



BORDER WINDS ENERGY PROJECT

WEEKLY PROJECT REPORT

Weekly report no:	56
Report for week period ending COB Friday:	08/21/15
Calendar week no:	34

Executive Summary

Week's Highlights

- Andrew Fowler, COO and Chris Hills, Senior VP were on site to commemorate Mr. Fowler's 25 years with RES.
- Circuit 1B was successfully energized on Thursday 8/20/2015.
- Mechanical completion walk downs on all turbines on Circuit 5 was completed on Friday 8/21/2015. Energization of the circuit is scheduled for 8/26/2015.
- Completed WTG base installation and grouting for all 75 sites.
- Completed planting trees on the north and west side of the O&M building. Civil crews are scheduled to begin working on the grading outside the planted area.
- Ulteig started SCADA commissioning on 8/16/2015 and is scheduled to be complete by the 8/28/2015.

Week's Key Issues

- Ensure all turbines doors are secured properly following the incident at T13. On 8/17/2015 an unidentified person was able to enter the tower even after the tower door was secured with a cable and lock. Incident was reported to the police. All crews were reminded to secure equipment and materials at the end of each day to prevent theft and protect the local residents.
- Damage to the lower mid at T53 caused during shipping prevented the day crew from setting the components. Vestas repaired the damage and the night crew completed the installation.
- WTG installation crews experienced a decrease in production due to long crane walks and power line drops which affected both top-out cranes.



Safety

Type	Lost Time	Recordable Injury (Medical Aid)	Minor Injury (First Aid)	Equipment Property Damage	Near Miss	Safety Walks
Current Period	0	0	1	2	0	7
Project To Date	1	3	14	40	84	659

*Full description of week's Safety Log plus the formulas for TRIR and Safety index calculation in Exhibit 2.

TRIR: Previous Week = 2.11 / Current week = 2.0

RES Safety Index: Previous Week = 0.49/ Current week = 0.46

Weeks Highlights:

- Border Winds energized Circuit 1B on 8/20/2015 with no incidents. All safety precautions were taken and followed by team members. Special thanks to Tota Chaithanya for taking the lead and assured all safety measures were taken.
- Reminded all manager, foreman and leads to take responsibility for safety and quality in their area.

Weeks Issues:

- The site had one (1) first aid injury and two (2) vehicles damage incidents in the week. The incidents were reported to onsite safety on Monday 8/17/2015.
- Crews were reminded to stay hydrated even though the temperatures are cooling off.
- Crews were reminded to be aware that school will be starting soon in the neighboring community. Watch out for increased traffic including school buses.
- At T13, on 8/17/2015, an unidentified person vandalized the main crane, stole company property and entered the turbine. Beer bottles were found in the base platform and at the top of the base section. The WTG door was secured with a cable and lock but the vandals were able to cut and remove the cable from the door handle. A new method of locking the WTG door has been implemented.

Project Work Hours:

- Weekly Man-hours: 11,733.00
- Total Project Man-hours: 389,590.00
- Hours since Last Recordable Injury: 62,076.00



Environmental

Type	Major Incident	Minor Incident	Near Miss	Observation
Current Period	0	0	0	3
Project to Date	0	77	7	67

*Full description of week's Environmental Report and Rolling Incident Score formula in Exhibit 2.

Rolling Incident Score: Previous week: 0.59 / Current Week: 0.57

Week's Highlights:

- Completed the week without any spills or leaks.
- Waste Management provided two (2) trash bins on site on 8/17/2015.
- AMR replaced five (5) bins of mixed materials (wood, cardboard and plastic) and one (1) bin of aluminum for recycling.

Week's Issues:

- Laducer's have still not picked up the trash roll off bin in the laydown yard. The vendor has had an ongoing issue with the truck and has still not scheduled a pick up date.
- Materials needing to be recycled were stacked behind the filled bins and will need to be disposed of in the now empty bins.

Quality

Type	RES Issued NCRs			Client Issued NCRs		
	Issued	Open	Closed	Issued	Open	Closed
Current Period	0	0	0	0	0	0
PTD	1	1	0	10	4	6

*Full description of week's Quality Report can be found in Exhibit 4

NCRs Issued Details:

- Xcel issued NCR-2015-026 for not having 115V outlets at work locations per page 1 exhibit I of the Purchase and Sale Agreement (PSA).
- Xcel signed NCR-2014-38 for closure in regards to the grounding installation at T3.

Week's Highlights:

- Building & Earth: Witnessed compaction test for access roads reclaim and sampling and breaking grout cubes.
- Working on job books and Vestas MCC books.
- Monitor grout placement at T20, T21, T22, T33, T34 & T76.

