



BORDER WINDS ENERGY PROJECT

WEEKLY PROJECT REPORT

Weekly report no:	49
Report for week period ending COB Friday:	07/03/15
Calendar week no:	27

Executive Summary

Week's Highlights

- HSQE Manager Steve Sloat was on site to conduct a site audit accompanied by Julio Jauregui, Head of HSQE operations in South America;
- Completed backfill of T11 and T34. Backfill of T10 will be complete next week;
- Applied magnesium chloride on 106th St and 52nd Ave for dust control;
- Completed cable installation for Circuits 2 and 3 and started cable installation for Circuit 4;
- Clarified locations in substation for grounding transformer installation;
- Completed the installation of six (6) WTGs; three (3) on Circuit 5 and three (3) on Circuit 6;
- Wire pulling in Trenwa and conduit continued for 34.5 kV bay and high voltage bay and cap bank at the substation;
- O&M building access doors have been locked and RES has all keys and a sign out sheet available in the main office;

Week's Key Issues

- One recordable injury occurred this week;
- Four environmental spills occurred this week;
- WTG stairs have minor damage. Vestas has been informed and making repairs



Safety

Type	Lost Time	Recordable Injury (Medical Aid)	Minor Injury (First Aid)	Equipment Property Damage	Near Miss	Safety Walks
Current Period	0	1	1	1	1	9
Project To Date	1	2	13	32	76	578

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

TRIR: Previous Week = 1.64 / Current week = 2.33

RES Safety Index: Previous Week = 0.54 / Current week = 0.75

Weeks Highlights:

- HSQE Manager Steve Sloat was on site to conduct site audit accompanied by Julio Jauregui, Head of HSQE operations in South America;
- Emphasized on staying safe and careful during the 4th of July weekend;
- Additional cones are available for new crews and personnel arriving to site.

Weeks Issues:

- One recordable injury occurred when a worker got his hand in a pinch point causing a severe laceration to his right hand. He received 5 stiches and was placed on restricted duty;
- It was identified that the last 3 injuries at the Border Wind Project have been employees that have been on the job for less than one week. Many workers that have never been on a wind project tend to be the first to sustain an injury. Discussed taking the time to watch and mentor our new workers to help lower any accident and prevent similar injuries in the future.

Project Work Hours:

- Weekly Man-Hours: 20,747
- Total Project Man-Hours: 257,479.55
- Hours Since Last Recordable Injury: 0

Environmental

Type	Major Incident	Minor Incident	Near Miss	Observation
Current Period	0	4	0	2
Project to Date	0	68	6	53

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

Rolling Incident Score: Previous week: 0.76/ Current Week: 0.76

Week's Highlights:

- Repaired the silt fence at the substation;
- Ongoing installation of straw wattles at the culvert inlet/outlet.

Week's Issues:

- Rolla region appeared hazy due to the smoke from the forest fire in Canada. Conditions remained hazy and foggy in the early morning for 4 days (6/29-7/2/15);
- Wood recycling bin is full and needs replacement. Received large quantity of wooden pallets on site to be recycled following deliveries. The bin will be replaced next week;
- Site experienced four (4) leaks with all of them documented, cleaned and disposed properly in the waste container;
 - 1 quart of diesel leaked while fuelling was found on the ground in the laydown yard;
 - 1 quart of hydraulic fluid leaked from a turbine delivery truck due to normal wear and tear at T40 offload site;
 - 2 quarts of radiator fluid leaked after a belly dump tried to drive away after dumping aggregate
 - 1 cup of oil from unknown source found on the ground in the laydown yard.

Quality

Type	RES Issued NCRs			RES Issued CPARs			Client Issued NCRs			Client Issued CPARs		
	Issued	Open	Closed	Issued	Open	Closed	Issued	Open	Closed	Issued	Open	Closed
Current Period	0	0	0	0	0	0	0	0	0	0	0	0
PTD	3	0	3	0	0	0	8	2	6	0	0	0

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

Week's Highlights:

- Building & Earth: Performed density tests for collector trench backfills, roads, radii and culverts, tested Class 5 material with gradations every 2500 cubic yards, witnessed proof rolls for crane pads, performed density tests for crane pad base material final grade and completed samples and compressive strength tests of grout cubes;
- RRC: Monitored T-34 foundation backfill, all lifts passed density tests;
- Nelson Wind repaired the damage to the concrete on T-25 pedestal.

