | 10819 | 2558 | 7775 | 9735 | 12270 | 11605 | 4782 |
| 125 | 7741 | 10455 | 10534 | 9807 | 11197 | 2344 | 10172 | 9259 | 10990 | 13849 | 7554 | 10844 | 2830 | 10569 | 8896 | 10900 | 2681 | 7391 | 9327 | 11987 | 11259 | 5055 |
| 126 | 9297 | 12111 | 12189 | 11452 | 12794 | 759 | 10093 | 8862 | 11718 | 14716 | 8050 | 12488 | 3778 | 12224 | 10399 | 10902 | 2813 | 8463 | 10652 | 12989 | 12428 | 4574 |
| 127 | 8901 | 11638 | 11710 | 10966 | 12298 | 1152 | 9935 | 8796 | 11355 | 14326 | 7732 | 12001 | 3338 | 11759 | 10028 | 10723 | 2524 | 8251 | 10176 | 12570 | 11977 | 4508 |
| 128 | 16090 | 15219 | 14902 | 13884 | 13221 | 11864 | 2698 | 4847 | 3808 | 5913 | 4508 | 14424 | 9226 | 15701 | 17437 | 1837 | 9331 | 18208 | 8697 | 6281 | 7630 | 7884 |
| 129 | 18929 | 18689 | 18416 | 17385 | 16959 | 12636 | 3415 | 4232 | 7794 | 9786 | 7246 | 18025 | 11172 | 19138 | 20293 | 3120 | 10675 | 20395 | 12433 | 10293 | 11598 | 8497 |
| 130 | 19375 | 19236 | 18970 | 17939 | 17552 | 12795 | 3877 | 4399 | 8439 | 10444 | 7752 | 18595 | 11524 | 19679 | 20739 | 3686 | 10944 | 20735 | 13032 | 10946 | 12238 | 8690 |
| 131 | 9028 | 4612 | 4334 | 4851 | 3753 | 16865 | 17469 | 18515 | 12820 | 12405 | 13818 | 3815 | 13360 | 4821 | 9210 | 17392 | 15030 | 13215 | 8056 | 10708 | 9059 | 16771 |
| 132 | 8753 | 4371 | 4119 | 4700 | 3770 | 16751 | 17568 | 18575 | 12987 | 12650 | 13886 | 3661 | 13297 | 4549 | 8900 | 17510 | 14965 | 12925 | 8159 | 10916 | 9249 | 16749 |
| 133 | 11226 | 6788 | 6478 | 6877 | 5365 | 18704 | 18389 | 19627 | 13392 | 12446 | 14928 | 5867 | 15040 | 7022 | 11417 | 18207 | 16706 | 15422 | 9099 | 11050 | 9569 | 18272 |
| 134 | 11710 | 7265 | 6946 | 7314 | 5730 | 19076 | 18539 | 19821 | 13476 | 12413 | 15130 | 6314 | 15737 | 7509 | 11914 | 18334 | 17039 | 15912 | 9311 | 11093 | 9659 | 18561 |
| 135 | 12108 | 7663 | 7345 | 7709 | 6103 | 19448 | 18791 | 20100 | 13687 | 12541 | 15415 | 6712 | 15734 | 7905 | 12305 | 18571 | 17394 | 16307 | 9605 | 11277 | 9877 | 18893 |
| 136 | 12633 | 8172 | 7831 | 8125 | 6394 | 19704 | 18684 | 20055 | 13498 | 12201 | 15393 | 7152 | 15930 | 8444 | 12880 | 18430 | 17580 | 16849 | 9621 | 11042 | 9715 | 19001 |
| 137 | 13439 | 8975 | 8622 | 8870 | 7059 | 20304 | 18913 | 20352 | 13644 | 12157 | 15724 | 7917 | 16480 | 9261 | 13712 | 18620 | 18119 | 17662 | 10015 | 11140 | 9911 | 19461 |
| 138 | 13750 | 9289 | 8913 | 9083 | 7170 | 20290 | 18547 | 20038 | 13223 | 11614 | 15447 | 8167 | 16415 | 9608 | 14086 | 18224 | 18039 | 17984 | 9814 | 10694 | 9542 | 19296 |
| 139 | 14140 | 9678 | 9303 | 9472 | 7553 | 20648 | 18790 | 20305 | 13442 | 11758 | 15730 | 8557 | 16763 | 9996 | 14472 | 18452 | 18383 | 18373 | 10128 | 10901 | 9791 | 19617 |
| 140 | 13695 | 9345 | 9085 | 9576 | 8139 | 21473 | 20897 | 22227 | 15741 | 14429 | 17547 | 8549 | 17812 | 9507 | 13734 | 20658 | 19476 | 17818 | 11740 | 13290 | 11949 | 21014 |
| 141 | 14181 | 9849 | 9596 | 10100 | 8673 | 22006 | 21390 | 22735 | 16211 | 14844 | 18059 | 9071 | 18346 | 10001 | 14196 | 21142 | 20010 | 18289 | 12257 | 13747 | 12429 | 21543 |
| 142 | 14470 | 10118 | 9855 | 10335 | 8858 | 22201 | 21434 | 22806 | 16222 | 14789 | 18139 | 9311 | 18515 | 10281 | 14503 | 21172 | 20177 | 18591 | 12353 | 13741 | 12455 | 21678 |
| 143 | 14723 | 10395 | 10141 | 10642 | 9197 | 22535 | 21810 | 23180 | 16598 | 15155 | 18512 | 9614 | 18862 | 10544 | 14730 | 21548 | 20525 | 18826 | 12723 | 14115 | 12832 | 22039 |
| 144 | 15149 | 10835 | 10586 | 11097 | 9660 | 22998 | 22242 | 23623 | 17014 | 15528 | 18959 | 10068 | 19326 | 10977 | 15137 | 21972 | 20988 | 19239 | 13175 | 14522 | 13257 | 22499 |
| 145 | 17297 | 12965 | 12704 | 13179 | 11645 | 24989 | 23730 | 25213 | 18391 | 16620 | 20600 | 12157 | 21250 | 13119 | 17290 | 23400 | 22904 | 21393 | 14893 | 15847 | 14726 | 24318 |
| 146 | 17918 | 13578 | 13313 | 13775 | 12213 | 25552 | 24143 | 25655 | 18778 | 16930 | 21060 | 12756 | 21794 | 13737 | 17916 | 23795 | 23444 | 22018 | 15383 | 16224 | 15146 | 24828 |
| 147 | 18266 | 13939 | 13679 | 14151 | 12603 | 25944 | 24539 | 26054 | 19170 | 17307 | 21461 | 13130 | 22191 | 14091 | 18248 | 24189 | 23841 | 22354 | 15784 | 16615 | 15544 | 25229 |
| 148 | 9063 | 6906 | 7126 | 8157 | 8793 | 18961 | 22285 | 22889 | 18367 | 18506 | 18416 | 7505 | 16410 | 6532 | 8288 | 22403 | 17958 | 12129 | 13242 | 16598 | 14857 | 20185 |
| 149 | 9032 | 6641 | 6836 | 7862 | 8408 | 18858 | 21979 | 22620 | 17993 | 18081 | 18119 | 7171 | 16223 | 6294 | 8322 | 22081 | 17787 | 12233 | 12881 | 16190 | 14454 | 19985 |
| 150 | 8685 | 6068 | 6241 | 7262 | 7754 | 18418 | 21364 | 22030 | 17342 | 17418 | 17510 | 6545 | 15702 | 5745 | 8058 | 21455 | 17282 | 12043 | 12237 | 15530 | 13795 | 19452 |
| 151 | 9088 | 6322 | 6467 | 7479 | 7850 | 18769 | 21543 | 22248 | 17439 | 17432 | 17702 | 6718 | 15997 | 6026 | 8487 | 21616 | 17587 | 12486 | 12359 | 15577 | 13852 | 19733 |
| 152 | 9422 | 6717 | 6865 | 7877 | 8235 | 19139 | 21940 | 22646 | 17822 | 17790 | 18099 | 7115 | 16387 | 6418 | 8789 | 22011 | 17974 | 12760 | 12748 | 15947 | 14225 | 20126 |
| 153 | 10316 | 7634 | 7771 | 8777 | 9049 | 20063 | 22810 | 23541 | 18621 | 18495 | 18979 | 7992 | 17313 | 7342 | 9644 | 22867 | 18901 | 13571 | 15746 | 16695 | 14986 | 21048 |
| 154 | 10399 | 7580 | 7697 | 8693 | 8886 | 20086 | 22683 | 23443 | 18442 | 18268 | 18863 | 7881 | 17281 | 7309 | 9766 | 22727 | 18879 | 13727 | 13418 | 16488 | 14787 | 21003 |
| 155 | 10688 | 7709 | 7799 | 8777 | 8854 | 20299 | 22693 | 23494 | 18374 | 18120 | 18891 | 7931 | 17426 | 7468 | 10098 | 22718 | 19036 | 14089 | 13386 | 16376 | 14688 | 21129 |
| 156 | 10925 | 6699 | 6504 | 7150 | 6143 | 19211 | 19734 | 20845 | 14918 | 14183 | 16141 | 6113 | 15750 | 6789 | 10890 | 19615 | 17420 | 14994 | 10338 | 12670 | 11106 | 19167 |
| 157 | 11337 | 7064 | 6847 | 7450 | 6324 | 19489 | 19782 | 20937 | 14894 | 14056 | 16231 | 6412 | 15978 | 7178 | 11331 | 19641 | 17648 | 15428 | 10411 | 12603 | 11074 | 19352 |
| 158 | 11666 | 7424 | 7218 | 7837 | 6729 | 19883 | 20173 | 21336 | 15267 | 14387 | 16630 | 6799 | 16380 | 7524 | 11630 | 20027 | 18050 | 15735 | 10808 | 12961 | 11445 | 19757 |
| 159 | 11955 | 7683 | 7463 | 8053 | 6870 | 20079 | 20210 | 21403 | 15257 | 14306 | 16697 | 7015 | 16543 | 7798 | 11940 | 20048 | 18213 | 16040 | 10870 | 12923 | 11433 | 19888 |
| 160 | 12270 | 8190 | 8034 | 8736 | 7793 | 20807 | 21340 | 22478 | 16455 | 15568 | 17772</ | | | | | | | | | | | |

DECIBEL - Main Result

Calculation: SG132-3.465

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| WTG | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 178 | 7993 | 4219 | 4209 | 5127 | 5134 | 16986 | 18953 | 19768 | 14701 | 14654 | 15153 | 4222 | 13878 | 4115 | 7805 | 18983 | 15517 | 11929 | 9665 | 12802 | 11082 | 17520 |
| 179 | 10251 | 5817 | 5516 | 5950 | 4566 | 17859 | 17918 | 19078 | 13058 | 12339 | 14372 | 4930 | 14255 | 6046 | 10444 | 17781 | 15924 | 14445 | 8549 | 10805 | 9243 | 17561 |
| 180 | 9867 | 5431 | 5129 | 5569 | 4228 | 17497 | 17684 | 18814 | 12878 | 12249 | 14108 | 4547 | 13912 | 5663 | 10070 | 17562 | 15581 | 14065 | 8295 | 10664 | 9074 | 17242 |
| 181 | 15644 | 11190 | 10804 | 10925 | 8941 | 21844 | 19397 | 21016 | 13968 | 11978 | 16535 | 10037 | 17903 | 11521 | 16004 | 18995 | 19496 | 19880 | 11116 | 11398 | 10481 | 20600 |
| 182 | 13365 | 8995 | 8726 | 9200 | 7739 | 21077 | 20497 | 21822 | 15352 | 14073 | 17141 | 8176 | 17408 | 9169 | 13429 | 20263 | 19072 | 17503 | 11332 | 12909 | 11556 | 20605 |
| 183 | 17036 | 12636 | 12343 | 12740 | 11082 | 24391 | 22802 | 24328 | 17429 | 15579 | 19747 | 11737 | 20591 | 12833 | 17117 | 22449 | 22233 | 21187 | 14101 | 14874 | 13810 | 23567 |
| 184 | 17305 | 12890 | 12587 | 12958 | 11258 | 24540 | 22784 | 24336 | 17391 | 15477 | 19777 | 11963 | 20716 | 13100 | 17410 | 22415 | 22352 | 21470 | 14168 | 14829 | 13806 | 23649 |
| 185 | 17668 | 13258 | 12959 | 13337 | 11646 | 24930 | 23151 | 24711 | 17752 | 15811 | 20157 | 12341 | 21107 | 13463 | 17760 | 22776 | 22743 | 21826 | 14555 | 15187 | 14179 | 24037 |
| 186 | 18073 | 13667 | 13369 | 13750 | 12058 | 25339 | 23505 | 25078 | 18097 | 16119 | 20534 | 12753 | 21512 | 13869 | 18158 | 23123 | 23147 | 22228 | 14946 | 15530 | 14542 | 24431 |
| 187 | 18421 | 14009 | 13707 | 14076 | 12364 | 25629 | 23684 | 25276 | 18264 | 16237 | 20749 | 13083 | 21788 | 14216 | 18515 | 23290 | 23419 | 22580 | 15189 | 15694 | 14738 | 24679 |
| 188 | 18658 | 14235 | 13926 | 14275 | 12531 | 25766 | 23685 | 25297 | 18252 | 16174 | 20791 | 13288 | 21907 | 14452 | 18771 | 23278 | 23533 | 22828 | 15268 | 15681 | 14759 | 24762 |
| 189 | 8289 | 5712 | 5899 | 6925 | 7490 | 18025 | 21040 | 21686 | 17069 | 17202 | 17180 | 6233 | 15325 | 5376 | 7670 | 21141 | 16900 | 11666 | 11951 | 15291 | 13550 | 19080 |
| 190 | 9802 | 7067 | 7205 | 8211 | 8511 | 19515 | 22252 | 22977 | 18091 | 18007 | 18418 | 7432 | 16748 | 6777 | 9164 | 22314 | 18339 | 13126 | 13033 | 16187 | 14472 | 20482 |
| 191 | 9515 | 5073 | 4768 | 5207 | 3902 | 17147 | 17440 | 18545 | 12686 | 12139 | 13840 | 4184 | 13576 | 5313 | 9733 | 17334 | 15246 | 13717 | 8039 | 10508 | 8895 | 16926 |
| 192 | 17579 | 13231 | 12964 | 13420 | 11852 | 25191 | 23802 | 25307 | 18444 | 16620 | 20708 | 12402 | 21432 | 13394 | 17588 | 23459 | 23082 | 21686 | 15025 | 15893 | 14803 | 24468 |
| 193 | 13298 | 8833 | 8469 | 8685 | 6835 | 20046 | 18589 | 20033 | 13315 | 11830 | 15410 | 7746 | 16208 | 9135 | 13600 | 18293 | 17844 | 17527 | 9712 | 10811 | 9586 | 19167 |
| 194 | 13024 | 8562 | 8218 | 8497 | 6736 | 20024 | 18848 | 20249 | 13624 | 12239 | 15601 | 7531 | 16230 | 8838 | 13277 | 18577 | 17876 | 17242 | 9854 | 11145 | 9861 | 19264 |
| 195 | 15381 | 10936 | 10542 | 10633 | 8623 | 21467 | 18977 | 20597 | 13549 | 11571 | 16119 | 9762 | 17518 | 11280 | 15770 | 18575 | 19107 | 19618 | 10715 | 10979 | 10063 | 20195 |
| 196 | 17048 | 12599 | 12208 | 12301 | 10282 | 23021 | 20105 | 21805 | 14642 | 12415 | 17420 | 11431 | 19044 | 12938 | 17424 | 19650 | 20613 | 21285 | 12174 | 12075 | 11323 | 21611 |
| 197 | 16787 | 12345 | 11950 | 12025 | 9992 | 22696 | 19772 | 21469 | 14310 | 12099 | 17082 | 11164 | 18716 | 12691 | 17181 | 19320 | 20283 | 21024 | 11842 | 11742 | 10986 | 21275 |
| 198 | 7753 | 3846 | 3808 | 4706 | 4682 | 16615 | 18500 | 19321 | 14253 | 14230 | 14703 | 3785 | 13468 | 3781 | 7634 | 18529 | 15111 | 11750 | 9213 | 12366 | 10642 | 17097 |
| 199 | 9434 | 5792 | 5780 | 6683 | 6493 | 18558 | 20367 | 21244 | 15957 | 15686 | 16602 | 5750 | 15445 | 5674 | 9129 | 20363 | 17087 | 13248 | 11012 | 13939 | 12256 | 19073 |
| 200 | 9127 | 5457 | 5444 | 6349 | 6189 | 18223 | 20058 | 20923 | 15677 | 15449 | 16286 | 5419 | 15109 | 5342 | 8845 | 20060 | 16750 | 12967 | 10713 | 13681 | 11990 | 18739 |
| 201 | 8785 | 5111 | 5105 | 6018 | 5919 | 17875 | 19776 | 20623 | 15439 | 15268 | 15994 | 5099 | 14773 | 4992 | 8518 | 19789 | 16412 | 12642 | 10450 | 13474 | 11772 | 18410 |
| 202 | 10672 | 6413 | 6207 | 6837 | 5810 | 18893 | 19406 | 20513 | 14605 | 13901 | 15809 | 5799 | 15421 | 6518 | 10666 | 19291 | 17091 | 14762 | 10008 | 12368 | 10796 | 18834 |
| 203 | 10402 | 6115 | 5899 | 6514 | 5475 | 18566 | 19087 | 20186 | 14305 | 13642 | 15482 | 5476 | 15088 | 6234 | 10424 | 18977 | 16758 | 14509 | 9686 | 12085 | 10501 | 18500 |
| 204 | 10021 | 5728 | 5512 | 6134 | 5139 | 18191 | 18811 | 19885 | 14077 | 13488 | 15184 | 5096 | 14728 | 5850 | 10056 | 18714 | 16397 | 14136 | 9402 | 11889 | 10283 | 18155 |
| 205 | 13635 | 9188 | 8866 | 9203 | 7510 | 20827 | 19688 | 21096 | 14446 | 12997 | 16450 | 8216 | 17052 | 9433 | 13825 | 19409 | 18701 | 17834 | 10703 | 11955 | 10695 | 20107 |
| 206 | 11611 | 7626 | 7502 | 8256 | 7479 | 20318 | 21178 | 22252 | 16399 | 15661 | 17553 | 7237 | 16970 | 7625 | 11411 | 21074 | 18635 | 15537 | 11771 | 14157 | 12590 | 20458 |
| 207 | 12552 | 8238 | 7998 | 8542 | 7241 | 20520 | 20367 | 21614 | 15330 | 14244 | 16914 | 7507 | 16930 | 8377 | 12566 | 20175 | 18599 | 16658 | 11085 | 12949 | 11511 | 20218 |
| 208 | 13208 | 8908 | 8671 | 9217 | 7896 | 21189 | 20919 | 22196 | 15834 | 14650 | 17502 | 8182 | 17586 | 9040 | 13202 | 20710 | 19254 | 17301 | 11677 | 13422 | 12023 | 20855 |

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6812 | 8954 | 5590 | 9227 | 14393 | 12323 | 10669 | 2835 | 2820 | 4312 | 18171 | 17936 | 17655 | 16822 | 6821 | 6270 | 9202 |
| 2 | 2356 | 13440 | 10098 | 5140 | 16139 | 13918 | 12411 | 5275 | 5910 | 8096 | 20528 | 20279 | 20101 | 18834 | 11098 | 9417 | 12857 |
| 3 | 2885 | 12689 | 9395 | 6270 | 14946 | 12725 | 11216 | 5390 | 5909 | 7974 | 19335 | 19086 | 18910 | 17639 | 10788 | 9529 | 11801 |
| 4 | 3428 | 12147 | 8847 | 6655 | 14750 | 12539 | 11001 | 4959 | 5441 | 7468 | 19076 | 18827 | 18638 | 17419 | 10249 | 9074 | 11356 |
| 5 | 8752 | 7129 | 3765 | 11015 | 14246 | 12318 | 10663 | 3314 | 2808 | 3140 | 17634 | 17409 | 17079 | 16485 | 5029 | 5350 | 8106 |
| 6 | 8100 | 8299 | 4982 | 9939 | 15436 | 13450 | 11789 | 1931 | 1490 | 2644 | 18944 | 18716 | 18397 | 17741 | 5354 | 4629 | 9487 |
| 7 | 9441 | 6625 | 3304 | 11564 | 14541 | 12670 | 11025 | 3506 | 2871 | 2652 | 17771 | 17551 | 17203 | 16703 | 4291 | 4885 | 8057 |
| 8 | 7905 | 7697 | 4370 | 10579 | 13341 | 11339 | 9678 | 3861 | 3585 | 4389 | 16953 | 16721 | 16422 | 15685 | 6270 | 6560 | 7813 |
| 9 | 8308 | 7292 | 4102 | 11267 | 12351 | 10366 | 8707 | 4866 | 4571 | 5164 | 15949 | 15717 | 15419 | 14682 | 6629 | 7378 | 6908 |
| 10 | 4938 | 11029 | 7662 | 7155 | 15518 | 13359 | 11745 | 2990 | 3484 | 5577 | 19577 | 19334 | 19094 | 18078 | 8511 | 7108 | 11061 |
| 11 | 5430 | 10495 | 7128 | 7681 | 15258 | 13119 | 11491 | 2753 | 3150 | 5162 | 19247 | 19006 | 18754 | 17787 | 8030 | 6793 | 10602 |
| 12 | 5929 | 10146 | 6777 | 7998 | 15422 | 13306 | 11667 | 2270 | 2622 | 4625 | 19324 | 19086 | 18821 | 17913 | 7521 | 6265 | 10490 |
| 13 | 10133 | 5759 | 3084 | 13263 | 11011 | 9199 | 7578 | 6614 | 6173 | 6141 | 14265 | 14041 | 13709 | 13156 | 6601 | 8354 | 4907 |
| 14 | 3920 | 12111 | 8966 | 7809 | 13245 | 11020 | 9534 | 6334 | 6688 | 8506 | 17688 | 17438 | 17278 | 15954 | 10975 | 10319 | 10598 |
| 15 | 10072 | 5537 | 2461 | 12941 | 12017 | 10215 | 8593 | 5814 | 5311 | 5139 | 15192 | 14972 | 14627 | 14132 | 5667 | 7344 | 5605 |
| 16 | 12222 | 4369 | 3084 | 15431 | 10033 | 8528 | 7053 | 8547 | 8013 | 7518 | 12720 | 12511 | 12130 | 11863 | 7033 | 9609 | 2875 |
| 17 | 12644 | 4059 | 3122 | 15838 | 10027 | 8599 | 7166 | 8862 | 8308 | 7718 | 12563 | 12359 | 11965 | 11774 | 7053 | 9772 | 2603 |
| 18 | 11046 | 5271 | 3206 | 14288 | 10216 | 8516 | 6943 | 7672 | 7204 | 6997 | 13283 | 13064 | 12716 | 12254 | 7037 | 9173 | 3821 |
| 19 | 12100 | 6768 | 5741 | 15794 | 7467 | 5840 | 4345 | 10139 | 9758 | 9733 | 10670 | 10442 | 10129 | 9532 | 9675 | 11920 | 2682 |
| 20 | 6698 | 10344 | 7586 | 10629 | 10572 | 8368 | 6816 | 7428 | 7489 | 8729 | 14909 | 14659 | 14484 | 13233 | 10466 | 10843 | 8022 |
| 21 | 2929 | 12754 | 9419 | 5826 | 15596 | 13381 | 11851 | 4886 | 5467 | 7605 | 19935 | 19686 | 19498 | 18271 | 10537 | 9041 | 12160 |
| 22 | 7482 | 8279 | 5201 | 10743 | 11876 | 9803 | 8149 | 5334 | 5200 | 6138 | 15728 | 15489 | 15227 | 14327 | 7800 | 8309 | 7242 |
| 23 | 2591 | 15320 | 11951 | 2882 | 18438 | 16213 | 14728 | 6143 | 6907 | 9149 | 22864 | 22614 | 22441 | 21149 | 12356 | 10003 | 15114 |
| 24 | 5016 | 11506 | 8503 | 8980 | 12073 | 9851 | 8357 | 6867 | 7103 | 8706 | 16510 | 16260 | 16102 | 14778 | 10896 | 10663 | 9616 |
| 25 | 4378 | 11539 | 8389 | 8129 | 13065 | 10849 | 9326 | 5960 | 6266 | 8017 | 17437 | 17188 | 17012 | 15748 | 10429 | 9878 | 10119 |
| 26 | 3501 | 12225 | 9004 | 7201 | 13938 | 11716 | 10213 | 5806 | 6220 | 8140 | 18344 | 18094 | 17925 | 16635 | 10756 | 9863 | 11008 |
| 27 | 8336 | 7436 | 4067 | 10714 | 14021 | 12058 | 10399 | 3331 | 2926 | 3537 | 17505 | 17278 | 16960 | 16307 | 5508 | 5720 | 8116 |
| 28 | 10170 | 5892 | 2606 | 12318 | 14407 | | | | | | | | | | | | |

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

Table with 17 columns (WTG, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI) and 93 rows of numerical data.

To be continued on next page...

DECIBEL - Main Result

Calculation: SG132-3.465

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 94 | 9013 | 13567 | 10607 | 7880 | 21359 | 19277 | 17627 | 4251 | 4710 | 5868 | 25055 | 24824 | 24519 | 23772 | 8815 | 5125 | 15597 |
| 95 | 10208 | 11520 | 8791 | 9875 | 20473 | 18495 | 16835 | 3540 | 3580 | 3882 | 23852 | 23631 | 23287 | 22735 | 6532 | 2739 | 14083 |
| 96 | 9959 | 6764 | 4520 | 13447 | 9633 | 7739 | 6098 | 7662 | 7331 | 7573 | 13152 | 12919 | 12624 | 11900 | 8149 | 9801 | 4554 |
| 97 | 9354 | 7441 | 5067 | 12928 | 9640 | 7657 | 5999 | 7545 | 7283 | 7731 | 13356 | 13119 | 12849 | 12008 | 8561 | 9964 | 5144 |
| 98 | 9328 | 6326 | 3267 | 12314 | 11843 | 9952 | 8307 | 5601 | 5192 | 5366 | 15233 | 15006 | 14685 | 14066 | 6283 | 7598 | 5941 |
| 99 | 14367 | 9325 | 9070 | 18363 | 4050 | 2916 | 2208 | 13520 | 13188 | 13227 | 7344 | 7105 | 6856 | 6050 | 13017 | 15411 | 4213 |
| 100 | 12777 | 9717 | 8852 | 16833 | 4661 | 2765 | 1224 | 12514 | 12261 | 12563 | 8688 | 8439 | 8257 | 7116 | 12768 | 14785 | 4874 |
| 101 | 12732 | 8319 | 7541 | 16646 | 5692 | 4043 | 2612 | 11666 | 11346 | 11466 | 9201 | 8963 | 8703 | 7885 | 11479 | 13670 | 3548 |
| 102 | 9900 | 9244 | 7384 | 13880 | 7521 | 5397 | 3756 | 9758 | 9596 | 10222 | 11687 | 11439 | 11249 | 10089 | 11038 | 12452 | 5554 |
| 103 | 19668 | 12523 | 13437 | 23725 | 4008 | 5674 | 6626 | 18720 | 18316 | 18058 | 2201 | 2020 | 1588 | 2551 | 17229 | 20147 | 7882 |
| 104 | 19339 | 12518 | 13330 | 23411 | 3600 | 5281 | 6268 | 18511 | 18121 | 17909 | 2318 | 2107 | 1756 | 2290 | 17150 | 20013 | 7792 |
| 105 | 18010 | 12298 | 12742 | 22120 | 2213 | 3812 | 4881 | 17551 | 17206 | 17148 | 3366 | 3118 | 2962 | 2163 | 16638 | 19299 | 7328 |
| 106 | 18513 | 12440 | 13011 | 22614 | 2663 | 4338 | 5395 | 17947 | 17587 | 17479 | 2901 | 2657 | 2462 | 2009 | 16885 | 19616 | 7543 |
| 107 | 19030 | 12482 | 13206 | 23113 | 3248 | 4927 | 5939 | 18298 | 17919 | 17745 | 2507 | 2280 | 1995 | 2137 | 17047 | 19862 | 7687 |
| 108 | 8984 | 11399 | 9327 | 13171 | 7763 | 5536 | 4191 | 10534 | 10531 | 11533 | 12379 | 12127 | 12030 | 10519 | 12777 | 13720 | 7677 |
| 109 | 2076 | 16167 | 12805 | 2372 | 18582 | 16354 | 14924 | 7182 | 7937 | 10182 | 23105 | 22853 | 22705 | 21325 | 13368 | 11072 | 15703 |
| 110 | 2201 | 16798 | 13438 | 2055 | 18900 | 16674 | 15275 | 7842 | 8598 | 10843 | 23469 | 23217 | 23081 | 21656 | 14030 | 11714 | 16239 |
| 111 | 2522 | 17302 | 13943 | 1806 | 19258 | 17035 | 15655 | 8318 | 9079 | 11322 | 23853 | 23600 | 23472 | 22021 | 14518 | 12158 | 16714 |
| 112 | 3789 | 15588 | 12228 | 2648 | 19451 | 17231 | 15716 | 5987 | 6780 | 8978 | 23806 | 23558 | 23368 | 22138 | 12241 | 9567 | 15756 |
| 113 | 3975 | 16118 | 12759 | 2178 | 19902 | 17680 | 16176 | 6474 | 7270 | 9452 | 24284 | 24035 | 23850 | 22599 | 12722 | 9973 | 16285 |
| 114 | 4065 | 16919 | 13557 | 1365 | 20375 | 18148 | 16674 | 7301 | 8096 | 10277 | 24816 | 24566 | 24395 | 23093 | 13548 | 10769 | 16985 |
| 115 | 4191 | 17547 | 14183 | 712 | 20718 | 18490 | 17041 | 7963 | 8758 | 10942 | 25206 | 24955 | 24795 | 23451 | 14212 | 11426 | 17522 |
| 116 | 10166 | 13391 | 10605 | 9054 | 21902 | 19864 | 18206 | 4734 | 5023 | 5722 | 25446 | 25220 | 24893 | 24246 | 8394 | 4547 | 15801 |
| 117 | 10564 | 12804 | 10107 | 9682 | 21688 | 19683 | 18023 | 4595 | 4767 | 5195 | 25130 | 24907 | 24569 | 23984 | 7729 | 3852 | 15392 |
| 118 | 12636 | 12617 | 10347 | 11818 | 22660 | 20750 | 19095 | 6061 | 5982 | 5578 | 25804 | 25592 | 25219 | 24815 | 7273 | 3557 | 15848 |
| 119 | 12717 | 10984 | 8857 | 12457 | 21447 | 19605 | 17962 | 5533 | 5242 | 4297 | 24421 | 24214 | 23825 | 23514 | 5619 | 2098 | 14401 |
| 120 | 12099 | 10994 | 8707 | 11848 | 21130 | 19256 | 17607 | 4971 | 4725 | 3991 | 24197 | 23987 | 23608 | 23242 | 5680 | 1912 | 14218 |
| 121 | 10293 | 9918 | 7208 | 10604 | 19167 | 17244 | 15588 | 2888 | 2582 | 2292 | 22409 | 22192 | 21835 | 21358 | 5012 | 1530 | 12560 |
| 122 | 11524 | 5448 | 2762 | 13307 | 15577 | 13883 | 12289 | 4762 | 3973 | 2265 | 18334 | 18130 | 17733 | 17504 | 2116 | 4038 | 8296 |
| 123 | 10974 | 6053 | 3206 | 12682 | 15751 | 13998 | 12383 | 4123 | 3333 | 1716 | 18646 | 18438 | 18053 | 17750 | 2525 | 3683 | 8658 |
| 124 | 12560 | 4444 | 2313 | 14435 | 15419 | 13842 | 12295 | 5898 | 5109 | 3291 | 17909 | 17714 | 17295 | 17205 | 1677 | 4752 | 7827 |
| 125 | 12024 | 4916 | 2441 | 13868 | 15443 | 13806 | 12234 | 5334 | 4546 | 2789 | 18071 | 17872 | 17464 | 17302 | 1862 | 4409 | 8003 |
| 126 | 13636 | 3734 | 2591 | 15523 | 15588 | 14130 | 12634 | 6964 | 6170 | 4245 | 17798 | 17614 | 17173 | 17227 | 1688 | 5408 | 7753 |
| 127 | 13142 | 3926 | 2289 | 15059 | 15377 | 13869 | 12352 | 6525 | 5735 | 3881 | 17709 | 17521 | 17089 | 17079 | 1723 | 5205 | 7638 |
| 128 | 14091 | 10016 | 9572 | 18152 | 3596 | 2165 | 1448 | 13683 | 13393 | 13560 | 7378 | 7130 | 6940 | 5874 | 13520 | 15765 | 4940 |
| 129 | 17862 | 10048 | 10916 | 21799 | 4377 | 5046 | 5365 | 16353 | 15917 | 15575 | 4729 | 4543 | 4111 | 4492 | 14701 | 17645 | 5357 |
| 130 | 18461 | 10119 | 11182 | 22373 | 4881 | 5681 | 6024 | 16781 | 16324 | 15907 | 4577 | 4417 | 3938 | 4657 | 14909 | 17946 | 5624 |
| 131 | 2797 | 18340 | 15021 | 3246 | 18993 | 16797 | 15532 | 9865 | 10593 | 12834 | 23708 | 23455 | 23370 | 21780 | 15956 | 13829 | 17259 |
| 132 | 2811 | 18281 | 14950 | 2870 | 19194 | 16992 | 15705 | 9669 | 10407 | 12652 | 23891 | 23638 | 23545 | 21979 | 15796 | 13599 | 17306 |
| 133 | 4503 | 19979 | 16718 | 5183 | 19280 | 17145 | 16033 | 11946 | 12650 | 14877 | 24089 | 23837 | 23803 | 22065 | 17934 | 15969 | 18444 |
| 134 | 4897 | 20299 | 17057 | 5678 | 19283 | 17167 | 16093 | 12389 | 13085 | 15307 | 24107 | 23856 | 23833 | 22064 | 18343 | 16428 | 18656 |
| 135 | 5281 | 20647 | 17414 | 6025 | 19434 | 17332 | 16285 | 12785 | 13480 | 15700 | 24266 | 24016 | 24001 | 22210 | 18730 | 16826 | 18946 |
| 136 | 5632 | 20807 | 17611 | 6703 | 19123 | 17049 | 16055 | 13198 | 13875 | 16080 | 23968 | 23719 | 23719 | 21889 | 19062 | 17274 | 18932 |
| 137 | 6346 | 21316 | 18159 | 7559 | 19099 | 17066 | 16142 | 13933 | 14595 | 16786 | 23954 | 23706 | 23727 | 21847 | 19728 | 18029 | 19265 |
| 138 | 6530 | 21199 | 18088 | 8102 | 18558 | 16553 | 15676 | 14111 | 14750 | 16916 | 23415 | 23168 | 23201 | 21294 | 19798 | 18234 | 19893 |
| 139 | 6918 | 21533 | 18434 | 8454 | 18698 | 16713 | 15867 | 14497 | 15135 | 17297 | 23555 | 23309 | 23351 | 21424 | 20171 | 18622 | 19263 |
| 140 | 7268 | 22744 | 19490 | 7077 | 21359 | 19293 | 18303 | 14615 | 15338 | 17576 | 26207 | 25958 | 25963 | 24121 | 20668 | 18573 | 21079 |
| 141 | 7801 | 23277 | 20024 | 7501 | 21781 | 19728 | 18759 | 15133 | 15858 | 18097 | 26633 | 26384 | 26395 | 24536 | 21195 | 19079 | 21593 |
| 142 | 8002 | 23434 | 20195 | 7828 | 21731 | 19694 | 18750 | 15381 | 16101 | 18337 | 26586 | 26338 | 26357 | 24480 | 21420 | 19346 | 21677 |
| 143 | 8332 | 23787 | 20541 | 8020 | 22097 | 20064 | 19124 | 15677 | 16402 | 18641 | 26953 | 26705 | 26725 | 24844 | 21735 | 19624 | 22049 |
| 144 | 8794 | 24249 | 21005 | 8405 | 22473 | 20450 | 19527 | 16127 | 16854 | 19093 | 27329 | 27082 | 27108 | 25213 | 22192 | 20064 | 22497 |
| 145 | 10813 | 26134 | 22931 | 10549 | 23536 | 21599 | 20799 | 18230 | 18948 | 21182 | 28385 | 28142 | 28205 | 26228 | 24251 | 22193 | 24140 |
| 146 | 11393 | 26663 | 23474 | 11177 | 23826 | 21917 | 21153 | 18832 | 19546 | 21778 | 28668 | 28426 | 28500 | 26501 | 24837 | 22805 | 24598 |
| 147 | 11778 | 27063 | 23871 | 11495 | 24196 | 22294 | 21538 | 19204 | 19921 | 22155 | 29036 | 28794 | 28871 | 26865 | 25220 | 23167 | 24999 |
| 148 | 8041 | 21195 | 17864 | 3801 | 24734 | 22507 | 21081 | 11288 | 12075 | 14093 | 29259 | 29008 | 28855 | 27481 | 17351 | 14074 | 21515 |
| 149 | 7634 | 21042 | 17700 | 3423 | 24349 | 22123 | 20711 | 11182 | 11973 | 14027 | 28896 | 28645 | 28498 | 27102 | 17295 | 14087 | 21253 |
| 150 | 6974 | 20551 | 17200 | 2778 | 23695 | 21469 | 20062 | 10747 | 11542 | 13631 | 28250 | 27998 | 27853 | 26449 | 16906 | 13781 | 20668 |
| 151 | 7037 | 20866 | 17510 | 2932 | 23773 | 21550 | 20162 | 11104 | 11901 | 14007 | 28357 | 28105 | 27969 | 26535 | 17284 | 14194 | 20893 |
| 152 | 7415 | 21251 | 17895 | 3329 | 24152 | 21929 | 20546 | 11471 | 12266 | 14362 | 28742 | 28490 | 28356 | 26916 | 17638 | 14517 | 21291 |
| 153 | 8202 | 22178 | 18823 | 4213 | 24928 | 22709 | 21347 | 12392 | 13188 | 15276 | 29547 | 29294 | 29169 | 27699 | 18550 | 15395 | 22191 |
| 154 | 8024 | 22165 | 18805 | 4122 | 24734 | 22518 | 21168 | 12424 | 13220 | 15328 | 29368 | 29116 | 28996 | 27508 | 18604 | 15495 | 22098 |

To be continued on next page...