Week's Issues:

- Some junction boxes for the collector lines were not set level and not to specification. The issue is being rectified.
- Xcel requested additional information for NCR-2015-16 and NCR-2015-24.



SCHEDULE STATUS

Project duration	68
No. of weeks into contract	58
Contract time passed (%)	85.3%

Key Activities (Construction)	Weighted %	Percentage Complete		
		Contract Schedule	Construction Schedule	Actual
Design Engineering	2.5%	100.0%	100.0%	100%
Roads & Crane Pads	20.0%	100.0%	99.0%	86%
Foundations	20.0%	100.0%	100.0%	100%
Collection System	21.5%	100.0%	98.0%	91%
Substation	15.0%	100.0%	100.0%	98%
O&M Building	6.0%	100.0%	99.0%	99%
WTG Delivery, Erection, & MCC	15.0%	67.0%	67%	65%
Overall Actual Percent Complete		95.1%	94.4%	89.2%

PROGRESS REPORT

PERMIT STATUS

Permit Type / Description	County / State	Responsible Group	Date Needed By	Status
FAA Part 2	Federal	RES	Final Height	OPEN

CONSTRUCTION STATUS

Certificates	Total	Submitted	Signed
Foundation Completion Certificate	75	75	75
Mechanical Completion Certificate	75	14	10
Electrical Works Completion Certificate	1	0	0
Project Mechanical Completion Certificate	1	0	0
Project Substantial Completion Certificate	1	0	0
Project Final Completion	1	0	0

ROADS AND CRANE PADS

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Roads	70%	Roads			80.0%
Rough Grade	30%	137,622	137,622	-	100.0%
Sub Grade	30%	137,622	137,622	-	100.0%
1st Lift	20%	137,622	137,622	-	100.0%
Shoulders	10%	152,837	0	152,837	0.0%
Ditches	10%	152,837	0	152,837	0.0%
Crane Pads & Site Laydown	30%	Crane Pads & Site Laydown			100.0%
WTG Site Ready for Delivery	30%	75	75	0	100.0%
Cut & Subgrade Compacted	40%	75	75	0	100.0%
Material Placed & Compacted	30%	75	75	0	100.0%
Roads & Crane Pads Progress					86%

Comments:

- Proof roll and density (compaction) test have been completed on all roads with inspection done by Building and Earth for quality control and assurance.
- Continuing reclamation of WTG pads on Circuit 5, Circuit 6 and radius removal.

FOUNDATION

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Excavations	10%	75	75	0	100.0%
Mud Mats	5%	75	75	0	100.0%
Bases	40%	75	75	0	100.0%
Pedestals	20%	75	75	0	100.0%
Earthing Kit	5%	75	75	0	100.0%
Backfill	20%	75	75	0	100.0%
Foundation Progress					100.0%

Comments:

- All foundation work complete.



COLLECTION SYSTEM

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
Deliveries		Deliveries			100%
MV Cable	50.0%	901,972	314,910	0	100%
Fiber	40.0%	335,107	336,590	0	100%
Junction Boxes	5.0%	28	28	0	100%
Grounding Transformers	5.0%	6	6	0	100%
Installations		Installations			95.7%
Trench	40.0%	278,230	278,230	0	100.0%
MV & Fiber/Ground Cable	50.0%	297,945	297,945	0	100.0%
Junction Boxes	10.0%	28	16	12	57.1%
Terminations		Terminations			63.6%
MV Cable at WTG switch gear	45.0%	75	42	33	56.0%
Junction Boxes	35.0%	28	18	10	64.3%
Underground MV Splices	20.0%	29	23	3	79.3%

Collection System Progress: 90.6%

Comments:

- Set and terminated two (2) junction boxes in the collection system.
- Completed six (6) MV terminations on Circuit 6 at the switchgear.
- Completed the remaining three (3) fiber terminations on Circuit 1B.
- Fiber splicing crew demobilized from site on Thursday, 8/20/2015.