Week's Issues:

- Engineer of Record was on site to inspect the issues with NCR-2015-016 (WTGs backfilled during winter); an answer will be forthcoming to clear the NCR.



SCHEDULE STATUS

Project duration	68
No. of weeks into contract	51
Contract time passed (%)	75%

Key Activities (Construction)	Weighted %	Percent Complete		
		Contract Schedule	Construction Schedule	Actual
Design Engineering	2.5%	100.0%	100.0%	100%
Roads & Crane Pads	20.0%	100.0%	80.0%	71%
Foundations	20.0%	100.0%	100.0%	99%
Collection System	21.5%	79.0%	73.0%	68.5%
Substation	15.0%	93.0%	88.0%	61%
O&M Building	6.0%	100.0%	97.0%	97%
WTG Delivery, Erection, & MCC	15.0%	27%	27%	13.9%
Overall Actual Percent Complete				70.2%

PROGRESS REPORT

PERMIT STATUS

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

CONSTRUCTION STATUS

Certificates	Total	Submitted	Signed
Foundation Completion Certificate	75	71	71
Mechanical Completion Certificate	75	0	0
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 & CRANE PADS

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Roads	70%	Roads			80.0%
Rough Grade	30%	137,622	152,837	(15,215)	111.1%
Sub Grade	30%	137,622	141,772	(4,150)	103.0%
1st Lift	20%	137,622	153,875	(16,253)	111.8%
Shoulders	10%	152,837	0	152,837	0.0%
Ditches	10%	152,837	0	152,837	0.0%
Crane Pads	30%	Crane Pads			51.3%
WTG Site Ready for Delivery	30%	75	36	39	48.0%
Cut & Subgrade Compacted	40%	75	40	35	53.3%
Material Placed & Compacted	30%	75	39	36	52.0%

Road and Crane Pad Progress 71%

Comments:

- Completed twelve (12) crane pads with road base;
- Applied magnesium chloride on 106th St and 52nd Ave.

FOUNDATIONS

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	74	1	98.0%

Foundation Progress 99.7%

Comments:

- Completed backfill on T11 and T34. Backfill on T10 will be completed next week.

COLLECTION SYSTEM

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
Deliveries	30.0%	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	50.0%	Installations			65.1%
Trench	40.0%	278,230	183,449	94,781	65.9%
MV & Fiber/Ground Cable	50.0%	297,945	211,397	86,548	71.0%
Junction Boxes	10.0%	28	9	19	32.1%
Terminations	20.0%	Terminations			29.6%
MV Cable at WTG switch gear	45.0%	75	1	74	1.3%
Junction Boxes	35.0%	28	9	19	32.1%
Underground MV Splices	20.0%	27	24	0	88.9%

Collection System Progress: 68.5%

Comments:

- Completed cable installation for Circuits 2 and 3;
- Started cable installation for Circuit 4;
- Staged JB in Circuit 4 for future installation;
- Completed bores at O&M building/ Completed all bores required on site;
- Completing splices on Circuits 2 & 3 as the sites become dry enough for installations;
- Performing restoration at west end of substation in wetland to install collection circuits into substation;
- Clarified locations in substation for grounding transformer installation;
- Terminated the switchgear at T23.