DECIBEL - Main Result

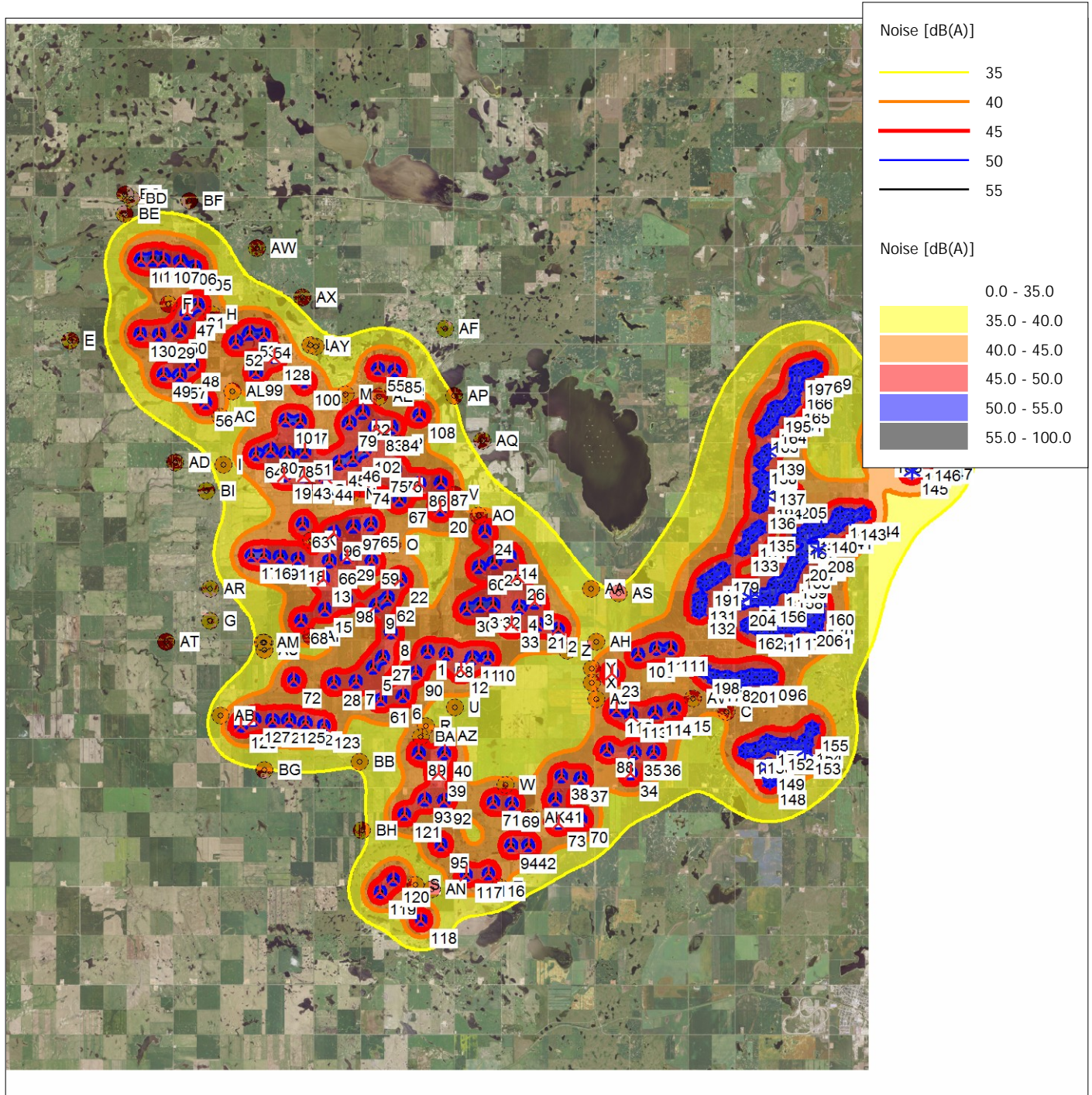
Calculation: SG132-3.465

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| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
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| 155 | 7970 | 22332 | 18968 | 4220 | 24639 | 22428 | 21100 | 12652 | 13449 | 15578 | 29298 | 29045 | 28934 | 27418 | 18856 | 15800 | 22159 |
| 156 | 5191 | 20732 | 17407 | 4189 | 20945 | 18782 | 17601 | 12055 | 12808 | 15053 | 25722 | 25469 | 25413 | 23735 | 18225 | 15898 | 19607 |
| 157 | 5384 | 20954 | 17641 | 4661 | 20860 | 18710 | 17561 | 12403 | 13148 | 15393 | 25654 | 25402 | 25356 | 23648 | 18546 | 16282 | 19715 |
| 158 | 5789 | 21357 | 18043 | 4912 | 21208 | 19065 | 17927 | 12772 | 13521 | 15767 | 26009 | 25757 | 25715 | 23996 | 18927 | 16632 | 20116 |
| 159 | 5940 | 21514 | 18210 | 5242 | 21151 | 19019 | 17904 | 13018 | 13761 | 16006 | 25962 | 25711 | 25676 | 23936 | 19154 | 16901 | 20195 |
| 160 | 6840 | 22368 | 19036 | 5314 | 22397 | 20255 | 19118 | 13560 | 14325 | 16567 | 27200 | 26948 | 26906 | 25184 | 19767 | 17315 | 21246 |
| 161 | 4966 | 20339 | 16990 | 3234 | 21204 | 19016 | 17773 | 11394 | 12163 | 14403 | 25938 | 25685 | 25607 | 23993 | 17612 | 15144 | 19463 |
| 162 | 4528 | 19914 | 16568 | 3024 | 20801 | 18610 | 17357 | 11020 | 11785 | 14027 | 25528 | 25275 | 25193 | 23589 | 17227 | 14805 | 19025 |
| 163 | 7291 | 21563 | 18516 | 9099 | 18259 | 16312 | 15525 | 14827 | 15442 | 17577 | 23112 | 22868 | 22924 | 20965 | 20388 | 18969 | 19123 |
| 164 | 7699 | 21921 | 18888 | 9464 | 18425 | 16501 | 15747 | 15234 | 15848 | 17980 | 23273 | 23030 | 23096 | 21117 | 20784 | 19376 | 19429 |
| 165 | 8722 | 22892 | 19882 | 10332 | 19004 | 17135 | 16452 | 16264 | 16879 | 19011 | 23837 | 23596 | 23682 | 21662 | 21810 | 20405 | 20306 |
| 166 | 9119 | 23138 | 20155 | 10793 | 18979 | 17142 | 16501 | 16642 | 17248 | 19369 | 23800 | 23561 | 23657 | 21616 | 22142 | 20788 | 20467 |
| 167 | 6492 | 21973 | 18716 | 6459 | 20784 | 18698 | 17674 | 13855 | 14574 | 16811 | 25625 | 25375 | 25369 | 23554 | 19896 | 17827 | 20349 |
| 168 | 6099 | 21666 | 18372 | 5561 | 21097 | 18976 | 17884 | 13256 | 13995 | 16239 | 25917 | 25666 | 25639 | 23879 | 19372 | 17162 | 20272 |
| 169 | 10035 | 23981 | 21022 | 11624 | 19473 | 17689 | 17112 | 17559 | 18164 | 20282 | 24269 | 24033 | 24147 | 22073 | 23045 | 21705 | 21222 |
| 170 | 6848 | 22328 | 18986 | 5062 | 22597 | 20445 | 19285 | 13411 | 14183 | 16421 | 27388 | 27136 | 27087 | 25386 | 19635 | 17121 | 21302 |
| 171 | 6848 | 22272 | 18924 | 4842 | 22749 | 20589 | 19409 | 13268 | 14044 | 16278 | 27529 | 27277 | 27221 | 25539 | 19503 | 16938 | 21329 |
| 172 | 6110 | 21523 | 18175 | 4199 | 22130 | 19959 | 18756 | 12546 | 13319 | 15556 | 26895 | 26642 | 26579 | 24920 | 18775 | 16248 | 20599 |
| 173 | 5355 | 20734 | 17385 | 3518 | 21532 | 19350 | 18118 | 11767 | 12538 | 14777 | 26277 | 26024 | 25950 | 24322 | 17991 | 15496 | 19851 |
| 174 | 5765 | 21180 | 17833 | 3943 | 21823 | 19649 | 18438 | 12229 | 12999 | 15238 | 26582 | 26330 | 26263 | 24614 | 18452 | 15952 | 20255 |
| 175 | 6666 | 22215 | 18933 | 6188 | 21350 | 19249 | 18196 | 13882 | 14617 | 16860 | 26184 | 25933 | 25918 | 24126 | 19984 | 17798 | 20730 |
| 176 | 5881 | 20750 | 17382 | 2762 | 22468 | 20262 | 18958 | 11384 | 12174 | 14379 | 27150 | 26898 | 26797 | 25251 | 17640 | 14883 | 20256 |
| 177 | 4627 | 19257 | 15888 | 1346 | 21343 | 19125 | 17771 | 9903 | 10691 | 12903 | 25971 | 25718 | 25598 | 24115 | 16158 | 13467 | 18846 |
| 178 | 4283 | 18835 | 15466 | 1012 | 21015 | 18795 | 17427 | 9493 | 10280 | 12495 | 25626 | 25374 | 25249 | 23783 | 15747 | 13083 | 18441 |
| 179 | 3660 | 19214 | 15927 | 4314 | 19082 | 16917 | 15737 | 11007 | 11720 | 13953 | 23857 | 23604 | 23548 | 21872 | 17035 | 15011 | 17862 |
| 180 | 3310 | 18877 | 15582 | 4026 | 18950 | 16774 | 15569 | 10623 | 11337 | 13572 | 23708 | 23456 | 23391 | 21740 | 16659 | 14624 | 17588 |
| 181 | 8365 | 22584 | 19561 | 9999 | 18857 | 16967 | 16256 | 15910 | 16527 | 18662 | 23697 | 23455 | 23533 | 21528 | 21468 | 20051 | 20041 |
| 182 | 6874 | 22338 | 19087 | 6818 | 20997 | 18924 | 17923 | 14248 | 14966 | 17202 | 25843 | 25593 | 25594 | 23762 | 20285 | 18220 | 20672 |
| 183 | 10298 | 25432 | 22270 | 10473 | 22480 | 20565 | 19799 | 17813 | 18510 | 20730 | 27324 | 27082 | 27153 | 25160 | 23743 | 21838 | 23283 |
| 184 | 10493 | 25535 | 22393 | 10798 | 22359 | 20466 | 19730 | 18034 | 18723 | 20936 | 27197 | 26956 | 27035 | 25026 | 23928 | 22076 | 23308 |
| 185 | 10877 | 25925 | 22784 | 11126 | 22681 | 20800 | 20078 | 18413 | 19105 | 21319 | 27515 | 27275 | 27359 | 25340 | 24315 | 22450 | 23687 |
| 186 | 11290 | 26325 | 23189 | 11511 | 22974 | 21108 | 20406 | 18826 | 19517 | 21732 | 27802 | 27563 | 27652 | 25622 | 24727 | 22861 | 24061 |
| 187 | 11607 | 26587 | 23464 | 11876 | 23070 | 21224 | 20547 | 19153 | 19841 | 22052 | 27891 | 27652 | 27749 | 25705 | 25036 | 23196 | 24271 |
| 188 | 11790 | 26687 | 23581 | 12157 | 22984 | 21158 | 20507 | 19351 | 20032 | 22238 | 27796 | 27558 | 27662 | 25605 | 25203 | 23407 | 24307 |
| 189 | 6734 | 20166 | 16817 | 2498 | 23431 | 21204 | 19785 | 10352 | 11147 | 13234 | 27967 | 27716 | 27566 | 26180 | 16509 | 13387 | 20321 |
| 190 | 7675 | 21618 | 18262 | 3650 | 24408 | 22187 | 20816 | 11848 | 12644 | 14742 | 29014 | 28762 | 28633 | 27176 | 18018 | 14895 | 21625 |
| 191 | 2973 | 18545 | 15245 | 3801 | 18798 | 16614 | 15386 | 10260 | 10975 | 13209 | 23541 | 23288 | 23216 | 21588 | 16300 | 14263 | 17309 |
| 192 | 11033 | 26302 | 23112 | 10860 | 23523 | 21604 | 20829 | 18479 | 19192 | 21423 | 28368 | 28126 | 28196 | 26205 | 24478 | 22457 | 24247 |
| 193 | 6147 | 21032 | 17886 | 7542 | 18772 | 16738 | 15813 | 13737 | 14391 | 16573 | 23627 | 23379 | 23399 | 21522 | 19496 | 17844 | 18950 |
| 194 | 5992 | 21091 | 17910 | 7092 | 19173 | 17118 | 16155 | 13568 | 14240 | 16439 | 24024 | 23775 | 23785 | 21932 | 19408 | 17650 | 19142 |
| 195 | 8074 | 22185 | 19173 | 9862 | 18457 | 16559 | 15841 | 15596 | 16204 | 18328 | 23299 | 23057 | 23132 | 21133 | 21114 | 19741 | 19623 |
| 196 | 9743 | 23645 | 20688 | 11413 | 19181 | 17386 | 16797 | 17254 | 17856 | 19969 | 23983 | 23747 | 23857 | 21790 | 22722 | 21402 | 20888 |
| 197 | 9468 | 23311 | 20359 | 11229 | 18878 | 17073 | 16474 | 16963 | 17560 | 19666 | 23685 | 23448 | 23555 | 21495 | 22408 | 21113 | 20551 |
| 198 | 3836 | 18431 | 15063 | 976 | 20572 | 18350 | 16979 | 9161 | 9944 | 12168 | 25177 | 24925 | 24799 | 23338 | 15410 | 12814 | 17996 |
| 199 | 5582 | 20406 | 17038 | 2425 | 22206 | 19997 | 18681 | 11041 | 11831 | 14037 | 26877 | 26624 | 26519 | 24987 | 17297 | 14553 | 19930 |
| 200 | 5286 | 20069 | 16701 | 2108 | 21941 | 19729 | 18403 | 10712 | 11501 | 13709 | 26600 | 26347 | 26238 | 24719 | 16967 | 14241 | 19607 |
| 201 | 5031 | 19730 | 16362 | 1762 | 21721 | 19506 | 18165 | 10362 | 11151 | 13359 | 26365 | 26112 | 25998 | 24496 | 16617 | 13896 | 19302 |
| 202 | 4858 | 20403 | 17079 | 4017 | 20648 | 18481 | 17291 | 11761 | 12511 | 14756 | 25419 | 25166 | 25107 | 23438 | 17920 | 15624 | 19274 |
| 203 | 4524 | 20070 | 16747 | 3837 | 20368 | 18197 | 16996 | 11454 | 12201 | 14446 | 25132 | 24880 | 24817 | 23159 | 17604 | 15334 | 18945 |
| 204 | 4184 | 19711 | 16384 | 3520 | 20178 | 17997 | 16775 | 11068 | 11815 | 14060 | 24927 | 24674 | 24604 | 22968 | 17220 | 14948 | 18635 |
| 205 | 6733 | 21924 | 18732 | 7453 | 19938 | 17900 | 16961 | 14279 | 14965 | 17176 | 24792 | 24544 | 24562 | 22689 | 20174 | 18337 | 19991 |
| 206 | 6520 | 21956 | 18610 | 4616 | 22432 | 20269 | 19085 | 12988 | 13762 | 15998 | 27209 | 26956 | 26899 | 25222 | 19218 | 16684 | 20998 |
| 207 | 6333 | 21888 | 18603 | 5896 | 21129 | 19019 | 17950 | 13546 | 14281 | 16523 | 25957 | 25706 | 25686 | 23907 | 19647 | 17466 | 20429 |
| 208 | 6996 | 22539 | 19260 | 6494 | 21559 | 19467 | 18432 | 14220 | 14955 | 17198 | 26397 | 26147 | 26138 | 24331 | 20322 | 18134 | 21023 |

DECIBEL - Map 95% rated power

Calculation: SG132-3.465



Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 641,190 North: 5,375,412
 ▲ New WTG * Existing WTG ■ Noise sensitive area
 Noise calculation model: ISO 9613-2 General. Wind speed: 95% rated power
 Height above sea level from active line object

DECIBEL - Main Result

Calculation: V136-4.0/4.2

Noise calculation model:
ISO 9613-2 General

Wind speed:
95% rated power

Ground attenuation:
General, fixed, Ground factor: 0.5

Meteorological coefficient, CO:
0.0 dB

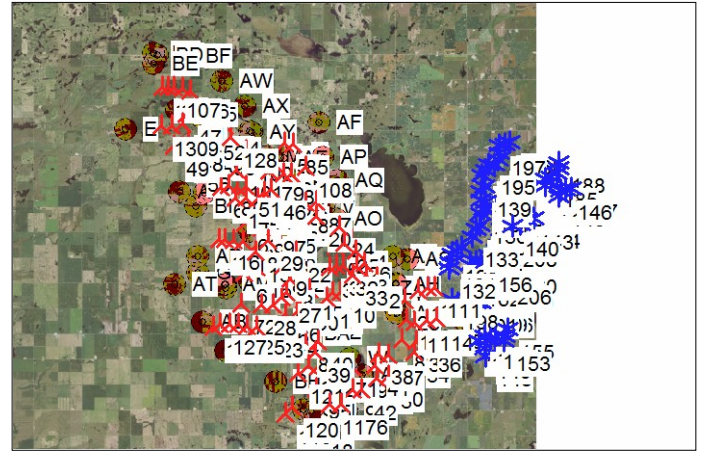
Type of demand in calculation:
1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:
All noise values are mean values (Lwa) (Normal)

Pure tones:
Pure and Impulse tone penalty are added to WTG source noise
Height above ground level, when no value in NSA object:
1.5 m Don't allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive,
positive is less restrictive.:

0.0 dB(A)



Scale 1:500,000
 New WTG
 Existing WTG
 Noise sensitive area

WTGs

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones | | |
|----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------------|-----------------------------|------------|---------|------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator | Name |
| | | | [m] | | | | | | | | | | | | |
| 1 | 637,619 | 5,373,512 | 727.5 | T-43 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 2 | 642,085 | 5,374,363 | 728.5 | T-41 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 3 | 641,252 | 5,375,220 | 737.7 | T-63 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 4 | 640,729 | 5,375,038 | 740.7 | T-62 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 5 | 635,764 | 5,372,945 | 724.6 | T-45 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 6 | 636,817 | 5,372,047 | 728.5 | T-35 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 7 | 635,193 | 5,372,473 | 710.2 | T-47 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 8 | 636,346 | 5,374,109 | 734.6 | T-56 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 9 | 635,830 | 5,374,972 | 728.5 | T-55 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 10 | 639,692 | 5,373,363 | 740.7 | T-39 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 11 | 639,157 | 5,373,344 | 739.4 | T-38 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 12 | 638,790 | 5,372,951 | 734.6 | T-37 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 13 | 633,988 | 5,375,810 | 737.6 | T-70 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 14 | 640,372 | 5,376,713 | 738.1 | T-77 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 15 | 634,074 | 5,374,798 | 721.2 | T-53 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 16 | 631,934 | 5,376,511 | 729.8 | T-67 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 17 | 631,510 | 5,376,507 | 731.5 | T-66 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 18 | 633,108 | 5,376,447 | 723.9 | T-69 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 19 | 632,563 | 5,379,145 | 737.6 | T-93 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 20 | 637,951 | 5,378,169 | 715.2 | T-80 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 21 | 641,389 | 5,374,486 | 743.7 | T-58 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 22 | 636,640 | 5,375,835 | 734.6 | T-73 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 23 | 643,972 | 5,372,967 | 712.3 | T-28 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 24 | 639,495 | 5,377,499 | 738.7 | T-78 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 25 | 639,840 | 5,376,489 | 737.6 | T-76 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 26 | 640,649 | 5,376,031 | 731.5 | T-79 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 27 | 636,095 | 5,373,292 | 733.9 | T-46 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 12:04 AM/3.0.654

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones | |
|-----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|---------|-----------------------------|-----------------|------------|------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Creator | | | | Name |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 111 | 645,966 | 5,373,838 | 730.1 | T-155 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 112 | 644,144 | 5,371,765 | 710.2 | T-156 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 113 | 644,660 | 5,371,616 | 715.4 | T-157 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Noise data | | | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones | | |
|-----|---------|-----------|-------|------------------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------------|-----------------------------|------------|---------|------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator | Name |
| 114 | 645,479 | 5,371,724 | 719.3 | T-158 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 115 | 646,127 | 5,371,875 | 717.1 | T-159 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 116 | 639,890 | 5,366,309 | 710.2 | T-160 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 117 | 639,135 | 5,366,239 | 709.0 | T-161 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 118 | 637,617 | 5,364,719 | 707.6 | T-162 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 119 | 636,191 | 5,365,609 | 711.4 | T-163 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 120 | 636,640 | 5,366,042 | 710.2 | T-164 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 121 | 636,954 | 5,368,164 | 711.3 | T-165 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 122 | 633,495 | 5,371,087 | 689.0 | T-166 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 123 | 634,130 | 5,371,006 | 696.6 | T-167 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 124 | 632,359 | 5,371,139 | 688.8 | T-168 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 125 | 632,926 | 5,371,158 | 686.0 | T-169 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 126 | 631,283 | 5,370,947 | 682.8 | T-170 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 127 | 631,732 | 5,371,159 | 684.7 | T-171 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 128 | 632,154 | 5,382,999 | 713.2 | T-172 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 129 | 628,195 | 5,383,647 | 711.6 | T-173 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 130 | 627,535 | 5,383,666 | 710.2 | T-174 | Yes | VESTAS | V136-4.0-4,000 | 4,000 | 136.0 | 82.0 | USER | Mode 0 Std Blades 106.9+2dB | (95%) | 108.9 | No |
| 131 | 646,913 | 5,375,455 | 745.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 132 | 646,888 | 5,375,080 | 743.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 133 | 648,328 | 5,377,151 | 749.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 134 | 648,570 | 5,377,592 | 749.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 148 | 649,468 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0...Yes | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | | |

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones |
|-----|---------|-----------|-------|------------------------------|----------|------------|-------------------|--------------------|----------------|----------------|--------------------|------------------|-----------------|------------|
| | | | | | Valid | Manufact. | | | | Type-generator | Creator | | | |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100.0...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |

Calculation Results

Sound Level

| No. | Name | X(East) | Y(North) | Z | Imission height [m] | Demands Noise [dB(A)] | Sound Level | | Demands fulfilled ? |
|-------|---------------------|---------|-----------|-------|---------------------|-----------------------|-------------------|------------------------------|---------------------|
| | | | | | | | From WTGs [dB(A)] | Distance to noise demand [m] | |
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.5 | 50.0 | 36.2 | 1,844 | Yes |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.5 | 50.0 | 39.2 | 933 | Yes |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.5 | 50.0 | 40.9 | 889 | Yes |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.5 | 50.0 | 41.7 | 537 | Yes |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.5 | 50.0 | 30.8 | 2,168 | Yes |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.5 | 50.0 | 43.8 | 437 | Yes |
| G 43 | - Participating | 630,148 | 5,374,327 | 691.9 | 1.5 | 50.0 | 32.9 | 2,338 | Yes |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.5 | 50.0 | 43.9 | 355 | Yes |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.5 | 50.0 | 38.1 | 927 | Yes |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.5 | 50.0 | 37.3 | 1,214 | Yes |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.5 | 50.0 | 45.6 | 372 | Yes |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.5 | 50.0 | 38.7 | 1,001 | Yes |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.5 | 50.0 | 42.4 | 578 | Yes |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.5 | 50.0 | 45.3 | 336 | Yes |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.5 | 50.0 | 42.6 | 648 | Yes |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.5 | 50.0 | 45.4 | 333 | Yes |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.5 | 50.0 | 43.0 | 453 | Yes |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.5 | 50.0 | 41.2 | 682 | Yes |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.5 | 50.0 | 40.7 | 565 | Yes |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.5 | 50.0 | 42.1 | 367 | Yes |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.5 | 50.0 | 39.7 | 1,008 | Yes |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.5 | 50.0 | 43.7 | 391 | Yes |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.5 | 50.0 | 43.4 | 394 | Yes |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.5 | 50.0 | 41.0 | 550 | Yes |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.5 | 50.0 | 41.3 | 475 | Yes |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.5 | 50.0 | 40.7 | 562 | Yes |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.5 | 50.0 | 36.7 | 1,484 | Yes |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.5 | 50.0 | 39.9 | 530 | Yes |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.5 | 50.0 | 41.3 | 457 | Yes |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.5 | 50.0 | 33.6 | 1,993 | Yes |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| No. | Name | X(East) | Y(North) | Z [m] | Emission height [m] | Demands | | | Distance to noise demand [m] | Demands fulfilled ? Noise |
|---------------------------|---------|-----------|----------|----------|------------------------|------------------|----------------------|-------------|---------------------------------|------------------------------|
| | | | | | | Noise [dB(A)] | From WTGs [dB(A)] | Sound Level | | |
| AE 55 - Participating | 635,760 | 5,381,775 | 711.0 | 1.5 | 50.0 | 43.7 | | 495 | Yes | |
| AF 15 - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.5 | 50.0 | 32.1 | | 1,962 | Yes | |
| AG 57 - Participating | 633,480 | 5,378,691 | 739.8 | 1.5 | 50.0 | 45.8 | | 275 | Yes | |
| AH 59 - Participating | 643,400 | 5,373,968 | 711.4 | 1.5 | 50.0 | 39.2 | | 929 | Yes | |
| AI 61 - Participating | 633,645 | 5,373,895 | 713.7 | 1.5 | 50.0 | 42.7 | | 421 | Yes | |
| AJ 62 - Participating | 643,453 | 5,372,097 | 716.3 | 1.5 | 50.0 | 41.7 | | 535 | Yes | |
| AK 63 - Participating | 641,300 | 5,368,154 | 725.4 | 1.5 | 50.0 | 43.4 | | 569 | Yes | |
| AL 16 - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.5 | 50.0 | 41.0 | | 761 | Yes | |
| AM 17 - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.5 | 50.0 | 37.2 | | 1,253 | Yes | |
| AN 18 - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.5 | 50.0 | 39.3 | | 856 | Yes | |
| AO 64 - Participating | 639,268 | 5,377,996 | 720.6 | 1.5 | 50.0 | 43.1 | | 325 | Yes | |
| AP 19 - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.5 | 50.0 | 36.0 | | 1,120 | Yes | |
| AQ 20 - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.5 | 50.0 | 34.9 | | 1,725 | Yes | |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.5 | 50.0 | 34.2 | | 1,544 | Yes | |
| AS 22 - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.5 | 50.0 | 36.2 | | 1,843 | Yes | |
| AT 23 - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.5 | 50.0 | 29.7 | | 3,504 | Yes | |
| AU 24 - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.5 | 50.0 | 37.4 | | 1,182 | Yes | |
| AV 27 - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.5 | 50.0 | 42.7 | | 483 | Yes | |
| AW 29 - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.5 | 50.0 | 33.3 | | 1,982 | Yes | |
| AX 30 - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.5 | 50.0 | 34.9 | | 1,555 | Yes | |
| AY 31 - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.5 | 50.0 | 38.3 | | 1,001 | Yes | |
| AZ 66 - Participating | 638,244 | 5,370,747 | 710.8 | 1.5 | 50.0 | 43.4 | | 327 | Yes | |
| BA 67 - Participating | 637,448 | 5,370,698 | 712.2 | 1.5 | 50.0 | 44.0 | | 287 | Yes | |
| BB 68 - Participating | 635,378 | 5,369,828 | 692.6 | 1.5 | 50.0 | 36.8 | | 1,490 | Yes | |
| BC 32 - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.5 | 50.0 | 31.5 | | 1,956 | Yes | |
| BD 33 - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.5 | 50.0 | 32.5 | | 1,772 | Yes | |
| BE 34 - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.5 | 50.0 | 34.3 | | 1,346 | Yes | |
| BF 35 - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.5 | 50.0 | 33.4 | | 1,762 | Yes | |
| BG 36 - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.5 | 50.0 | 36.0 | | 1,431 | Yes | |
| BH 37 - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.5 | 50.0 | 35.6 | | 1,310 | Yes | |
| BI 38 - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.5 | 50.0 | 34.9 | | 1,821 | Yes | |

Distances (m)

| WTG | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|------|
| 1 | 6810 | 5799 | 10452 | 6003 | 15882 | 14390 | 7516 | 13229 | 9271 | 5591 | 5393 | 10764 | 8839 | 5759 | 3695 | 6847 | 8579 | 2442 | 7647 | 8099 | 2053 | 5218 |
| 2 | 2355 | 1372 | 6382 | 2645 | 19168 | 17037 | 11937 | 15664 | 12659 | 10077 | 8946 | 12547 | 10558 | 8341 | 6322 | 8153 | 9516 | 5546 | 9696 | 8691 | 4363 | 5643 |
| 3 | 2883 | 2484 | 7503 | 3819 | 18034 | 15857 | 11140 | 14477 | 11561 | 9350 | 7914 | 11352 | 9363 | 7196 | 5227 | 6957 | 8333 | 5514 | 10110 | 9409 | 4385 | 4451 |
| 4 | 3426 | 2876 | 7896 | 4008 | 17654 | 15551 | 10605 | 14192 | 11146 | 8804 | 7453 | 11132 | 9134 | 6830 | 4808 | 6747 | 8195 | 5040 | 9752 | 9188 | 3937 | 4293 |
| 5 | 8751 | 7705 | 12221 | 7736 | 14865 | 13771 | 5783 | 12758 | 8366 | 3804 | 4668 | 10733 | 8954 | 5707 | 4069 | 7347 | 9085 | 2639 | 7266 | 8398 | 3105 | 6315 |
| 6 | 8098 | 6859 | 11117 | 6637 | 16245 | 15095 | 7047 | 14045 | 9729 | 5055 | 5978 | 11870 | 10022 | 6815 | 4951 | 8220 | 9967 | 1266 | 6207 | 7087 | 1829 | 6814 |
| 7 | 9440 | 8343 | 12755 | 8269 | 14807 | 13890 | 5375 | 12941 | 8404 | 3383 | 4868 | 11086 | 9369 | 6119 | 4642 | 7888 | 9611 | 2805 | 6968 | 8340 | 3505 | 6990 |
| 8 | 7903 | 7055 | 11812 | 7386 | 14517 | 13136 | 6202 | 12028 | 7919 | 4337 | 4060 | 9760 | 7907 | 4706 | 2865 | 6151 | 7897 | 3296 | 8310 | 9136 | 3297 | 5013 |
| 9 | 8306 | 7636 | 12509 | 8146 | 13573 | 12136 | 5719 | 11023 | 6962 | 4014 | 3086 | 8785 | 6960 | 3732 | 2063 | 5324 | 7059 | 4294 | 9240 | 10137 | 4284 | 4520 |
| 10 | 4937 | 3758 | 8385 | 3968 | 17639 | 15891 | 9592 | 14634 | 11028 | 7667 | 7164 | 11860 | 9868 | 7093 | 4935 | 7618 | 9243 | 3089 | 7834 | 7524 | 1967 | 5450 |
| 11 | 5429 | 4289 | 8908 | 4473 | 17213 | 15533 | 9063 | 14300 | 10596 | 7134 | 6722 | 11601 | 9620 | 6757 | 4602 | 7424 | 9085 | 2744 | 7677 | 7566 | 1715 | 5371 |
| 12 | 5928 | 4721 | 9212 | 4740 | 17151 | 15577 | 8751 | 14377 | 10536 | 6798 | 6654 | 11771 | 9807 | 6851 | 4717 | 7673 | 9362 | 2214 | 7216 | 7243 | 1246 | 5726 |
| 13 | 10131 | 9590 | 14507 | 10166 | 11618 | 10400 | 4117 | 9404 | 5041 | 2896 | 1320 | 7626 | 6047 | 2917 | 2613 | 5087 | 6655 | 5972 | 10515 | 11769 | 6178 | 5285 |
| 14 | 3919 | 4084 | 9014 | 5548 | 16601 | 14278 | 10499 | 12869 | 10253 | 8877 | 6827 | 9673 | 7699 | 5792 | 4053 | 5284 | 6609 | 6278 | 11242 | 10852 | 5296 | 2752 |
| 15 | 10070 | 9362 | 14177 | 9760 | 12361 | 11314 | 3955 | 10362 | 5863 | 2331 | 2318 | 8641 | 7047 | 3873 | 3132 | 5957 | 7579 | 5146 | 9533 | 10878 | 5488 | 5829 |
| 16 | 12220 | 11744 | 16676 | 12335 | 9635 | 8829 | 2821 | 8051 | 3264 | 2836 | 1710 | 7055 | 5953 | 3612 | 4418 | 5873 | 7092 | 7871 | 11969 | 13528 | 8224 | 6849 |
| 17 | 12642 | 12158 | 17082 | 12731 | 9344 | 8676 | 2570 | 7963 | 3104 | 2878 | 2118 | 7159 | 6159 | 3969 | 4841 | 6208 | 7370 | 8180 | 12166 | 13790 | 8569 | 7254 |
| 18 | 11044 | 10585 | 15533 | 11221 | 10535 | 9404 | 3641 | 8470 | 3976 | 2973 | 756 | 6972 | 5585 | 2783 | 3262 | 5073 | 6469 | 7020 | 11420 | 12784 | 7260 | 5770 |
| 19 | 12098 | 12009 | 17033 | 12971 | 8519 | 6837 | 5389 | 5781 | 2095 | 5495 | 2311 | 4349 | 3376 | 2395 | 4346 | 4049 | 4800 | 9529 | 14134 | 15360 | 9582 | 5892 |
| 20 | 6696 | 6878 | 11838 | 8193 | 13804 | 11457 | 8699 | 10058 | 7570 | 7433 | 4536 | 6946 | 4949 | 3088 | 2016 | 2570 | 4133 | 7107 | 12313 | 12526 | 6487 | 693 |
| 21 | 2928 | 2075 | 7071 | 3156 | 18497 | 16411 | 11243 | 15053 | 11973 | 9394 | 8246 | 11983 | 9987 | 7683 | 5640 | 7595 | 9016 | 5086 | 9492 | 8696 | 3920 | 5119 |
| 22 | 7481 | 7012 | 11989 | 7770 | 13728 | 11995 | 6665 | 10781 | 7129 | 5090 | 3319 | 8244 | 6323 | 3259 | 1181 | 4429 | 6176 | 4865 | 9996 | 10615 | 4567 | 3352 |
| 23 | 2591 | 1156 | 4127 | 1011 | 21493 | 19385 | 13891 | 18009 | 14956 | 11962 | 11192 | 14866 | 12885 | 10678 | 8631 | 10473 | 11782 | 6628 | 9666 | 8009 | 5501 | 7947 |
| 24 | 5014 | 5263 | 10180 | 6696 | 15486 | 13113 | 9871 | 11696 | 9213 | 8386 | 5957 | 8496 | 6521 | 4730 | 3210 | 4106 | 5458 | 6697 | 11816 | 11664 | 5849 | 1577 |
| 25 | 4376 | 4360 | 9350 | 5855 | 16209 | 13969 | 9931 | 12582 | 9806 | 8301 | 6312 | 9460 | 7468 | 5375 | 3546 | 5067 | 6494 | 5856 | 10895 | 10636 | 4927 | 2592 |
| 26 | 3500 | 3437 | 8421 | 4680 | 17135 | 14892 | 10639 | 13500 | 10716 | 8934 | 7168 | 10349 | 8365 | 6298 | 4423 | 5955 | 7322 | 5812 | 10667 | 10177 | 4770 | 3442 |
| 27 | 8334 | 7337 | 11929 | 7454 | 14865 | 13659 | 6036 | 12606 | 8319 | 4082 | 4542 | 10475 | 8660 | 5428 | 3690 | 6977 | 8720 | 2696 | 7539 | 8526 | 2972 | 5862 |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data representing decibel values for various wind turbine weights and directions.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. Contains numerical data for wind turbine performance metrics across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| WTG | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 166 | 9120 | 10800 | 10900 | 12303 | 24883 | 21637 | 21495 | 20117 | 19780 | 20044 | 17350 | 16660 | 15429 | 15636 | 14773 | 13758 | 13623 | 16868 | 20874 | 19284 | 15700 | 12212 |
| 167 | 6493 | 7782 | 6283 | 8778 | 25751 | 22869 | 20389 | 21347 | 19861 | 18661 | 16723 | 17835 | 16204 | 15405 | 13955 | 14060 | 14525 | 14247 | 17427 | 15440 | 13068 | 11878 |
| 168 | 6101 | 7229 | 5311 | 8066 | 25847 | 23054 | 20105 | 21540 | 19829 | 18329 | 16570 | 18044 | 16348 | 15351 | 13795 | 14135 | 14717 | 13682 | 16659 | 14596 | 12513 | 11859 |
| 169 | 10036 | 11712 | 11683 | 13204 | 25502 | 22214 | 22336 | 20700 | 20516 | 20907 | 18165 | 17270 | 16104 | 16422 | 15613 | 14501 | 14294 | 17783 | 21786 | 20177 | 16616 | 13028 |
| 170 | 6850 | 7624 | 4433 | 8054 | 27093 | 24412 | 20812 | 22912 | 20924 | 18966 | 17508 | 19443 | 17682 | 16440 | 14745 | 15400 | 16111 | 13907 | 16356 | 14081 | 12774 | 13025 |
| 171 | 6850 | 7546 | 4154 | 7897 | 27170 | 24521 | 20767 | 23026 | 20967 | 18908 | 17517 | 19566 | 17788 | 16486 | 14761 | 15490 | 16235 | 13775 | 16130 | 13825 | 12652 | 13094 |
| 172 | 6112 | 6798 | 3631 | 7184 | 26472 | 23852 | 20018 | 22361 | 20246 | 18159 | 16780 | 18913 | 17118 | 15767 | 14027 | 14806 | 15585 | 13046 | 15491 | 13238 | 11918 | 12392 |
| 173 | 5357 | 6007 | 3112 | 6415 | 25769 | 23189 | 19232 | 21705 | 19511 | 17370 | 16021 | 18274 | 16456 | 15037 | 13273 | 14126 | 14952 | 12263 | 14788 | 12587 | 11131 | 11691 |
| 174 | 5767 | 6459 | 3455 | 6874 | 26136 | 23526 | 19674 | 22038 | 19904 | 17817 | 16435 | 18594 | 16792 | 15426 | 13682 | 14476 | 15267 | 12724 | 15227 | 13003 | 11592 | 12057 |
| 175 | 6667 | 7843 | 5895 | 8705 | 26223 | 23382 | 20646 | 21863 | 20266 | 18886 | 17059 | 18357 | 16696 | 15797 | 14286 | 14518 | 15038 | 14302 | 17301 | 15232 | 13130 | 12286 |
| 176 | 5883 | 6088 | 1890 | 6019 | 26374 | 23940 | 19306 | 22482 | 19990 | 17390 | 16368 | 19110 | 17233 | 15559 | 13675 | 14856 | 15818 | 11939 | 13946 | 11579 | 10865 | 12357 |
| 177 | 4628 | 4634 | 1102 | 4529 | 25038 | 22685 | 17819 | 21245 | 18607 | 15897 | 14944 | 17920 | 16011 | 14204 | 12276 | 13613 | 14662 | 10450 | 12638 | 10385 | 9370 | 11090 |
| 178 | 4284 | 4223 | 1195 | 4115 | 24652 | 22321 | 17397 | 20886 | 18209 | 15475 | 14537 | 17576 | 15658 | 13815 | 11877 | 13256 | 14329 | 10036 | 12294 | 10084 | 8952 | 10728 |
| 179 | 3662 | 4928 | 4634 | 6045 | 23555 | 20859 | 17650 | 19360 | 17446 | 15881 | 14132 | 15894 | 14128 | 12962 | 11358 | 11853 | 12563 | 11390 | 14724 | 12898 | 10209 | 9505 |
| 180 | 3311 | 4545 | 4428 | 5662 | 23333 | 20672 | 17318 | 19178 | 17186 | 15539 | 13838 | 15726 | 13938 | 12701 | 11065 | 11643 | 12397 | 11008 | 14341 | 12529 | 9828 | 9267 |
| 181 | 8366 | 10034 | 10119 | 11519 | 24619 | 21424 | 20943 | 19898 | 19380 | 19456 | 16843 | 16417 | 15113 | 15173 | 14229 | 13357 | 13315 | 16150 | 20105 | 18495 | 14978 | 11709 |
| 182 | 6875 | 8174 | 6605 | 9168 | 26030 | 23123 | 20752 | 21599 | 20175 | 19030 | 17063 | 18084 | 16473 | 15726 | 14298 | 14349 | 14782 | 14639 | 17813 | 15815 | 13459 | 12193 |
| 183 | 10299 | 11735 | 10151 | 12832 | 28126 | 24988 | 23813 | 23459 | 22681 | 22191 | 19891 | 19960 | 18575 | 18353 | 17184 | 16690 | 16794 | 18168 | 21493 | 19498 | 16983 | 14824 |
| 184 | 10494 | 11961 | 10504 | 13099 | 28074 | 24910 | 23911 | 23382 | 22691 | 22310 | 19955 | 19891 | 18537 | 18389 | 17261 | 16688 | 16749 | 18376 | 21769 | 19804 | 17190 | 14868 |
| 185 | 10879 | 12338 | 10806 | 13462 | 28428 | 25253 | 24301 | 23726 | 23066 | 22701 | 20341 | 20239 | 18897 | 18770 | 17649 | 17061 | 17107 | 18758 | 22128 | 20146 | 17573 | 15252 |
| 186 | 11292 | 12750 | 11173 | 13869 | 28764 | 25573 | 24700 | 24048 | 23434 | 23105 | 20730 | 20566 | 19243 | 19149 | 18043 | 17425 | 17449 | 19171 | 22532 | 20540 | 17986 | 15635 |
| 187 | 11608 | 13081 | 11542 | 14215 | 28915 | 25704 | 24960 | 24180 | 23634 | 23377 | 20968 | 20707 | 19409 | 19368 | 18291 | 17619 | 17612 | 19493 | 22882 | 20900 | 18307 | 15863 |
| 188 | 11791 | 13286 | 11845 | 14451 | 28883 | 25652 | 25056 | 24130 | 23658 | 23491 | 21038 | 20667 | 19396 | 19417 | 18374 | 17639 | 17959 | 19681 | 23124 | 21166 | 18495 | 15922 |
| 189 | 6735 | 6235 | 1439 | 5377 | 26720 | 24560 | 18834 | 23159 | 20181 | 16861 | 16398 | 19929 | 17976 | 15898 | 13859 | 15561 | 16738 | 10986 | 12114 | 9536 | 10050 | 13020 |
| 190 | 7676 | 7433 | 2409 | 6777 | 27946 | 25684 | 20265 | 24258 | 21448 | 18299 | 17705 | 20964 | 19039 | 17107 | 15112 | 16633 | 17721 | 12475 | 13584 | 10960 | 11519 | 14099 |
| 191 | 2974 | 4182 | 4291 | 5312 | 23099 | 20470 | 16991 | 18982 | 16291 | 15204 | 13543 | 15542 | 13736 | 12136 | 10772 | 11424 | 12218 | 10646 | 13990 | 12198 | 9466 | 9024 |
| 192 | 11035 | 12400 | 10425 | 13394 | 29147 | 26021 | 24690 | 24491 | 23658 | 23040 | 20816 | 20990 | 19588 | 19309 | 18093 | 17679 | 17812 | 18859 | 22011 | 19926 | 17676 | 15772 |
| 193 | 6148 | 7744 | 7709 | 9133 | 24029 | 21022 | 19412 | 19493 | 18383 | 17803 | 15503 | 15975 | 14452 | 14006 | 12785 | 12442 | 12714 | 14028 | 17772 | 16080 | 12845 | 10465 |
| 194 | 5993 | 7528 | 7204 | 8837 | 24328 | 21363 | 19479 | 19835 | 18598 | 17835 | 15636 | 16317 | 14754 | 14192 | 12898 | 12696 | 13036 | 13885 | 17502 | 15743 | 12700 | 10647 |
| 195 | 8075 | 9759 | 10033 | 11279 | 24201 | 21011 | 20544 | 19484 | 18961 | 19066 | 16435 | 16002 | 14694 | 14758 | 13828 | 12938 | 12895 | 15824 | 19835 | 18266 | 14655 | 11299 |
| 196 | 9744 | 11427 | 11501 | 12936 | 25187 | 21906 | 22000 | 20390 | 20184 | 20573 | 17828 | 16956 | 15779 | 16086 | 15277 | 14168 | 13969 | 17474 | 21503 | 19917 | 16308 | 12691 |
| 197 | 9469 | 11161 | 11350 | 12690 | 24863 | 21588 | 21666 | 20071 | 19848 | 20243 | 17492 | 16633 | 15447 | 15749 | 14943 | 13832 | 13638 | 17177 | 21237 | 19677 | 16013 | 12355 |
| 198 | 3838 | 3785 | 1572 | 3781 | 24200 | 21868 | 16985 | 20434 | 17760 | 15069 | 14095 | 17127 | 15207 | 13363 | 11429 | 12804 | 13883 | 9690 | 12100 | 9963 | 8592 | 10275 |
| 199 | 5584 | 5751 | 1620 | 5674 | 26065 | 23649 | 18962 | 22195 | 19670 | 17045 | 16039 | 18833 | 16949 | 15245 | 13351 | 14567 | 15548 | 11595 | 13639 | 11295 | 10520 | 12061 |
| 200 | 5288 | 5420 | 1406 | 5342 | 25757 | 23357 | 18627 | 21906 | 19352 | 16709 | 15714 | 18554 | 16663 | 14933 | 13030 | 14276 | 15275 | 11263 | 13354 | 11036 | 10186 | 11766 |
| 201 | 5033 | 5100 | 1175 | 4992 | 25476 | 23100 | 18292 | 21654 | 19056 | 16371 | 15404 | 18316 | 16415 | 14646 | 12730 | 14023 | 15046 | 10913 | 13024 | 10726 | 9837 | 11506 |
| 202 | 4860 | 5798 | 3902 | 6518 | 25060 | 22401 | 18868 | 20905 | 18890 | 17049 | 15494 | 17448 | 15668 | 14406 | 12727 | 13373 | 14118 | 12210 | 15089 | 13028 | 11050 | 10989 |
| 203 | 4525 | 5475 | 3820 | 6233 | 24744 | 22098 | 18534 | 20605 | 18564 | 16716 | 15162 | 17153 | 15364 | 14080 | 12395 | 13063 | 13824 | 11897 | 14830 | 12803 | 10735 | 10671 |
| 204 | 4185 | 5095 | 3594 | 5849 | 24476 | 21860 | 18180 | 20372 | 18267 | 16355 | 14839 | 16932 | 15126 | 13785 | 12076 | 12810 | 13606 | 11512 | 14454 | 12445 | 10351 | 10397 |
| 205 | 6735 | 8214 | 7429 | 9431 | 25155 | 22170 | 20315 | 20642 | 19446 | 18660 | 16483 | 17123 | 15579 | 15041 | 13744 | 13536 | 13852 | 14616 | 18110 | 16268 | 13431 | 11497 |
| 206 | 6521 | 7236 | 3993 | 7625 | 26839 | 24194 | 20448 | 22699 | 20636 | 18593 | 17188 | 19242 | 17461 | 16154 | 14431 | 15161 | 15911 | 13489 | 15910 | 13635 | 12361 | 12763 |
| 207 | 6335 | 7506 | 5643 | 8376 | 25952 | 23129 | 20320 | 21612 | 19752 | 18557 | 16748 | 18110 | 16435 | 15500 | 13974 | 14243 | 14787 | 13965 | 16981 | 14928 | 12793 | 11994 |
| 208 | 6997 | 8180 | 6168 | 9039 | 26484 | 23623 | 20967 | 22102 | 20552 | 19212 | 17364 | 18593 | 16946 | 16086 | 14592 | 14783 | 15278 | 14640 | 17629 | 15548 | 13468 | 12569 |