O&M BUILDING

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Design	4.0%	100%	100%	0%	100.0%
Earthworks	8.0%	100%	100%	0%	100.0%
Septic System	4.0%	100%	100%	0%	100.0%
Water Service and Filter	4.0%	100%	100%	0%	100.0%
Delivery	5.0%	100%	100%	0%	100.0%
Foundation Floor slab	9.0%	100%	100%	0%	100.0%
Electrical prep, rough-in and trim out	5.0%	100%	100%	0%	100.0%
Plumbing prep, rough-in and trim out	8.0%	100%	100%	0%	100.0%
Building Erect and enclose	8.0%	100%	100%	0%	100.0%
Internal Walls & Ceiling	9.0%	100%	100%	0%	100.0%
HVAC	8.0%	100%	100%	0%	100.0%
Finishes prep, rough-in and trim out	12.0%	100%	100%	0%	100.0%
Grading, Drainage	8.0%	100%	95%	5%	95.0%
Cleaning and Shop Finish	4.0%	100%	100%	0%	100.0%
Security System	4.0%	100%	100%	0%	100.0%
O&M Building Progress					99.6%

Comments:

- TC Nursery completed planting the trees outside the fence on 8/18/2015. Civil crew installed top soil before planting and are scheduled to complete the rest of the grading outside the landscaped area by 8/28/2015.
- Ulteig started SCADA commissioning on 8/19/2015 and completed EMS testing and partial RTU – PPC test. Rest of the test to be completed by 8/28/2015.

SUBSTATION

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Engineering	10%	Engineering			100%
IFC Drawings	100%	100%	100%	0%	100%
Procurement and Delivery	20%	Procurement and Delivery			100%
Foundation Rebar & Cages	5.00%	100%	100%	0%	100%
Breakers - Low and High Sides	15.00%	100%	100%	0%	100%
Reactors, Cap Back and Switchers	20.00%	100%	100%	0%	100%
MPT 230/34.5kV	10.00%	100%	100%	0%	100%
Grounding Transformer	5.00%	100%	100%	0%	100%
EEE - Control Building with DC Station	15.00%	100%	100%	0%	100%
Grounding Wire, Rods and Accessories	5.00%	100%	100%	0%	100%
Dead End and Static Mast	5.00%	100%	100%	0%	100%
Structural Steel and Bus	10.00%	100%	100%	0%	100%
MET Tower Foundation	5.00%	100%	100%	0%	100%
Chain Link Fence and Gates	5.00%	100%	100%	0%	100%
Construction	70%	Construction			99%
Site Preparation & Grading	3.00%	100%	100%	0%	100%
Site Aggregate and Finishing Rock	3.00%	100%	100%	0%	100%
Foundations work for substation	9.00%	100%	100%	0%	100%
Breakers, Switches, PTs, CTs	12.00%	100%	100%	0%	100%
Reactors, Cap Back and Switchers	8.00%	100%	100%	0%	100%
EEE - Energize and Finish	4.00%	100%	100%	0%	100%
Ground Grid, Conduits, Trenwa	12.00%	100%	100%	0%	100%
Structural Steel, Risers, Bus	12.00%	100%	100%	0%	100%
Collection Risers/Feeders and GTs	8.00%	100%	100%	0%	100%
EEE Wire Pull, Termination and Test	5.00%	100%	100%	0%	100%
SCADA Fiber Optic Cables Pull	4.00%	100%	95%	5%	95%
Chain Link Fence, Gates	4.00%	100%	100%	0%	100%
MPT Testing and Commissioning	4.00%	100%	100%	0%	100%
MET Tower Install, Wiring and Testing	4.00%	100%	95%	5%	95%
Substation Commissioning	6.00%	100%	100%	0%	100%
Handover of Job Books	2.00%	100%	80%	20%	80%

Substation Progress

99.4%

Comments:

- Circuit 1B was energized on 8/20/2015.

TURBINE

Item	Weighted %	Budget	Total Received	Total Remaining	Percent Complete
Deliveries	20.0%	Delivered to turbine pad			100.0%
Base	15.0%	75	75	0	100.0%
Mid	14.0%	75	75	0	100.0%
Upper Mid	14.0%	75	75	0	100.0%
Top	14.0%	75	75	0	100.0%
Nacelle	14.0%	75	75	0	100.0%
Hub	14.0%	75	75	0	100.0%
Blades	15.0%	75	75	0	100.0%
Erection	60.0%	Erection			68.0%
Base	17.0%	75	75	0	100.0%
Mid	16.0%	75	63	12	84.0%
Upper Mid	16.0%	75	42	33	56.0%
Top	17.0%	75	42	33	56.0%
Nacelle	17.0%	75	42	33	56.0%
Blades	17.0%	75	42	33	56.0%
Mechanical Completions	20.0%	Mechanical Completions			20.4%
Walk downs	33.3%	75	22	53	29.3%
MCC Submitted	33.3%	75	14	61	18.7%
MCC Signed	33.4%	75	10	65	13.3%
Turbines Progress					64.9%

Week's Highlights

- Installed one (1) WTG base. Completed base installation of all 75 turbines.
- Installed six (6) lower mid, nine (9) upper mid, top, nacelle and ten (10) blades.
- Nelson completed all grout work on 8/21/2015
- Vestas commissioned the first 4 WTG (T43, T42, T41 and T59) on Circuit 1B on 8/21/2015.
- Night crew started on 8/17/2015.
- Completed ten (10) mechanical completion walk downs – two (2) on circuit 1B and eight (8) on circuit 5. This completed all the mechanical completion walk downs on both circuit 1B and 5.