O&M BUILDING

Activity Description	Weighted	Total	Remains	Completed
Design	4.0%	100%	0%	100%
Earthworks	8.0%	100%	0%	100%
Delivery	5.0%	100%	0%	100%
Building Erect and enclose	8.0%	100%	0%	100%
Grading and Drainage	6.0%	100%	10%	90%
Foundation Floor slab	9.0%	100%	0%	100%
Electrical prep, rough-in and trim out	5.0%	100%	0%	100%
Plumbing prep, rough-in and trim out	8.0%	100%	0%	100%
Internal Walls & Ceiling	9.0%	100%	0%	100%
Finishes prep, rough-in and trim out	12.0%	100%	0%	100%
HVAC	8.0%	100%	0%	100%
Septic System	4.0%	100%	0%	100%
Water Service	4.0%	100%	5%	95%
Cleaning and Shop Finish	4.0%	100%	0%	100%
Security System & Fence	4.0%	100%	18%	87%
Landscaping	1.0%	100%	100%	0%
Asphalt	1.0%	100%	100%	0%
Total				97%

Comments:

- Water quality test results are pending;
- Completed all fence installations including all gate work;
- VTI installed all security cameras, intercom and all card readers. A final site visit is required to integrate with Xcel's server and equipment;
- Continue work on the punch list items; the majority of the work is completed;
- Remaining grading work outside the fence will commence in mid-July and landscaping work will follow;
- Asphalt work will be performed in mid-August;
- The building access doors have been locked and RES has all keys and a sign out sheet available in the main office.

SUBSTATION

SUBSTATION								
#	Org	Activity Description	TIME Weight	QTY PLANNED	QTY DONE	QTY REMAINING	% Completed	Unit
1	REI	Engineering	5.0%				100.0%	%
2	REI	Submittal & Approval Drawings	40.0%	100	100	0	100.0%	%
3	REI	Issue of Construction Drawings	60.0%	100	100	0	100.0%	%
4	REI	Procurement & Delivery	40.0%				88.0%	
6	REI	69kV DEAD TANK CIRCUIT BREAKER, 3000A	5.0%	4	4	0	100.0%	EA
7	REI	69kV DEAD TANK CIRCUIT BREAKER, 1200A	5.0%	4	4	0	100.0%	EA
8	REI	253kV CIRCUIT BREAKER, 2000A	5.0%	1	1	0	100.0%	EA
9	REI	CONTROL BUILDING	5.0%	1	1	0	100.0%	EA
10	REI	DC Station Service Charger, Batteries, Rack...	5.0%	1	1	0	100.0%	EA
11	REI	34.5kV 3-Phase Reactor-10 MVAR (3 X 3.333mVAR)	5.0%	1	1	0	100.0%	EA
12	REI	CAP BANK, 34.5kV, 11MVAR, with Stand	5.0%	100	100	0	100.0%	EA
13	REI	INRUSH Current Limiting Reactor	5.0%	100	100	0	100.0%	EA
14	REI	CAP BANK, Switcher	5.0%	100	100	0	100.0%	EA
15	REI	POWER TRANSFORMER 230/34.5KV	12.0%	1	0	1	0.0%	EA
16	REI	SUBSTATION STEEL / FITTINGS	5.0%	100	100	0	100.0%	EA
18	REI	Dead End & Static Mast	10.0%	100	100	0	100.0%	%
19	REI	Structural Steel	12.0%	100	100	0	100.0%	%
20	REI	Grounding Transformer	8.0%	100	100	0	100.0%	%
21	REI	MET Tower	8.0%	100	100	0	100.0%	%
22	REI	Construction	55.0%				38.8%	
23	REI	Site Preparation & Grading	5.0%	100	95	5	95.0%	%
23	REI	Site Aggregate & Finishing rock	2.0%	100	0	100	0.0%	%
25	REI	Flat Foundations	6.0%	18	18	0	100.0%	EA
26	REI	Main Power Transformer	6.0%	100	0	100	0.0%	EA
27	REI	Piers	6.0%	78	78	0	100.0%	EA
28	REI	Grounding Grid	8.0%	100	60	40	60.0%	%
30	REI	Conduits Installation	4.0%	100	60	40	60.0%	%
31	REI	Trenwa Installation	5.0%	100	30	70	30.0%	%
32	REI	Structural Steel	5.0%	100	65	35	65.0%	%
33	REI	Dead End & Static Mast	5.0%	100	85	15	85.0%	%
34	REI	Collection Circuits Risers	5.0%	100	50	50	50.0%	%
35	REI	Place Equipment and Bus	8.0%	100	35	65	35.0%	%
36	REI	Install Cables & Control Wiring	6.0%	100	0	100	0.0%	%
37	REI	Grounding Transformer	4.0%	100	0	100	0.0%	%
38	REI	MET Tower	5.0%	100	10	90	10.0%	%
39	REI	Commissioning and Testing	7.0%	100	0	100	0.0%	%
40	REI	Sub. Substantial Completion	9.0%	100	0	100	0.0%	%
41	REI	Hand Over of Job Books	4.0%	100	0	100	0.0%	%
		Substation SubcontractorTotals	100.0%	100	0	0	61.5%	%