| WTG | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR |
|-----|------|------|------|------|------|-------|-------|-------|------|-------|------|------|------|------|------|-------|-------|-------|------|------|------|-------|
| 1 | 5146 | 5731 | 5679 | 4796 | 5958 | 7394 | 10436 | 10609 | 8470 | 10548 | 6629 | 5798 | 3993 | 6003 | 6501 | 10802 | 5632 | 7780 | 4778 | 8375 | 7112 | 7706 |
| 2 | 5436 | 2117 | 1749 | 790 | 1709 | 11918 | 13483 | 14196 | 9745 | 10528 | 9632 | 1373 | 8453 | 2647 | 6259 | 13590 | 10119 | 9561 | 4598 | 8383 | 6649 | 11986 |
| 3 | 6088 | 3301 | 2944 | 1957 | 1971 | 11387 | 12341 | 13120 | 8552 | 9424 | 8512 | 2486 | 7722 | 3821 | 7067 | 12426 | 9392 | 10037 | 3412 | 7252 | 5538 | 11111 |
| 4 | 5856 | 3518 | 3213 | 2186 | 2523 | 10833 | 11971 | 12688 | 8372 | 9428 | 8117 | 2877 | 7176 | 4009 | 6908 | 12087 | 8846 | 9703 | 3299 | 7229 | 5555 | 10592 |
| 5 | 5976 | 7523 | 7520 | 6686 | 7895 | 5453 | 9705 | 9512 | 8831 | 11327 | 6183 | 7704 | 2323 | 7736 | 7322 | 10215 | 3843 | 7530 | 6149 | 9275 | 8280 | 6125 |
| 6 | 4593 | 6487 | 6549 | 5820 | 7319 | 6285 | 11043 | 10894 | 9786 | 12063 | 7434 | 6858 | 3671 | 6637 | 5938 | 11524 | 5093 | 6409 | 6435 | 9927 | 8738 | 7459 |
| 7 | 6167 | 8087 | 8113 | 7315 | 8597 | 4772 | 9805 | 9448 | 9320 | 11910 | 6449 | 8342 | 2102 | 8269 | 7480 | 10369 | 3420 | 7278 | 6864 | 9895 | 8956 | 5826 |
| 8 | 6382 | 7092 | 7011 | 6085 | 7001 | 6438 | 9134 | 9223 | 7689 | 10077 | 5404 | 7055 | 2710 | 7386 | 7747 | 9549 | 4379 | 8522 | 4863 | 7998 | 6978 | 6332 |
| 9 | 7378 | 7813 | 7687 | 6716 | 7372 | 6439 | 8146 | 8311 | 6804 | 9332 | 4399 | 7636 | 8147 | 8741 | 8548 | 4056 | 9473 | 4579 | 7325 | 6473 | 5702 | |
| | | | | | | | | | | | | | | | | | | | | | | |

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

Project: Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 12:04 AM/3.0.654

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for various wind turbine positions and directions.

To be continued on next page...



DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various parameters.

Table with columns WTG, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 19 | 12100 | 6768 | 5741 | 15794 | 7467 | 5840 | 4345 | 10139 | 9758 | 9733 | 10670 | 10442 | 10129 | 9532 | 9675 | 11920 | 2682 |
| 20 | 6698 | 10344 | 7586 | 10629 | 10572 | 8368 | 6816 | 7428 | 7489 | 8729 | 14909 | 14659 | 14484 | 13233 | 10466 | 10843 | 8022 |
| 21 | 2929 | 12754 | 9419 | 5826 | 15596 | 13381 | 11851 | 4886 | 5467 | 7605 | 19935 | 19686 | 19498 | 18271 | 10537 | 9041 | 12160 |
| 22 | 7482 | 8279 | 5201 | 10743 | 11876 | 9803 | 8149 | 5334 | 5200 | 6138 | 15728 | 15489 | 15227 | 14327 | 7800 | 8309 | 7242 |
| 23 | 2591 | 15320 | 11951 | 2882 | 18438 | 16213 | 14728 | 6143 | 6907 | 9149 | 22864 | 22614 | 22441 | 21149 | 12356 | 10003 | 15114 |
| 24 | 5016 | 11506 | 8503 | 8980 | 12073 | 9851 | 8357 | 6867 | 7103 | 8706 | 16510 | 16260 | 16102 | 14778 | 10896 | 10663 | 9616 |
| 25 | 4378 | 11539 | 8389 | 8129 | 13065 | 10849 | 9326 | 5960 | 6266 | 8017 | 17437 | 17188 | 17012 | 15748 | 10429 | 9878 | 10119 |
| 26 | 3501 | 12225 | 9004 | 7201 | 13938 | 11716 | 10213 | 5806 | 6220 | 8140 | 18344 | 18094 | 17925 | 16635 | 10756 | 9863 | 11008 |
| 27 | 8336 | 7436 | 4067 | 10714 | 14021 | 12058 | 10399 | 3331 | 2926 | 3537 | 17505 | 17278 | 16960 | 16307 | 5508 | 5720 | 8116 |
| 28 | 10170 | 5892 | 2606 | 12318 | 14407 | 12606 | 10979 | 4162 | 3474 | 2768 | 17469 | 17255 | 16890 | 16483 | 3755 | 4954 | 7620 |
| 29 | 9370 | 6790 | 4155 | 12710 | 10541 | 8613 | 6962 | 6728 | 6403 | 6723 | 14084 | 13852 | 13555 | 12830 | 7539 | 8956 | 5275 |
| 30 | 5226 | 10348 | 7062 | 8288 | 13776 | 11611 | 10002 | 4249 | 4493 | 6224 | 17888 | 17644 | 17416 | 16354 | 8729 | 8088 | 9697 |
| 31 | 4758 | 10817 | 7536 | 7906 | 13917 | 11734 | 10145 | 4475 | 4785 | 6601 | 18100 | 17854 | 17639 | 16526 | 9170 | 8409 | 10074 |
| 32 | 4304 | 11271 | 7985 | 7495 | 14159 | 11964 | 10392 | 4635 | 5009 | 6905 | 18397 | 18150 | 17945 | 16791 | 9549 | 8649 | 10492 |
| 33 | 3785 | 11857 | 8525 | 6655 | 15058 | 12858 | 11293 | 4345 | 4844 | 6904 | 19308 | 19061 | 18856 | 17697 | 9746 | 8471 | 11326 |
| 34 | 5897 | 16503 | 13207 | 3260 | 21409 | 19200 | 17652 | 6538 | 7317 | 9318 | 25666 | 25420 | 25206 | 24062 | 12579 | 9398 | 17230 |
| 35 | 5226 | 16448 | 13123 | 2691 | 20935 | 18719 | 17188 | 6559 | 7351 | 9429 | 25243 | 24996 | 24794 | 23606 | 12705 | 9667 | 16971 |
| 36 | 5320 | 17093 | 13762 | 2226 | 21338 | 19117 | 17605 | 7220 | 8013 | 10094 | 25694 | 25446 | 25254 | 24027 | 13370 | 10314 | 17539 |
| 37 | 6166 | 14890 | 11631 | 4655 | 20551 | 18371 | 16778 | 4894 | 5656 | 7604 | 24651 | 24408 | 24166 | 23139 | 10857 | 7681 | 15891 |
| 38 | 6285 | 14233 | 10986 | 5193 | 20148 | 17981 | 16374 | 4236 | 4992 | 6931 | 24186 | 23945 | 23693 | 22710 | 10185 | 7044 | 15320 |
| 39 | 8515 | 10282 | 7218 | 9059 | 18248 | 16237 | 14577 | 1228 | 1341 | 2741 | 21766 | 21539 | 21215 | 20569 | 5984 | 3213 | 12191 |
| 40 | 7924 | 10206 | 7040 | 8709 | 17698 | 15665 | 14006 | 556 | 975 | 2927 | 21293 | 21064 | 20751 | 20054 | 6205 | 3780 | 11832 |
| 41 | 7061 | 14297 | 11111 | 5765 | 20696 | 18544 | 16925 | 4348 | 5051 | 6825 | 24662 | 24423 | 24158 | 23228 | 10028 | 6696 | 15636 |
| 42 | 8786 | 14089 | 11088 | 7418 | 21608 | 19506 | 17862 | 4602 | 5122 | 6402 | 25374 | 25141 | 24845 | 24054 | 9389 | 5719 | 16001 |
| 43 | 11458 | 7195 | 5861 | 15194 | 7578 | 5804 | 4225 | 9789 | 9452 | 9575 | 11030 | 10796 | 10509 | 9781 | 9747 | 11786 | 3352 |
| 44 | 10732 | 7681 | 6039 | 14511 | 7813 | 5902 | 4263 | 9401 | 9115 | 9409 | 11502 | 11263 | 11002 | 10146 | 9838 | 11637 | 4098 |
| 45 | 10489 | 8325 | 6631 | 14360 | 7533 | 5532 | 3874 | 9639 | 9401 | 9822 | 11421 | 11179 | 10946 | 9965 | 10388 | 12054 | 4617 |
| 46 | 10111 | 8762 | 6949 | 14032 | 7603 | 5533 | 3875 | 9597 | 9398 | 9932 | 11635 | 11389 | 11177 | 10107 | 10644 | 12164 | 5112 |
| 47 | 17392 | 10787 | 11335 | 21416 | 3182 | 3973 | 4531 | 16402 | 16016 | 15841 | 4410 | 4187 | 3866 | 3652 | 15203 | 17964 | 5860 |
| 48 | 16415 | 9128 | 9665 | 20330 | 4378 | 4347 | 4258 | 14912 | 14492 | 14227 | 6000 | 5791 | 5417 | 5330 | 13521 | 16330 | 4173 |
| 49 | 17153 | 8738 | 9639 | 20994 | 5224 | 5382 | 5289 | 15233 | 14769 | 14346 | 6035 | 5853 | 5410 | 5748 | 13399 | 16392 | 4076 |
| 50 | 17317 | 10197 | 10840 | 21293 | 3764 | 4331 | 4679 | 16061 | 15652 | 15408 | 4819 | 4609 | 4239 | 4242 | 14683 | 17511 | 5326 |
| 51 | 11720 | 7825 | 6636 | 15561 | 6817 | 5017 | 3439 | 10469 | 10159 | 10342 | 10401 | 10163 | 9898 | 9077 | 10531 | 12558 | 3584 |
| 52 | 15475 | 10081 | 10105 | 19508 | 3146 | 2708 | 2739 | 14724 | 14383 | 14375 | 6135 | 5895 | 5652 | 4878 | 14040 | 16546 | 4954 |
| 53 | 15244 | 10487 | 10367 | 19316 | 2774 | 2153 | 2311 | 14768 | 14455 | 14531 | 6213 | 5967 | 5772 | 4777 | 14313 | 16718 | 5354 |
| 54 | 14814 | 10586 | 10308 | 18903 | 2815 | 1790 | 1821 | 14511 | 14219 | 14366 | 6590 | 6341 | 6173 | 5046 | 14257 | 16566 | 5464 |
| 55 | 11058 | 11512 | 9994 | 15255 | 5680 | 3456 | 2243 | 12244 | 12153 | 12900 | 10345 | 10092 | 10021 | 8445 | 13720 | 15125 | 7093 |
| 56 | 15450 | 7917 | 8308 | 19273 | 5354 | 4781 | 4192 | 13605 | 13168 | 12869 | 7361 | 7153 | 6774 | 6635 | 12177 | 14967 | 2860 |
| 57 | 16634 | 8722 | 9427 | 20499 | 4923 | 4908 | 4744 | 14865 | 14419 | 14068 | 6206 | 6010 | 5599 | 5715 | 13240 | 16142 | 3881 |
| 58 | 6214 | 9604 | 6238 | 8576 | 14731 | 12628 | 10983 | 2710 | 2878 | 4639 | 18605 | 18367 | 18099 | 17206 | 7324 | 6465 | 9779 |
| 59 | 8535 | 7513 | 4688 | 11900 | 10916 | 8906 | 7245 | 6260 | 6018 | 6611 | 14638 | 14401 | 14125 | 13297 | 7790 | 8834 | 6080 |
| 60 | 4870 | 10978 | 7827 | 8500 | 12872 | 10669 | 9113 | 5663 | 5912 | 7579 | 17169 | 16921 | 16731 | 15525 | 9916 | 9493 | 9638 |
| 61 | 8847 | 7584 | 4304 | 10702 | 15323 | 13393 | 11738 | 2477 | 1845 | 2188 | 18680 | 18456 | 18120 | 17553 | 4626 | 4340 | 9053 |
| 62 | 7910 | 7718 | 4552 | 10959 | 12264 | 10241 | 8581 | 4910 | 4686 | 5455 | 15966 | 15732 | 15447 | 14646 | 7050 | 7649 | 7120 |
| 63 | 11062 | 6059 | 4327 | 14539 | 9123 | 7384 | 5803 | 8469 | 8067 | 8042 | 12359 | 12133 | 11810 | 11235 | 8179 | 10240 | 3451 |
| 64 | 13240 | 6855 | 6402 | 16970 | 6719 | 5359 | 4070 | 11252 | 10841 | 10684 | 9595 | 9372 | 9037 | 8581 | 10349 | 12837 | 2052 |
| 65 | 8783 | 8008 | 5513 | 12417 | 9793 | 7744 | 6085 | 7388 | 7188 | 7815 | 13660 | 13420 | 13169 | 12237 | 8867 | 10040 | 5724 |
| 66 | 9969 | 6178 | 3661 | 13247 | 10497 | 8646 | 7015 | 6952 | 6562 | 6669 | 13866 | 13638 | 13321 | 12696 | 7211 | 8892 | 4776 |
| 67 | 8112 | 9245 | 6752 | 11968 | 9533 | 7381 | 5760 | 7891 | 7807 | 8702 | 13696 | 13449 | 13246 | 12114 | 10003 | 10899 | 6602 |
| 68 | 10916 | 4666 | 1580 | 13672 | 12245 | 10547 | 8962 | 6189 | 5601 | 5055 | 15172 | 14959 | 14588 | 14232 | 5069 | 7186 | 5327 |
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| 71 | 8053 | 12377 | 9299 | 7645 | 19820 | 17739 | 16089 | 2746 | 3280 | 4772 | 23534 | 23302 | 23002 | 22238 | 7925 | 4585 | 14147 |
| 72 | 11474 | 4542 | 1404 | 13693 | 14144 | 12486 | 10909 | 5462 | 4732 | 3518 | 16881 | 16677 | 16282 | 16050 | 3143 | 5466 | 6858 |
| 73 | 7769 | 14685 | 11559 | 6162 | 21417 | 19274 | 17649 | 4843 | 5494 | 7100 | 25343 | 25105 | 24833 | 23933 | 10230 | 6725 | 16219 |
| 74 | 9506 | 8543 | 6471 | 13355 | 8405 | 6330 | 4674 | 8800 | 8611 | 9202 | 12402 | 12158 | 11934 | 10900 | 10056 | 11432 | 5348 |
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| 76 | 8680 | 9665 | 7423 | 12665 | 8597 | 6420 | 4825 | 8908 | 8824 | 9677 | 12870 | 12621 | 12443 | 11222 | 10841 | 11884 | 6483 |
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| 79 | 10781 | 9504 | 7959 | 14814 | 6511 | 4397 | 2749 | 10740 | 10556 | 11094 | 10707 | 10458 | 10280 | 9083 | 11726 | 13327 | 5348 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 12:04 AM/3.0.654

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
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| 81 | 17221 | 11069 | 11503 | 21273 | 2742 | 3586 | 4253 | 16426 | 16059 | 15946 | 4386 | 4152 | 3883 | 3410 | 15394 | 18085 | 6082 |
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| 86 | 7723 | 10103 | 7610 | 11716 | 9457 | 7257 | 5698 | 8322 | 8311 | 9357 | 13797 | 13548 | 13378 | 12115 | 10800 | 11527 | 7280 |
| 87 | 7096 | 10750 | 8155 | 11152 | 9886 | 7666 | 6164 | 8305 | 8363 | 9568 | 14325 | 14074 | 13924 | 12585 | 11199 | 11697 | 8013 |
| 88 | 5117 | 15520 | 12200 | 3393 | 20298 | 18092 | 16538 | 5624 | 6416 | 8504 | 24540 | 24295 | 24079 | 22944 | 11781 | 8801 | 16125 |
| 89 | 8593 | 9389 | 6280 | 9564 | 17388 | 15403 | 13743 | 1008 | 514 | 2061 | 20846 | 20621 | 20292 | 19677 | 5336 | 3194 | 11238 |
| 90 | 7408 | 8604 | 5239 | 9540 | 14872 | 12842 | 11182 | 2303 | 2130 | 3518 | 18521 | 18289 | 17989 | 17242 | 6107 | 5487 | 9297 |
| 91 | 11647 | 4809 | 3110 | 14877 | 10084 | 8480 | 6953 | 8124 | 7621 | 7264 | 12966 | 12751 | 12387 | 12021 | 7032 | 9400 | 3306 |
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| 96 | 9959 | 6764 | 4520 | 13447 | 9633 | 7739 | 6098 | 7662 | 7331 | 7573 | 13152 | 12919 | 12624 | 11900 | 8149 | 9801 | 4554 |
| 97 | 9354 | 7441 | 5067 | 12928 | 9640 | 7657 | 5999 | 7545 | 7283 | 7731 | 13356 | 13119 | 12849 | 12008 | 8561 | 9964 | 5144 |
| 98 | 9328 | 6326 | 3267 | 12314 | 11843 | 9952 | 8307 | 5601 | 5192 | 5366 | 15233 | 15006 | 14685 | 14066 | 6283 | 7598 | 5941 |
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| 105 | 18010 | 12298 | 12742 | 22120 | 2213 | 3812 | 4881 | 17551 | 17206 | 17148 | 3366 | 3118 | 2962 | 2163 | 16638 | 19299 | 7328 |
| 106 | 18513 | 12440 | 13011 | 22614 | 2663 | 4338 | 5395 | 17947 | 17587 | 17479 | 2901 | 2657 | 2462 | 2009 | 16885 | 19616 | 7543 |
| 107 | 19030 | 12482 | 13206 | 23113 | 3248 | 4927 | 5939 | 18298 | 17919 | 17745 | 2507 | 2280 | 1995 | 2137 | 17047 | 19862 | 7687 |
| 108 | 8984 | 11399 | 9327 | 13171 | 7763 | 5536 | 4191 | 10534 | 10531 | 11533 | 12379 | 12127 | 12030 | 10519 | 12777 | 13720 | 7677 |
| 109 | 2076 | 16167 | 12805 | 2372 | 18582 | 16354 | 14924 | 7182 | 7937 | 10182 | 23105 | 22853 | 22705 | 21325 | 13368 | 11072 | 15703 |
| 110 | 2201 | 16798 | 13438 | 2055 | 18900 | 16674 | 15275 | 7842 | 8598 | 10843 | 23469 | 23217 | 23081 | 21656 | 14030 | 11714 | 16239 |
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| 114 | 4065 | 16919 | 13557 | 1365 | 20375 | 18148 | 16674 | 7301 | 8096 | 10277 | 24816 | 24566 | 24395 | 23093 | 13548 | 10769 | 16985 |
| 115 | 4191 | 17547 | 14183 | 712 | 20718 | 18490 | 17041 | 7963 | 8758 | 10942 | 25206 | 24955 | 24795 | 23451 | 14212 | 11426 | 17522 |
| 116 | 10166 | 13391 | 10605 | 9054 | 21902 | 19864 | 18206 | 4734 | 5023 | 5722 | 25446 | 25220 | 24893 | 24246 | 8394 | 4547 | 15801 |
| 117 | 10564 | 12804 | 10107 | 9682 | 21688 | 19683 | 18023 | 4595 | 4767 | 5195 | 25130 | 24907 | 24569 | 23984 | 7729 | 3852 | 15392 |
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| 119 | 12717 | 10984 | 8857 | 12457 | 21447 | 19605 | 17962 | 5533 | 5242 | 4297 | 24421 | 24214 | 23825 | 23514 | 5619 | 2098 | 14401 |
| 120 | 12099 | 10994 | 8707 | 11848 | 21130 | 19256 | 17607 | 4971 | 4725 | 3991 | 24197 | 23987 | 23608 | 23242 | 5680 | 1912 | 14218 |
| 121 | 10293 | 9918 | 7208 | 10604 | 19167 | 17244 | 15588 | 2888 | 2582 | 2292 | 22409 | 22192 | 21835 | 21358 | 5012 | 1530 | 12560 |
| 122 | 11524 | 5448 | 2762 | 13307 | 15577 | 13883 | 12289 | 4762 | 3973 | 2265 | 18334 | 18130 | 17733 | 17504 | 2116 | 4038 | 8296 |
| 123 | 10974 | 6053 | 3206 | 12682 | 15751 | 13998 | 12383 | 4123 | 3333 | 1716 | 18646 | 18438 | 18053 | 17750 | 2525 | 3683 | 8658 |
| 124 | 12560 | 4444 | 2313 | 14435 | 15419 | 13842 | 12295 | 5898 | 5109 | 3291 | 17909 | 17714 | 17295 | 17205 | 1677 | 4752 | 7827 |
| 125 | 12024 | 4916 | 2441 | 13868 | 15443 | 13806 | 12234 | 5334 | 4546 | 2789 | 18071 | 17872 | 17464 | 17302 | 1862 | 4409 | 8003 |
| 126 | 13636 | 3734 | 2591 | 15523 | 15588 | 14130 | 12634 | 6964 | 6170 | 4245 | 17798 | 17614 | 17173 | 17227 | 1688 | 5408 | 7753 |
| 127 | 13142 | 3926 | 2289 | 15059 | 15377 | 13869 | 12352 | 6525 | 5735 | 3881 | 17709 | 17521 | 17089 | 17079 | 1723 | 5205 | 7638 |
| 128 | 14091 | 10016 | 9572 | 18152 | 3596 | 2165 | 1448 | 13683 | 13393 | 13560 | 7378 | 7130 | 6940 | 5874 | 13520 | 15765 | 4940 |
| 129 | 17862 | 10048 | 10916 | 21799 | 4377 | 5046 | 5365 | 16353 | 15917 | 15575 | 4729 | 4543 | 4111 | 4492 | 14701 | 17645 | 5357 |
| 130 | 18461 | 10119 | 11182 | 22373 | 4881 | 5681 | 6024 | 16781 | 16324 | 15907 | 4577 | 4417 | 3938 | 4657 | 14909 | 17946 | 5624 |
| 131 | 2797 | 18340 | 15021 | 3246 | 18993 | 16797 | 15532 | 9865 | 10593 | 12834 | 23708 | 23455 | 23370 | 21780 | 15956 | 13829 | 17259 |
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| 134 | 4897 | 20299 | 17057 | 5678 | 19283 | 17167 | 16093 | 12389 | 13085 | 15307 | 24107 | 23856 | 23833 | 22064 | 18343 | 16428 | 18656 |
| 135 | 5281 | 20647 | 17414 | 6025 | 19434 | 17332 | 16285 | 12785 | 13480 | 15700 | 24266 | 24016 | 24001 | 22210 | 18730 | 16826 | 18946 |
| 136 | 5632 | 20807 | 17611 | 6703 | 19123 | 17049 | 16055 | 13198 | 13875 | 16080 | 23968 | 23719 | 23719 | 21889 | 19062 | 17274 | 18932 |
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| 138 | 6530 | 21199 | 18088 | 8102 | 18558 | 16553 | 15676 | 14111 | 14750 | 16916 | 23415 | 23168 | 23201 | 21294 | 19798 | 18234 | 18983 |
| 139 | 6918 | 21533 | 18434 | 8454 | 18698 | 16713 | 15867 | 14497 | 15135 | 17297 | 23555 | 23309 | 23351 | 21424 | 20171 | 18622 | 19263 |
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To be continued on next page...