Week's Issues

- Damage to lower mid at site T53 from shipping stopped day crew from stacking. Vestas repaired and night crew stacked.
- Erection crew experienced decrease in production with long crane walks and power line drops for both cranes.

Exhibit 1 – Site Photographs



O&M Building – Planting trees on the west side



Substation



Site view - T40



Exhibit 2 – Safety Log

Formulas for TRIR and RES Safety Index calculation:

$$\begin{aligned}
 \text{TRIR} &= ((\text{Lost Time} + \text{Medical Aid}) * 200,000) / \text{Total Project Man Hours} \quad ((1+1) * 200,000 / \text{Total Project Man Hours}) \\
 \text{RES Safety Index} &= ((\text{Lost Time} * 64) + (\text{Injury} * 16) + (\text{Minor Injury} * 4) + (\text{Damage} * 1) + (\text{Near Miss} * 0.25)) / \text{Man Hours} * 1000 \\
 &= ((1 * 64) + (3 * 16) + (13 * 4) + (38 * 1) + (84 * .25)) / \text{Total Project Man Hours} * 1000
 \end{aligned}$$

#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
767	8/3/15	Safety Walk	Hazard Observation	Unknown/ Crop Dusters	Crop dusters by towers 31, 32 and 33 spraying herbicide to kill wheat crop, erection crew at T-32.	Found crop dusters at the Rolla Airport and talked with them and gave them my phone number to call and give us advance notification if possible also obtained SDS for the herbicide.	I talked with our managers on site to see if we could talk to the land owners and ask them to give us proper notification when crop dusting may be going on so we can notify our crew and subcontractors.
768	8/4/15	Safety Inspection	Hazard Observation	RES Erection	T-76 during safety walk work trucks had no cones out.	Communication Addressed	Talked with off load foreman and correction was made.
769	8/4/15	Safety Walk	Safe Work Observation	RES	Housekeeping in the laydown yard is looking poor; need to get crew's to get on top of the house keeping issues.	Environmental Condition Addressed	I will bring up with our management team.
770	8/6/15	Safety Walk	Safe Work Observation	RES Erection	Foreman came up to me and explained JHA, work scope, job area looked very well. Great attitude among all the crews.		None required at this time.
771	8/6/15	Safety Walk	Hazard Observation	RES Erection	Good JHA, work area looked well, crew member's good attitude.		None required at this time.
772	8/7/15	Safety Walk	Hazard Observation	RES Erection	I could not find JHA.	Provide Details	JHA in wrong location, Shannon located JHA and talked to crew, no strikes were issued.
773	8/7/15	Safety Walk	Safe Work Observation	RES Erection	I looked in the back of two trucks and they did not have any cones.	Communication Addressed	After Shannon talked to the crew they went to the safety office and got the cones they needed, no strikes issued.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
774	8/7/15	Safety Walk	Safe Work Observation	RES Erection	Good Communication between Tim, the crane operator and Tom the foreman Turbine 70.		None required at this time.
775	8/7/15	Safety Walk	Safe Work Observation	RES Erection	Operated Forklift smoothly, excellent communication between operator and the riggers who were hooking up the back of the trailer. Turbine 72.		None required at this time.
776	8/7/15	Safety Walk	Safe Work Observation	RES Erection	Good on inspection on rigging, well on 100% tie off, good communication with the crew. Turbine 73.		None required at this time.
777	8/7/15	Safety Walk	Safe Work Observation	RES Erection	I observed the off load crew using a 100% tie off and using a spotter on the ladder; this work was put on the JHA.		None required at this time.
778	8/7/15	Safety Walk	Safe Work Observation	RES Erection	Crew was quick with their JSEA as RES arrived at the tower. Great explanation of the hazards and safety was made to sign on to paper work. Workers were at slow, safe and with a clean area.		None required at this time.
779	8/7/15	Safety Walk	Safe Work Observation	RES	MCC crew at T-45 was inspecting their harnesses prior to the tower climb. This included RES and Vestas. Generators cords were also inspected to make sure they were in good order.		None required at this time.
780	8/7/15	Safety Walk	Safe Work Observation	RES Electrical	At the substation the MV cable crew were running cable to the sub and working carefully with all open trenches. Good egress into trenches and JSEA covered all hazards for the crew. Great presentation on their JSEA.		Good work by all present