Comments:

- Wire pulling in Trenwa and conduit continuing for 34.5 kV bay and high voltage bay and cap bank;
- Installation of conduit in HV bay for equipment;
- Installing bus in 34.5 kV bay with interconnect to MV switches;
- Terminating wire and devices for MV breaker bay area;
- Grading to prepare site for installation of MPT;
- Terminating wire in EEE for various equipment;
- Installing steel for cap bank installation;
- Performed initial survey for installation of fence.

TURBINES

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
Deliveries	20.0%	Deliveries			30.7%
Base	15.0%	75	23	52	30.7%
Mid	14.0%	75	23	52	30.7%
Upper Mid	14.0%	75	23	52	30.7%
Top	14.0%	75	23	52	30.7%
Nacelle	14.0%	75	23	52	30.7%
Hub	14.0%	75	23	52	30.7%
Blades	15.0%	75	23	52	30.7%
Installations	50.0%	Installations			12.9%
Base	17.0%	75	20	55	26.7%
Mid	16.0%	75	10	65	13.3%
Upper Mid	16.0%	75	10	65	13.3%
Top	17.0%	75	6	69	8.0%
Nacelle	17.0%	75	6	69	8.0%
Blades	17.0%	75	6	69	8.0%
MCC & Commissioning	50.0%	Terminations			0%
Walk downs	33.3%	75	0	75	0.0%
MCC Submitted	33.3%	75	0	75	0.0%
MCC Signed	33.4%	75	0	75	0.0%

Turbine Progress: 13.9%

Week's highlights

- Vestas has begun delivering WTG components according to the schedule and requested sequence;
- New replacement RT expected to arrive on 7/7/2015;
- WTG wiring complete with the exception of the bottom controller at T-23.

Week's issues

- Working with Vestas to determine routing of bologna cables and placement of earthing bar;
- WTG stairs have arrived onsite damaged and in need of repair; Vestas has been notified and has made necessary repairs and/or replacements;
- Vestas deliveries still have some delays between trucks but most are coming in before 4:30pm;
- Nacelle at T47 had a brake issue while stabbing blades resulting in 50 man hours of delay;
- T24 had damaged rivet nuts on nacelle door;
- T24 experienced electrical problems with yaw and hub rotate;
- LR 1300 has loose track issues. Buckner will be here next week to address;
- RT at T3 currently inoperable.