DECIBEL - Main Result

Calculation: V136-4.0/4.2

...continued from previous page

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| 144 | 8794 | 24249 | 21005 | 8405 | 22473 | 20450 | 19527 | 16127 | 16854 | 19093 | 27329 | 27082 | 27108 | 25213 | 22192 | 20064 | 22497 |
| 145 | 10813 | 26134 | 22931 | 10549 | 23536 | 21599 | 20799 | 18230 | 18948 | 21182 | 28385 | 28142 | 28205 | 26228 | 24251 | 22193 | 24140 |
| 146 | 11393 | 26663 | 23474 | 11177 | 23826 | 21917 | 21153 | 18832 | 19546 | 21778 | 28668 | 28426 | 28500 | 26501 | 24837 | 22805 | 24598 |
| 147 | 11778 | 27063 | 23871 | 11495 | 24196 | 22294 | 21538 | 19204 | 19921 | 22155 | 29036 | 28794 | 28871 | 26865 | 25220 | 23167 | 24999 |
| 148 | 8041 | 21195 | 17864 | 3801 | 24734 | 22507 | 21081 | 11288 | 12075 | 14093 | 29259 | 29008 | 28855 | 27481 | 17351 | 14074 | 21515 |
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| 150 | 6974 | 20551 | 17200 | 2778 | 23695 | 21469 | 20062 | 10747 | 11542 | 13631 | 28250 | 27998 | 27853 | 26449 | 16906 | 13781 | 20668 |
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| 156 | 5191 | 20732 | 17407 | 4189 | 20945 | 18782 | 17601 | 12055 | 12808 | 15053 | 25722 | 25469 | 25413 | 23735 | 18225 | 15898 | 19607 |
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| 158 | 5789 | 21357 | 18043 | 4912 | 21208 | 19065 | 17927 | 12772 | 13521 | 15767 | 26009 | 25757 | 25715 | 23996 | 18927 | 16632 | 20116 |
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| 169 | 10035 | 23981 | 21022 | 11624 | 19473 | 17689 | 17112 | 17559 | 18164 | 20282 | 24269 | 24033 | 24147 | 22073 | 23045 | 21705 | 21222 |
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| 176 | 5881 | 20750 | 17382 | 2762 | 22468 | 20262 | 18958 | 11384 | 12174 | 14379 | 27150 | 26898 | 26797 | 25251 | 17640 | 14883 | 20256 |
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| 185 | 10877 | 25925 | 22784 | 11126 | 22681 | 20800 | 20078 | 18413 | 19105 | 21319 | 27515 | 27275 | 27359 | 25340 | 24315 | 22450 | 23687 |
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| 189 | 6734 | 20166 | 16817 | 2498 | 23431 | 21204 | 19785 | 10352 | 11147 | 13234 | 27967 | 27716 | 27566 | 26180 | 16509 | 13387 | 20321 |
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To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/15/2018 12:04 AM/3.0.654

DECIBEL - Main Result

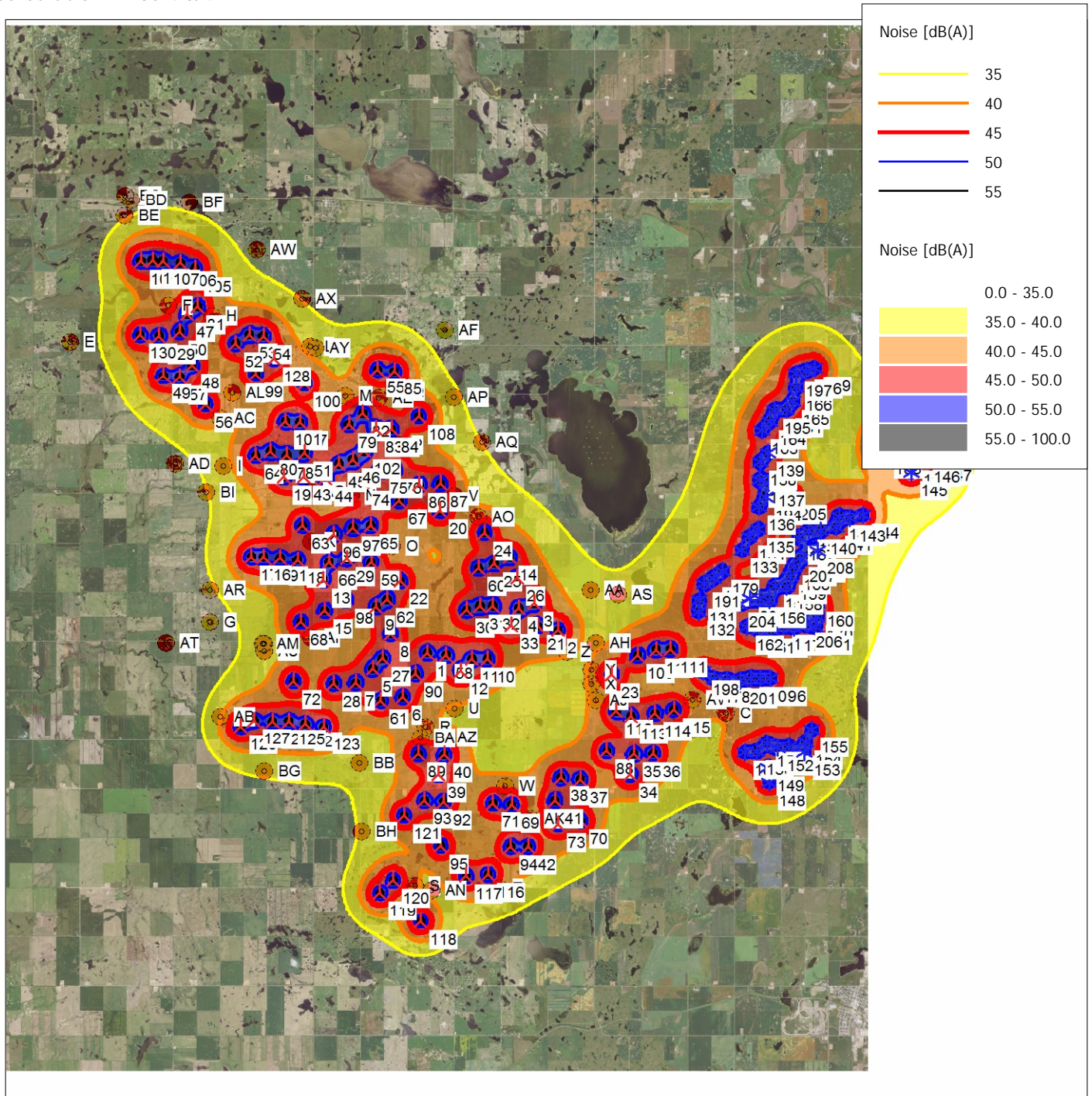
Calculation: V136-4.0/4.2

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| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 202 | 4858 | 20403 | 17079 | 4017 | 20648 | 18481 | 17291 | 11761 | 12511 | 14756 | 25419 | 25166 | 25107 | 23438 | 17920 | 15624 | 19274 |
| 203 | 4524 | 20070 | 16747 | 3837 | 20368 | 18197 | 16996 | 11454 | 12201 | 14446 | 25132 | 24880 | 24817 | 23159 | 17604 | 15334 | 18945 |
| 204 | 4184 | 19711 | 16384 | 3520 | 20178 | 17997 | 16775 | 11068 | 11815 | 14060 | 24927 | 24674 | 24604 | 22968 | 17220 | 14948 | 18635 |
| 205 | 6733 | 21924 | 18732 | 7453 | 19938 | 17900 | 16961 | 14279 | 14965 | 17176 | 24792 | 24544 | 24562 | 22689 | 20174 | 18337 | 19991 |
| 206 | 6520 | 21956 | 18610 | 4616 | 22432 | 20269 | 19085 | 12988 | 13762 | 15998 | 27209 | 26956 | 26899 | 25222 | 19218 | 16684 | 20998 |
| 207 | 6333 | 21888 | 18603 | 5896 | 21129 | 19019 | 17950 | 13546 | 14281 | 16523 | 25957 | 25706 | 25686 | 23907 | 19647 | 17466 | 20429 |
| 208 | 6996 | 22539 | 19260 | 6494 | 21559 | 19467 | 18432 | 14220 | 14955 | 17198 | 26397 | 26147 | 26138 | 24331 | 20322 | 18134 | 21023 |

DECIBEL - Map 95% rated power

Calculation: V136-4.0/4.2



Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 641,190 North: 5,375,412

▲ New WTG * Existing WTG ● Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 95% rated power
 Height above sea level from active line object

DECIBEL - Main Result

Calculation: V136-3.45/3.6

Noise calculation model:

ISO 9613-2 General

Wind speed:

95% rated power

Ground attenuation:

General, fixed, Ground factor: 0.5

Meteorological coefficient, CO:

0.0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

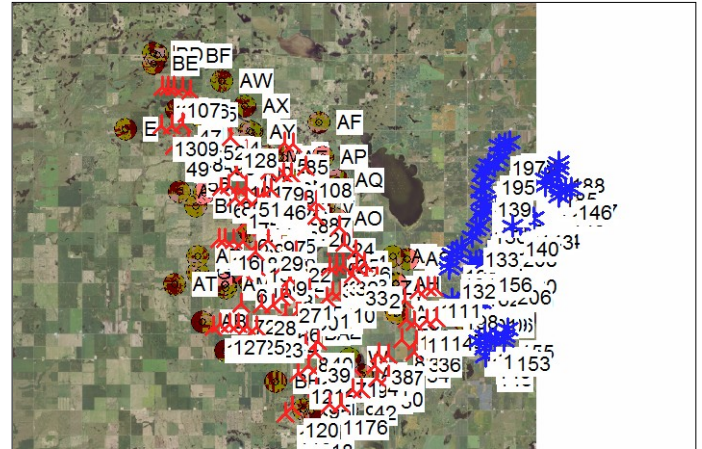
Pure and Impulse tone penalty are added to WTG source noise

Height above ground level, when no value in NSA object:

1.5 m Don't allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:

0.0 dB(A)



Scale 1:500,000

- New WTG
- ✳ Existing WTG
- Noise sensitive area

WTGs

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones | | |
|----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------------|------------------------|------------|---------|------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator | Name |
| | | | | [m] | | | | | | | | | | | |
| 1 | 637,619 | 5,373,512 | 727.5 | T-43 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 2 | 642,085 | 5,374,363 | 728.5 | T-41 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 3 | 641,252 | 5,375,220 | 737.7 | T-63 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 4 | 640,729 | 5,375,038 | 740.7 | T-62 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 5 | 635,764 | 5,372,945 | 724.6 | T-45 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 6 | 636,817 | 5,372,047 | 728.5 | T-35 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 7 | 635,193 | 5,372,473 | 710.2 | T-47 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 8 | 636,346 | 5,374,109 | 734.6 | T-56 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 9 | 635,830 | 5,374,972 | 728.5 | T-55 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 10 | 639,692 | 5,373,363 | 740.7 | T-39 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 11 | 639,157 | 5,373,344 | 739.4 | T-38 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 12 | 638,790 | 5,372,951 | 734.6 | T-37 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 13 | 633,988 | 5,375,810 | 737.6 | T-70 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 14 | 640,372 | 5,376,713 | 738.1 | T-77 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 15 | 634,074 | 5,374,798 | 721.2 | T-53 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 16 | 631,934 | 5,376,511 | 729.8 | T-67 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 17 | 631,510 | 5,376,507 | 731.5 | T-66 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 18 | 633,108 | 5,376,447 | 723.9 | T-69 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 19 | 632,563 | 5,379,145 | 737.6 | T-93 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 20 | 637,951 | 5,378,169 | 715.2 | T-80 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 21 | 641,389 | 5,374,486 | 743.7 | T-58 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 22 | 636,640 | 5,375,835 | 734.6 | T-73 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 23 | 643,972 | 5,372,967 | 712.3 | T-28 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 24 | 639,495 | 5,377,499 | 738.7 | T-78 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 25 | 639,840 | 5,376,489 | 737.6 | T-76 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 26 | 640,649 | 5,376,031 | 731.5 | T-79 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 27 | 636,095 | 5,373,292 | 733.9 | T-46 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 28 | 634,438 | 5,372,432 | 701.0 | T-57 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 29 | 634,798 | 5,376,526 | 725.4 | T-71 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 30 | 638,928 | 5,374,941 | 737.6 | T-59 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 31 | 639,384 | 5,375,074 | 737.6 | T-60 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 32 | 639,838 | 5,375,100 | 737.6 | T-61 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 33 | 640,492 | 5,374,466 | 743.6 | T-40 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 34 | 644,695 | 5,369,685 | 736.0 | T-15 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 35 | 644,792 | 5,370,371 | 743.7 | T-16 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 36 | 645,456 | 5,370,405 | 735.1 | T-17 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 37 | 642,975 | 5,369,494 | 737.6 | T-12 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 38 | 642,303 | 5,369,536 | 734.9 | T-13 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 39 | 638,102 | 5,369,527 | 710.5 | T-26 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 40 | 638,282 | 5,370,192 | 712.5 | T-25 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 41 | 642,122 | 5,368,780 | 734.6 | T-10 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |
| 42 | 641,239 | 5,367,252 | 719.1 | T-8 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) | (95%) | 110.2 | No |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 11:15 PM/3.0.654

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones | |
|-----|---------|-----------|-------|----------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------------|------------------------------|------------|---------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator |
| 43 | 633,243 | 5,379,162 | 737.6 | T-94 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 44 | 634,001 | 5,379,136 | 737.6 | T-95 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 45 | 634,443 | 5,379,605 | 731.5 | T-96 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 46 | 634,918 | 5,379,749 | 728.5 | T-121 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 47 | 629,136 | 5,384,387 | 713.2 | T-142 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 48 | 629,347 | 5,382,713 | 710.2 | T-131 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 49 | 628,366 | 5,382,343 | 707.1 | T-129 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 50 | 628,893 | 5,383,804 | 717.2 | T-141 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 51 | 633,253 | 5,379,950 | 729.4 | T-123 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 52 | 630,815 | 5,383,459 | 711.9 | T-144 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 53 | 631,275 | 5,383,767 | 710.7 | T-145 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 54 | 631,767 | 5,383,732 | 713.2 | T-146 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 55 | 635,699 | 5,382,724 | 710.2 | T-122 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 56 | 629,834 | 5,381,441 | 713.0 | T-117 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 57 | 628,926 | 5,382,328 | 703.0 | T-130 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 58 | 638,268 | 5,373,457 | 731.5 | T-44 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 59 | 635,628 | 5,376,434 | 728.5 | T-72 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 60 | 639,307 | 5,376,310 | 731.5 | T-75 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 61 | 636,056 | 5,371,908 | 719.3 | T-34 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 62 | 636,215 | 5,375,218 | 731.5 | T-74 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 63 | 633,243 | 5,377,581 | 731.5 | T-81 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 64 | 631,582 | 5,379,814 | 726.8 | T-98 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 65 | 635,586 | 5,377,640 | 725.5 | T-85 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 66 | 634,183 | 5,376,389 | 733.5 | T-86 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 67 | 636,542 | 5,378,452 | 715.1 | T-87 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 68 | 633,261 | 5,374,418 | 716.3 | T-51 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 69 | 640,641 | 5,368,602 | 728.5 | T-23 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 70 | 643,024 | 5,368,138 | 728.5 | T-11 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 71 | 639,998 | 5,368,634 | 725.4 | T-22 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 72 | 633,064 | 5,372,478 | 698.0 | T-5 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 73 | 642,243 | 5,368,015 | 730.6 | T-9 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 74 | 635,270 | 5,379,029 | 725.4 | T-90 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 75 | 635,883 | 5,379,448 | 720.6 | T-91 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 76 | 636,364 | 5,379,455 | 716.0 | T-92 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 77 | 633,072 | 5,380,925 | 729.9 | T-106 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 78 | 632,659 | 5,379,855 | 737.2 | T-100 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 79 | 634,758 | 5,380,905 | 718.9 | T-107 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 80 | 632,089 | 5,379,958 | 731.5 | T-99 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 81 | 629,494 | 5,384,648 | 709.6 | T-143 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 82 | 635,222 | 5,381,271 | 716.3 | T-108 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 83 | 635,678 | 5,380,785 | 716.0 | T-109 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 84 | 636,220 | 5,380,785 | 716.3 | T-110 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 85 | 636,276 | 5,382,673 | 710.2 | T-124 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 86 | 637,208 | 5,379,005 | 710.9 | T-88 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 87 | 637,941 | 5,379,046 | 713.2 | T-89 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 88 | 643,859 | 5,370,443 | 732.3 | T-14 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 89 | 637,408 | 5,370,185 | 701.0 | T-24 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 90 | 637,234 | 5,372,817 | 719.9 | T-42 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 91 | 632,509 | 5,376,501 | 722.8 | T-68 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 92 | 638,306 | 5,368,644 | 716.3 | T-21 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 93 | 637,648 | 5,368,666 | 713.2 | T-20 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 94 | 640,643 | 5,367,238 | 719.3 | T-19 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 95 | 638,242 | 5,367,207 | 710.2 | T-18 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 96 | 634,318 | 5,377,326 | 731.6 | T-83 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 97 | 634,979 | 5,377,549 | 725.3 | T-84 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 98 | 634,798 | 5,375,163 | 713.2 | T-54 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 99 | 631,532 | 5,382,484 | 707.7 | T-118 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 100 | 633,206 | 5,382,201 | 722.4 | T-120 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 101 | 632,585 | 5,380,949 | 731.5 | T-105 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 102 | 635,298 | 5,380,049 | 728.5 | T-97 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 103 | 627,504 | 5,386,079 | 711.3 | T-147 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 104 | 627,911 | 5,386,105 | 710.2 | T-148 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 105 | 629,368 | 5,385,888 | 704.0 | T-149 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 106 | 628,867 | 5,386,049 | 710.2 | T-150 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 107 | 628,269 | 5,386,086 | 711.9 | T-151 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 108 | 637,149 | 5,381,224 | 704.1 | T-152 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 109 | 644,833 | 5,373,605 | 713.9 | T-153 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |
| 110 | 645,462 | 5,373,811 | 728.5 | T-154 | Yes | VESTAS | V136-3.6-3,600 | 3,600 | 136.0 | 82.0 | USER | Standard +2 (110.2 dB) (95%) | 110.2 | No |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns: X(East), Y(North), Z, Row data/Description, WTG type (Valid, Manufact., Type-generator), Power, Rotor diameter, Hub height, Noise data (Creator, Name), Wind speed, LwA,ref, Pure tones. Contains 178 rows of data.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones | |
|-----|---------|-----------|-------|---------------------------|----------|-----------|----------------|-------------------|--------------------|----------------|------------------|--------------------------|------------|---------|
| | | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 201 | 648,883 | 5,372,886 | 719.3 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 203 | 648,641 | 5,375,554 | 726.1 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 204 | 648,297 | 5,375,376 | 728.5 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 205 | 649,928 | 5,378,956 | 741.8 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 206 | 650,591 | 5,374,779 | 748.5 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 207 | 650,301 | 5,376,922 | 735.1 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |
| 208 | 650,917 | 5,377,197 | 740.0 | VESTAS V100 2000 100..... | Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB (95%) | 107.0 | No |

Calculation Results

Sound Level

| Noise sensitive area | No. | Name | X(East) | Y(North) | Z [m] | Imission height [m] | Demands | | Distance to noise demand [m] | Demands fulfilled ? |
|--------------------------|---------|-----------|---------|----------|-------|---------------------|---------------|-------------------------------|------------------------------|---------------------|
| | | | | | | | Noise [dB(A)] | Sound Level From WTGs [dB(A)] | | |
| A 1 - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.5 | 50.0 | 36.8 | 1,797 | Yes | | |
| B 39 - Participating | 643,400 | 5,373,971 | 711.5 | 1.5 | 50.0 | 40.2 | 889 | Yes | | |
| C 2 - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.5 | 50.0 | 41.1 | 888 | Yes | | |
| D 40 - Participating | 643,453 | 5,372,099 | 716.3 | 1.5 | 50.0 | 42.8 | 490 | Yes | | |
| E 41 - Participating | 625,162 | 5,383,364 | 711.9 | 1.5 | 50.0 | 31.7 | 2,125 | Yes | | |
| F 42 - Participating | 628,500 | 5,384,644 | 704.1 | 1.5 | 50.0 | 45.0 | 381 | Yes | | |
| G 43 - Participating | 630,148 | 5,374,327 | 691.9 | 1.5 | 50.0 | 33.7 | 2,291 | Yes | | |
| H 44 - Participating | 629,997 | 5,384,325 | 711.4 | 1.5 | 50.0 | 45.1 | 305 | Yes | | |
| I 3 - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.5 | 50.0 | 39.0 | 882 | Yes | | |
| J 4 - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.5 | 50.0 | 38.3 | 1,172 | Yes | | |
| K 45 - Participating | 633,554 | 5,377,057 | 735.4 | 1.5 | 50.0 | 46.8 | 318 | Yes | | |
| L 46 - Participating | 633,395 | 5,383,413 | 715.7 | 1.5 | 50.0 | 39.7 | 958 | Yes | | |
| M 47 - Participating | 634,615 | 5,381,825 | 716.9 | 1.5 | 50.0 | 43.5 | 522 | Yes | | |
| N 48 - Participating | 634,891 | 5,378,584 | 728.5 | 1.5 | 50.0 | 46.4 | 280 | Yes | | |
| O 5 - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.5 | 50.0 | 43.7 | 597 | Yes | | |
| P 49 - Participating | 636,455 | 5,380,259 | 709.9 | 1.5 | 50.0 | 46.6 | 276 | Yes | | |
| Q 50 - Participating | 636,416 | 5,382,006 | 707.4 | 1.5 | 50.0 | 44.1 | 406 | Yes | | |
| R 51 - Participating | 637,621 | 5,371,070 | 716.6 | 1.5 | 50.0 | 42.3 | 636 | Yes | | |
| S 6 - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.5 | 50.0 | 41.9 | 522 | Yes | | |
| T 52 - Participating | 640,276 | 5,365,862 | 710.2 | 1.5 | 50.0 | 43.4 | 323 | Yes | | |
| U 7 - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.5 | 50.0 | 40.7 | 959 | Yes | | |
| V 8 - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.5 | 50.0 | 44.9 | 343 | Yes | | |
| W 9 - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.5 | 50.0 | 44.6 | 344 | Yes | | |
| X 10 - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.5 | 50.0 | 42.1 | 506 | Yes | | |
| Y 11 - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.5 | 50.0 | 42.4 | 432 | Yes | | |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| No. | Name | X(East) | Y(North) | Z [m] | Emission height [m] | Demands | | | Demands fulfilled ? |
|---------------------------|---------|-----------|----------|-------|---------------------|---------------|-------------------------------|------------------------------|---------------------|
| | | | | | | Noise [dB(A)] | Sound Level From WTGs [dB(A)] | Distance to noise demand [m] | |
| Z 53 - Participating | 642,413 | 5,373,644 | 734.1 | 1.5 | 50.0 | 41.8 | 517 | Yes | |
| AA 54 - Participating | 643,167 | 5,375,685 | 714.9 | 1.5 | 50.0 | 37.4 | 1,438 | Yes | |
| AB 12 - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.5 | 50.0 | 41.1 | 486 | Yes | |
| AC 13 - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.5 | 50.0 | 42.4 | 416 | Yes | |
| AD 14 - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.5 | 50.0 | 34.4 | 1,950 | Yes | |
| AE 55 - Participating | 635,760 | 5,381,775 | 711.0 | 1.5 | 50.0 | 44.9 | 441 | Yes | |
| AF 15 - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.5 | 50.0 | 32.9 | 1,918 | Yes | |
| AG 57 - Participating | 633,480 | 5,378,691 | 739.8 | 1.5 | 50.0 | 47.1 | 215 | Yes | |
| AH 59 - Participating | 643,400 | 5,373,968 | 711.4 | 1.5 | 50.0 | 40.2 | 886 | Yes | |
| AI 61 - Participating | 633,645 | 5,373,895 | 713.7 | 1.5 | 50.0 | 43.9 | 376 | Yes | |
| AJ 62 - Participating | 643,453 | 5,372,097 | 716.3 | 1.5 | 50.0 | 42.8 | 489 | Yes | |
| AK 63 - Participating | 641,300 | 5,368,154 | 725.4 | 1.5 | 50.0 | 44.5 | 520 | Yes | |
| AL 16 - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.5 | 50.0 | 42.1 | 717 | Yes | |
| AM 17 - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.5 | 50.0 | 38.1 | 1,210 | Yes | |
| AN 18 - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.5 | 50.0 | 40.4 | 814 | Yes | |
| AO 64 - Participating | 639,268 | 5,377,996 | 720.6 | 1.5 | 50.0 | 44.3 | 282 | Yes | |
| AP 19 - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.5 | 50.0 | 36.9 | 1,076 | Yes | |
| AQ 20 - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.5 | 50.0 | 35.7 | 1,682 | Yes | |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.5 | 50.0 | 35.1 | 1,498 | Yes | |
| AS 22 - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.5 | 50.0 | 36.8 | 1,796 | Yes | |
| AT 23 - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.5 | 50.0 | 30.5 | 3,456 | Yes | |
| AU 24 - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.5 | 50.0 | 38.4 | 1,139 | Yes | |
| AV 27 - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.5 | 50.0 | 43.5 | 438 | Yes | |
| AW 29 - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.5 | 50.0 | 34.1 | 1,938 | Yes | |
| AX 30 - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.5 | 50.0 | 35.7 | 1,509 | Yes | |
| AY 31 - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.5 | 50.0 | 39.3 | 958 | Yes | |
| AZ 66 - Participating | 638,244 | 5,370,747 | 710.8 | 1.5 | 50.0 | 44.6 | 281 | Yes | |
| BA 67 - Participating | 637,448 | 5,370,698 | 712.2 | 1.5 | 50.0 | 45.2 | 241 | Yes | |
| BB 68 - Participating | 635,378 | 5,369,828 | 692.6 | 1.5 | 50.0 | 37.7 | 1,447 | Yes | |
| BC 32 - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.5 | 50.0 | 32.4 | 1,904 | Yes | |
| BD 33 - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.5 | 50.0 | 33.4 | 1,718 | Yes | |
| BE 34 - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.5 | 50.0 | 35.3 | 1,296 | Yes | |
| BF 35 - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.5 | 50.0 | 34.3 | 1,708 | Yes | |
| BG 36 - Non-Participating | 632,118 | 5,369,480 | 691.6 | 1.5 | 50.0 | 37.0 | 1,376 | Yes | |
| BH 37 - Non-Participating | 635,531 | 5,367,600 | 699.2 | 1.5 | 50.0 | 36.6 | 1,267 | Yes | |
| BI 38 - Non-Participating | 629,941 | 5,378,583 | 713.2 | 1.5 | 50.0 | 35.7 | 1,775 | Yes | |

Distances (m)

| WTG | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|------|------|------|------|-------|-------|------|------|
| 1 | 6810 | 5799 | 10452 | 6003 | 15882 | 14390 | 7516 | 13229 | 9271 | 5591 | 5393 | 10764 | 8839 | 5759 | 3695 | 6847 | 8579 | 2442 | 7647 | 8099 | 2053 | 5218 |
| 2 | 2355 | 1372 | 6382 | 2645 | 19168 | 17037 | 11937 | 15664 | 12659 | 10077 | 8946 | 12547 | 10558 | 8341 | 6322 | 8153 | 9516 | 5546 | 9696 | 8691 | 4363 | 5643 |
| 3 | 2883 | 2484 | 7503 | 3819 | 18034 | 15857 | 11140 | 14477 | 11561 | 9350 | 7914 | 11352 | 9363 | 7196 | 5227 | 6957 | 8333 | 5514 | 10110 | 9409 | 4385 | 4451 |
| 4 | 3426 | 2876 | 7896 | 4008 | 17654 | 15551 | 10605 | 14192 | 11146 | 8804 | 7453 | 11132 | 9134 | 6830 | 4808 | 6747 | 8195 | 5040 | 9752 | 9188 | 3937 | 4293 |
| 5 | 8751 | 7705 | 12221 | 7736 | 14865 | 13771 | 5783 | 12758 | 8366 | 3804 | 4668 | 10733 | 8954 | 5707 | 4069 | 7347 | 9085 | 2639 | 7266 | 8398 | 3105 | 6315 |
| 6 | 8098 | 6859 | 11117 | 6637 | 16245 | 15095 | 7047 | 14045 | 9729 | 5055 | 5978 | 11870 | 10022 | 6815 | 4951 | 8220 | 9967 | 1266 | 6207 | 7087 | 1829 | 6814 |
| 7 | 9440 | 8343 | 12755 | 8269 | 14807 | 13890 | 5375 | 12941 | 8404 | 3383 | 4868 | 11086 | 9369 | 6119 | 4642 | 7888 | 9611 | 2805 | 6968 | 8340 | 3505 | 6990 |
| 8 | 7903 | 7055 | 11812 | 7386 | 14517 | 13136 | 6202 | 12028 | 7919 | 4337 | 4060 | 9760 | 7907 | 4706 | 2865 | 6151 | 7897 | 3296 | 8310 | 9136 | 3297 | 5013 |
| 9 | 8306 | 7636 | 12509 | 8146 | 13573 | 12136 | 5719 | 11023 | 6962 | 4014 | 3086 | 8785 | 6960 | 3732 | 2063 | 5324 | 7059 | 4294 | 9240 | 10137 | 4284 | 4520 |
| 10 | 4937 | 3758 | 8385 | 3968 | 17639 | 15891 | 9592 | 14634 | 11028 | 7667 | 7164 | 11860 | 9868 | 7093 | 4935 | 7618 | 9243 | 3089 | 7834 | 7524 | 1967 | 5450 |
| 11 | 5429 | 4289 | 8908 | 4473 | 17213 | 15533 | 9063 | 14300 | 10596 | 7134 | 6722 | 11601 | 9620 | 6757 | 4602 | 7424 | 9085 | 2744 | 7677 | 7566 | 1715 | 5371 |
| 12 | 5928 | 4721 | 9212 | 4740 | 17151 | 15577 | 8751 | 14377 | 10536 | 6798 | 6654 | 11771 | 9807 | 6851 | 4717 | 7673 | 9362 | 2214 | 7216 | 7243 | 1246 | 5726 |
| 13 | 10131 | 9590 | 14507 | 10166 | 11618 | 10400 | 4117 | 9404 | 5041 | 2896 | 1320 | 7626 | 6047 | 2917 | 2613 | 5087 | 6655 | 5972 | 10515 | 11769 | 6178 | 5285 |
| 14 | 3919 | 4084 | 9014 | 5548 | 16601 | 14278 | 10499 | 12869 | 10253 | 8877 | 6827 | 9673 | 7699 | 5792 | 4053 | 5284 | 6609 | 6278 | 11242 | 10852 | 5296 | 2752 |
| 15 | 10070 | 9362 | 14177 | 9760 | 12361 | 11314 | 3955 | 10362 | 5863 | 2331 | 2318 | 8641 | 7047 | 3873 | 3132 | 5957 | 7579 | 5146 | 9533 | 10878 | 5488 | 5829 |
| 16 | 12220 | 11744 | 16676 | 12335 | 9635 | 8829 | 2821 | 8051 | 3264 | 2836 | 1710 | 7055 | 5953 | 3612 | 4418 | 5873 | 7092 | 7871 | 11969 | 13528 | 8224 | 6849 |
| 17 | 12642 | 12158 | 17082 | 12731 | 9344 | 8676 | 2570 | 7963 | 3104 | 2878 | 2118 | 7159 | 6159 | 3969 | 4841 | 6208 | 7370 | 8180 | 12166 | 13790 | 8569 | 7254 |
| 18 | 11044 | 10585 | 15533 | 11221 | 10535 | 9404 | 3641 | 8470 | 3976 | 2973 | 756 | 6972 | 5585 | 2783 | 3262 | 5073 | 6469 | 7020 | 11420 | 12784 | 7260 | 5770 |
| 19 | 12098 | 12009 | 17033 | 12971 | 8519 | 6837 | 5389 | 5781 | 2095 | 5495 | 2311 | 4349 | 3376 | 2395 | 4346 | 4049 | 4800 | 9529 | 14134 | 15360 | 9582 | 5892 |
| 20 | 6696 | 6878 | 11838 | 8193 | 13804 | 11457 | 8699 | 10058 | 7570 | 7433 | 4536 | 6946 | 4949 | 3088 | 2016 | 2570 | 4133 | 7107 | 12313 | 12526 | 6487 | 693 |
| 21 | 2928 | 2075 | 7071 | 3156 | 18497 | 16411 | 11243 | 15053 | 11973 | 9394 | 8246 | 11983 | 9987 | 7683 | 5640 | 7595 | 9016 | 5086 | 9492 | 8696 | 3920 | 5119 |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data representing decibel levels across various wind turbine weights and directions.

To be continued on next page...

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 11:15 PM/3.0.654

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| WTG | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 91 | 11646 | 11181 | 16122 | 11796 | 10054 | 9076 | 3210 | 8217 | 3564 | 2866 | 1184 | 6968 | 5725 | 3165 | 3848 | 5449 | 6750 | 7459 | 11709 | 13173 | 7758 | 6309 |
| 92 | 9028 | 7371 | 10129 | 6199 | 19735 | 18767 | 9943 | 17747 | 13328 | 8044 | 9663 | 15564 | 13688 | 10511 | 8562 | 11762 | 13496 | 2521 | 2917 | 3409 | 3088 | 10023 |
| 93 | 9448 | 7825 | 10749 | 6744 | 19286 | 18412 | 9397 | 17428 | 12934 | 7527 | 9336 | 15348 | 13504 | 10294 | 8412 | 11654 | 13397 | 2404 | 2808 | 3843 | 3200 | 10031 |
| 94 | 9012 | 7276 | 8598 | 5615 | 22355 | 21224 | 12665 | 20133 | 15873 | 10753 | 12111 | 17725 | 15784 | 12722 | 10650 | 13679 | 15362 | 4881 | 3511 | 1424 | 4917 | 11640 |
| 95 | 10207 | 8507 | 10723 | 7148 | 20788 | 19974 | 10779 | 19000 | 14481 | 8968 | 10909 | 16915 | 15061 | 11861 | 9953 | 13174 | 14912 | 3913 | 1576 | 2439 | 4525 | 11461 |
| 96 | 9957 | 9682 | 14692 | 10525 | 10967 | 9349 | 5137 | 8225 | 4373 | 4307 | 809 | 6156 | 4509 | 1383 | 2041 | 3630 | 5129 | 7075 | 11868 | 12920 | 7067 | 4330 |
| 97 | 9352 | 9149 | 14170 | 10075 | 11410 | 9609 | 5807 | 8411 | 4872 | 4867 | 1507 | 6074 | 4292 | 1039 | 1466 | 3086 | 4683 | 6997 | 11931 | 12831 | 6873 | 3632 |
| 98 | 9326 | 8684 | 13556 | 9181 | 12654 | 11383 | 4725 | 10344 | 6070 | 3141 | 2266 | 8369 | 6665 | 3423 | 2371 | 5359 | 7032 | 4972 | 9655 | 10794 | 5143 | 5050 |
| 99 | 14366 | 14605 | 19571 | 15810 | 6431 | 3723 | 8274 | 2397 | 3220 | 8822 | 5791 | 2082 | 3153 | 5147 | 7305 | 5402 | 4907 | 12936 | 17625 | 18782 | 12888 | 7888 |
| 100 | 12776 | 13102 | 18028 | 14390 | 8127 | 5302 | 8448 | 3848 | 3876 | 8606 | 5156 | 1226 | 1459 | 3991 | 6089 | 3786 | 3216 | 11975 | 16866 | 17804 | 11798 | 6312 |
| 101 | 12730 | 12870 | 17865 | 14015 | 7806 | 5509 | 7057 | 4254 | 2585 | 7294 | 4011 | 2594 | 2211 | 3303 | 5460 | 3931 | 3974 | 11089 | 15834 | 16934 | 11027 | 6279 |
| 102 | 9898 | 10129 | 15088 | 11390 | 10664 | 8205 | 7699 | 6810 | 4848 | 7162 | 3463 | 3864 | 1902 | 1521 | 3244 | 1176 | 2254 | 9275 | 14338 | 15036 | 8969 | 3429 |
| 103 | 19666 | 19982 | 24923 | 21209 | 3585 | 1747 | 12047 | 3048 | 7282 | 13204 | 10863 | 6467 | 8287 | 10524 | 12680 | 10677 | 9799 | 18101 | 22509 | 23914 | 18159 | 13208 |
| 104 | 19338 | 19676 | 24606 | 20923 | 3882 | 1576 | 11990 | 2743 | 7149 | 13095 | 10664 | 6110 | 7955 | 10262 | 12419 | 10353 | 9442 | 17899 | 22356 | 23722 | 17934 | 12888 |
| 105 | 18008 | 18410 | 23303 | 19712 | 4905 | 1518 | 11588 | 1685 | 6548 | 12500 | 9773 | 4727 | 6637 | 9157 | 11310 | 9051 | 8046 | 16962 | 21576 | 22805 | 16922 | 11592 |
| 106 | 18512 | 18897 | 23800 | 20183 | 4575 | 1452 | 11792 | 2061 | 6808 | 12771 | 10140 | 5240 | 7134 | 9592 | 11748 | 9545 | 8563 | 17350 | 21915 | 23188 | 17333 | 12085 |
| 107 | 19028 | 19384 | 24304 | 20645 | 4131 | 1461 | 11909 | 2468 | 7010 | 12968 | 10463 | 5782 | 7645 | 10007 | 12165 | 10049 | 9162 | 17691 | 22189 | 23521 | 17707 | 12586 |
| 108 | 8983 | 9575 | 14319 | 11091 | 12177 | 9301 | 9828 | 7796 | 6896 | 9120 | 5503 | 4345 | 2604 | 3474 | 4329 | 1188 | 1072 | 10165 | 15358 | 15678 | 9620 | 2863 |
| 109 | 2077 | 1479 | 3585 | 2043 | 21959 | 19714 | 14703 | 18304 | 15485 | 12802 | 11795 | 15067 | 13114 | 11119 | 9148 | 10699 | 11892 | 7644 | 10722 | 8985 | 6498 | 8158 |
| 110 | 2202 | 2069 | 3183 | 2640 | 22436 | 20127 | 15323 | 18701 | 15996 | 13432 | 12343 | 15421 | 13486 | 11599 | 9667 | 11077 | 12206 | 8306 | 11310 | 9492 | 7160 | 8542 |
| 111 | 2524 | 2570 | 2830 | 3057 | 22882 | 20539 | 15826 | 19105 | 16460 | 13936 | 12823 | 15802 | 13879 | 12049 | 10136 | 11476 | 12567 | 8792 | 11693 | 9798 | 7651 | 8946 |
| 112 | 3790 | 2329 | 3786 | 768 | 22246 | 20264 | 14229 | 18919 | 15664 | 12263 | 11839 | 15850 | 13857 | 11495 | 9393 | 11458 | 12830 | 6560 | 8950 | 7058 | 5529 | 8957 |
| 113 | 3976 | 2672 | 3276 | 1300 | 22764 | 20758 | 14763 | 19405 | 16187 | 12796 | 12367 | 16312 | 14322 | 12000 | 9906 | 11918 | 13264 | 7600 | 9251 | 7234 | 6045 | 9406 |
| 114 | 4066 | 3062 | 2453 | 2061 | 23416 | 21336 | 15551 | 19962 | 16859 | 13589 | 13063 | 16813 | 14834 | 12616 | 10550 | 12421 | 13707 | 7885 | 9969 | 7838 | 6864 | 9891 |
| 115 | 4193 | 3440 | 1805 | 2684 | 23907 | 21766 | 16166 | 20376 | 17371 | 14211 | 13599 | 17182 | 15216 | 13087 | 11046 | 12800 | 14034 | 8544 | 10586 | 8391 | 7514 | 10261 |
| 116 | 10165 | 8428 | 9737 | 6798 | 22535 | 21586 | 12617 | 20554 | 16148 | 10772 | 12477 | 18296 | 16388 | 13255 | 11245 | 14367 | 16078 | 5274 | 2518 | 590 | 5556 | 12443 |
| 117 | 10563 | 8831 | 10407 | 7279 | 22102 | 21257 | 12090 | 20263 | 15778 | 10284 | 12173 | 18108 | 16228 | 13054 | 11096 | 14274 | 16000 | 5062 | 1763 | 1202 | 5502 | 12447 |
| 118 | 12635 | 10912 | 12511 | 9409 | 22423 | 21912 | 12169 | 21035 | 16354 | 10556 | 12990 | 19165 | 17368 | 14131 | 12323 | 15584 | 17329 | 6352 | 1168 | 2895 | 7069 | 13972 |
| 119 | 12716 | 11041 | 13272 | 9739 | 20902 | 20530 | 10607 | 19714 | 14958 | 9077 | 11748 | 18022 | 16292 | 13040 | 11366 | 14653 | 16399 | 5645 | 1247 | 4092 | 6571 | 13249 |
| 120 | 12099 | 10420 | 12675 | 9116 | 20780 | 20305 | 10525 | 19452 | 14740 | 8917 | 11439 | 17671 | 15912 | 12664 | 10936 | 14219 | 15966 | 5123 | 790 | 3641 | 6009 | 12751 |
| 121 | 10292 | 8677 | 11564 | 7598 | 19238 | 18523 | 9182 | 17595 | 12996 | 7391 | 9521 | 15659 | 13860 | 10623 | 8833 | 12106 | 13853 | 2982 | 2340 | 4042 | 3923 | 10607 |
| 122 | 11523 | 10317 | 14454 | 10010 | 14838 | 14448 | 4658 | 13692 | 8875 | 2974 | 5971 | 12326 | 10796 | 7627 | 6533 | 9639 | 11304 | 4127 | 6525 | 8561 | 5159 | 9047 |
| 123 | 10973 | 9733 | 13823 | 9387 | 15269 | 14755 | 5185 | 13946 | 9184 | 3396 | 6079 | 12429 | 10830 | 7617 | 6360 | 9541 | 11235 | 3492 | 6096 | 8015 | 4541 | 8787 |
| 124 | 12559 | 11398 | 15585 | 11135 | 14187 | 14046 | 3879 | 13396 | 8507 | 2558 | 6038 | 12317 | 10921 | 7864 | 7057 | 9998 | 11600 | 5263 | 7301 | 9515 | 6283 | 9673 |
| 125 | 12022 | 10845 | 15018 | 10569 | 14467 | 14194 | 4214 | 13489 | 8631 | 2673 | 5933 | 12264 | 10800 | 7682 | 6738 | 9762 | 11396 | 4696 | 6935 | 9059 | 5716 | 9313 |
| 126 | 13635 | 12489 | 16669 | 12224 | 13844 | 13977 | 3565 | 13440 | 8528 | 2830 | 6519 | 12644 | 11377 | 8447 | 7860 | 10653 | 12193 | 6340 | 7959 | 10331 | 7373 | 10523 |
| 127 | 13141 | 12002 | 16211 | 11758 | 13862 | 13867 | 3542 | 13280 | 8372 | 2535 | 6173 | 12366 | 11049 | 8070 | 7412 | 10253 | 11816 | 5890 | 7761 | 10053 | 6906 | 10064 |
| 128 | 14090 | 14421 | 19347 | 15700 | 7002 | 4008 | 8902 | 2532 | 3933 | 9325 | 6105 | 1308 | 2727 | 5195 | 7330 | 5100 | 4376 | 13123 | 17920 | 18965 | 13002 | 7630 |
| 129 | 17860 | 18023 | 23019 | 19136 | 3046 | 1042 | 9524 | 1925 | 4795 | 10684 | 8495 | 5206 | 6674 | 8395 | 10521 | 8929 | 8384 | 15718 | 20026 | 21501 | 15841 | 11388 |
| 130 | 18459 | 18593 | 23596 | 19677 | 2392 | 1373 | 9699 | 2548 | 5158 | 10956 | 8940 | 5865 | 7316 | 8941 | 11050 | 9549 | 9035 | 16137 | 20355 | 21894 | 16296 | 11992 |
| 131 | 2799 | 3814 | 3793 | 4820 | 23145 | 20579 | 16803 | 19101 | 16901 | 14988 | 13455 | 15687 | 13850 | 12423 | 10694 | 11509 | 12374 | 10274 | 13498 | 11665 | 9101 | 9066 |
| 132 | 2813 | 3660 | 3441 | 4548 | 23252 | 20727 | 16757 | 19256 | 16969 | 14233 | 13480 | 15859 | 14800 | 12498 | 10729 | 11648 | 12556 | 10097 | 13217 | 11345 | 8930 | 9183 |
| 133 | 4505 | 5865 | 5365 | 7021 | 23985 | 21197 | 18399 | 19685 | 17986 | 16664 | 14774 | 16193 | 14488 | 13513 | 12002 | 12273 | 12864 | 12313 | 15700 | 13867 | 11130 | 10009 |
| 134 | 4899 | 6312 | 5827 | 7508 | 24109 | 21274 | 18710 | 19756 | 18176 | 16997 | 15026 | 16253 | 14583 | 13715 | 12258 | 12405 | 12931 | 12744 | 16186 | 14367 | 11560 | 10192 |
| 135 | 5283 | 6709 | 6125 | 7904 | 24343 | 21475 | 19054 | 19955 | 18453 | 17352 | 15339 | 16446 | 14800 | 14000 | 12575 | 12648 | 13131 | 13137 | 16583 | 14754 | 11952 | 10469 |
| 136 | 5633 | 7149 | 6837 | 8442 | 24190 | 21258 | 19200 | 19733 | 18405 | 17539 | 15393 | 16217 | 14623 | 13981 | 12646 | 12531 | 12921 | 13523 | 17110 | 15345 | 12337 | 10438 |
| 137 | 6347 | 7915 | 7672 | 9260 | 24357 | 21352 | 19698 | 19822 | 18701 | 18078 | 15805 | 16304 | 14780 | 14320 | 13083 | 12765 | 13043 | 14236 | 17916 | 16183 | 13052 | 10777 |
| 138 | 6531 | 8164 | 8287 | 9607 | 23939 | 20884 | 19571 | 19353 | 18390 | 17997 | 15600 | 15838 | 14365 | 14052 | 12908 | 12415 | 12607 | 14382 | 18219 | 16573 | 13202 | 10523 |
| 139 | 6919 | 8554 | 8610 | 9994 | 24154 | 21071 | 19903 | 19541 | 18657 | 18342 | 15910 | 16029 | 14586 | 14339 | 13229 | 12669 | 12819 | 14766 | 18609 | 16958 | 13586 | 10818 |
| 140 | 7270 | 8548 | 6803 | 9506 | 26424 | 23506 | 21158 | 21981 | 20579 | 19434 | 17472 | 18465 | 16863 | 16132 | 14707 | 14748 | 15167 | 15013 | 18135 | 16104 | 13835 | 12598 |
| 141 | 7803 | 9069 | 7167 | 10000 | 26903 | 23965 | 21691 | 22438 | 21086 | 19968 | 17996 | 18921 | 17337 | 16644 | 15232 | 15238 | 15631 | 15535 | 18612 | 16550 | 14358 | 13107 |
| 142 | 8004 | 9309 | 7513 | 10281 | 26925 | 23959 | 21842 | 22430 | 21156 | 20135 | 18108 | 18912 | 17353 | 16726 | 15350 | 15281 | 15634 | 15774 | 18909 | 16867 | 14594 | 13185 |
| 143 | 8334 | 9612 | 7653 | 10544 | 27301 | 24333 | 22196 | 22804 | 21530 | 20483 | 18475 | 19286 | 17728 | 17099 | 15715 | 15657 | 16009 | 16078 | 19152 | 17077 | 14900 | 13558 |
| 144 | 8796 | 10066 | 7995 | 10976 | 277 | | | | | | | | | | | | | | | | | |

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. Contains numerical data for wind turbine performance across various parameters.