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
781	8/7/15	Safety Inspection	Safe Work Observation	Entire Site	At the intersection of 43rd street and 109th RES Safety set up with a radar gun to monitor the speed on site. A few complaints were heard from the site about not notifying the site prior to using the radar.		Radar slowed quite a few individuals down as they were coming to site.
782	8/7/15	Safety Inspection	Safe Work Observation	Lay Down Yard	3.2 Housekeeping and Sanitation: Dumpster company has been contacted and has not responded to having the now full containers taken off site as they are now over flowing.		Company needs to pick up trash containers.
783	8/7/15	Safety Walk	Hazard Observation	RES	3.3 Fire Prevention: The RES had all fire extinguishers in good working order in the main office as well as the RES safety office. Inspections were up to date and no smoking signage in place at the fueling station.		None needed.
784	8/10/15	Safety Walk	Hazard Observation	RES Erection	T-15 tarps, cibbing and trash left behind this area's needs to be cleaned up.	Environmental Condition Addressed	Talked ton erection crew to let them know that we need to make sure all debris and trash needs to picked up before we leave the site.
785	8/10/15	Safety Walk	Safe Work Observation	RES Erection	Barricade was not erected around crane.	Communication Addressed	Talked to the Erection Foreman and Barricade are not erected. No strikes issued.
786	8/10/15	Safety Walk	Safe Work Observation	VESTAS	Vestas tech. performing blade repairs on T-6 good JHA, blade tech suing the proper PPE for fiber glass work and using the proper tools for the job.		None required at this time.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
787	8/13/15	Safety Walk	Hazard Observation	RES Erection	T-20 crane properly barricaded, Good JHA, Good explanation of work being performed, all trucks had cones, over all good job.		None required at this time.
788	8/13/15	Safety Walk	Hazard Observation	World Wind & Solar	T-59 pulled up on pad and noticed a World Wind & Solar worker with no safety glasses on, truck also had no cones displayed.	Communication Addressed	Talked to the worker without his safety glasses on he said he did not have clear glasses, I had him return to his office and get a pair, also had them get cones for the truck. No strikes issued correction made.
789	8/13/15	Safety Walk	Hazard Observation	World Wind & Solar	T-40 World Wind & Solar truck had no cones displayed.	Communication Addressed	Worker's cones had been taken from his truck in the laydown yard he was not aware they were missing until he got to the pad, the worker returned to his company trailer and retrieved new cones. No Strike issued.
790	8/13/15	Safety Walk	Safe Work Observation	VESTAS	T-25 two VESTAS trucks had no cone's worker up tower so I was not able to talk to them.	Communication Addressed	VESTAS Safety was called to correct the issue. No strikes issued.
791	8/13/15	Safety Walk	Safe Work Observation	RES Erection	T-26 erection crew preparing to use a man basket to clean a blade already erected, good job on team tailgate meeting, good attitude with the crew, good communication with other subs in the area, man basket inspection completed.		None required at this time.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
792	8/13/15	Safety Walk	Safe Work Observation	RES Cable and Earth	Crew working near county road 107, good JHA, good explanation of job scope and the hazards, cones in place on the road and truck, good job.		None required at this time.
793	8/13/15	Safety Walk	Safe Work Observation	RES Erection	At T-27 all were working safe, crane barricaded off, and cones in place.		None required at this time.
794	8/14/15	Safety Walk	Safe Work Observation	RES Erection	Top out crane was being walked from the east side of highway 30 to the west and all measures had been taken to reroute any traffic around. All alternate roads were manned so that the locals would not have a long wait.		None were needed.
795	8/14/15	Safety Walk	Safe Work Observation	RES Erection	T-77 the off load crew were unloading the blades. 100% tie off was being practiced when climbing to hook up the rigging. RES inspector called for the tag lines to be kept tighter and no one to walk under any suspended loads.		Crew was working safely.
796	8/14/15	Safety Walk	Safe Work Observation	RES Erection	T-79 the RES inspector called for more help with the rigging to make sure the load was secure. Good hand signals along with communication between the equipment operators and riggers.		Man power was called for and presented themselves.
797	8/14/15	Safety Walk	Safe Work Observation	RES Erection	Offloading the nacelle along with the hub the crew had just inspected their rigging to make sure it was safe to use. Crew coordinated hand signals with radio communications very well.		Everything looked good.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
798	8/14/15	Safety Walk	Safe Work Observation	RES Erection	Off load crew at T-21 were off loading the base and lower mid. Foot traffic in the area were making good eye contact with the equipment operators before crossing into their path or work areas.		Good safe work.
799	8/14/15	Safety Walk	Safe Work Observation	RES Erection	While offloading the hub the RES inspector noted that the person holding on to the ladder took a better hold to allow the climber to enter the hub safely. Good work by the crew but took a slow start.		Crew was paying good attention.
800	8/14/15	Safety Walk	Safe Work Observation	RES Erection	The crane walk from 21 to 22 was maintained well with eye contact amongst the crew. Radios and hand signals were used to communicate with all parties during the road closure.		Everything was communicated to all persons in the area.
801	8/14/15	Safety Walk	Safe Work Observation	RES Electrical	MV cable was attempting to pull the underground cable from the north side of the RES trailers to the intersection of 106th and 109th.		All was going as planned.