Exhibit 1 – Site Photographs



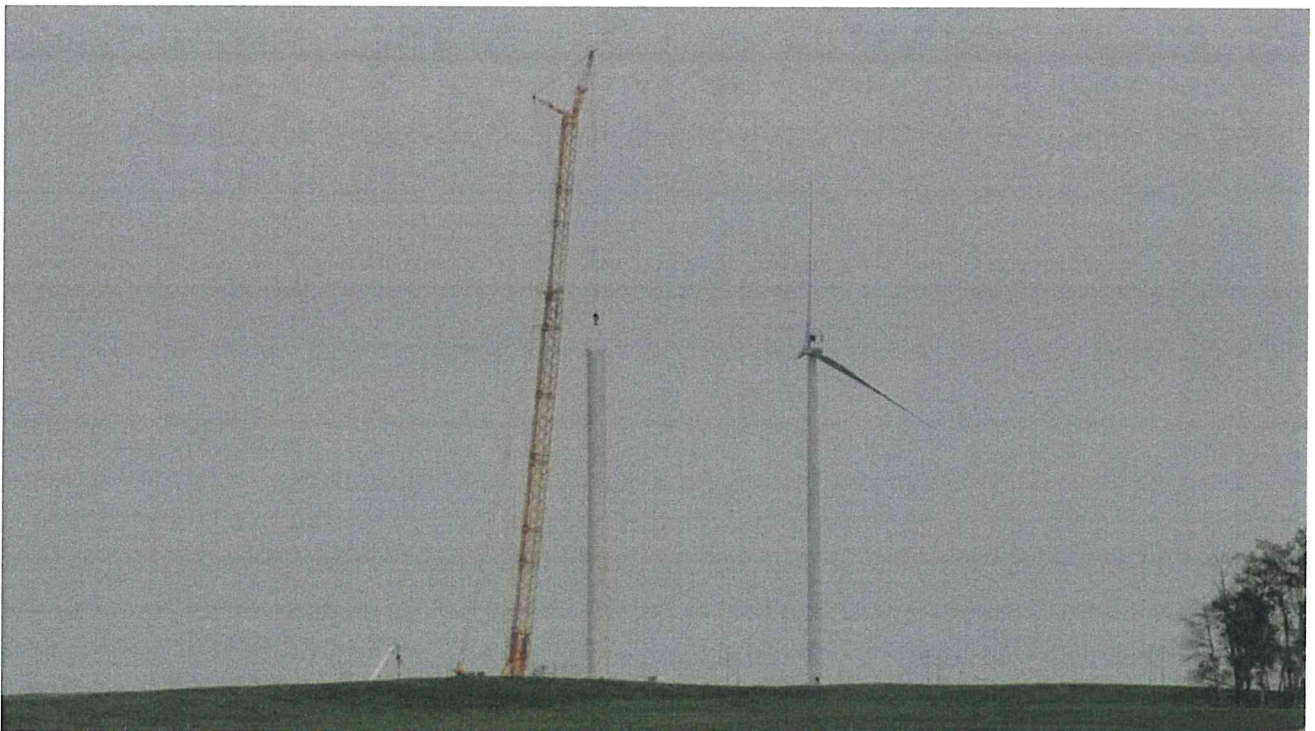
Crane pad



Substation



Substation



Upper mid installation at T46



Turbines installed at T47 and T46



Blade installation at T45



Exhibit 2 – Safety Log

Formulas for TRIR and RES Safety Index calculation:

$$\text{TRIR} = ((\text{Lost Time} + \text{Medical Aid}) * 200,000) / \text{Total Project Man Hours} \quad ((1+1) * 200,000 / \text{Total Project Man Hours})$$

$$\text{RES Safety Index} = ((\text{Lost Time} * 64) + (\text{Injury} * 16) + (\text{Minor Injury} * 4) + (\text{Damage} * 1) + (\text{Near Miss} * 0.25)) / \text{Man Hours} * 1000$$

$$((1 * 64) + (1 * 16) + (10 * 4) + (26 * 1) + (74 * .25)) / \text{Total Project Man Hours} * 1000$$