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Rows 88-156 containing numerical data.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various parameters.

Table with columns WTG, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 14 | 3920 | 12111 | 8966 | 7809 | 13245 | 11020 | 9534 | 6334 | 6688 | 8506 | 17688 | 17438 | 17278 | 15954 | 10975 | 10319 | 10598 |
| 15 | 10072 | 5537 | 2461 | 12941 | 12017 | 10215 | 8593 | 5814 | 5311 | 5139 | 15192 | 14972 | 14627 | 14132 | 5667 | 7344 | 5605 |
| 16 | 12222 | 4369 | 3084 | 15431 | 10033 | 8528 | 7053 | 8547 | 8013 | 7518 | 12720 | 12511 | 12130 | 11863 | 7033 | 9609 | 2875 |
| 17 | 12644 | 4059 | 3122 | 15838 | 10027 | 8599 | 7166 | 8862 | 8308 | 7718 | 12563 | 12359 | 11965 | 11774 | 7053 | 9772 | 2603 |
| 18 | 11046 | 5271 | 3206 | 14288 | 10216 | 8516 | 6943 | 7672 | 7204 | 6997 | 13283 | 13064 | 12716 | 12254 | 7037 | 9173 | 3821 |
| 19 | 12100 | 6768 | 5741 | 15794 | 7467 | 5840 | 4345 | 10139 | 9758 | 9733 | 10670 | 10442 | 10129 | 9532 | 9675 | 11920 | 2682 |
| 20 | 6698 | 10344 | 7586 | 10629 | 10572 | 8368 | 6816 | 7428 | 7489 | 8729 | 14909 | 14659 | 14484 | 13233 | 10466 | 10843 | 8022 |
| 21 | 2929 | 12754 | 9419 | 5826 | 15596 | 13381 | 11851 | 4886 | 5467 | 7605 | 19935 | 19686 | 19498 | 18271 | 10537 | 9041 | 12160 |
| 22 | 7482 | 8279 | 5201 | 10743 | 11876 | 9803 | 8149 | 5334 | 5200 | 6138 | 15728 | 15489 | 15227 | 14327 | 7800 | 8309 | 7242 |
| 23 | 2591 | 15320 | 11951 | 2882 | 18438 | 16213 | 14728 | 6143 | 6907 | 9149 | 22864 | 22614 | 22441 | 21149 | 12356 | 10003 | 15114 |
| 24 | 5016 | 11506 | 8503 | 8980 | 12073 | 9851 | 8357 | 6867 | 7103 | 8706 | 16510 | 16260 | 16102 | 14778 | 10896 | 10663 | 9616 |
| 25 | 4378 | 11539 | 8389 | 8129 | 13065 | 10849 | 9326 | 5960 | 6266 | 8017 | 17437 | 17188 | 17012 | 15748 | 10429 | 9878 | 10119 |
| 26 | 3501 | 12225 | 9004 | 7201 | 13938 | 11716 | 10213 | 5806 | 6220 | 8140 | 18344 | 18094 | 17925 | 16635 | 10756 | 9863 | 11008 |
| 27 | 8336 | 7436 | 4067 | 10714 | 14021 | 12058 | 10399 | 3331 | 2926 | 3537 | 17505 | 17278 | 16960 | 16307 | 5508 | 5720 | 8116 |
| 28 | 10170 | 5892 | 2606 | 12318 | 14407 | 12606 | 10979 | 4162 | 3474 | 2768 | 17469 | 17255 | 16890 | 16483 | 3755 | 4954 | 7620 |
| 29 | 9370 | 6790 | 4155 | 12710 | 10541 | 8613 | 6962 | 6728 | 6403 | 6723 | 14084 | 13852 | 13555 | 12830 | 7539 | 8956 | 5275 |
| 30 | 5226 | 10348 | 7062 | 8288 | 13776 | 11611 | 10002 | 4249 | 4493 | 6224 | 17888 | 17644 | 17416 | 16354 | 8729 | 8088 | 9697 |
| 31 | 4758 | 10817 | 7536 | 7906 | 13917 | 11734 | 10145 | 4475 | 4785 | 6601 | 18100 | 17854 | 17639 | 16526 | 9170 | 8409 | 10074 |
| 32 | 4304 | 11271 | 7985 | 7495 | 14159 | 11964 | 10392 | 4635 | 5009 | 6905 | 18397 | 18150 | 17945 | 16791 | 9549 | 8649 | 10492 |
| 33 | 3785 | 11857 | 8525 | 6655 | 15058 | 12858 | 11293 | 4345 | 4844 | 6904 | 19308 | 19061 | 18856 | 17697 | 9746 | 8471 | 11326 |
| 34 | 5897 | 16503 | 13207 | 3260 | 21409 | 19200 | 17652 | 6538 | 7317 | 9318 | 25666 | 25420 | 25206 | 24062 | 12579 | 9398 | 17230 |
| 35 | 5226 | 16448 | 13123 | 2691 | 20935 | 18719 | 17188 | 6559 | 7351 | 9429 | 25243 | 24996 | 24794 | 23606 | 12705 | 9667 | 16971 |
| 36 | 5320 | 17093 | 13762 | 2226 | 21338 | 19117 | 17605 | 7220 | 8013 | 10094 | 25694 | 25446 | 25254 | 24027 | 13370 | 10314 | 17539 |
| 37 | 6166 | 14890 | 11631 | 4655 | 20551 | 18371 | 16778 | 4894 | 5656 | 7604 | 24651 | 24408 | 24166 | 23139 | 10857 | 7681 | 15891 |
| 38 | 6285 | 14233 | 10986 | 5193 | 20148 | 17981 | 16374 | 4236 | 4992 | 6931 | 24186 | 23945 | 23693 | 22710 | 10185 | 7044 | 15320 |
| 39 | 8515 | 10282 | 7218 | 9059 | 18248 | 16237 | 14577 | 1228 | 1341 | 2741 | 21766 | 21539 | 21215 | 20569 | 5984 | 3213 | 12191 |
| 40 | 7924 | 10206 | 7040 | 8709 | 17698 | 15665 | 14006 | 556 | 975 | 2927 | 21293 | 21064 | 20751 | 20054 | 6205 | 3780 | 11832 |
| 41 | 7061 | 14297 | 11111 | 5765 | 20696 | 18544 | 16925 | 4348 | 5051 | 6825 | 24662 | 24423 | 24158 | 23228 | 10028 | 6696 | 15636 |
| 42 | 8786 | 14089 | 11088 | 7418 | 21608 | 19506 | 17862 | 4602 | 5122 | 6402 | 25374 | 25141 | 24845 | 24054 | 9389 | 5719 | 16001 |
| 43 | 11458 | 7195 | 5861 | 15194 | 7578 | 5804 | 4225 | 9789 | 9452 | 9575 | 11030 | 10796 | 10509 | 9781 | 9747 | 11786 | 3352 |
| 44 | 10732 | 7681 | 6039 | 14511 | 7813 | 5902 | 4263 | 9401 | 9115 | 9409 | 11502 | 11263 | 11002 | 10146 | 9838 | 11637 | 4098 |
| 45 | 10489 | 8325 | 6631 | 14360 | 7533 | 5532 | 3874 | 9639 | 9401 | 9822 | 11421 | 11179 | 10946 | 9965 | 10388 | 12054 | 4617 |
| 46 | 10111 | 8762 | 6949 | 14032 | 7603 | 5533 | 3875 | 9597 | 9398 | 9932 | 11635 | 11389 | 11177 | 10107 | 10644 | 12164 | 5112 |
| 47 | 17392 | 10787 | 11335 | 21416 | 3182 | 3973 | 4531 | 16402 | 16016 | 15841 | 4410 | 4187 | 3866 | 3652 | 15203 | 17964 | 5860 |
| 48 | 16415 | 9128 | 9665 | 20330 | 4378 | 4347 | 4258 | 14912 | 14492 | 14227 | 6000 | 5791 | 5417 | 5330 | 13521 | 16330 | 4173 |
| 49 | 17153 | 8738 | 9639 | 20994 | 5224 | 5382 | 5289 | 15233 | 14769 | 14346 | 6035 | 5853 | 5410 | 5748 | 13399 | 16392 | 4076 |
| 50 | 17317 | 10197 | 10840 | 21293 | 3764 | 4331 | 4679 | 16061 | 15652 | 15408 | 4819 | 4609 | 4239 | 4242 | 14683 | 17511 | 5326 |
| 51 | 11720 | 7825 | 6636 | 15561 | 6817 | 5017 | 3439 | 10469 | 10159 | 10342 | 10401 | 10163 | 9898 | 9077 | 10531 | 12558 | 3584 |
| 52 | 15475 | 10081 | 10105 | 19508 | 3146 | 2708 | 2739 | 14724 | 14383 | 14375 | 6135 | 5895 | 5652 | 4878 | 14040 | 16546 | 4954 |
| 53 | 15244 | 10487 | 10367 | 19316 | 2774 | 2153 | 2311 | 14768 | 14455 | 14531 | 6213 | 5967 | 5772 | 4777 | 14313 | 16718 | 5354 |
| 54 | 14814 | 10586 | 10308 | 18903 | 2815 | 1790 | 1821 | 14511 | 14219 | 14366 | 6590 | 6341 | 6173 | 5046 | 14257 | 16566 | 5464 |
| 55 | 11058 | 11512 | 9994 | 15255 | 5680 | 3456 | 2243 | 12244 | 12153 | 12900 | 10345 | 10092 | 10021 | 8445 | 13720 | 15125 | 7093 |
| 56 | 15450 | 7917 | 8308 | 19273 | 5354 | 4781 | 4192 | 13605 | 13168 | 12869 | 7361 | 7153 | 6774 | 6635 | 12177 | 14967 | 2860 |
| 57 | 16634 | 8722 | 9427 | 20499 | 4923 | 4908 | 4744 | 14865 | 14419 | 14068 | 6206 | 6010 | 5599 | 5715 | 13240 | 16142 | 3881 |
| 58 | 6214 | 9604 | 6238 | 8576 | 14731 | 12628 | 10983 | 2710 | 2878 | 4639 | 18605 | 18367 | 18099 | 17206 | 7324 | 6465 | 9779 |
| 59 | 8535 | 7513 | 4688 | 11900 | 10916 | 8906 | 7245 | 6260 | 6018 | 6611 | 14638 | 14401 | 14125 | 13297 | 7790 | 8834 | 6080 |
| 60 | 4870 | 10978 | 7827 | 8500 | 12872 | 10669 | 9113 | 5663 | 5912 | 7579 | 17169 | 16921 | 16731 | 15525 | 9916 | 9493 | 9638 |
| 61 | 8847 | 7584 | 4304 | 10702 | 15323 | 13393 | 11738 | 2477 | 1845 | 2188 | 18680 | 18456 | 18120 | 17553 | 4626 | 4340 | 9053 |
| 62 | 7910 | 7718 | 4552 | 10959 | 12264 | 10241 | 8581 | 4910 | 4686 | 5455 | 15966 | 15732 | 15447 | 14646 | 7050 | 7649 | 7120 |
| 63 | 11062 | 6059 | 4327 | 14539 | 9123 | 7384 | 5803 | 8469 | 8067 | 8042 | 12359 | 12133 | 11810 | 11235 | 8179 | 10240 | 3451 |
| 64 | 13240 | 6855 | 6402 | 16970 | 6719 | 5359 | 4070 | 11252 | 10841 | 10684 | 9595 | 9372 | 9037 | 8581 | 10349 | 12837 | 2052 |
| 65 | 8783 | 8008 | 5513 | 12417 | 9793 | 7744 | 6085 | 7388 | 7188 | 7815 | 13660 | 13420 | 13169 | 12237 | 8867 | 10040 | 5724 |
| 66 | 9969 | 6178 | 3661 | 13247 | 10497 | 8646 | 7015 | 6952 | 6562 | 6669 | 13866 | 13638 | 13321 | 12696 | 7211 | 8892 | 4776 |
| 67 | 8112 | 9245 | 6752 | 11968 | 9533 | 7381 | 5760 | 7891 | 7807 | 8702 | 13696 | 13449 | 13246 | 12114 | 10003 | 10899 | 6602 |
| 68 | 10916 | 4666 | 1580 | 13672 | 12245 | 10547 | 8962 | 6189 | 5601 | 5055 | 15172 | 14959 | 14588 | 14232 | 5069 | 7186 | 5327 |
| 69 | 7773 | 12980 | 9871 | 7100 | 20133 | 18030 | 16386 | 3216 | 3819 | 5403 | 23924 | 23690 | 23399 | 22587 | 8568 | 5207 | 14633 |
| 70 | 7496 | 15366 | 12201 | 5524 | 21715 | 19552 | 17942 | 5446 | 6136 | 7831 | 25726 | 25486 | 25228 | 24268 | 10989 | 7513 | 16742 |
| 71 | 8053 | 12377 | 9299 | 7645 | 19820 | 17739 | 16089 | 2746 | 3280 | 4772 | 23534 | 23302 | 23002 | 22238 | 7925 | 4585 | 14147 |
| 72 | 11474 | 4542 | 1404 | 13693 | 14144 | 12486 | 10909 | 5462 | 4732 | 3518 | 16881 | 16677 | 16282 | 16050 | 3143 | 5466 | 6858 |
| 73 | 7769 | 14685 | 11559 | 6162 | 21417 | 19274 | 17649 | 4843 | 5494 | 7100 | 25343 | 25105 | 24833 | 23933 | 10230 | 6725 | 16219 |
| 74 | 9506 | 8543 | 6471 | 13355 | 8405 | 6330 | 4674 | 8800 | 8611 | 9202 | 12402 | 12158 | 11934 | 10900 | 10056 | 11432 | 5348 |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 75 | 9109 | 9283 | 7148 | 13059 | 8339 | 6193 | 4567 | 9016 | 8890 | 9634 | 12526 | 12278 | 12086 | 10923 | 10656 | 11854 | 6005 |
| 76 | 8680 | 9665 | 7423 | 12665 | 8597 | 6420 | 4825 | 8908 | 8824 | 9677 | 12870 | 12621 | 12443 | 11222 | 10841 | 11884 | 6483 |
| 77 | 12282 | 8539 | 7569 | 16221 | 5828 | 4038 | 2497 | 11417 | 11125 | 11334 | 9527 | 9285 | 9045 | 8130 | 11485 | 13550 | 3911 |
| 78 | 12239 | 7412 | 6458 | 16033 | 6781 | 5125 | 3632 | 10684 | 10334 | 10389 | 10128 | 9895 | 9604 | 8910 | 10389 | 12587 | 3002 |
| 79 | 10781 | 9504 | 7959 | 14814 | 6511 | 4397 | 2749 | 10740 | 10556 | 11094 | 10707 | 10458 | 10280 | 9083 | 11726 | 13327 | 5348 |
| 80 | 12810 | 7211 | 6530 | 16585 | 6603 | 5100 | 3718 | 11078 | 10699 | 10650 | 9729 | 9501 | 9190 | 8604 | 10478 | 12828 | 2551 |
| 81 | 17221 | 11069 | 11503 | 21273 | 2742 | 3586 | 4253 | 16426 | 16059 | 15946 | 4386 | 4152 | 3883 | 3410 | 15394 | 18085 | 6082 |
| 82 | 10575 | 10083 | 8468 | 14665 | 6453 | 4275 | 2686 | 10950 | 10806 | 11445 | 10812 | 10561 | 10412 | 9101 | 12193 | 13675 | 5926 |
| 83 | 9929 | 10033 | 8212 | 14006 | 7115 | 4927 | 3351 | 10361 | 10242 | 10961 | 11474 | 11223 | 11070 | 9768 | 11853 | 13186 | 6146 |
| 84 | 9473 | 10418 | 8467 | 13581 | 7447 | 5235 | 3719 | 10240 | 10162 | 10989 | 11893 | 11641 | 11504 | 10139 | 12026 | 13203 | 6655 |
| 85 | 10592 | 11834 | 10174 | 14806 | 6152 | 3942 | 2812 | 12088 | 12033 | 12877 | 10864 | 10611 | 10553 | 8931 | 13833 | 15092 | 7541 |
| 86 | 7723 | 10103 | 7610 | 11716 | 9457 | 7257 | 5698 | 8322 | 8311 | 9357 | 13797 | 13548 | 13378 | 12115 | 10800 | 11527 | 7280 |
| 87 | 7096 | 10750 | 8155 | 11152 | 9886 | 7666 | 6164 | 8305 | 8363 | 9568 | 14325 | 14074 | 13924 | 12585 | 11199 | 11697 | 8013 |
| 88 | 5117 | 15520 | 12200 | 3393 | 20298 | 18092 | 16538 | 5624 | 6416 | 8504 | 24540 | 24295 | 24079 | 22944 | 11781 | 8801 | 16125 |
| 89 | 8593 | 9389 | 6280 | 9564 | 17388 | 15403 | 13743 | 1008 | 514 | 2061 | 20846 | 20621 | 20292 | 19677 | 5336 | 3194 | 11238 |
| 90 | 7408 | 8604 | 5239 | 9540 | 14872 | 12842 | 11182 | 2303 | 2130 | 3518 | 18521 | 18289 | 17989 | 17242 | 6107 | 5487 | 9297 |
| 91 | 11647 | 4809 | 3110 | 14877 | 10084 | 8480 | 6953 | 8124 | 7621 | 7264 | 12966 | 12751 | 12387 | 12021 | 7032 | 9400 | 3306 |
| 92 | 9029 | 10845 | 7892 | 9171 | 19146 | 17140 | 15480 | 2104 | 2226 | 3159 | 22630 | 22405 | 22075 | 21454 | 6244 | 2965 | 12992 |
| 93 | 9449 | 10254 | 7365 | 9772 | 18900 | 16929 | 15269 | 2165 | 2041 | 2550 | 22287 | 22065 | 21724 | 21161 | 5590 | 2371 | 12560 |
| 94 | 9013 | 13567 | 10607 | 7880 | 21359 | 19277 | 17627 | 4251 | 4710 | 5868 | 25055 | 24824 | 24519 | 23772 | 8815 | 5125 | 15597 |
| 95 | 10208 | 11520 | 8791 | 9875 | 20473 | 18495 | 16835 | 3540 | 3580 | 3882 | 23852 | 23631 | 23287 | 22735 | 6532 | 2739 | 14083 |
| 96 | 9959 | 6764 | 4520 | 13447 | 9633 | 7739 | 6098 | 7662 | 7331 | 7573 | 13152 | 12919 | 12624 | 11900 | 8149 | 9801 | 4554 |
| 97 | 9354 | 7441 | 5067 | 12928 | 9640 | 7657 | 5999 | 7545 | 7283 | 7731 | 13356 | 13119 | 12849 | 12008 | 8561 | 9964 | 5144 |
| 98 | 9328 | 6326 | 3267 | 12314 | 11843 | 9952 | 8307 | 5601 | 5192 | 5366 | 15233 | 15006 | 14685 | 14066 | 6283 | 7598 | 5941 |
| 99 | 14367 | 9325 | 9070 | 18363 | 4050 | 2916 | 2208 | 13520 | 13188 | 13227 | 7344 | 7105 | 6856 | 6050 | 13017 | 15411 | 4213 |
| 100 | 12777 | 9717 | 8852 | 16833 | 4661 | 2765 | 1224 | 12514 | 12261 | 12563 | 8688 | 8439 | 8257 | 7116 | 12768 | 14785 | 4874 |
| 101 | 12732 | 8319 | 7541 | 16646 | 5692 | 4043 | 2612 | 11666 | 11346 | 11466 | 9201 | 8963 | 8703 | 7885 | 11479 | 13670 | 3548 |
| 102 | 9900 | 9244 | 7384 | 13880 | 7521 | 5397 | 3756 | 9758 | 9596 | 10222 | 11687 | 11439 | 11249 | 10089 | 11038 | 12452 | 5554 |
| 103 | 19668 | 12523 | 13437 | 23725 | 4008 | 5674 | 6626 | 18720 | 18316 | 18058 | 2201 | 2020 | 1588 | 2551 | 17229 | 20147 | 7882 |
| 104 | 19339 | 12518 | 13330 | 23411 | 3600 | 5281 | 6268 | 18511 | 18121 | 17909 | 2318 | 2107 | 1756 | 2290 | 17150 | 20013 | 7792 |
| 105 | 18010 | 12298 | 12742 | 22120 | 2213 | 3812 | 4881 | 17551 | 17206 | 17148 | 3366 | 3118 | 2962 | 2163 | 16638 | 19299 | 7328 |
| 106 | 18513 | 12440 | 13011 | 22614 | 2663 | 4338 | 5395 | 17947 | 17587 | 17479 | 2901 | 2657 | 2462 | 2009 | 16885 | 19616 | 7543 |
| 107 | 19030 | 12482 | 13206 | 23113 | 3248 | 4927 | 5939 | 18298 | 17919 | 17745 | 2507 | 2280 | 1995 | 2137 | 17047 | 19862 | 7687 |
| 108 | 8984 | 11399 | 9327 | 13171 | 7763 | 5536 | 4191 | 10534 | 10531 | 11533 | 12379 | 12127 | 12030 | 10519 | 12777 | 13720 | 7677 |
| 109 | 2076 | 16167 | 12805 | 2372 | 18582 | 16354 | 14924 | 7182 | 7937 | 10182 | 23105 | 22853 | 22705 | 21325 | 13368 | 11072 | 15703 |
| 110 | 2201 | 16798 | 13438 | 2055 | 18900 | 16674 | 15275 | 7842 | 8598 | 10843 | 23469 | 23217 | 23081 | 21656 | 14030 | 11714 | 16239 |
| 111 | 2522 | 17302 | 13943 | 1806 | 19258 | 17035 | 15655 | 8318 | 9079 | 11322 | 23853 | 23600 | 23472 | 22021 | 14518 | 12158 | 16714 |
| 112 | 3789 | 15588 | 12228 | 2648 | 19451 | 17231 | 15716 | 5987 | 6780 | 8978 | 23806 | 23558 | 23368 | 22138 | 12241 | 9567 | 15756 |
| 113 | 3975 | 16118 | 12759 | 2178 | 19902 | 17680 | 16176 | 6474 | 7270 | 9452 | 24284 | 24035 | 23850 | 22599 | 12722 | 9973 | 16285 |
| 114 | 4065 | 16919 | 13557 | 1365 | 20375 | 18148 | 16674 | 7301 | 8096 | 10277 | 24816 | 24566 | 24395 | 23093 | 13548 | 10769 | 16985 |
| 115 | 4191 | 17547 | 14183 | 712 | 20718 | 18490 | 17041 | 7963 | 8758 | 10942 | 25206 | 24955 | 24795 | 23451 | 14212 | 11426 | 17522 |
| 116 | 10166 | 13391 | 10605 | 9054 | 21902 | 19864 | 18206 | 4734 | 5023 | 5722 | 25446 | 25220 | 24893 | 24246 | 8394 | 4547 | 15801 |
| 117 | 10564 | 12804 | 10107 | 9682 | 21688 | 19683 | 18023 | 4595 | 4767 | 5195 | 25130 | 24907 | 24569 | 23984 | 7729 | 3852 | 15392 |
| 118 | 12636 | 12617 | 10347 | 11818 | 22660 | 20750 | 19095 | 6061 | 5982 | 5578 | 25804 | 25592 | 25219 | 24815 | 7273 | 3557 | 15848 |
| 119 | 12717 | 10984 | 8857 | 12457 | 21447 | 19605 | 17962 | 5533 | 5242 | 4297 | 24421 | 24214 | 23825 | 23514 | 5619 | 2098 | 14401 |
| 120 | 12099 | 10994 | 8707 | 11848 | 21130 | 19256 | 17607 | 4971 | 4725 | 3991 | 24197 | 23987 | 23608 | 23242 | 5680 | 1912 | 14218 |
| 121 | 10293 | 9918 | 7208 | 10604 | 19167 | 17244 | 15588 | 2888 | 2582 | 2292 | 22409 | 22192 | 21835 | 21358 | 5012 | 1530 | 12560 |
| 122 | 11524 | 5448 | 2762 | 13307 | 15577 | 13883 | 12289 | 4762 | 3973 | 2265 | 18334 | 18130 | 17733 | 17504 | 2116 | 4038 | 8296 |
| 123 | 10974 | 6053 | 3206 | 12682 | 15751 | 13998 | 12383 | 4123 | 3333 | 1716 | 18646 | 18438 | 18053 | 17750 | 2525 | 3683 | 8658 |
| 124 | 12560 | 4444 | 2313 | 14435 | 15419 | 13842 | 12295 | 5898 | 5109 | 3291 | 17909 | 17714 | 17295 | 17205 | 1677 | 4752 | 7827 |
| 125 | 12024 | 4916 | 2441 | 13868 | 15443 | 13806 | 12234 | 5334 | 4546 | 2789 | 18071 | 17872 | 17464 | 17302 | 1862 | 4409 | 8003 |
| 126 | 13636 | 3734 | 2591 | 15523 | 15588 | 14130 | 12634 | 6964 | 6170 | 4245 | 17798 | 17614 | 17173 | 17227 | 1688 | 5408 | 7753 |
| 127 | 13142 | 3926 | 2289 | 15059 | 15377 | 13869 | 12352 | 6525 | 5735 | 3881 | 17709 | 17521 | 17089 | 17079 | 1723 | 5205 | 7638 |
| 128 | 14091 | 10016 | 9572 | 18152 | 3596 | 2165 | 1448 | 13683 | 13393 | 13560 | 7378 | 7130 | 6940 | 5874 | 15720 | 15765 | 4940 |
| 129 | 17862 | 10048 | 10916 | 21799 | 4377 | 5046 | 5365 | 16353 | 15917 | 15575 | 4729 | 4543 | 4111 | 4492 | 14701 | 17645 | 5357 |
| 130 | 18461 | 10119 | 11182 | 22373 | 4881 | 5681 | 6024 | 16781 | 16324 | 15907 | 4577 | 4417 | 3938 | 4657 | 14909 | 17946 | 5624 |
| 131 | 2797 | 18340 | 15021 | 3246 | 18993 | 16797 | 15532 | 9865 | 10593 | 12834 | 23708 | 23455 | 23370 | 21780 | 15956 | 13829 | 17259 |
| 132 | 2811 | 18281 | 14950 | 2870 | 19194 | 16992 | 15705 | 9669 | 10407 | 12652 | 23891 | 23638 | 23545 | 21979 | 15796 | 13599 | 17306 |
| 133 | 4503 | 19979 | 16718 | 5183 | 19280 | 17145 | 16033 | 11946 | 12650 | 14877 | 24089 | 23837 | 23803 | 22065 | 17934 | 15969 | 18444 |
| 134 | 4897 | 20299 | 17057 | 5678 | 19283 | 17167 | 16093 | 12389 | 13085 | 15307 | 24107 | 23856 | 23833 | 22064 | 18343 | 16428 | 18656 |
| 135 | 5281 | 20647 | 17414 | 6025 | 19434 | 17332 | 16285 | 12785 | 13480 | 15700 | 24266 | 24016 | 24001 | 22210 | 18730 | 16826 | 18946 |

To be continued on next page...

DECIBEL - Main Result

Calculation: V136-3.45/3.6

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 136 | 5632 | 20807 | 17611 | 6703 | 19123 | 17049 | 16055 | 13198 | 13875 | 16080 | 23968 | 23719 | 23719 | 21889 | 19062 | 17274 | 18932 |
| 137 | 6346 | 21316 | 18159 | 7559 | 19099 | 17066 | 16142 | 13933 | 14595 | 16786 | 23954 | 23706 | 23727 | 21847 | 19728 | 18029 | 19265 |
| 138 | 6530 | 21199 | 18088 | 8102 | 18558 | 16553 | 15676 | 14111 | 14750 | 16916 | 23415 | 23168 | 23201 | 21294 | 19798 | 18234 | 18983 |
| 139 | 6918 | 21533 | 18434 | 8454 | 18698 | 16713 | 15867 | 14497 | 15135 | 17297 | 23555 | 23309 | 23351 | 21424 | 20171 | 18622 | 19263 |
| 140 | 7268 | 22744 | 19490 | 7077 | 21359 | 19293 | 18303 | 14615 | 15338 | 17576 | 26207 | 25958 | 25963 | 24121 | 20668 | 18573 | 21079 |
| 141 | 7801 | 23277 | 20024 | 7501 | 21781 | 19728 | 18759 | 15133 | 15858 | 18097 | 26633 | 26384 | 26395 | 24536 | 21195 | 19079 | 21593 |
| 142 | 8002 | 23434 | 20195 | 7828 | 21731 | 19694 | 18750 | 15381 | 16101 | 18337 | 26586 | 26338 | 26357 | 24480 | 21420 | 19346 | 21677 |
| 143 | 8332 | 23787 | 20541 | 8020 | 22097 | 20064 | 19124 | 15677 | 16402 | 18641 | 26953 | 26705 | 26725 | 24844 | 21735 | 19624 | 22049 |
| 144 | 8794 | 24249 | 21005 | 8405 | 22473 | 20450 | 19527 | 16127 | 16854 | 19093 | 27329 | 27082 | 27108 | 25213 | 22192 | 20064 | 22497 |
| 145 | 10813 | 26134 | 22931 | 10549 | 23536 | 21599 | 20799 | 18230 | 18948 | 21182 | 28385 | 28142 | 28205 | 26228 | 24251 | 22193 | 24140 |
| 146 | 11393 | 26663 | 23474 | 11177 | 23826 | 21917 | 21153 | 18832 | 19546 | 21778 | 28668 | 28426 | 28500 | 26501 | 24837 | 22805 | 24598 |
| 147 | 11778 | 27063 | 23871 | 11495 | 24196 | 22294 | 21538 | 19204 | 19921 | 22155 | 29036 | 28794 | 28871 | 26865 | 25220 | 23167 | 24999 |
| 148 | 8041 | 21195 | 17864 | 3801 | 24734 | 22507 | 21081 | 11288 | 12075 | 14093 | 29259 | 29008 | 28855 | 27481 | 17351 | 14074 | 21515 |
| 149 | 7634 | 21042 | 17700 | 3423 | 24349 | 22123 | 20711 | 11182 | 11973 | 14027 | 28896 | 28645 | 28498 | 27102 | 17295 | 14087 | 21253 |
| 150 | 6974 | 20551 | 17200 | 2778 | 23695 | 21469 | 20062 | 10747 | 11542 | 13631 | 28250 | 27998 | 27853 | 26449 | 16906 | 13781 | 20668 |
| 151 | 7037 | 20866 | 17510 | 2932 | 23773 | 21550 | 20162 | 11104 | 11901 | 14007 | 28357 | 28105 | 27969 | 26535 | 17284 | 14194 | 20893 |
| 152 | 7415 | 21251 | 17895 | 3329 | 24152 | 21929 | 20546 | 11471 | 12266 | 14362 | 28742 | 28490 | 28356 | 26916 | 17638 | 14517 | 21291 |
| 153 | 8202 | 22178 | 18823 | 4213 | 24928 | 22709 | 21347 | 12392 | 13188 | 15276 | 29547 | 29294 | 29169 | 27699 | 18550 | 15395 | 22191 |
| 154 | 8024 | 22165 | 18805 | 4122 | 24734 | 22518 | 21168 | 12424 | 13220 | 15328 | 29368 | 29116 | 28996 | 27508 | 18604 | 15495 | 22098 |
| 155 | 7970 | 22332 | 18968 | 4220 | 24639 | 22428 | 21100 | 12652 | 13449 | 15578 | 29298 | 29045 | 28934 | 27418 | 18856 | 15800 | 22159 |
| 156 | 5191 | 20732 | 17407 | 4189 | 20945 | 18782 | 17601 | 12055 | 12808 | 15053 | 25722 | 25469 | 25413 | 23735 | 18225 | 15898 | 19607 |
| 157 | 5384 | 20954 | 17641 | 4661 | 20860 | 18710 | 17561 | 12403 | 13148 | 15393 | 25654 | 25402 | 25356 | 23648 | 18546 | 16282 | 19715 |
| 158 | 5789 | 21357 | 18043 | 4912 | 21208 | 19065 | 17927 | 12772 | 13521 | 15767 | 26009 | 25757 | 25715 | 23996 | 18927 | 16632 | 20116 |
| 159 | 5940 | 21514 | 18210 | 5242 | 21151 | 19019 | 17904 | 13018 | 13761 | 16006 | 25962 | 25711 | 25676 | 23936 | 19154 | 16901 | 20195 |
| 160 | 6840 | 22368 | 19036 | 5314 | 22397 | 20255 | 19118 | 13560 | 14325 | 16567 | 27200 | 26948 | 26906 | 25184 | 19767 | 17315 | 21246 |
| 161 | 4966 | 20339 | 16990 | 3234 | 21204 | 19016 | 17773 | 11394 | 12163 | 14403 | 25938 | 25685 | 25607 | 23993 | 17612 | 15144 | 19463 |
| 162 | 4528 | 19914 | 16568 | 3024 | 20801 | 18610 | 17357 | 11020 | 11785 | 14027 | 25528 | 25275 | 25193 | 23589 | 17227 | 14805 | 19025 |
| 163 | 7291 | 21563 | 18516 | 9099 | 18259 | 16312 | 15525 | 14827 | 15442 | 17577 | 23112 | 22868 | 22924 | 20965 | 20388 | 18969 | 19123 |
| 164 | 7699 | 21921 | 18888 | 9464 | 18425 | 16501 | 15747 | 15234 | 15848 | 17980 | 23273 | 23030 | 23096 | 21117 | 20784 | 19376 | 19429 |
| 165 | 8722 | 22892 | 19882 | 10332 | 19004 | 17135 | 16452 | 16264 | 16879 | 19011 | 23837 | 23596 | 23682 | 21662 | 21810 | 20405 | 20306 |
| 166 | 9119 | 23138 | 20155 | 10793 | 18979 | 17142 | 16501 | 16642 | 17248 | 19369 | 23800 | 23561 | 23657 | 21616 | 22142 | 20788 | 20467 |
| 167 | 6492 | 21973 | 18716 | 6459 | 20784 | 18698 | 17674 | 13855 | 14574 | 16811 | 25625 | 25375 | 25369 | 23554 | 19896 | 17827 | 20349 |
| 168 | 6099 | 21666 | 18372 | 5561 | 21097 | 18976 | 17884 | 13256 | 13995 | 16239 | 25917 | 25666 | 25639 | 23879 | 19372 | 17162 | 20272 |
| 169 | 10035 | 23981 | 21022 | 11624 | 19473 | 17689 | 17112 | 17559 | 18164 | 20282 | 24269 | 24033 | 24147 | 22073 | 23045 | 21705 | 21222 |
| 170 | 6848 | 22328 | 18986 | 5062 | 22597 | 20445 | 19285 | 13411 | 14183 | 16421 | 27388 | 27136 | 27087 | 25386 | 19635 | 17121 | 21302 |
| 171 | 6848 | 22272 | 18924 | 4842 | 22749 | 20589 | 19409 | 13268 | 14044 | 16278 | 27529 | 27277 | 27221 | 25539 | 19503 | 16938 | 21329 |
| 172 | 6110 | 21523 | 18175 | 4199 | 22130 | 19959 | 18756 | 12546 | 13319 | 15556 | 26895 | 26642 | 26579 | 24920 | 18775 | 16248 | 20599 |
| 173 | 5355 | 20734 | 17385 | 3518 | 21532 | 19350 | 18118 | 11767 | 12538 | 14777 | 26277 | 26024 | 25950 | 24322 | 17991 | 15496 | 19851 |
| 174 | 5765 | 21180 | 17833 | 3943 | 21823 | 19649 | 18438 | 12229 | 12999 | 15238 | 26582 | 26330 | 26263 | 24614 | 18452 | 15952 | 20255 |
| 175 | 6666 | 22215 | 18933 | 6188 | 21350 | 19249 | 18196 | 13882 | 14617 | 16860 | 26184 | 25933 | 25918 | 24126 | 19984 | 17798 | 20730 |
| 176 | 5881 | 20750 | 17382 | 2762 | 22468 | 20262 | 18958 | 11384 | 12174 | 14379 | 27150 | 26898 | 26797 | 25251 | 17640 | 14883 | 20256 |
| 177 | 4627 | 19257 | 15888 | 1346 | 21343 | 19125 | 17771 | 9903 | 10691 | 12903 | 25971 | 25718 | 25598 | 24115 | 16158 | 13467 | 18846 |
| 178 | 4283 | 18835 | 15466 | 1012 | 21015 | 18795 | 17427 | 9493 | 10280 | 12495 | 25626 | 25374 | 25249 | 23783 | 15747 | 13083 | 18441 |
| 179 | 3660 | 19214 | 15927 | 4314 | 19082 | 16917 | 15737 | 11007 | 11720 | 13953 | 23857 | 23604 | 23548 | 21872 | 17035 | 15011 | 17862 |
| 180 | 3310 | 18877 | 15582 | 4026 | 18950 | 16774 | 15569 | 10623 | 11337 | 13572 | 23708 | 23456 | 23391 | 21740 | 16659 | 14624 | 17588 |
| 181 | 8365 | 22584 | 19561 | 9999 | 18857 | 16967 | 16256 | 15910 | 16527 | 18662 | 23697 | 23455 | 23533 | 21528 | 21468 | 20051 | 20041 |
| 182 | 6874 | 22338 | 19087 | 6818 | 20997 | 18924 | 17923 | 14248 | 14966 | 17202 | 25843 | 25593 | 25594 | 23762 | 20285 | 18220 | 20672 |
| 183 | 10298 | 25432 | 22270 | 10473 | 22480 | 20565 | 19799 | 17813 | 18510 | 20730 | 27324 | 27082 | 27153 | 25160 | 23743 | 21838 | 23283 |
| 184 | 10493 | 25535 | 22393 | 10798 | 22359 | 20466 | 19730 | 18034 | 18723 | 20936 | 27197 | 26956 | 27035 | 25026 | 23928 | 22076 | 23308 |
| 185 | 10877 | 25925 | 22784 | 11126 | 22681 | 20800 | 20078 | 18413 | 19105 | 21319 | 27515 | 27275 | 27359 | 25340 | 24315 | 22450 | 23687 |
| 186 | 11290 | 26325 | 23189 | 11511 | 22974 | 21108 | 20406 | 18826 | 19517 | 21732 | 27802 | 27563 | 27652 | 25622 | 24727 | 22861 | 24061 |
| 187 | 11607 | 26587 | 23464 | 11876 | 23070 | 21224 | 20547 | 19153 | 19841 | 22052 | 27891 | 27652 | 27749 | 25705 | 25036 | 23196 | 24271 |
| 188 | 11790 | 26687 | 23581 | 12157 | 22984 | 21158 | 20507 | 19351 | 20032 | 22238 | 27796 | 27558 | 27662 | 25605 | 25203 | 23407 | 24307 |
| 189 | 6734 | 20166 | 16817 | 2498 | 23431 | 21204 | 19785 | 10352 | 11147 | 13234 | 27967 | 27716 | 27566 | 26180 | 16509 | 13387 | 20321 |
| 190 | 7675 | 21618 | 18262 | 3650 | 24408 | 22187 | 20816 | 11848 | 12644 | 14742 | 29014 | 28762 | 28633 | 27176 | 18018 | 14895 | 21625 |
| 191 | 2973 | 18545 | 15245 | 3801 | 18798 | 16614 | 15386 | 10260 | 10975 | 13209 | 23541 | 23288 | 23216 | 21588 | 16300 | 14263 | 17309 |
| 192 | 11033 | 26302 | 23112 | 10860 | 23523 | 21604 | 20829 | 18479 | 19192 | 21423 | 28368 | 28126 | 28196 | 26205 | 24478 | 22457 | 24247 |
| 193 | 6147 | 21032 | 17886 | 7542 | 18772 | 16738 | 15813 | 13737 | 14391 | 16573 | 23627 | 23379 | 23399 | 21522 | 19496 | 17844 | 18950 |
| 194 | 5992 | 21091 | 17910 | 7092 | 19173 | 17118 | 16155 | 13568 | 14240 | 16439 | 24024 | 23775 | 23785 | 21932 | 19408 | 17650 | 19142 |
| 195 | 8074 | 22185 | 19173 | 9862 | 18457 | 16559 | 15841 | 15596 | 16204 | 18328 | 23299 | 23057 | 23132 | 21133 | 21114 | 19741 | 19623 |
| 196 | 9743 | 23645 | 20688 | 11413 | 19181 | 17386 | 16797 | 17254 | 17856 | 19969 | 23983 | 23747 | 23857 | 21790 | 22722 | 21402 | 20888 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 11:15 PM/3.0.654