802	8/14/15	Safety Walk	Safe Work Observation	Rosendin Electric	Substation sub was cleaning up all areas of their area as they were about to move off site once finished with the punch list walk thru with RES and owner.		Rosendin was taking their time and not being careless.
803	8/14/15	Safety Walk	Safe Work Observation	RES Civil	On 52nd & 109th the civil crew was blading the roads and improving driving conditions. Signage was set out to warn onsite workers and local farmers in the area.		None needed.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
804	8/14/15	Safety Inspection	Safe Work Observation	RES Civil	On 52nd and 43rd the backhoe operator was clearing the culvert for removal of some culverts and cleaning out of vegetation in the ditches.		None needed.
805	8/14/15	Safety Inspection	Safe Work Observation	RES Erection & RES Civil & Electrical	3.15 SDS: Both RES trailers do contain all their SDS sheets that cover all chemicals that they use. Workers do know that these items are also in the RES Safety trailer.		None needed.
806	8/14/15	Safety Inspection	Safe Work Observation	RES	3.16 Personal Protective Equipment: All RES employees know that the safety office has all required PPE in the office for work being conducted on site. Any items that are worn or no longer proper to use can be replaced at any time.		None needed.
807	8/16/15	Safety Inspection	Safe Work Observation	RES	3.6 Hand Tools. Site wide inspection of hand tools in the laydown yard and tool trailers on site all tool are in good condition.		None needed.
808	8/16/15	Safety Inspection	Safe Work Observation	RES	3.7 Power Tools. All power tools inspected at the job location were in good condition no faulty tool found.		None needed.
809	8/16/15	Normal Work Activities	Damage	RES	3.8 Ladders. Site inspection found no defective ladders all were in good condition.		None needed.
810	8/18/15	Normal Work Activities	Hazard Observation	RES Cable and Earth	Statement says that Jeff Kaloplastos was loading the truck with a shove head/loader when a piece of MV cable fell off tapping the back window causing it to shatter.	Communication Addressed	Trucks being loaded with any materiel should have headache racks to avoid this type of incident. No strikes issued.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
811	8/18/15	Safety Walk	Safe Work Observation	Unknown	T-13 17August15 Erection foreman report that someone had stolen items from the pad and entered the tower leaving beer bottles in the base and top of the base, crane was also tampered with no damage to the crane.	Provide Details	Our onsite security was notified and also the local sheriff's department to keep an eye out for any suspicious activities, in our morning meeting everyone has been advised to make sure trailers, tools and equipment are secure at the end of their shifts.
812	8/20/15	Safety Walk	Safe Work Observation	RES Erection	T-38 Erection crew good JHA, good greeting, all the crew were picking up trash, doing equipment cleaning.		None required at this time.
813	8/20/15	Safety Walk	Safe Work Observation	Res Erection	T-32 meet lead that are doing the tower cleaning, good JHA, good work area clean, drop zone set up, over all looked good.		None required at this time.
814	8/20/15	Normal Work Activities	Near Miss	Res Erection	T-31 crew preparing for MCC walk down, good JHA, good tool inspections, and generator properly grounded.		None required at this time.
815	8/20/15	Safety Walk	Safe Work Observation	RES Cable and Earth	County road 52nd worker installing a junction box was attempting to move the box and move large cables, the lid of the junction box closed on the worker right hand thumb, minor first aid ice on the finger, pinch point concern.	Communication Addressed	Safety Supervisor and cable crew all agree that the lid to the junction box from now on needs to secure with a strap or rope to prevent the lid from slamming closed and must be reviewed by the crew and added on to the JHA.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
816	8/20/15	Safety Walk	Safe Work Observation	RES & VESTAS	T-49 arrived to inspect large blade damage, both crews good greetings, good JHA, and all good use on all PPE, over all great job.		None required at this time.
817	8/20/15	Safety Walk	Safe Work Observation	RES Civil	The crew barricaded the forklift which had to be left in the road, flashers left on which meet NDOT requirements.		None required at this time.
818	8/20/15	Safety Walk	Safe Work Observation	VESTAS	Two people helped move the ladder instead of lifting and one person struggling, when ladder was set up the other worker help hold the ladder to keep it from falling.		None required at this time.
819	8/20/15	Safety Walk	Safe Work Observation	RES	T-59 All vehicles were parked at the edge of the pad backed in, staying well outside the drop zone. Stairs were barricaded and do not enter sign was access to block unauthorized personal from entering the tower.		None required at this time.
820	8/20/15	Safety Walk	Safe Work Observation	RES	T-2 Crew had cones out drop zone and trucks, contact number displayed, do not enter sign across stairs.		None required at this time.
821	8/20/15	Safety Walk	Safe Work Observation	RES	T-5 Crew was pulling tools up the tower using a rope they would block off the entry so no one could pass under the drop zone.		None required at this time.
822	8/20/15	Safety Inspection	Safe Work Observation	RES	T-28 while working up tower wind shifted direction, crew climbed down tower to move generator so exhaust would not enter the tower.		None required at this time.
823	8/21/15	Safety Inspection	Safe Work Observation	RES	3.15 SDS books and chemicals outside the tool trailers are in compliance.		None required at this time.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
824	8/21/15	Safety Inspection	Safe Work Observation	RES	3.16 PPE inspection on erection crew's all in compliances.		None required at this time.
825	8/21/15	Safety Walk	Hazard Observation	RES	3.17 Working at heights on several locations T-42 and T-13 checking climbing gear with crew's climbing and also approved tie off points all in compliance.		None required at this time.