DECIBEL - Main Result

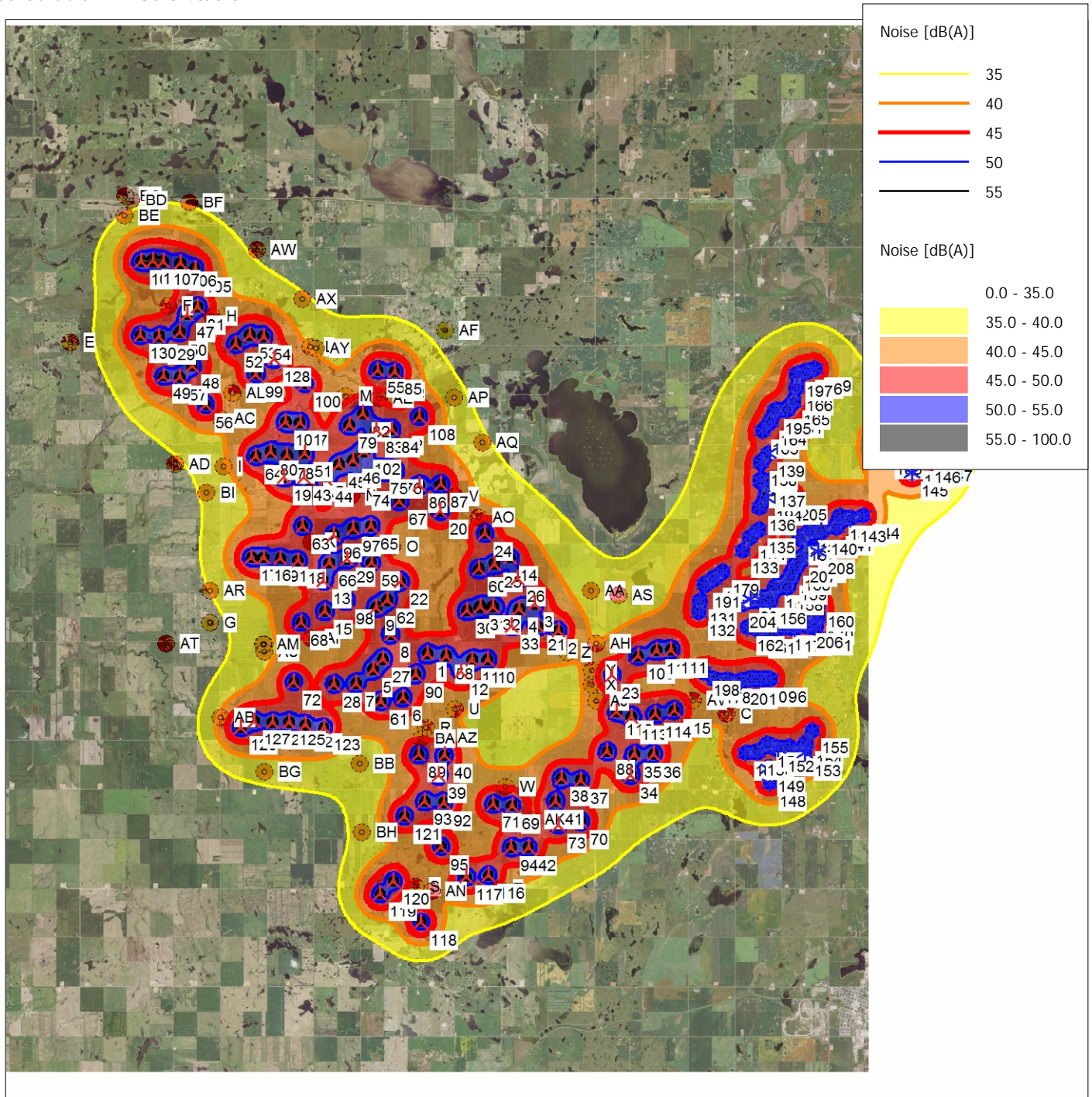
Calculation: V136-3.45/3.6

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 197 | 9468 | 23311 | 20359 | 11229 | 18878 | 17073 | 16474 | 16963 | 17560 | 19666 | 23685 | 23448 | 23555 | 21495 | 22408 | 21113 | 20551 |
| 198 | 3836 | 18431 | 15063 | 976 | 20572 | 18350 | 16979 | 9161 | 9944 | 12168 | 25177 | 24925 | 24799 | 23338 | 15410 | 12814 | 17996 |
| 199 | 5582 | 20406 | 17038 | 2425 | 22206 | 19997 | 18681 | 11041 | 11831 | 14037 | 26877 | 26624 | 26519 | 24987 | 17297 | 14553 | 19930 |
| 200 | 5286 | 20069 | 16701 | 2108 | 21941 | 19729 | 18403 | 10712 | 11501 | 13709 | 26600 | 26347 | 26238 | 24719 | 16967 | 14241 | 19607 |
| 201 | 5031 | 19730 | 16362 | 1762 | 21721 | 19506 | 18165 | 10362 | 11151 | 13359 | 26365 | 26112 | 25998 | 24496 | 16617 | 13896 | 19302 |
| 202 | 4858 | 20403 | 17079 | 4017 | 20648 | 18481 | 17291 | 11761 | 12511 | 14756 | 25419 | 25166 | 25107 | 23438 | 17920 | 15624 | 19274 |
| 203 | 4524 | 20070 | 16747 | 3837 | 20368 | 18197 | 16996 | 11454 | 12201 | 14446 | 25132 | 24880 | 24817 | 23159 | 17604 | 15334 | 18945 |
| 204 | 4184 | 19711 | 16384 | 3520 | 20178 | 17997 | 16775 | 11068 | 11815 | 14060 | 24927 | 24674 | 24604 | 22968 | 17220 | 14948 | 18635 |
| 205 | 6733 | 21924 | 18732 | 7453 | 19938 | 17900 | 16961 | 14279 | 14965 | 17176 | 24792 | 24544 | 24562 | 22689 | 20174 | 18337 | 19991 |
| 206 | 6520 | 21956 | 18610 | 4616 | 22432 | 20269 | 19085 | 12988 | 13762 | 15998 | 27209 | 26956 | 26899 | 25222 | 19218 | 16684 | 20998 |
| 207 | 6333 | 21888 | 18603 | 5896 | 21129 | 19019 | 17950 | 13546 | 14281 | 16523 | 25957 | 25706 | 25686 | 23907 | 19647 | 17466 | 20429 |
| 208 | 6996 | 22539 | 19260 | 6494 | 21559 | 19467 | 18432 | 14220 | 14955 | 17198 | 26397 | 26147 | 26138 | 24331 | 20322 | 18134 | 21023 |

DECIBEL - Map 95% rated power

Calculation: V136-3.45/3.6



0 2.5 5 7.5 10km

Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 641,190 North: 5,375,412

▲ New WTG * Existing WTG ■ Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 95% rated power
 Height above sea level from active line object

DECIBEL - Main Result

Calculation: A031 AW125-3.15

Noise calculation model:

ISO 9613-2 General

Wind speed:

95% rated power

Ground attenuation:

General, fixed, Ground factor: 0.5

Meteorological coefficient, CO:

0.0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

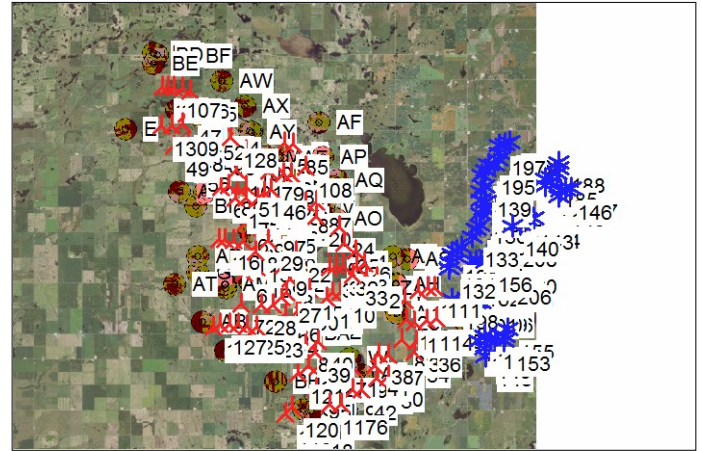
Pure and Impulse tone penalty are added to WTG source noise

Height above ground level, when no value in NSA object:

1.5 m Don't allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:

0.0 dB(A)



Scale 1:500,000

- New WTG
Noise sensitive area
Existing WTG

WTGs

Table with columns: X(East), Y(North), Z, Row data/Description, WTG type, Type-generator, Power, Rotor diameter, Hub height, Noise data, Wind speed, LwA,ref, Pure tones. Contains 51 rows of data for various wind turbine models and locations.

To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 10:25 PM/3.0.654

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns: X(East), Y(North), Z, Row data/Description, WTG type (Valid, Manufact., Type-generator), Noise data (Power, rated, Rotor diameter, Hub height, Creator, Name), Wind speed, LwA,ref, Pure tones. Contains 134 rows of data for various turbine locations and configurations.

To be continued on next page...



Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 10:25 PM/3.0.654

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA,ref [dB(A)] | Pure tones |
|-----|---------|-----------|----------------------------------|----------------------------------|----------|------------|----------------|-------------------|--------------------|----------------|--------------------|--------------------|------------------|-----------------|------------|
| | | | | | Valid | Manufact. | Type-generator | | | | Creator | Name | | | |
| 135 | 648,872 | 5,377,853 | [m] | 752.9 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No |
| 136 | 648,872 | 5,378,572 | 753.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 137 | 649,189 | 5,379,368 | 749.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 138 | 648,868 | 5,380,034 | 743.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 139 | 649,124 | 5,380,328 | 729.4 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 140 | 651,007 | 5,377,868 | 748.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 141 | 651,525 | 5,378,000 | 750.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 142 | 651,616 | 5,378,348 | 758.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 143 | 651,987 | 5,378,290 | 755.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 144 | 652,436 | 5,378,405 | 749.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 145 | 654,047 | 5,379,834 | 743.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 146 | 654,478 | 5,380,290 | 740.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 147 | 654,876 | 5,380,346 | 731.4 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 148 | 649,468 | 5,369,552 | 735.9 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 149 | 649,403 | 5,370,046 | 745.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 150 | 648,989 | 5,370,563 | 740.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 151 | 649,348 | 5,370,846 | 749.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 152 | 649,714 | 5,370,690 | 746.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 153 | 650,635 | 5,370,574 | 746.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 154 | 650,667 | 5,370,918 | 744.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 155 | 650,882 | 5,371,340 | 743.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 156 | 649,309 | 5,375,532 | 733.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 157 | 649,484 | 5,375,990 | 732.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 158 | 649,889 | 5,375,994 | 741.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 159 | 650,008 | 5,376,322 | 740.0 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 160 | 650,956 | 5,375,465 | 750.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 161 | 648,982 | 5,374,557 | 737.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 162 | 648,553 | 5,374,643 | 733.0 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 163 | 648,903 | 5,381,054 | 722.4 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 164 | 649,170 | 5,381,363 | 721.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 165 | 649,950 | 5,382,038 | 713.3 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 166 | 650,030 | 5,382,496 | 712.9 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 167 | 650,267 | 5,377,632 | 746.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 168 | 650,119 | 5,376,640 | 740.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 169 | 650,663 | 5,383,159 | 707.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 170 | 650,947 | 5,375,049 | 753.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 171 | 650,911 | 5,374,694 | 758.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 172 | 650,163 | 5,374,664 | 746.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 173 | 649,378 | 5,374,555 | 741.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 174 | 649,818 | 5,374,694 | 743.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 175 | 650,613 | 5,377,049 | 737.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 176 | 649,406 | 5,372,982 | 725.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 177 | 647,909 | 5,372,903 | 716.3 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 178 | 647,487 | 5,372,910 | 715.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 179 | 647,672 | 5,376,428 | 744.3 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 180 | 647,365 | 5,376,192 | 740.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 181 | 649,728 | 5,381,758 | 721.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 182 | 650,599 | 5,377,842 | 746.4 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 183 | 653,143 | 5,380,511 | 713.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 184 | 653,130 | 5,380,927 | 710.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 185 | 653,497 | 5,381,062 | 704.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 186 | 653,850 | 5,381,276 | 700.8 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 187 | 654,022 | 5,381,604 | 696.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 188 | 654,011 | 5,381,966 | 694.9 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 189 | 648,594 | 5,370,523 | 731.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 190 | 650,092 | 5,370,737 | 743.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 191 | 647,056 | 5,376,002 | 741.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 192 | 654,134 | 5,380,179 | 733.9 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 193 | 648,870 | 5,379,452 | 759.0 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 194 | 649,079 | 5,378,913 | 759.0 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 195 | 649,308 | 5,381,738 | 716.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 196 | 650,346 | 5,383,045 | 709.6 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 197 | 650,021 | 5,382,956 | 710.0 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 198 | 647,090 | 5,373,129 | 713.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 199 | 649,061 | 5,372,960 | 722.4 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 200 | 648,724 | 5,372,961 | 720.7 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 201 | 648,383 | 5,372,886 | 719.3 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 202 | 648,975 | 5,375,560 | 735.2 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 203 | 648,641 | 5,375,554 | 726.1 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 204 | 648,297 | 5,375,376 | 728.5 VESTAS V100 2000 100.0 IO! | ...Yes | VESTAS | V100-2,00 | | | | | | | | | |

DECIBEL - Main Result

Calculation: A031 AW125-3.15

Sound Level

| Noise sensitive area | | | | Demands | | Sound Level | | Demands fulfilled ? | |
|---------------------------|---------|-----------|-------|-----------------|---------|-------------|--------------------------|---------------------|-----|
| No. Name | X(East) | Y(North) | Z | Imission height | Noise | From WTGs | Distance to noise demand | Noise | |
| | | | [m] | [m] | [dB(A)] | [dB(A)] | [m] | | |
| A 1 - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.5 | 50.0 | 37.7 | 1,794 | 886 | Yes |
| B 39 - Participating | 643,400 | 5,373,971 | 711.5 | 1.5 | 50.0 | 41.0 | 887 | 486 | Yes |
| C 2 - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.5 | 50.0 | 41.3 | 887 | 486 | Yes |
| D 40 - Participating | 643,453 | 5,372,099 | 716.3 | 1.5 | 50.0 | 43.5 | 486 | 2,123 | Yes |
| E 41 - Participating | 625,162 | 5,383,364 | 711.9 | 1.5 | 50.0 | 32.8 | 372 | 2,287 | Yes |
| F 42 - Participating | 628,500 | 5,384,644 | 704.1 | 1.5 | 50.0 | 45.6 | 298 | 877 | Yes |
| G 43 - Participating | 630,148 | 5,374,327 | 691.9 | 1.5 | 50.0 | 34.9 | 298 | 877 | Yes |
| H 44 - Participating | 629,997 | 5,384,325 | 711.4 | 1.5 | 50.0 | 45.6 | 877 | 1,169 | Yes |
| I 3 - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.5 | 50.0 | 40.0 | 39.3 | 308 | Yes |
| J 4 - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.5 | 50.0 | 39.3 | 308 | 955 | Yes |
| K 45 - Participating | 633,554 | 5,377,057 | 735.4 | 1.5 | 50.0 | 47.4 | 513 | 267 | Yes |
| L 46 - Participating | 633,395 | 5,383,413 | 715.7 | 1.5 | 50.0 | 40.6 | 513 | 588 | Yes |
| M 47 - Participating | 634,615 | 5,381,825 | 716.9 | 1.5 | 50.0 | 44.3 | 265 | 402 | Yes |
| N 48 - Participating | 634,891 | 5,378,584 | 728.5 | 1.5 | 50.0 | 47.1 | 402 | 632 | Yes |
| O 5 - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.5 | 50.0 | 44.5 | 632 | 520 | Yes |
| P 49 - Participating | 636,455 | 5,380,259 | 709.9 | 1.5 | 50.0 | 47.1 | 520 | 321 | Yes |
| Q 50 - Participating | 636,416 | 5,382,006 | 707.4 | 1.5 | 50.0 | 44.7 | 321 | 953 | Yes |
| R 51 - Participating | 637,621 | 5,371,070 | 716.6 | 1.5 | 50.0 | 43.1 | 953 | 339 | Yes |
| S 6 - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.5 | 50.0 | 42.5 | 338 | 504 | Yes |
| T 52 - Participating | 640,276 | 5,365,862 | 710.2 | 1.5 | 50.0 | 43.8 | 504 | 430 | Yes |
| U 7 - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.5 | 50.0 | 41.6 | 430 | 514 | Yes |
| V 8 - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.5 | 50.0 | 45.4 | 514 | 1,435 | Yes |
| W 9 - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.5 | 50.0 | 45.1 | 484 | 414 | Yes |
| X 10 - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.5 | 50.0 | 42.7 | 414 | 1,949 | Yes |
| Y 11 - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.5 | 50.0 | 43.0 | 431 | 883 | Yes |
| Z 53 - Participating | 642,413 | 5,373,644 | 734.1 | 1.5 | 50.0 | 42.5 | 883 | 372 | Yes |
| AA 54 - Participating | 643,167 | 5,375,685 | 714.9 | 1.5 | 50.0 | 38.4 | 372 | 485 | Yes |
| AB 12 - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.5 | 50.0 | 41.7 | 485 | 516 | Yes |
| AC 13 - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.5 | 50.0 | 43.1 | 516 | 714 | Yes |
| AD 14 - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.5 | 50.0 | 35.6 | 714 | 1,208 | Yes |
| AE 55 - Participating | 635,760 | 5,381,775 | 711.0 | 1.5 | 50.0 | 45.5 | 1,208 | 814 | Yes |
| AF 15 - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.5 | 50.0 | 34.0 | 814 | 280 | Yes |
| AG 57 - Participating | 633,480 | 5,378,691 | 739.8 | 1.5 | 50.0 | 47.6 | 280 | 1,074 | Yes |
| AH 59 - Participating | 643,400 | 5,373,968 | 711.4 | 1.5 | 50.0 | 41.0 | 1,074 | 1,678 | Yes |
| AI 61 - Participating | 633,645 | 5,373,895 | 713.7 | 1.5 | 50.0 | 44.5 | 1,678 | 1,495 | Yes |
| AJ 62 - Participating | 643,453 | 5,372,097 | 716.3 | 1.5 | 50.0 | 43.5 | 1,495 | 1,793 | Yes |
| AK 63 - Participating | 641,300 | 5,368,154 | 725.4 | 1.5 | 50.0 | 45.1 | 1,793 | 3,454 | Yes |
| AL 16 - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.5 | 50.0 | 42.9 | 3,454 | 1,137 | Yes |
| AM 17 - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.5 | 50.0 | 39.2 | 1,137 | 436 | Yes |
| AN 18 - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.5 | 50.0 | 41.2 | 436 | 1,935 | Yes |
| AO 64 - Participating | 639,268 | 5,377,996 | 720.6 | 1.5 | 50.0 | 44.8 | 1,935 | 1,505 | Yes |
| AP 19 - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.5 | 50.0 | 37.9 | 1,505 | 955 | Yes |
| AQ 20 - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.5 | 50.0 | 36.9 | 955 | 277 | Yes |
| AR 21 - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.5 | 50.0 | 36.2 | 277 | 237 | Yes |
| AS 22 - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.5 | 50.0 | 37.7 | 237 | 1,444 | Yes |
| AT 23 - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.5 | 50.0 | 31.6 | 1,444 | 1,899 | Yes |
| AU 24 - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.5 | 50.0 | 39.4 | 1,899 | 1,713 | Yes |
| AV 27 - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.5 | 50.0 | 43.9 | 1,713 | 1,292 | Yes |
| AW 29 - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.5 | 50.0 | 35.3 | 1,292 | 1,702 | Yes |
| AX 30 - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.5 | 50.0 | 36.8 | 1,702 | | Yes |
| AY 31 - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.5 | 50.0 | 40.3 | | | Yes |
| AZ 66 - Participating | 638,244 | 5,370,747 | 710.8 | 1.5 | 50.0 | 45.1 | | | Yes |
| BA 67 - Participating | 637,448 | 5,370,698 | 712.2 | 1.5 | 50.0 | 45.7 | | | Yes |
| BB 68 - Participating | 635,378 | 5,369,828 | 692.6 | 1.5 | 50.0 | 38.8 | | | Yes |
| BC 32 - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.5 | 50.0 | 33.5 | | | Yes |
| BD 33 - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.5 | 50.0 | 34.5 | | | Yes |
| BE 34 - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.5 | 50.0 | 36.3 | | | Yes |
| BF 35 - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.5 | 50.0 | 35.4 | | | Yes |

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

| No. | Name | X(East) | Y(North) | Z [m] | Imission height [m] | Demands | | | Sound Level | | Demands fulfilled ? Noise |
|---------------------------|------|---------|-----------|----------|------------------------|------------------|----------------------|---------------------------------|-------------|----------------------|------------------------------|
| | | | | | | Noise [dB(A)] | From WTGs [dB(A)] | Distance to noise demand [m] | Noise | From WTGs [dB(A)] | |
| BG 36 - Non-Participating | | 632,118 | 5,369,480 | 691.6 | 1.5 | 50.0 | 38.0 | | 1,368 | Yes | |
| BH 37 - Non-Participating | | 635,531 | 5,367,600 | 699.2 | 1.5 | 50.0 | 37.6 | | 1,265 | Yes | |
| BI 38 - Non-Participating | | 629,941 | 5,378,583 | 713.2 | 1.5 | 50.0 | 36.9 | | 1,771 | Yes | |

Distances (m)

| WTG | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6810 | 5799 | 10452 | 6003 | 15882 | 14390 | 7516 | 13229 | 9271 | 5591 | 5393 | 10764 | 8839 | 5759 | 3695 | 6847 | 8579 | 2442 | 7647 | 8099 | 2053 | 5218 |
| 2 | 2355 | 1372 | 6382 | 2645 | 19168 | 17037 | 11937 | 15664 | 12659 | 10077 | 8946 | 12547 | 10558 | 8341 | 6322 | 8153 | 9516 | 5546 | 9696 | 8691 | 4363 | 5643 |
| 3 | 2883 | 2484 | 7503 | 3819 | 18034 | 15857 | 11140 | 14477 | 11561 | 9350 | 7914 | 11352 | 9363 | 7196 | 5227 | 6957 | 8333 | 5514 | 10110 | 9409 | 4385 | 4451 |
| 4 | 3426 | 2876 | 7896 | 4008 | 17654 | 15551 | 10605 | 14192 | 11146 | 8804 | 7453 | 11132 | 9134 | 6830 | 4808 | 6747 | 8195 | 5040 | 9752 | 9188 | 3937 | 4293 |
| 5 | 8751 | 7705 | 12221 | 7736 | 14865 | 13771 | 5783 | 12758 | 8366 | 3804 | 4668 | 10733 | 8954 | 5707 | 4069 | 7347 | 9085 | 2639 | 7266 | 8398 | 3105 | 6315 |
| 6 | 8098 | 6859 | 11117 | 6637 | 16245 | 15095 | 7047 | 14045 | 9729 | 5055 | 5978 | 11870 | 10022 | 6815 | 4951 | 8220 | 9967 | 1266 | 6207 | 7087 | 1829 | 6814 |
| 7 | 9440 | 8343 | 12755 | 8269 | 14807 | 13890 | 5375 | 12941 | 8404 | 3383 | 4868 | 11086 | 9369 | 6119 | 4642 | 7888 | 9611 | 2805 | 6968 | 8340 | 3505 | 6990 |
| 8 | 7903 | 7055 | 11812 | 7386 | 14517 | 13136 | 6202 | 12028 | 7919 | 4337 | 4060 | 9760 | 7907 | 4706 | 2865 | 6151 | 7897 | 3296 | 8310 | 9136 | 3297 | 5013 |
| 9 | 8306 | 7636 | 12509 | 8146 | 13573 | 12136 | 5719 | 11023 | 6962 | 4014 | 3086 | 8785 | 6960 | 3732 | 2063 | 5324 | 7059 | 4294 | 9240 | 10137 | 4284 | 4520 |
| 10 | 4937 | 3758 | 8385 | 3968 | 17639 | 15891 | 9592 | 14634 | 11028 | 7667 | 7164 | 11860 | 9868 | 7093 | 4935 | 7618 | 9243 | 3089 | 7834 | 7524 | 1967 | 5450 |
| 11 | 5429 | 4289 | 8908 | 4473 | 17213 | 15533 | 9063 | 14300 | 10596 | 7134 | 6722 | 11601 | 9620 | 6757 | 4602 | 7424 | 9085 | 2744 | 7677 | 7566 | 1715 | 5371 |
| 12 | 5928 | 4721 | 9212 | 4740 | 17151 | 15577 | 8751 | 14377 | 10536 | 6798 | 6654 | 11771 | 9807 | 6851 | 4717 | 7673 | 9362 | 2214 | 7216 | 7243 | 1246 | 5726 |
| 13 | 10131 | 9590 | 14507 | 10166 | 11618 | 10400 | 4117 | 9404 | 5041 | 2896 | 1320 | 7626 | 6047 | 2917 | 2613 | 5087 | 6655 | 5972 | 10515 | 11769 | 6178 | 5285 |
| 14 | 3919 | 4084 | 9014 | 5548 | 16601 | 14278 | 10499 | 12869 | 10253 | 8877 | 6827 | 9673 | 7699 | 5792 | 4053 | 5284 | 6609 | 6278 | 11242 | 10852 | 5296 | 2752 |
| 15 | 10070 | 9362 | 14177 | 9760 | 12361 | 11314 | 3955 | 10362 | 5863 | 2331 | 2318 | 8641 | 7047 | 3873 | 3132 | 5957 | 7579 | 5146 | 9533 | 10878 | 5488 | 5829 |
| 16 | 12220 | 11744 | 16676 | 12335 | 9635 | 8829 | 2821 | 8051 | 3264 | 2836 | 1710 | 7055 | 5953 | 3612 | 4418 | 5873 | 7092 | 7871 | 11969 | 13528 | 8224 | 6849 |
| 17 | 12642 | 12158 | 17082 | 12731 | 9344 | 8676 | 2570 | 7963 | 3104 | 2878 | 2118 | 7159 | 6159 | 3969 | 4841 | 6208 | 7370 | 8180 | 12166 | 13790 | 8569 | 7254 |
| 18 | 11044 | 10585 | 15533 | 11221 | 10535 | 9404 | 3641 | 8470 | 3976 | 2973 | 756 | 6972 | 5585 | 2783 | 3262 | 5073 | 6469 | 7020 | 11420 | 12784 | 7260 | 5770 |
| 19 | 12098 | 12009 | 17033 | 12971 | 8519 | 6837 | 5389 | 5781 | 2095 | 5495 | 2311 | 4349 | 3376 | 2395 | 4346 | 4049 | 4800 | 9529 | 14134 | 15360 | 9582 | 5892 |
| 20 | 6696 | 6878 | 11838 | 8193 | 13804 | 11457 | 8699 | 10058 | 7570 | 7433 | 4536 | 6946 | 4949 | 3088 | 2016 | 2570 | 7103 | 7107 | 12313 | 12526 | 6487 | 693 |
| 21 | 2928 | 2075 | 7071 | 3156 | 18497 | 16411 | 11243 | 15053 | 11973 | 9394 | 8246 | 11983 | 9987 | 7683 | 5640 | 7959 | 9016 | 5086 | 9492 | 8696 | 3920 | 5119 |
| 22 | 7481 | 7012 | 11989 | 7770 | 13728 | 11995 | 6665 | 10781 | 7129 | 5090 | 3319 | 8244 | 6323 | 3259 | 1181 | 4429 | 6176 | 4865 | 9996 | 10615 | 4567 | 3352 |
| 23 | 2591 | 1156 | 4127 | 1011 | 21493 | 19385 | 13891 | 18009 | 14956 | 11962 | 11192 | 14866 | 12885 | 10678 | 8631 | 10473 | 11782 | 6628 | 9666 | 8009 | 5501 | 7947 |
| 24 | 5014 | 5263 | 10180 | 6696 | 15486 | 13113 | 9871 | 11696 | 9213 | 8386 | 5957 | 8496 | 6521 | 4730 | 3210 | 4106 | 5458 | 6697 | 11816 | 11664 | 5849 | 1577 |
| 25 | 4376 | 4360 | 9350 | 5685 | 16209 | 13969 | 9931 | 12582 | 9806 | 8301 | 6312 | 9460 | 7468 | 5375 | 3546 | 5067 | 6494 | 5856 | 10895 | 10636 | 4927 | 2592 |
| 26 | 3500 | 3437 | 8421 | 4830 | 17135 | 14892 | 10639 | 13500 | 10716 | 8934 | 7168 | 10349 | 8365 | 6298 | 4423 | 5955 | 7322 | 5812 | 10667 | 10177 | 4770 | 3442 |
| 27 | 8334 | 7337 | 11929 | 7454 | 14865 | 13659 | 6036 | 12606 | 8319 | 4082 | 4542 | 10475 | 8660 | 5428 | 3690 | 6977 | 8720 | 2696 | 7539 | 8526 | 2972 | 5862 |
| 28 | 10169 | 9093 | 13507 | 9021 | 14338 | 13579 | 4690 | 12695 | 8042 | 2710 | 4709 | 11030 | 9394 | 6169 | 4919 | 8083 | 9776 | 3462 | 7206 | 8789 | 4238 | 7405 |
| 29 | 9368 | 8973 | 13956 | 9721 | 11816 | 10275 | 5144 | 9158 | 5201 | 3973 | 1353 | 7028 | 5302 | 2060 | 1594 | 4084 | 5714 | 6143 | 10973 | 11989 | 6140 | 4219 |
| 30 | 5224 | 4576 | 9535 | 5344 | 16138 | 14244 | 8801 | 12955 | 9563 | 7012 | 5775 | 10119 | 8123 | 5438 | 3300 | 5865 | 7499 | 4085 | 9198 | 9179 | 3239 | 3758 |
| 31 | 4756 | 4165 | 9152 | 5041 | 16461 | 14493 | 9266 | 13179 | 9908 | 7484 | 6157 | 10266 | 8265 | 5701 | 3598 | 5955 | 7540 | 4375 | 9415 | 9256 | 3444 | 3715 |
| 32 | 4302 | 3737 | 8739 | 4699 | 16843 | 14820 | 9721 | 13489 | 10307 | 7936 | 6581 | 10517 | 8515 | 6050 | 3979 | 6169 | 7707 | 4599 | 9546 | 9249 | 3597 | 3832 |
| 33 | 3784 | 2950 | 7902 | 3791 | 17725 | 15729 | 10345 | 14400 | 11171 | 8498 | 7406 | 11420 | 9417 | 6952 | 4861 | 7061 | 8571 | 4447 | 9133 | 8607 | 3329 | 4677 |
| 34 | 5898 | 4478 | 3866 | 2715 | 23847 | 22047 | 15270 | 20745 | 17232 | 13278 | 13359 | 17781 | 15779 | 13241 | 11097 | 13406 | 14845 | 7208 | 8224 | 5844 | 6410 | 10948 |
| 35 | 5227 | 3860 | 3449 | 2186 | 23540 | 21660 | 15169 | 20337 | 16935 | 13182 | 13076 | 17320 | 15322 | 12864 | 10735 | 12933 | 14336 | 7204 | 8647 | 6382 | 6322 | 10451 |
| 36 | 5321 | 4117 | 2841 | 2623 | 24079 | 22142 | 15802 | 20803 | 17482 | 13818 | 13635 | 17739 | 15746 | 13361 | 11246 | 13346 | 14708 | 7863 | 9236 | 6890 | 6965 | 10842 |
| 37 | 6166 | 4497 | 5466 | 2648 | 22576 | 20954 | 13707 | 19708 | 15962 | 11716 | 12081 | 16897 | 14898 | 12165 | 10007 | 12586 | 14127 | 5581 | 6642 | 4526 | 4894 | 10234 |
| 38 | 6285 | 4569 | 6066 | 2809 | 22024 | 20465 | 13066 | 19240 | 15416 | 11075 | 11538 | 16490 | 14496 | 11697 | 9541 | 12214 | 13790 | 4927 | 6115 | 4197 | 4285 | 9916 |
| 39 | 8514 | 6915 | 10088 | 5936 | 18945 | 17909 | 9290 | 16872 | 12498 | 7354 | 8797 | 14662 | 12783 | 9610 | 7655 | 10858 | 12593 | 1616 | 3724 | 4261 | 2249 | 9145 |
| 40 | 7923 | 6362 | 9781 | 5511 | 18592 | 17452 | 9125 | 16383 | 12092 | 7157 | 8336 | 14095 | 12197 | 9051 | 7058 | 10232 | 11961 | 1099 | 4411 | 4767 | 1560 | 8476 |
| 41 | 7061 | 5346 | 6547 | 3576 | 22368 | 20910 | 13196 | 19714 | 15777 | 11216 | 11913 | 17037 | 15050 | 12182 | 10035 | 12802 | 14404 | 5049 | 5539 | 3453 | 4574 | 10551 |
| 42 | 8786 | 7058 | 8091 | 5328 | 22761 | 21559 | 13155 | 20442 | 16250 | 11227 | 12458 | 17964 | 16007 | 12989 | 10892 | 13859 | 15522 | 5260 | 4071 | 1691 | 5178 | 11754 |
| 43 | 11456 | 11407 | 16429 | 12415 | 9108 | 7249 | 5741 | 6098 | 2768 | 5618 | 2128 | 4253 | 2996 | 1747 | 3782 | 3395 | 4261 | 9201 | 13932 | 15046 | 9182 | 5216 |
| 44 | 10730 | 10724 | 15743 | 11784 | 9798 | 7785 | 6163 | 6554 | 3526 | 5805 | 2127 | 4319 | 2758 | 1047 | 3176 | 2699 | 3751 | 8841 | 13699 | 14683 | 8737 | 4458 |
| 45 | 10487 | 10582 | 15583 | 11727 | 10013 | 7792 | 6805 | 6484 | 3958 | 6401 | 2698 | 3949 | 2227 | 1115 | 3237 | 2116 | 3108 | 9108 | 14054 | 14930 | 8924 | 4101 |
| 46 | 10109 | 10263 | 15248 | 11462 | 10404 | 8072 | 7222 | 6720 | 4441 | 6724 | 3018 | 3968 | 2098 | 1165 | 3113 | 1620 | 2709 | 9090 | 14103 | 14885 | 8842 | 3680 |
| 47 | 17391 | 17662 | 22620 | 18868 | 4103 | 686 | 10112 | 863 | 5132 | 11096 | 8559 | 4369 | 6049 | 8173 | 10329 | 8403 | 7660 | 15791 | 20284 | 21617 | 15824 | 10918 |
| 48 | 16413 | 16551 | 21551 | 17654 | 4235 | 2108 | 8425 | 1738 | 3469 | 9428 | 7050 | 4108 | 5343 | 6913 | 9038 | 7520 | 7105 | 14284 | 18676 | 20086 | 14382 | 9949 |
| 49 | 17151 | 17208 | 22225 | 18237 | 3362 | 2305 | 8212 | 2567 | 3598 | 9410 | 7407 | 5142 | 6271 | 7531 | 9603 | 8354 | 8058 | 14586 | 18795 | 20335 | 14764 | 10720 |
| 50 | 17315 | 17526 | 22506 | 18682 | 3757 | 927 | 9561 | 1220 | 4650 | 10604 | 8201 | 4519 | 6055 | 7952 | 10096 | 8352 | 7735 | 15439 | 18956 | 21249 | 15513 | 10837 |
| 51 | 11718 | 11777 | 16788 | 12871 | 8782 | 6681 | 6424 | 5454 | 2812 | 6392 | 2908 | 3466 | 2317 | 2132 | 4279 | 3217 | 3772 | 9896 | 14683 | 15741 | 9825 | 5338 |
| 52 | 15473 | 15761 | 20709 | 1699 | | | | | | | | | | | | | | | | | | |

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns labeled WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data points representing decibel values for various wind turbine weights and directions.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with 22 columns (WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V) and 20 rows of numerical data.

Table with 22 columns (WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR) and 55 rows of numerical data.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for each column across 124 rows.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for each column across 193 rows.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for wind turbine performance across various directions.

Table with columns WTG, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI. Contains numerical data for wind turbine performance across various directions.

To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 47 | 17392 | 10787 | 11335 | 21416 | 3182 | 3973 | 4531 | 16402 | 16016 | 15841 | 4410 | 4187 | 3866 | 3652 | 15203 | 17964 | 5860 |
| 48 | 16415 | 9128 | 9665 | 20330 | 4378 | 4347 | 4258 | 14912 | 14492 | 14227 | 6000 | 5791 | 5417 | 5330 | 13521 | 16330 | 4173 |
| 49 | 17153 | 8738 | 9639 | 20994 | 5224 | 5382 | 5289 | 15233 | 14769 | 14346 | 6035 | 5853 | 5410 | 5748 | 13399 | 16392 | 4076 |
| 50 | 17317 | 10197 | 10840 | 21293 | 3764 | 4331 | 4679 | 16061 | 15652 | 15408 | 4819 | 4609 | 4239 | 4242 | 14683 | 17511 | 5326 |
| 51 | 11720 | 7825 | 6636 | 15561 | 6817 | 5017 | 3439 | 10469 | 10159 | 10342 | 10401 | 10163 | 9898 | 9077 | 10531 | 12558 | 3584 |
| 52 | 15475 | 10081 | 10105 | 19508 | 3146 | 2708 | 2739 | 14724 | 14383 | 14375 | 6135 | 5895 | 5652 | 4878 | 14040 | 16546 | 4954 |
| 53 | 15244 | 10487 | 10367 | 19316 | 2774 | 2153 | 2311 | 14768 | 14455 | 14531 | 6213 | 5967 | 5772 | 4777 | 14313 | 16718 | 5354 |
| 54 | 14814 | 10586 | 10308 | 18903 | 2815 | 1790 | 1821 | 14511 | 14219 | 14366 | 6590 | 6341 | 6173 | 5046 | 14257 | 16566 | 5464 |
| 55 | 11058 | 11512 | 9994 | 15255 | 5680 | 3456 | 2243 | 12244 | 12153 | 12900 | 10345 | 10092 | 10021 | 8445 | 13720 | 15125 | 7093 |
| 56 | 15450 | 7917 | 8308 | 19273 | 5354 | 4781 | 4192 | 13605 | 13168 | 12869 | 7361 | 7153 | 6774 | 6635 | 12177 | 14967 | 2860 |
| 57 | 16634 | 8722 | 9427 | 20499 | 4923 | 4908 | 4744 | 14865 | 14419 | 14068 | 6206 | 6010 | 5599 | 5715 | 13240 | 16142 | 3881 |
| 58 | 6214 | 9604 | 6238 | 8576 | 14731 | 12628 | 10983 | 2710 | 2878 | 4639 | 18605 | 18367 | 18099 | 17206 | 7324 | 6465 | 9779 |
| 59 | 8535 | 7513 | 4688 | 11900 | 10916 | 8906 | 7245 | 6260 | 6018 | 6611 | 14638 | 14401 | 14125 | 13297 | 7790 | 8834 | 6080 |
| 60 | 4870 | 10978 | 7827 | 8500 | 12872 | 10669 | 9113 | 5663 | 5912 | 7579 | 17169 | 16921 | 16731 | 15525 | 9916 | 9493 | 9638 |
| 61 | 8847 | 7584 | 4304 | 10702 | 15323 | 13393 | 11738 | 2477 | 1845 | 2188 | 18680 | 18456 | 18120 | 17553 | 4626 | 4340 | 9053 |
| 62 | 7910 | 7718 | 4552 | 10959 | 12264 | 10241 | 8581 | 4910 | 4686 | 5455 | 15966 | 15732 | 15447 | 14646 | 7050 | 7649 | 7120 |
| 63 | 11062 | 6059 | 4327 | 14539 | 9123 | 7384 | 5803 | 8469 | 8067 | 8042 | 12359 | 12133 | 11810 | 11235 | 8179 | 10240 | 3451 |
| 64 | 13240 | 6855 | 6402 | 16970 | 6719 | 5359 | 4070 | 11252 | 10841 | 10684 | 9595 | 9372 | 9037 | 8581 | 10349 | 12837 | 2052 |
| 65 | 8783 | 8008 | 5513 | 12417 | 9793 | 7744 | 6085 | 7388 | 7188 | 7815 | 13660 | 13420 | 13169 | 12237 | 8867 | 10040 | 5724 |
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| 85 | 10592 | 11834 | 10174 | 14806 | 6152 | 3942 | 2812 | 12088 | 12033 | 12877 | 10864 | 10611 | 10553 | 8931 | 13833 | 15092 | 7541 |
| 86 | 7723 | 10103 | 7610 | 11716 | 9457 | 7257 | 5698 | 8322 | 8311 | 9357 | 13797 | 13548 | 13378 | 12115 | 10800 | 11527 | 7280 |
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To be continued on next page...

DECIBEL - Main Result

Calculation: A031 AW125-3.15

...continued from previous page

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To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/14/2018 10:25 PM/3.0.654

DECIBEL - Main Result

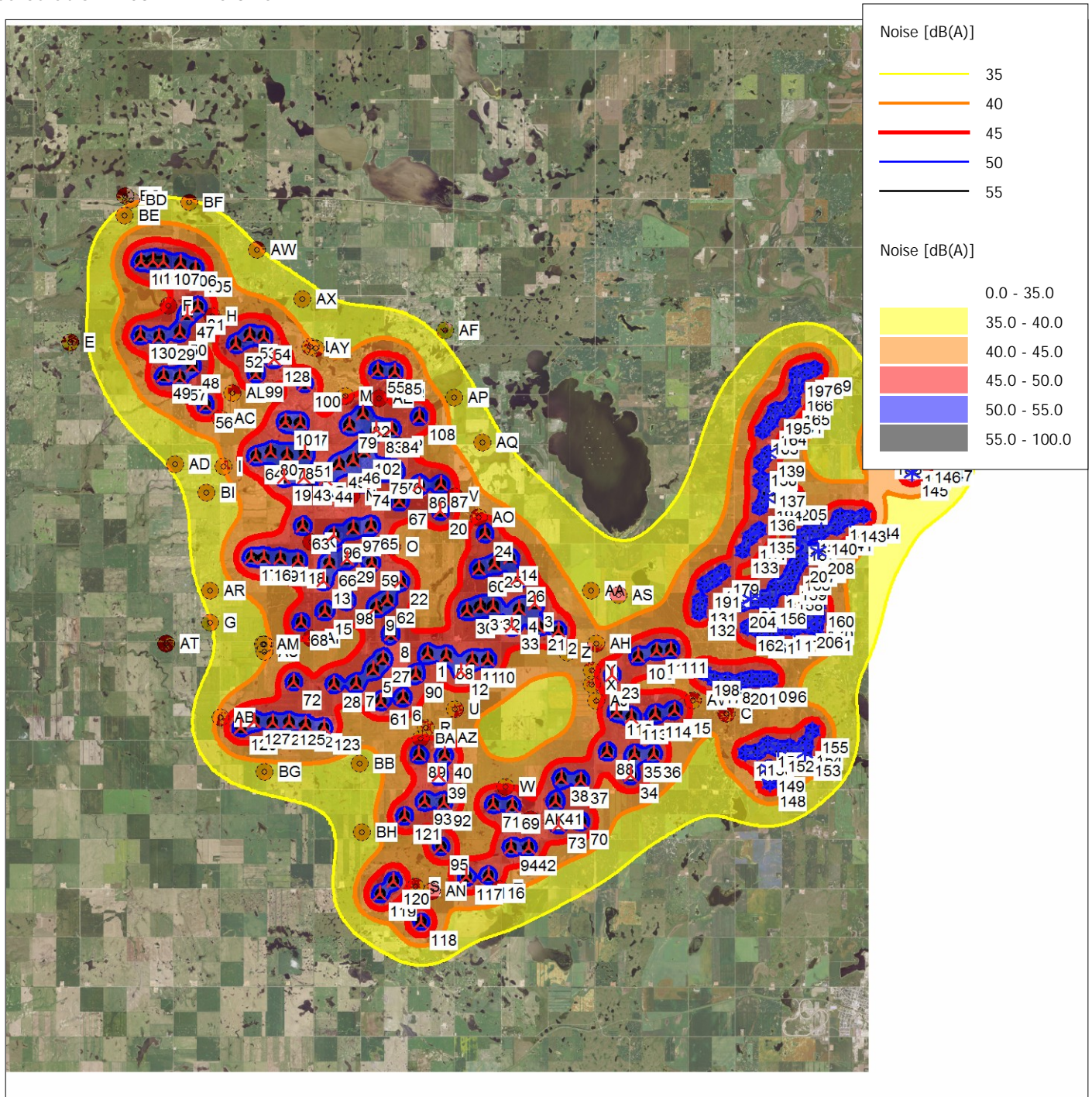
Calculation: A031 AW125-3.15

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| 201 | 5031 | 19730 | 16362 | 1762 | 21721 | 19506 | 18165 | 10362 | 11151 | 13359 | 26365 | 26112 | 25998 | 24496 | 16617 | 13896 | 19302 |
| 202 | 4858 | 20403 | 17079 | 4017 | 20648 | 18481 | 17291 | 11761 | 12511 | 14756 | 25419 | 25166 | 25107 | 23438 | 17920 | 15624 | 19274 |
| 203 | 4524 | 20070 | 16747 | 3837 | 20368 | 18197 | 16996 | 11454 | 12201 | 14446 | 25132 | 24880 | 24817 | 23159 | 17604 | 15334 | 18945 |
| 204 | 4184 | 19711 | 16384 | 3520 | 20178 | 17997 | 16775 | 11068 | 11815 | 14060 | 24927 | 24674 | 24604 | 22968 | 17220 | 14948 | 18635 |
| 205 | 6733 | 21924 | 18732 | 7453 | 19938 | 17900 | 16961 | 14279 | 14965 | 17176 | 24792 | 24544 | 24562 | 22689 | 20174 | 18337 | 19991 |
| 206 | 6520 | 21956 | 18610 | 4616 | 22432 | 20269 | 19085 | 12988 | 13762 | 15998 | 27209 | 26956 | 26899 | 25222 | 19218 | 16684 | 20998 |
| 207 | 6333 | 21888 | 18603 | 5896 | 21129 | 19019 | 17950 | 13546 | 14281 | 16523 | 25957 | 25706 | 25686 | 23907 | 19647 | 17466 | 20429 |
| 208 | 6996 | 22539 | 19260 | 6494 | 21559 | 19467 | 18432 | 14220 | 14955 | 17198 | 26397 | 26147 | 26138 | 24331 | 20322 | 18134 | 21023 |

DECIBEL - Map 95% rated power

Calculation: A031 AW125-3.15



0 2.5 5 7.5 10km

Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 641,190 North: 5,375,412

▲ New WTG * Existing WTG ■ Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 95% rated power
 Height above sea level from active line object

DECIBEL - Main Result

Calculation: GE2.5-127

Noise calculation model:

ISO 9613-2 General

Wind speed:

95% rated power

Ground attenuation:

General, fixed, Ground factor: 0.5

Meteorological coefficient, CO:

0.0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

Pure and Impulse tone penalty are added to WTG source noise

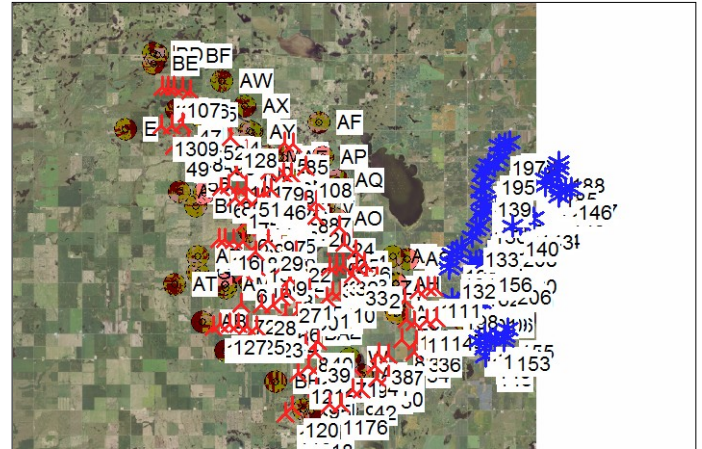
Height above ground level, when no value in NSA object:

1.5 m Don't allow override of model height with height from NSA object

Deviation from "official" noise demands. Negative is more restrictive,

positive is less restrictive.:

0.0 dB(A)



Scale 1:500,000

- ▲ New WTG
- ✱ Existing WTG
- Noise sensitive area

WTGs

| X(East) | Y(North) | Z | Row data/Description | WTG type | | | Noise data | | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones | |
|---------|----------|-----------|----------------------|----------|----------------|------------------|-------------------|--------------------|----------------|------------------|---|-------------|---------|
| | | | | Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | | | | Creator |
| 1 | 637,619 | 5,373,512 | 727.5 T-43 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 2 | 642,085 | 5,374,363 | 728.5 T-41 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 3 | 641,252 | 5,375,220 | 737.7 T-63 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 4 | 640,729 | 5,375,038 | 740.7 T-62 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 5 | 635,764 | 5,372,945 | 724.6 T-45 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 6 | 636,817 | 5,372,047 | 728.5 T-35 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 7 | 635,193 | 5,372,473 | 710.2 T-47 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 8 | 636,346 | 5,374,109 | 734.6 T-56 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 9 | 635,830 | 5,374,972 | 728.5 T-55 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 10 | 639,692 | 5,373,363 | 740.7 T-39 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 11 | 639,157 | 5,373,344 | 739.4 T-38 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 12 | 638,790 | 5,372,951 | 734.6 T-37 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 13 | 633,988 | 5,375,810 | 737.6 T-70 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 14 | 640,372 | 5,376,713 | 738.1 T-77 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 15 | 634,074 | 5,374,798 | 721.2 T-53 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 16 | 631,934 | 5,376,511 | 729.8 T-67 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 17 | 631,510 | 5,376,507 | 731.5 T-66 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 18 | 633,108 | 5,376,447 | 723.9 T-69 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 19 | 632,563 | 5,379,145 | 737.6 T-93 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 20 | 637,951 | 5,378,169 | 715.2 T-80 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 21 | 641,389 | 5,374,486 | 743.7 T-58 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 22 | 636,640 | 5,375,835 | 734.6 T-73 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 23 | 643,972 | 5,372,967 | 712.3 T-28 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 24 | 639,495 | 5,377,499 | 738.7 T-78 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 25 | 639,840 | 5,376,489 | 737.6 T-76 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 26 | 640,649 | 5,376,031 | 731.5 T-79 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 27 | 636,095 | 5,373,292 | 733.9 T-46 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 28 | 634,438 | 5,372,432 | 701.0 T-57 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 29 | 634,798 | 5,376,526 | 725.4 T-71 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 30 | 638,928 | 5,374,941 | 737.6 T-59 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 31 | 639,384 | 5,375,074 | 737.6 T-60 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 32 | 639,838 | 5,375,100 | 737.6 T-61 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 33 | 640,492 | 5,374,466 | 743.6 T-40 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 34 | 644,695 | 5,369,685 | 736.0 T-15 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 35 | 644,792 | 5,370,371 | 743.7 T-16 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 36 | 645,456 | 5,370,405 | 735.1 T-17 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 37 | 642,975 | 5,369,494 | 737.6 T-12 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 38 | 642,303 | 5,369,536 | 734.9 T-13 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 39 | 638,102 | 5,369,527 | 710.5 T-26 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 40 | 638,282 | 5,370,192 | 712.5 T-25 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 41 | 642,122 | 5,368,780 | 734.6 T-10 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 42 | 641,239 | 5,367,252 | 719.1 T-8 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 43 | 633,243 | 5,379,162 | 737.6 T-94 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 44 | 634,001 | 5,379,136 | 737.6 T-95 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 45 | 634,443 | 5,379,605 | 731.5 T-96 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 46 | 634,918 | 5,379,749 | 728.5 T-121 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 47 | 629,136 | 5,384,387 | 713.2 T-142 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 48 | 629,347 | 5,382,713 | 710.2 T-131 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 49 | 628,366 | 5,382,343 | 707.1 T-129 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 50 | 628,893 | 5,383,804 | 717.2 T-141 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |
| 51 | 633,253 | 5,379,950 | 729.4 T-123 | Yes | GE WIND ENERGY | GE 2.5-127-2,500 | 2,500 | 127.0 | 89.0 | USER | 112 dBA (+2 dB from standard) with Octave | (95%) 112.0 | No |

To be continued on next page...

Project: Description:

Aurora

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/17/2018 10:43 AM/3.0.654

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns: X(East), Y(North), Z, Row data/Description, WTG type Valid, Manufact., Type-generator, Power, rated [kW], Rotor diameter [m], Hub height [m], Noise data Creator, Name, Wind speed [m/s], LwA_ref [dB(A)], Pure tones. Contains 100 rows of data for various wind turbine configurations.

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

| | X(East) | Y(North) | Z | Row data/Description | WTG type | | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Noise data | | Wind speed [m/s] | LwA_ref [dB(A)] | Pure tones |
|-----|---------|-----------|-------|-----------------------------------|----------|------------|----------------|-------------------|--------------------|----------------|--------------------|-------|------------------|-----------------|------------|
| | | | | | Valid | Manufact. | | | | | Creator | Name | | | |
| | | | [m] | | | | | | | | | | | | |
| 135 | 648,872 | 5,377,853 | 752.9 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 136 | 648,872 | 5,378,572 | 753.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 137 | 649,189 | 5,379,368 | 749.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 138 | 648,868 | 5,380,034 | 743.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 139 | 649,124 | 5,380,328 | 729.4 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 140 | 651,007 | 5,377,868 | 748.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 141 | 651,525 | 5,378,000 | 750.5 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 142 | 651,616 | 5,378,348 | 758.5 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 143 | 651,987 | 5,378,290 | 755.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 144 | 652,436 | 5,378,405 | 749.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 145 | 654,047 | 5,379,834 | 743.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 146 | 654,478 | 5,380,290 | 740.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 147 | 654,876 | 5,380,346 | 731.4 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 148 | 649,468 | 5,369,552 | 735.9 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 149 | 649,403 | 5,370,046 | 745.1 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 150 | 648,989 | 5,370,563 | 740.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 151 | 649,348 | 5,370,846 | 749.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 152 | 649,714 | 5,370,690 | 746.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 153 | 650,635 | 5,370,574 | 746.1 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 154 | 650,667 | 5,370,918 | 744.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 155 | 650,882 | 5,371,340 | 743.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 156 | 649,309 | 5,375,532 | 733.1 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 157 | 649,484 | 5,375,990 | 732.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 158 | 649,889 | 5,375,994 | 741.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 159 | 650,008 | 5,376,322 | 740.0 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 160 | 650,956 | 5,375,465 | 750.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 161 | 648,982 | 5,374,557 | 737.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 162 | 648,553 | 5,374,643 | 733.0 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 163 | 648,903 | 5,381,054 | 722.4 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 164 | 649,170 | 5,381,363 | 721.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 165 | 649,950 | 5,382,038 | 713.3 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 166 | 650,030 | 5,382,496 | 712.9 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 167 | 650,267 | 5,377,632 | 746.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 168 | 650,119 | 5,376,640 | 740.5 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 169 | 650,663 | 5,383,159 | 707.1 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 170 | 650,947 | 5,375,049 | 753.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 171 | 650,911 | 5,374,694 | 758.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 172 | 650,163 | 5,374,664 | 746.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 173 | 649,378 | 5,374,555 | 741.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 174 | 649,818 | 5,374,694 | 743.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 175 | 650,613 | 5,377,049 | 737.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 176 | 649,406 | 5,372,982 | 725.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 177 | 647,909 | 5,372,903 | 716.3 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 178 | 647,487 | 5,372,910 | 715.5 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 179 | 647,672 | 5,376,428 | 744.3 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 180 | 647,365 | 5,376,192 | 740.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 181 | 649,728 | 5,381,758 | 721.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 182 | 650,599 | 5,377,842 | 746.4 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 183 | 653,143 | 5,380,511 | 713.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 184 | 653,130 | 5,380,927 | 710.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 185 | 653,497 | 5,381,062 | 704.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 186 | 653,850 | 5,381,276 | 700.8 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 187 | 654,022 | 5,381,604 | 696.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 188 | 654,011 | 5,381,966 | 694.9 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 189 | 648,594 | 5,370,523 | 731.5 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 190 | 650,092 | 5,370,737 | 743.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 191 | 647,056 | 5,376,002 | 741.1 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 192 | 654,134 | 5,380,179 | 733.9 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 193 | 648,870 | 5,379,452 | 759.0 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 194 | 649,079 | 5,378,913 | 759.0 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 195 | 649,308 | 5,381,738 | 716.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 196 | 650,346 | 5,383,045 | 709.6 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 197 | 650,021 | 5,382,956 | 710.0 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 198 | 647,090 | 5,373,129 | 713.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 199 | 649,061 | 5,372,960 | 722.4 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 200 | 648,724 | 5,372,961 | 720.7 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 201 | 648,383 | 5,372,886 | 719.3 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |
| 202 | 648,975 | 5,375,560 | 735.2 | VESTAS V100 2000 100.0 IO! ...Yes | VESTAS | V100-2,000 | 2,000 | 100.0 | 80.0 | USER | Mode 0 (105) + 2dB | (95%) | 107.0 | No | |

DECIBEL - Main Result

Calculation: GE2.5-127

Sound Level

| No. | Name | X(East) | Y(North) | Z | Imission height | Demands | Sound Level | Distance to noise demand | Demands fulfilled ? |
|-------|---------------------|---------|-----------|-------|-----------------|---------|-------------|--------------------------|---------------------|
| | | | | [m] | [m] | Noise | From WTGs | | Noise |
| | | | | | | [dB(A)] | [dB(A)] | [m] | |
| A 1 | - Non-Participating | 644,116 | 5,375,554 | 701.3 | 1.5 | 50.0 | 39.2 | 1,719 | Yes |
| B 39 | - Participating | 643,400 | 5,373,971 | 711.5 | 1.5 | 50.0 | 42.6 | 817 | Yes |
| C 2 | - Non-Participating | 647,930 | 5,371,801 | 718.0 | 1.5 | 50.0 | 41.8 | 884 | Yes |
| D 40 | - Participating | 643,453 | 5,372,099 | 716.3 | 1.5 | 50.0 | 45.1 | 410 | Yes |
| E 41 | - Participating | 625,162 | 5,383,364 | 711.9 | 1.5 | 50.0 | 35.0 | 2,058 | Yes |
| F 42 | - Participating | 628,500 | 5,384,644 | 704.1 | 1.5 | 50.0 | 47.2 | 274 | Yes |
| G 43 | - Participating | 630,148 | 5,374,327 | 691.9 | 1.5 | 50.0 | 37.1 | 2,211 | Yes |
| H 44 | - Participating | 629,997 | 5,384,325 | 711.4 | 1.5 | 50.0 | 47.3 | 212 | Yes |
| I 3 | - Non-Participating | 630,488 | 5,379,437 | 722.7 | 1.5 | 50.0 | 41.7 | 804 | Yes |
| J 4 | - Non-Participating | 632,031 | 5,373,676 | 696.3 | 1.5 | 50.0 | 41.1 | 1,100 | Yes |
| K 45 | - Participating | 633,554 | 5,377,057 | 735.4 | 1.5 | 50.0 | 49.0 | 190 | Yes |
| L 46 | - Participating | 633,395 | 5,383,413 | 715.7 | 1.5 | 50.0 | 42.3 | 885 | Yes |
| M 47 | - Participating | 634,615 | 5,381,825 | 716.9 | 1.5 | 50.0 | 45.9 | 415 | Yes |
| N 48 | - Participating | 634,891 | 5,378,584 | 728.5 | 1.5 | 50.0 | 48.7 | 155 | Yes |
| O 5 | - Non-Participating | 636,328 | 5,376,974 | 731.5 | 1.5 | 50.0 | 46.1 | 498 | Yes |
| P 49 | - Participating | 636,455 | 5,380,259 | 709.9 | 1.5 | 50.0 | 48.8 | 152 | Yes |
| Q 50 | - Participating | 636,416 | 5,382,006 | 707.4 | 1.5 | 50.0 | 46.4 | 323 | Yes |
| R 51 | - Participating | 637,621 | 5,371,070 | 716.6 | 1.5 | 50.0 | 44.8 | 553 | Yes |
| S 6 | - Non-Participating | 637,411 | 5,365,868 | 713.2 | 1.5 | 50.0 | 44.2 | 451 | Yes |
| T 52 | - Participating | 640,276 | 5,365,862 | 710.2 | 1.5 | 50.0 | 45.5 | 254 | Yes |
| U 7 | - Non-Participating | 638,615 | 5,371,717 | 720.3 | 1.5 | 50.0 | 43.3 | 871 | Yes |
| V 8 | - Non-Participating | 638,435 | 5,378,666 | 709.4 | 1.5 | 50.0 | 47.1 | 251 | Yes |
| W 9 | - Non-Participating | 640,413 | 5,369,191 | 728.5 | 1.5 | 50.0 | 46.8 | 246 | Yes |
| X 10 | - Non-Participating | 643,279 | 5,372,615 | 722.4 | 1.5 | 50.0 | 44.3 | 436 | Yes |
| Y 11 | - Non-Participating | 643,282 | 5,373,088 | 726.9 | 1.5 | 50.0 | 44.6 | 362 | Yes |
| Z 53 | - Participating | 642,413 | 5,373,644 | 734.1 | 1.5 | 50.0 | 44.1 | 445 | Yes |
| AA 54 | - Participating | 643,167 | 5,375,685 | 714.9 | 1.5 | 50.0 | 40.0 | 1,362 | Yes |
| AB 12 | - Non-Participating | 630,584 | 5,371,240 | 682.8 | 1.5 | 50.0 | 43.4 | 416 | Yes |
| AC 13 | - Non-Participating | 630,347 | 5,380,996 | 717.6 | 1.5 | 50.0 | 44.8 | 348 | Yes |
| AD 14 | - Non-Participating | 628,838 | 5,379,465 | 705.2 | 1.5 | 50.0 | 37.7 | 1,883 | Yes |
| AE 55 | - Participating | 635,760 | 5,381,775 | 711.0 | 1.5 | 50.0 | 47.1 | 332 | Yes |
| AF 15 | - Non-Participating | 637,972 | 5,384,054 | 715.8 | 1.5 | 50.0 | 36.2 | 1,848 | Yes |
| AG 57 | - Participating | 633,480 | 5,378,691 | 739.8 | 1.5 | 50.0 | 49.2 | 77 | Yes |
| AH 59 | - Participating | 643,400 | 5,373,968 | 711.4 | 1.5 | 50.0 | 42.6 | 814 | Yes |
| AI 61 | - Participating | 633,645 | 5,373,895 | 713.7 | 1.5 | 50.0 | 46.2 | 297 | Yes |
| AJ 62 | - Participating | 643,453 | 5,372,097 | 716.3 | 1.5 | 50.0 | 45.1 | 409 | Yes |
| AK 63 | - Participating | 641,300 | 5,368,154 | 725.4 | 1.5 | 50.0 | 46.7 | 435 | Yes |
| AL 16 | - Non-Participating | 630,734 | 5,381,835 | 710.2 | 1.5 | 50.0 | 44.5 | 646 | Yes |
| AM 17 | - Non-Participating | 631,989 | 5,373,670 | 695.8 | 1.5 | 50.0 | 40.9 | 1,139 | Yes |
| AN 18 | - Non-Participating | 637,954 | 5,365,740 | 710.2 | 1.5 | 50.0 | 42.8 | 751 | Yes |
| AO 64 | - Participating | 639,268 | 5,377,996 | 720.6 | 1.5 | 50.0 | 46.5 | 209 | Yes |
| AP 19 | - Non-Participating | 638,331 | 5,381,857 | 701.5 | 1.5 | 50.0 | 39.8 | 1,009 | Yes |
| AQ 20 | - Non-Participating | 639,333 | 5,380,415 | 707.1 | 1.5 | 50.0 | 38.8 | 1,606 | Yes |
| AR 21 | - Non-Participating | 630,142 | 5,375,377 | 701.9 | 1.5 | 50.0 | 38.3 | 1,422 | Yes |
| AS 22 | - Non-Participating | 644,117 | 5,375,554 | 701.3 | 1.5 | 50.0 | 39.2 | 1,718 | Yes |
| AT 23 | - Non-Participating | 628,666 | 5,373,611 | 682.8 | 1.5 | 50.0 | 34.3 | 3,381 | Yes |
| AU 24 | - Non-Participating | 632,030 | 5,373,428 | 696.5 | 1.5 | 50.0 | 41.2 | 1,068 | Yes |
| AV 27 | - Non-Participating | 646,754 | 5,372,213 | 713.2 | 1.5 | 50.0 | 45.1 | 368 | Yes |
| AW 29 | - Non-Participating | 631,486 | 5,386,533 | 696.9 | 1.5 | 50.0 | 37.2 | 1,864 | Yes |
| AX 30 | - Non-Participating | 633,067 | 5,384,963 | 707.0 | 1.5 | 50.0 | 38.7 | 1,428 | Yes |
| AY 31 | - Non-Participating | 633,553 | 5,383,375 | 714.8 | 1.5 | 50.0 | 42.0 | 883 | Yes |
| AZ 66 | - Participating | 638,244 | 5,370,747 | 710.8 | 1.5 | 50.0 | 46.8 | 203 | Yes |
| BA 67 | - Participating | 637,448 | 5,370,698 | 712.2 | 1.5 | 50.0 | 47.4 | 160 | Yes |
| BB 68 | - Participating | 635,378 | 5,369,828 | 692.6 | 1.5 | 50.0 | 40.6 | 1,373 | Yes |
| BC 32 | - Non-Participating | 626,925 | 5,388,203 | 701.4 | 1.5 | 50.0 | 35.4 | 1,817 | Yes |
| BD 33 | - Non-Participating | 627,137 | 5,388,066 | 701.0 | 1.5 | 50.0 | 36.3 | 1,627 | Yes |
| BE 34 | - Non-Participating | 626,921 | 5,387,556 | 704.1 | 1.5 | 50.0 | 38.0 | 1,213 | Yes |
| BF 35 | - Non-Participating | 629,137 | 5,388,039 | 693.3 | 1.5 | 50.0 | 37.2 | 1,614 | Yes |

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns: No., Name, X(East), Y(North), Z [m], Emission height [m], Demands Noise [dB(A)], Sound Level From WTGs [dB(A)], Distance to noise demand [m], Demands fulfilled? Noise

Distances (m)

Large table with columns: WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. Contains numerical data for wind turbine performance across various parameters.

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

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Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V. It contains a grid of numerical data representing decibel values for various wind turbine configurations.

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns WTG, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V and rows 197-208. Second table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR and rows 1-55.

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. It contains a grid of numerical data points for each combination of these categories.

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with columns WTG, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR. Contains numerical data for each column across 193 rows.

To be continued on next page...