Exhibit 3 – Environmental Log

Formula for the Rolling Incident Score =

$$((\text{Major Incident} * 16) + (\text{Minor Incident} * 4) + (\text{Near Miss} * 0.25) + (\text{Observation} * 0)) * 1000 / \text{Total Man Hours}$$

#	CLASS	SUB-CAT	CONTR ACTOR	DATE	INCIDENT DETAILS	ACTION TAKEN TO CORRECT SITUATION	ACTION TAKEN TO PREVENT REOCCURANCE
109	Observation	Informational	RES	8/17/15	Received 2 new waste bins from Waste Management Inc to keep up with the trash onsite and inability by the existing vendor to pick up trash regularly	No action required	No action required
110	Observation	Informational	RES	8/18/15	3 filled bins for mixed (wood, plastic and cardboard) recycling material has been removed off site.	No action required	No action required
111	Observation	Informational	RES	8/20/15	2 filled bins for mixed material (plastic and cardboard) and 1 bin of aluminum to be recycled has been removed off site.	No action required	No action required



Exhibit 4 – Quality Log

- Incidents - None
- CPARs - 1
- NCRs - 10

NCR log

Description of Material	NCR Opened	NCR Closed	Total NCR Open	Total NCR Closed
	(Current Week)	(Current Week)	(As of this Week)	(As of this week)
Totals	1	1	4	7
NCR-2015-026 for not having 115V outlets at work locations per page 1 exhibit I of the Purchase and Sale Agreement.			X	
NCR CPAR 23053-004 Sent to Vestas concerning the high rate of damage to the turbine blades during shipping			X	
NCR-2015-024 Concerning tower door to be facing south.			X	
NCR-2015-016 Backfills and compactions of the turbine bases in freezing conditions			X	



Exhibit 5 – RFI Log

Outgoing RFIs

	Generated By	Company	Sent To	Company	Subject	Date Sent	Response Requested By	Type: Civil, Electrical, etc.	Status / Comments	Date Closed
23053-030	Shabeeb Khader	RES	Bradley Morrison	Xcel Energy - Generation	Install crushed aggregate on the substation site	10/31/14	11/6/14	Civil		
23053-096	Emad Alaydi	RES	Ritchie Farmer	Vestas	Ice detection documentation	06/22/15	06/29/15	SCADA	Vestas responded on 6/23/15. Awaiting additional info	
23053-098	Emad Alaydi	RES	Ritchie Farmer	Vestas	VPN Tunnel in tunnel communication	06/25/15	07/02/15	Turbine	Vestas responded. Awaiting additional info	
23053-105	Kyler Leen	RES	Kyle Louis	REI	Feeder Fault Clearing Time	7/27/2015	7/29/2015	Substation		