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/17/2018 10:43 AM/3.0.654

DECIBEL - Main Result

Calculation: GE2.5-127

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| WTG | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 194 | 13024 | 8562 | 8218 | 8497 | 6736 | 20024 | 18848 | 20249 | 13624 | 12239 | 15601 | 7531 | 16230 | 8838 | 13277 | 18577 | 17876 | 17242 | 9854 | 11145 | 9861 | 19264 |
| 195 | 15381 | 10936 | 10542 | 10633 | 8623 | 21467 | 18977 | 20597 | 13549 | 11571 | 16119 | 9762 | 17518 | 11280 | 15770 | 18575 | 19107 | 19618 | 10715 | 10979 | 10063 | 20195 |
| 196 | 17048 | 12599 | 12208 | 12301 | 10282 | 23021 | 20105 | 21805 | 14642 | 12415 | 17420 | 11431 | 19044 | 12938 | 17424 | 19650 | 20613 | 21285 | 12174 | 12075 | 11323 | 21611 |
| 197 | 16787 | 12345 | 11950 | 12025 | 9992 | 22696 | 19772 | 21469 | 14310 | 12099 | 17082 | 11164 | 18716 | 12691 | 17181 | 19320 | 20283 | 21024 | 11842 | 11742 | 10986 | 21275 |
| 198 | 7753 | 3846 | 3808 | 4706 | 4682 | 16615 | 18500 | 19321 | 14253 | 14230 | 14703 | 3785 | 13468 | 3781 | 7634 | 18529 | 15111 | 11750 | 9213 | 12366 | 10642 | 17097 |
| 199 | 9434 | 5792 | 5780 | 6683 | 6493 | 18558 | 20367 | 21244 | 15957 | 15686 | 16602 | 5750 | 15445 | 5674 | 9129 | 20363 | 17087 | 13248 | 11012 | 13939 | 12256 | 19073 |
| 200 | 9127 | 5457 | 5444 | 6349 | 6189 | 18223 | 20058 | 20923 | 15677 | 15449 | 16286 | 5419 | 15109 | 5342 | 8845 | 20060 | 16750 | 12967 | 10713 | 13681 | 11990 | 18739 |
| 201 | 8785 | 5111 | 5105 | 6018 | 5919 | 17875 | 19776 | 20623 | 15439 | 15268 | 15994 | 5099 | 14773 | 4992 | 8518 | 19789 | 16412 | 12642 | 10450 | 13474 | 11772 | 18410 |
| 202 | 10672 | 6413 | 6207 | 6837 | 5810 | 18893 | 19406 | 20513 | 14605 | 13901 | 15809 | 5799 | 15421 | 6518 | 10666 | 19291 | 17091 | 14762 | 10008 | 12368 | 10796 | 18834 |
| 203 | 10402 | 6115 | 5899 | 6514 | 5475 | 18566 | 19087 | 20186 | 14305 | 13642 | 15482 | 5476 | 15088 | 6234 | 10424 | 18977 | 16758 | 14509 | 9686 | 12085 | 10501 | 18500 |
| 204 | 10021 | 5728 | 5512 | 6134 | 5139 | 18191 | 18811 | 19885 | 14077 | 13488 | 15184 | 5096 | 14728 | 5850 | 10056 | 18714 | 16397 | 14136 | 9402 | 11889 | 10283 | 18155 |
| 205 | 13635 | 9188 | 8866 | 9203 | 7510 | 20827 | 19688 | 21096 | 14446 | 12997 | 16450 | 8216 | 17052 | 9433 | 13825 | 19409 | 18701 | 17834 | 10703 | 11955 | 10695 | 20107 |
| 206 | 11611 | 7626 | 7502 | 8256 | 7479 | 20318 | 21178 | 22252 | 16399 | 15661 | 17553 | 7237 | 16970 | 7625 | 11411 | 21074 | 18635 | 15537 | 11771 | 14157 | 12590 | 20458 |
| 207 | 12552 | 8238 | 7998 | 8542 | 7241 | 20520 | 20367 | 21614 | 15330 | 14244 | 16914 | 7507 | 16930 | 8377 | 12566 | 20175 | 18599 | 16658 | 11085 | 12949 | 11511 | 20218 |
| 208 | 13208 | 8908 | 8671 | 9217 | 7896 | 21189 | 20919 | 22196 | 15834 | 14650 | 17502 | 8182 | 17586 | 9040 | 13202 | 20710 | 19254 | 17301 | 11677 | 13422 | 12023 | 20855 |

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6812 | 8954 | 5590 | 9227 | 14393 | 12323 | 10669 | 2835 | 2820 | 4312 | 18171 | 17936 | 17655 | 16822 | 6821 | 6270 | 9202 |
| 2 | 2356 | 13440 | 10098 | 5140 | 16139 | 13918 | 12411 | 5275 | 5910 | 8096 | 20528 | 20279 | 20101 | 18834 | 11098 | 9417 | 12857 |
| 3 | 2885 | 12689 | 9395 | 6270 | 14946 | 12725 | 11216 | 5390 | 5909 | 7974 | 19335 | 19086 | 18910 | 17639 | 10788 | 9529 | 11801 |
| 4 | 3428 | 12147 | 8847 | 6655 | 14750 | 12539 | 11001 | 4959 | 5441 | 7468 | 19076 | 18827 | 18638 | 17419 | 10249 | 9074 | 11356 |
| 5 | 8752 | 7129 | 3765 | 11015 | 14246 | 12318 | 10663 | 3314 | 2808 | 3140 | 17634 | 17409 | 17079 | 16485 | 5029 | 5350 | 8106 |
| 6 | 8100 | 8299 | 4982 | 9939 | 15436 | 13450 | 11789 | 1931 | 1490 | 2644 | 18944 | 18716 | 18397 | 17741 | 5354 | 4629 | 9487 |
| 7 | 9441 | 6625 | 3304 | 11564 | 14541 | 12670 | 11025 | 3506 | 2871 | 2652 | 17771 | 17551 | 17203 | 16703 | 4291 | 4885 | 8057 |
| 8 | 7905 | 7697 | 4370 | 10579 | 13341 | 11339 | 9678 | 3861 | 3585 | 4389 | 16953 | 16721 | 16422 | 15685 | 6270 | 6560 | 7813 |
| 9 | 8308 | 7292 | 4102 | 11267 | 12351 | 10366 | 8707 | 4866 | 4571 | 5164 | 15949 | 15717 | 15419 | 14682 | 6629 | 7378 | 6908 |
| 10 | 4938 | 11029 | 7662 | 7155 | 15518 | 13359 | 11745 | 2990 | 3484 | 5577 | 19577 | 19334 | 19094 | 18078 | 8511 | 7108 | 11061 |
| 11 | 5430 | 10495 | 7128 | 7681 | 15258 | 13119 | 11491 | 2753 | 3150 | 5162 | 19247 | 19006 | 18754 | 17787 | 8030 | 6793 | 10602 |
| 12 | 5929 | 10146 | 6777 | 7998 | 15422 | 13306 | 11667 | 2270 | 2622 | 4625 | 19324 | 19086 | 18821 | 17913 | 7521 | 6265 | 10490 |
| 13 | 10133 | 5759 | 3084 | 13263 | 11011 | 9199 | 7578 | 6614 | 6173 | 6141 | 14265 | 14041 | 13709 | 13156 | 6601 | 8354 | 4907 |
| 14 | 3920 | 12111 | 8966 | 7809 | 13245 | 11020 | 9534 | 6334 | 6688 | 8506 | 17688 | 17438 | 17278 | 15954 | 10975 | 10319 | 10598 |
| 15 | 10072 | 5537 | 2461 | 12941 | 12017 | 10215 | 8593 | 5814 | 5311 | 5139 | 15192 | 14972 | 14627 | 14132 | 5667 | 7344 | 5605 |
| 16 | 12222 | 4369 | 3084 | 15431 | 10033 | 8528 | 7053 | 8547 | 8013 | 7518 | 12720 | 12511 | 12130 | 11863 | 7033 | 9609 | 2875 |
| 17 | 12644 | 4059 | 3122 | 15838 | 10027 | 8599 | 7166 | 8862 | 8308 | 7718 | 12563 | 12359 | 11965 | 11774 | 7053 | 9772 | 2603 |
| 18 | 11046 | 5271 | 3206 | 14288 | 10216 | 8516 | 6943 | 7672 | 7204 | 6997 | 13283 | 13064 | 12716 | 12254 | 7037 | 9173 | 3821 |
| 19 | 12100 | 6768 | 5741 | 15794 | 7467 | 5840 | 4345 | 10139 | 9758 | 9733 | 10670 | 10442 | 10129 | 9532 | 9675 | 11920 | 2682 |
| 20 | 6698 | 10344 | 7586 | 10629 | 10572 | 8368 | 6816 | 7428 | 7489 | 8729 | 14909 | 14659 | 14484 | 13233 | 10466 | 10843 | 8022 |
| 21 | 2929 | 12754 | 9419 | 5826 | 15596 | 13381 | 11851 | 4886 | 5467 | 7605 | 19935 | 19686 | 19498 | 18271 | 10537 | 9041 | 12160 |
| 22 | 7482 | 8279 | 5201 | 10743 | 11876 | 9803 | 8149 | 5334 | 5200 | 6138 | 15728 | 15489 | 15227 | 14327 | 7800 | 8309 | 7242 |
| 23 | 2591 | 15320 | 11951 | 2882 | 18438 | 16213 | 14728 | 6143 | 6907 | 9149 | 22864 | 22614 | 22441 | 21149 | 12356 | 10003 | 15114 |
| 24 | 5016 | 11506 | 8503 | 8980 | 12073 | 9851 | 8357 | 6867 | 7103 | 8706 | 16510 | 16260 | 16102 | 14778 | 10896 | 10663 | 9616 |
| 25 | 4378 | 11539 | 8389 | 8129 | 13065 | 10849 | 9326 | 5960 | 6266 | 8017 | 17437 | 17188 | 17012 | 15748 | 10429 | 9878 | 10119 |
| 26 | 3501 | 12225 | 9004 | 7201 | 13938 | 11716 | 10213 | 5806 | 6220 | 8140 | 18344 | 18094 | 17925 | 16635 | 10756 | 9863 | 11008 |
| 27 | 8336 | 7436 | 4067 | 10714 | 14021 | 12058 | 10399 | 3331 | 2926 | 3537 | 17505 | 17278 | 16960 | 16307 | 5508 | 5720 | 8116 |
| 28 | 10170 | 5892 | 2606 | 12318 | 14407 | 12606 | 10979 | 4162 | 3474 | 2768 | 17469 | 17255 | 16890 | 16483 | 3755 | 4954 | 7620 |
| 29 | 9370 | 6790 | 4155 | 12710 | 10541 | 8613 | 6962 | 6728 | 6403 | 6723 | 14084 | 13852 | 13555 | 12830 | 7539 | 8956 | 5275 |
| 30 | 5226 | 10348 | 7062 | 8288 | 13776 | 11611 | 10002 | 4249 | 4493 | 6224 | 17888 | 17644 | 17416 | 16354 | 8729 | 8088 | 9697 |
| 31 | 4758 | 10817 | 7536 | 7906 | 13917 | 11734 | 10145 | 4475 | 4785 | 6601 | 18100 | 17854 | 17639 | 16526 | 9170 | 8409 | 10074 |
| 32 | 4304 | 11271 | 7985 | 7495 | 14159 | 11964 | 10392 | 4635 | 5009 | 6905 | 18397 | 18150 | 17945 | 16791 | 9549 | 8649 | 10492 |
| 33 | 3785 | 11857 | 8525 | 6655 | 15058 | 12858 | 11293 | 4345 | 4844 | 6904 | 19308 | 19061 | 18856 | 17697 | 9746 | 8471 | 11326 |
| 34 | 5897 | 16503 | 13207 | 3260 | 21409 | 19200 | 17652 | 6538 | 7317 | 9318 | 25666 | 25420 | 25206 | 24062 | 12579 | 9398 | 17230 |
| 35 | 5226 | 16448 | 13123 | 2691 | 20935 | 18719 | 17188 | 6559 | 7351 | 9429 | 25243 | 24996 | 24794 | 23606 | 12705 | 9667 | 16971 |
| 36 | 5320 | 17093 | 13762 | 2226 | 21338 | 19117 | 17605 | 7220 | 8013 | 10094 | 25694 | 25446 | 25254 | 24027 | 13370 | 10314 | 17539 |
| 37 | 6166 | 14890 | 11631 | 4655 | 20551 | 18371 | 16778 | 4894 | 5656 | 7604 | 24651 | 24408 | 24166 | 23139 | 10857 | 7681 | 15891 |
| 38 | 6285 | 14233 | 10986 | 5193 | 20148 | 17981 | 16374 | 4236 | 4992 | 6931 | 24186 | 23945 | 23693 | 22710 | 10185 | 7044 | 15320 |
| 39 | 8515 | 10282 | 7218 | 9059 | 18248 | 16237 | 14577 | 1228 | 1341 | 2741 | 21766 | 21539 | 21215 | 20569 | 5984 | 3213 | 12191 |
| 40 | 7924 | 10206 | 7040 | 8709 | 17698 | 15665 | 14006 | 556 | 975 | 2927 | 21293 | 21064 | 20751 | 20054 | 6205 | 3780 | 11832 |
| 41 | 7061 | 14297 | 11111 | 5765 | 20696 | 18544 | 16925 | 4348 | 5051 | 6825 | 24662 | 24423 | 24158 | 23228 | 10028 | 6696 | 15636 |
| 42 | 8786 | 14089 | 11088 | 7418 | 21608 | 19506 | 17862 | 4602 | 5122 | 6402 | 25374 | 25141 | 24845 | 24054 | 9389 | 5719 | 16001 |
| 43 | 11458 | 7195 | 5861 | 15194 | 7578 | 5804 | 4225 | 9789 | 9452 | 9575 | 11030 | 10796 | 10509 | 9781 | 9747 | 11786 | 3352 |
| 44 | 10732 | 7681 | 6039 | 14511 | 7813 | 5902 | 4263 | 9401 | 9115 | 9409 | 11502 | 11263 | 11002 | 10146 | 9838 | 11637 | 4098 |
| 45 | 10489 | 8325 | 6631 | 14360 | 7533 | 5532 | 3874 | 9639 | 9401 | 9822 | 11421 | 11179 | 10946 | 9965 | 10388 | 12054 | 4617 |
| 46 | 10111 | 8762 | 6949 | 14032 | 7603 | 5533 | 3875 | 9597 | 9398 | 9932 | 11635 | 11389 | 11177 | 10107 | 10644 | 12164 | 5112 |

To be continued on next page...

Project:
Aurora

Description:

Licensed user:

TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/17/2018 10:43 AM/3.0.654

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 47 | 17392 | 10787 | 11335 | 21416 | 3182 | 3973 | 4531 | 16402 | 16016 | 15841 | 4410 | 4187 | 3866 | 3652 | 15203 | 17964 | 5860 |
| 48 | 16415 | 9128 | 9665 | 20330 | 4378 | 4347 | 4258 | 14912 | 14492 | 14227 | 6000 | 5791 | 5417 | 5330 | 13521 | 16330 | 4173 |
| 49 | 17153 | 8738 | 9639 | 20994 | 5224 | 5382 | 5289 | 15233 | 14769 | 14346 | 6035 | 5853 | 5410 | 5748 | 13399 | 16392 | 4076 |
| 50 | 17317 | 10197 | 10840 | 21293 | 3764 | 4331 | 4679 | 16061 | 15652 | 15408 | 4819 | 4609 | 4239 | 4242 | 14683 | 17511 | 5326 |
| 51 | 11720 | 7825 | 6636 | 15561 | 6817 | 5017 | 3439 | 10469 | 10159 | 10342 | 10401 | 10163 | 9898 | 9077 | 10531 | 12558 | 3584 |
| 52 | 15475 | 10081 | 10105 | 19508 | 3146 | 2708 | 2739 | 14724 | 14383 | 14375 | 6135 | 5895 | 5652 | 4878 | 14040 | 16546 | 4954 |
| 53 | 15244 | 10487 | 10367 | 19316 | 2774 | 2153 | 2311 | 14768 | 14455 | 14531 | 6213 | 5967 | 5772 | 4777 | 14313 | 16718 | 5354 |
| 54 | 14814 | 10586 | 10308 | 18903 | 2815 | 1790 | 1821 | 14511 | 14219 | 14366 | 6590 | 6341 | 6173 | 5046 | 14257 | 16566 | 5464 |
| 55 | 11058 | 11512 | 9994 | 15255 | 5680 | 3456 | 2243 | 12244 | 12153 | 12900 | 10345 | 10092 | 10021 | 8445 | 13720 | 15125 | 7093 |
| 56 | 15450 | 7917 | 8308 | 19273 | 5354 | 4781 | 4192 | 13605 | 13168 | 12869 | 7361 | 7153 | 6774 | 6635 | 12177 | 14967 | 2860 |
| 57 | 16634 | 8722 | 9427 | 20499 | 4923 | 4908 | 4744 | 14865 | 14419 | 14068 | 6206 | 6010 | 5599 | 5715 | 13240 | 16142 | 3881 |
| 58 | 6214 | 9604 | 6238 | 8576 | 14731 | 12628 | 10983 | 2710 | 2878 | 4639 | 18605 | 18367 | 18099 | 17206 | 7324 | 6465 | 9779 |
| 59 | 8535 | 7513 | 4688 | 11900 | 10916 | 8906 | 7245 | 6260 | 6018 | 6611 | 14638 | 14401 | 14125 | 13297 | 7790 | 8834 | 6080 |
| 60 | 4870 | 10978 | 7827 | 8500 | 12872 | 10669 | 9113 | 5663 | 5912 | 7579 | 17169 | 16921 | 16731 | 15525 | 9916 | 9493 | 9638 |
| 61 | 8847 | 7584 | 4304 | 10702 | 15323 | 13393 | 11738 | 2477 | 1845 | 2188 | 18680 | 18456 | 18120 | 17553 | 4626 | 4340 | 9053 |
| 62 | 7910 | 7718 | 4552 | 10959 | 12264 | 10241 | 8581 | 4910 | 4686 | 5455 | 15966 | 15732 | 15447 | 14646 | 7050 | 7649 | 7120 |
| 63 | 11062 | 6059 | 4327 | 14539 | 9123 | 7384 | 5803 | 8469 | 8067 | 8042 | 12359 | 12133 | 11810 | 11235 | 8179 | 10240 | 3451 |
| 64 | 13240 | 6855 | 6402 | 16970 | 6719 | 5359 | 4070 | 11252 | 10841 | 10684 | 9595 | 9372 | 9037 | 8581 | 10349 | 12837 | 2052 |
| 65 | 8783 | 8008 | 5513 | 12417 | 9793 | 7744 | 6085 | 7388 | 7188 | 7815 | 13660 | 13420 | 13169 | 12237 | 8867 | 10040 | 5724 |
| 66 | 9969 | 6178 | 3661 | 13247 | 10497 | 8646 | 7015 | 6952 | 6562 | 6669 | 13866 | 13638 | 13321 | 12696 | 7211 | 8892 | 4776 |
| 67 | 8112 | 9245 | 6752 | 11968 | 9533 | 7381 | 5760 | 7891 | 7807 | 8702 | 13696 | 13449 | 13246 | 12114 | 10003 | 10899 | 6602 |
| 68 | 10916 | 4666 | 1580 | 13672 | 12245 | 10547 | 8962 | 6189 | 5601 | 5055 | 15172 | 14959 | 14588 | 14232 | 5069 | 7186 | 5327 |
| 69 | 7773 | 12980 | 9871 | 7100 | 20133 | 18030 | 16386 | 3216 | 3819 | 5403 | 23924 | 23690 | 23399 | 22587 | 8568 | 5207 | 14633 |
| 70 | 7496 | 15366 | 12201 | 5524 | 21715 | 19552 | 17942 | 5446 | 6136 | 7831 | 25726 | 25486 | 25228 | 24268 | 10989 | 7513 | 16742 |
| 71 | 8053 | 12377 | 9299 | 7645 | 19820 | 17739 | 16089 | 2746 | 3280 | 4772 | 23534 | 23302 | 23002 | 22238 | 7925 | 4585 | 14147 |
| 72 | 11474 | 4542 | 1404 | 13693 | 14144 | 12486 | 10909 | 5462 | 4732 | 3518 | 16881 | 16677 | 16282 | 16050 | 3143 | 5466 | 6858 |
| 73 | 7769 | 14685 | 11559 | 6162 | 21417 | 19274 | 17649 | 4843 | 5494 | 7100 | 25343 | 25105 | 24833 | 23933 | 10230 | 6725 | 16219 |
| 74 | 9506 | 8543 | 6471 | 13355 | 8405 | 6330 | 4674 | 8800 | 8611 | 9202 | 12402 | 12158 | 11934 | 10900 | 10056 | 11432 | 5348 |
| 75 | 9109 | 9283 | 7148 | 13059 | 8339 | 6193 | 4567 | 9016 | 8890 | 9634 | 12526 | 12278 | 12086 | 10923 | 10656 | 11854 | 6005 |
| 76 | 8680 | 9665 | 7423 | 12665 | 8597 | 6420 | 4825 | 8908 | 8824 | 9677 | 12870 | 12621 | 12443 | 11222 | 10841 | 11884 | 6483 |
| 77 | 12282 | 8539 | 7569 | 16221 | 5828 | 4038 | 2497 | 11417 | 11125 | 11334 | 9527 | 9285 | 9045 | 8130 | 11485 | 13550 | 3911 |
| 78 | 12239 | 7412 | 6458 | 16033 | 6781 | 5125 | 3632 | 10684 | 10334 | 10389 | 10128 | 9895 | 9604 | 8910 | 10389 | 12587 | 3002 |
| 79 | 10781 | 9504 | 7959 | 14814 | 6511 | 4397 | 2749 | 10740 | 10556 | 11094 | 10707 | 10458 | 10280 | 9083 | 11726 | 13327 | 5348 |
| 80 | 12810 | 7211 | 6530 | 16585 | 6603 | 5100 | 3718 | 11078 | 10699 | 10650 | 9729 | 9501 | 9190 | 8604 | 10478 | 12828 | 2551 |
| 81 | 17221 | 11069 | 11503 | 21273 | 2742 | 3586 | 4253 | 16426 | 16059 | 15946 | 4386 | 4152 | 3883 | 3410 | 15394 | 18085 | 6082 |
| 82 | 10575 | 10083 | 8468 | 14665 | 6453 | 4275 | 2686 | 10950 | 10806 | 11445 | 10812 | 10561 | 10412 | 9101 | 12193 | 13675 | 5926 |
| 83 | 9929 | 10033 | 8212 | 14006 | 7115 | 4927 | 3351 | 10361 | 10242 | 10961 | 11474 | 11223 | 11070 | 9768 | 11853 | 13186 | 6146 |
| 84 | 9473 | 10418 | 8467 | 13581 | 7447 | 5235 | 3719 | 10240 | 10162 | 10989 | 11893 | 11641 | 11504 | 10139 | 12026 | 13203 | 6655 |
| 85 | 10592 | 11834 | 10174 | 14806 | 6152 | 3942 | 2812 | 12088 | 12033 | 12877 | 10864 | 10611 | 10553 | 8931 | 13833 | 15092 | 7541 |
| 86 | 7723 | 10103 | 7610 | 11716 | 9457 | 7257 | 5698 | 8322 | 8311 | 9357 | 13797 | 13548 | 13378 | 12115 | 10800 | 11527 | 7280 |
| 87 | 7096 | 10750 | 8155 | 11152 | 9886 | 7666 | 6164 | 8305 | 8363 | 9568 | 14325 | 14074 | 13924 | 12585 | 11199 | 11697 | 8013 |
| 88 | 5117 | 15520 | 12200 | 3393 | 20298 | 18092 | 16538 | 5624 | 6416 | 8504 | 24540 | 24295 | 24079 | 22944 | 11781 | 8801 | 16125 |
| 89 | 8593 | 9389 | 6280 | 9564 | 17388 | 15403 | 13743 | 1008 | 514 | 2061 | 20846 | 20621 | 20292 | 19677 | 5336 | 3194 | 11238 |
| 90 | 7408 | 8604 | 5239 | 9540 | 14872 | 12842 | 11182 | 2303 | 2130 | 3518 | 18521 | 18289 | 17989 | 17242 | 6107 | 5487 | 9297 |
| 91 | 11647 | 4809 | 3110 | 14877 | 10084 | 8480 | 6953 | 8124 | 7621 | 7264 | 12966 | 12751 | 12387 | 12021 | 7032 | 9400 | 3306 |
| 92 | 9029 | 10845 | 7892 | 9171 | 19146 | 17140 | 15480 | 2104 | 2226 | 3159 | 22630 | 22405 | 22075 | 21454 | 6244 | 2965 | 12992 |
| 93 | 9449 | 10254 | 7365 | 9772 | 18900 | 16929 | 15269 | 2165 | 2041 | 2550 | 22287 | 22065 | 21724 | 21161 | 5590 | 2371 | 12560 |
| 94 | 9013 | 13567 | 10607 | 7880 | 21359 | 19277 | 17627 | 4251 | 4710 | 5868 | 25055 | 24824 | 24519 | 23772 | 8815 | 5125 | 15597 |
| 95 | 10208 | 11520 | 8791 | 9875 | 20473 | 18495 | 16835 | 3540 | 3580 | 3882 | 23852 | 23631 | 23287 | 22735 | 6532 | 2739 | 14083 |
| 96 | 9959 | 6764 | 4520 | 13447 | 9633 | 7739 | 6098 | 7662 | 7331 | 7573 | 13152 | 12919 | 12624 | 11900 | 8149 | 9801 | 4554 |
| 97 | 9354 | 7441 | 5067 | 12928 | 9640 | 7657 | 5999 | 7545 | 7283 | 7731 | 13356 | 13119 | 12849 | 12008 | 8561 | 9964 | 5144 |
| 98 | 9328 | 6326 | 3267 | 12314 | 11843 | 9952 | 8307 | 5601 | 5192 | 5366 | 15233 | 15006 | 14685 | 14066 | 6283 | 7598 | 5941 |
| 99 | 14367 | 9325 | 9070 | 18363 | 4050 | 2916 | 2208 | 13520 | 13188 | 13227 | 7344 | 7105 | 6856 | 6050 | 13017 | 15411 | 4213 |
| 100 | 12777 | 9717 | 8852 | 16833 | 4661 | 2765 | 1224 | 12514 | 12261 | 12563 | 8688 | 8439 | 8257 | 7116 | 12768 | 14785 | 4874 |
| 101 | 12732 | 8319 | 7541 | 16646 | 5692 | 4043 | 2612 | 11666 | 11346 | 11466 | 9201 | 8963 | 8703 | 7885 | 11479 | 13670 | 3548 |
| 102 | 9900 | 9244 | 7384 | 13880 | 7521 | 5397 | 3756 | 9758 | 9596 | 10222 | 11687 | 11439 | 11249 | 10089 | 11038 | 12452 | 5554 |
| 103 | 19668 | 12523 | 13437 | 23725 | 4008 | 5674 | 6626 | 18720 | 18316 | 18058 | 2201 | 2020 | 1588 | 2551 | 17229 | 20147 | 7882 |
| 104 | 19339 | 12518 | 13330 | 23411 | 3600 | 5281 | 6268 | 18511 | 18121 | 17909 | 2318 | 2107 | 1756 | 2290 | 17150 | 20013 | 7792 |
| 105 | 18010 | 12298 | 12742 | 22120 | 2213 | 3812 | 4881 | 17551 | 17206 | 17148 | 3366 | 3118 | 2962 | 2163 | 16638 | 19299 | 7328 |
| 106 | 18513 | 12440 | 13011 | 22614 | 2663 | 4338 | 5395 | 17947 | 17587 | 17479 | 2901 | 2657 | 2462 | 2009 | 16885 | 19616 | 7543 |
| 107 | 19030 | 12482 | 13206 | 23113 | 3248 | 4927 | 5939 | 18298 | 17919 | 17745 | 2507 | 2280 | 1995 | 2137 | 17047 | 19862 | 7687 |

To be continued on next page...

DECIBEL - Main Result

Calculation: GE2.5-127

...continued from previous page

Table with 17 columns (WTG, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI) and 17 rows of numerical data representing decibel values for various wind turbine configurations.

To be continued on next page...

Project:
Aurora

Description:

Licensed user:
TradeWind Energy, Inc
16105 W. 113th Street, Suite 105
US-LENEXA, KS 66219
+1 913 424 5308
Kevin Walter / kwalter@tradewindenergy.com
Calculated:
9/17/2018 10:43 AM/3.0.654

DECIBEL - Main Result

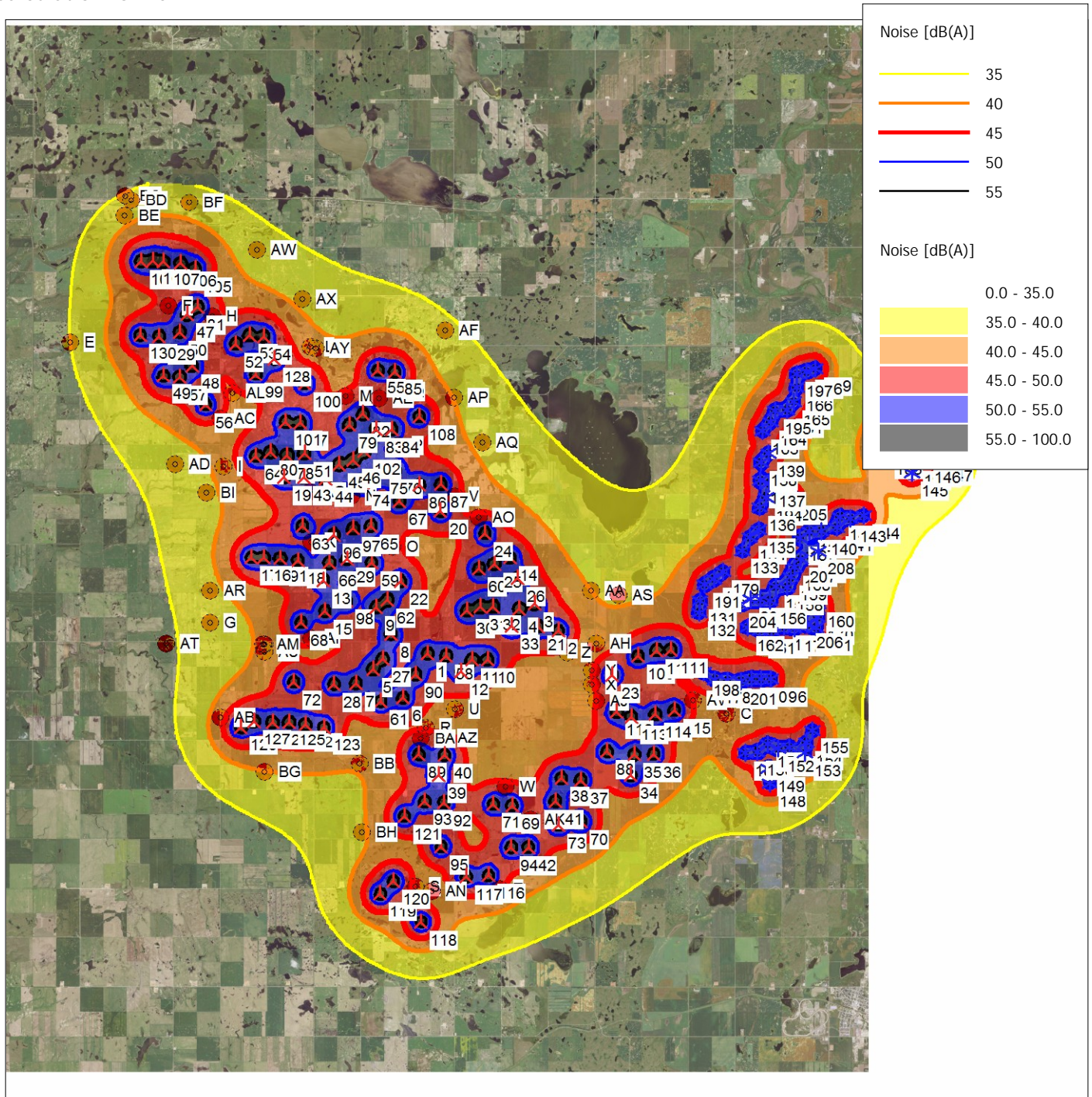
Calculation: GE2.5-127

...continued from previous page

| WTG | AS | AT | AU | AV | AW | AX | AY | AZ | BA | BB | BC | BD | BE | BF | BG | BH | BI |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 169 | 10035 | 23981 | 21022 | 11624 | 19473 | 17689 | 17112 | 17559 | 18164 | 20282 | 24269 | 24033 | 24147 | 22073 | 23045 | 21705 | 21222 |
| 170 | 6848 | 22328 | 18986 | 5062 | 22597 | 20445 | 19285 | 13411 | 14183 | 16421 | 27388 | 27136 | 27087 | 25386 | 19635 | 17121 | 21302 |
| 171 | 6848 | 22272 | 18924 | 4842 | 22749 | 20589 | 19409 | 13268 | 14044 | 16278 | 27529 | 27277 | 27221 | 25539 | 19503 | 16938 | 21329 |
| 172 | 6110 | 21523 | 18175 | 4199 | 22130 | 19959 | 18756 | 12546 | 13319 | 15556 | 26895 | 26642 | 26579 | 24920 | 18775 | 16248 | 20599 |
| 173 | 5355 | 20734 | 17385 | 3518 | 21532 | 19350 | 18118 | 11767 | 12538 | 14777 | 26277 | 26024 | 25950 | 24322 | 17991 | 15496 | 19851 |
| 174 | 5765 | 21180 | 17833 | 3943 | 21823 | 19649 | 18438 | 12229 | 15238 | 26582 | 26330 | 26263 | 24614 | 18452 | 15952 | 20255 | |
| 175 | 6666 | 22215 | 18933 | 6188 | 21350 | 19249 | 18196 | 13882 | 14617 | 16860 | 26184 | 25933 | 25918 | 24126 | 19984 | 17798 | 20230 |
| 176 | 5881 | 20750 | 17382 | 2762 | 22468 | 20262 | 18958 | 11384 | 12174 | 14379 | 27150 | 26898 | 26797 | 25251 | 17640 | 14883 | 20256 |
| 177 | 4627 | 19257 | 15888 | 1346 | 21343 | 19125 | 17771 | 9903 | 10691 | 12903 | 25971 | 25718 | 25598 | 24115 | 16158 | 13467 | 18846 |
| 178 | 4283 | 18835 | 15466 | 1012 | 21015 | 18795 | 17427 | 9493 | 10280 | 12495 | 25626 | 25374 | 25249 | 23783 | 15747 | 13083 | 18441 |
| 179 | 3660 | 19214 | 15927 | 4314 | 19082 | 16917 | 15737 | 11007 | 11720 | 13953 | 23857 | 23604 | 23548 | 21872 | 17035 | 15011 | 17862 |
| 180 | 3310 | 18877 | 15582 | 4026 | 18950 | 16774 | 15569 | 10623 | 11337 | 13572 | 23708 | 23456 | 23391 | 21740 | 16659 | 14624 | 17588 |
| 181 | 8365 | 22584 | 19561 | 9999 | 18857 | 16967 | 16256 | 15910 | 16527 | 18662 | 23697 | 23455 | 23533 | 21528 | 21468 | 20051 | 20041 |
| 182 | 6874 | 22338 | 19087 | 6818 | 20997 | 18924 | 17923 | 14248 | 14966 | 17202 | 25843 | 25593 | 25594 | 23762 | 20285 | 18220 | 20672 |
| 183 | 10298 | 25432 | 22270 | 10473 | 22480 | 20565 | 19799 | 17813 | 18510 | 20730 | 27324 | 27082 | 27153 | 25160 | 23743 | 21838 | 23283 |
| 184 | 10493 | 25535 | 22393 | 10798 | 22359 | 20466 | 19730 | 18034 | 18723 | 20936 | 27197 | 26956 | 27035 | 25026 | 23928 | 22076 | 23308 |
| 185 | 10877 | 25925 | 22784 | 11126 | 22681 | 20800 | 20078 | 18413 | 19105 | 21319 | 27515 | 27275 | 27359 | 25340 | 24315 | 22450 | 23687 |
| 186 | 11290 | 26325 | 23189 | 11511 | 22974 | 21108 | 20406 | 18826 | 19517 | 21732 | 27802 | 27563 | 27652 | 25622 | 24727 | 22861 | 24061 |
| 187 | 11607 | 26587 | 23464 | 11876 | 23070 | 21224 | 20547 | 19153 | 19841 | 22052 | 27891 | 27652 | 27749 | 25705 | 25036 | 23196 | 24271 |
| 188 | 11790 | 26687 | 23581 | 12157 | 22984 | 21158 | 20507 | 19351 | 20032 | 22238 | 27796 | 27558 | 27662 | 25605 | 25203 | 23407 | 24307 |
| 189 | 6734 | 20166 | 16817 | 2498 | 23431 | 21204 | 19785 | 10352 | 11147 | 13234 | 27967 | 27716 | 27566 | 26180 | 16509 | 13387 | 20321 |
| 190 | 7675 | 21618 | 18262 | 3650 | 24408 | 22187 | 20816 | 11848 | 12644 | 14742 | 29014 | 28762 | 28633 | 27176 | 18018 | 14895 | 21625 |
| 191 | 2973 | 18545 | 15245 | 3801 | 18798 | 16614 | 15386 | 10260 | 10975 | 13209 | 23541 | 23288 | 23216 | 21588 | 16300 | 14263 | 17309 |
| 192 | 11033 | 26302 | 23112 | 10860 | 23523 | 21604 | 20829 | 18479 | 19192 | 21423 | 28368 | 28126 | 28196 | 26205 | 24478 | 22457 | 24247 |
| 193 | 6147 | 21032 | 17886 | 7542 | 18772 | 16738 | 15813 | 13737 | 14391 | 16573 | 23627 | 23379 | 23399 | 21522 | 19496 | 17844 | 18950 |
| 194 | 5992 | 21091 | 17910 | 7092 | 19173 | 17118 | 16155 | 13568 | 14240 | 16439 | 24024 | 23775 | 23785 | 21932 | 19408 | 17650 | 19142 |
| 195 | 8074 | 22185 | 19173 | 9862 | 18457 | 16559 | 15841 | 15596 | 16204 | 18328 | 23299 | 23057 | 23132 | 21133 | 21114 | 19741 | 19623 |
| 196 | 9743 | 23645 | 20688 | 11413 | 19181 | 17386 | 16797 | 17254 | 17856 | 19969 | 23983 | 23747 | 23857 | 21790 | 22722 | 21402 | 20888 |
| 197 | 9468 | 23311 | 20359 | 11229 | 18878 | 17073 | 16474 | 16963 | 17560 | 19666 | 23685 | 23448 | 23555 | 21495 | 22408 | 21113 | 20551 |
| 198 | 3836 | 18431 | 15063 | 976 | 20572 | 18350 | 16979 | 9161 | 9944 | 12168 | 25177 | 24925 | 24799 | 23338 | 15410 | 12814 | 17996 |
| 199 | 5582 | 20406 | 17038 | 2425 | 22206 | 19997 | 18681 | 11041 | 11831 | 14037 | 26877 | 26624 | 26519 | 24987 | 17297 | 14553 | 19930 |
| 200 | 5286 | 20069 | 16701 | 2108 | 21941 | 19729 | 18403 | 10712 | 11501 | 13709 | 26600 | 26347 | 26238 | 24719 | 16967 | 14241 | 19607 |
| 201 | 5031 | 19730 | 16362 | 1762 | 21721 | 19506 | 18165 | 10362 | 11151 | 13359 | 26365 | 26112 | 25998 | 24496 | 16617 | 13896 | 19302 |
| 202 | 4858 | 20403 | 17079 | 4017 | 20648 | 18481 | 17291 | 11761 | 12511 | 14756 | 25419 | 25166 | 25107 | 23438 | 17920 | 15624 | 19274 |
| 203 | 4524 | 20070 | 16747 | 3837 | 20368 | 18197 | 16996 | 11454 | 12201 | 14446 | 25132 | 24880 | 24817 | 23159 | 17604 | 15334 | 18945 |
| 204 | 4184 | 19711 | 16384 | 3520 | 20178 | 17997 | 16775 | 11068 | 11815 | 14060 | 24927 | 24674 | 24604 | 22968 | 17220 | 14948 | 18635 |
| 205 | 6733 | 21924 | 18732 | 7453 | 19938 | 17900 | 16961 | 14279 | 14965 | 17176 | 24792 | 24544 | 24562 | 22689 | 20174 | 18337 | 19991 |
| 206 | 6520 | 21956 | 18610 | 4616 | 22432 | 20269 | 19085 | 12988 | 13762 | 15998 | 27209 | 26956 | 26899 | 25222 | 19218 | 16684 | 20998 |
| 207 | 6333 | 21888 | 18603 | 5896 | 21129 | 19019 | 17950 | 13546 | 14281 | 16523 | 25957 | 25706 | 25686 | 23907 | 19647 | 17466 | 20429 |
| 208 | 6996 | 22539 | 19260 | 6494 | 21559 | 19467 | 18432 | 14220 | 14955 | 17198 | 26397 | 26147 | 26138 | 24331 | 20322 | 18134 | 21023 |

DECIBEL - Map 95% rated power

Calculation: GE2.5-127



Map: US Naval Research Laboratory , Print scale 1:200,000, Map center UTM WGS84 Zone: 13 East: 641,190 North: 5,375,412
 ▲ New WTG * Existing WTG ■ Noise sensitive area
 Noise calculation model: ISO 9613-2 General. Wind speed: 95% rated power
 Height above sea level from active line object