Exhibit 6 - Change Order Request Log

CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
1	06/11/15			Change in the landscaping design - larger trees for windbreak at O&M	\$ 3,176.00	RES and Xcel agreed to split total cost of \$6,352.00
2	06/11/15			Storm shelter changes at O&M	\$ 11,907.00	RES to request additional information from ABS on who directed the changes
3	06/11/15			Changes in final design vs specification of electrical layout at O&M	\$ 2,300	RES is still working through the changes
4	06/11/15			Changes in security system at O&M	\$ 8,936.00	Xcel requested breakdown of changes and the delta
5	06/11/15			Changes in the Control Building - Increasing the station service transformer, additional switch requests, and additional landings at entrance doors	\$ 36,141.00	<p>Station Service transformer sizing – Original station service transformer sizing was done at 50kVA. This was based on historic numbers initially and was later proven by station service calculations. Xcel requested to change this to 100kVA, since that is the Xcel standard (was requested at the 90% design review meeting). RES reviewed the Xcel standards provided and did not see this requirement anywhere in the standards provided. This increase in station service size also required upgrading multiple disconnect and safety switches from 200A to 400A rating in order to meet the requirements of the 100kVA station service transformer to be installed per the Xcel direction/request.</p> <p>Additional switch requests - Xcel requested during the 90% design review meeting that safety disconnect switches be moved from inside the control building to the outside. This requires the installation of waterproof cabinets for the switches. Xcel also requested an additional yard cabinet to connect and supply larger equipment from the AC system.</p> <p>Addition of landings at entrance doors – this was added at the 90% design review meeting per Xcel request and was not evident for the provided Xcel specifications.</p>



CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
6	06/11/15			Upgrade from SEL351 to SEL421 relay and bus relays at the substation	\$ 163,789.00	Industry standard for wind farm collection circuits are to install SEL351 relays (O/C & G/F) relays to protect the collector systems. Collection systems (although balanced) are considered distribution circuits, since they are four wire systems, with a ground reference transformer connected to each circuit. The collection circuits are insulated to 150kV BIL, which is further evidence that they are considered as distribution feeders (compared to the 200kV BIL insulation levels typically associated with transmission lines/circuits). Xcel identified the requirement to install SEL 351 relays on Distribution feeders. During design review meetings, Xcel classified these as transmission lines and required the installation of step distance protection (SEL421 relays). This resulted in additional cost. The 34.5kV bus differential relays subsequently were also upgraded from distribution bus relays to transmission class bus diff relays with 100% redundancy
7	06/11/15			Addition of three additional shield masts at the substation	\$ 73,838.00	The original substation design utilized a combination of shield masts and shield wires in order to establish a lightning shielding system for the substation equipment. During the 60% design review meeting Xcel indicated they do not allow shield wires to span over top of equipment and requested that the shield wires be removed and that lightning shielding protection be done with shield masts. This requirement is not seen in any of the supplied specifications. This required the addition of 3 additional shield masts and thus additional cost.
8	06/11/15			Addition of anchor/rigging points for the oil containment based on the change to above ground containment system at the substation	\$ 36,907.00	Xcel required an above grade containment system with a removable wall and built in rigging/anchor points in the containment system. This was not evident in any of the provided specifications or the contract agreement. The above grade construction as such does not add cost, but the inclusion of the removable wall and the addition of the anchor/rigging points that is integrated into the oil containment system does add cost
9	06/11/15			Addition of separate relay/plc controller to control the capacitor banks at the substation	\$ 23,510.00	Typical capacitor bank controls on wind farms are done by the wind farm controller through the SCADA system. Xcel requested during the 90% design review not to control the equipment through the SCADA system, but rather have a separate relay/plc controller to control the capacitor banks. This required the installation of an additional relay in order to have a dedicated controller for the capacitor banks. This was not evident from any of the supplied specifications, since Xcel does not have a standard specification for 34.5kV capacitor banks.



CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
10	06/11/15			Upgrade to the capacitor bank interlock system	\$ 10,846.00	Typical interlocks for capacitor banks only include a time delay after opening the associated capacitor/circuit switched to release a key that will unlock the ground switch and lock the switcher in the open position. Xcel requires a much more elaborate system, which in turn costs more. This was not identified in any of the supplied standard and was determined as designs progressed.
TOTAL					\$ 379,294.00	