#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
692	6/29/2015	Normal Work Activities	Injury	World Wind Services	Ian Allred and his co-worker were loading a spool of electrical cable on to the trailer, Ian got his hand in between the bar for the spool and the bracket that the bar set's on causing a hand laceration.	Work was stopped, Ian found two works by the tool trailer who brought him over to the safety trailer, Ian's wound was cleaned and	Work plan is being created by World Wind, Res Safety and RES Cable foreman to prevent any re-occurrence.
693	6/30/2015	Safety Walk	Hazard Observation	RES Cable and Earth	Worker was observed standing on the top of a pile of dirt next to an open trench, trench berm not 2" back from opening.	Work was stopped and worker corrected and instructed not to stand on the pile in the event of a cave in or dirt pile sliding.	HSQE Managers Steve, Vernon and Julio explained to the work why this was not a safe practice worker understood.
694	7/1/2015	Safety Inspection	Hazard Observation	World Wind Services/ Vestas	T-123 Drop zone not established under nacelle hatch, open hole by switch gear, Employees wearing dark safety glasses in the tower. Improper tire chucks on generator.	Talked to World Wind and VESTAS to correct issues.	Strike was not issued to workers willing to help in making corrections going forward, Correction were made at the time of the audit.
695	7/1/2015	Safety Inspection	Hazard Observation	RES Self Perform	Tower cranes at T47 and T-40 improper crane barricades.	We are waiting on candle stick cones regular cones are being used for time being.	Candle stick cones and rope have been ordered once it arrive on site barricades will be properly installed.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
696	7/1/2015	Safety Walk	Hazard Observation	RES Americas	Safety walks of civil area of site compound. Found unsecured oxygen cylinder, found two hg containing lightbulbs loose in a box on the floor of a connex, two propane tanks were stored in a flammable liquid storage cage. Overall the area has improved greatly since the last HSQE visit.	The light bulbs were removed and we spoke to the yard supervisor Steve Maxwell and he agreed to secure the cylinder and relocate the propane tanks	Reviewed the issues with both the civil and turbine erection yard supervisors and explained RES policy.
697	7/1/2015	Safety Walk	Hazard Observation	Xcel Energy	Safety Walk of O&M building. Minor punch list items being addressed. Permanent eye wash is in close proximity to an electrical power box.	Brought this to the attention of the foreman. He stated that the design was based off Xcel's plans and is similar to their other O&M buildings.	Will bring the issue to the attention of the Xcel representative on site.
698	7/2/2015	Safety Walk	Hazard Observation	RES Earth and Cable	Cable trench was not properly shored, for the depth of the trench.	Improper shoring address with RES Cable and Earth foreman	Talked with RES foreman on our finding at this location, foreman corrected problem area.
699	7/3/2015	Safety Walk	Hazard Observation	A.B. Systems	At the O&M Building outside by the south fence a pipe sticking out of the barricaded area.	Improper Barricade, pipe sticking out past the barricade.	Cones were placed in front to of the pipe, until crews can go out and correct barricade issue.
700	7/3/2015	Safety Walk	Hazard Observation	Rosendin Electric	Ground rod sticking up and not marked, trip hazard.	Gave instructions to foreman to get trip hazard corrected.	Grounding rod removed, removed trip hazard.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
701	7/3/2015	Safety Walk	Hazard Observation	RES Off load crew	Nacelle not properly cribbed for hub installation.	Talked to site lead at T-31 about proper cribbing of the Vestas nacelle.	Instructed the lead and crew where to place front cribbing under the nacelle frame, because the front will be top heavy and could tip forward causing a crushing hazard and damage to the hub and nacelle.
702	7/3/2015	Safety Walk	Safe Work Observation	RES Erection	Proper sign stopping traffic from coming into erection work area.	None, this was a Safe Observation.	None, this was a Safe Observation.
703	7/3/2015	Safety Walk	Hazard Observation	World Wind Services	Worker crossing over crane pad, did not observe crane cones for barricade.	Work was stopped, Ian found two works by the tool trailer who brought him over to the safety trailer, Ian's wound was cleaned and	Safety supervisor re-trained work about the dangers of crossing through a crane barricade.
704	7/3/2015	Normal Work Activities	Near Miss	RES Cable and Earth	Employee driving a forklift was setting down a stack of cribbing and got close to another worker on the ground doing inspection.	Work was stopped and worker corrected and instructed not to stand on the pile in the event of a cave in or dirt pile sliding.	Both employees have re-trained to be observant or equipment running on the pad location and never get close to any one doing ground work with cribbing or equipment.



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
76	Minor Incident (Below RQ)	Equipment Failure or leak	All	6/30/201 5	1 quart of diesel leaked while fuelling was found on the ground in the laydown yard.	Picked up the spill with a shovel and placed in a sealed 5 gallon bucket for disposal.	Advised to place diapers on the ground while fuelling the pump
77	Minor Incident (Below RQ)	Equipment Failure or leak	Vestas	6/30/201 5	1 quart of hydraulic fluid leaked from a turbine delivery truck due to normal wear and tear at T40 offload site.	The spill was immediately controlled using absorbent pads. Used a backhoe to collect and dispose 2 ft3 of spoil into the contaminated soil bin.	Vehicle was put out of operation until fixed.
78	Minor Incident (Below RQ)	Equipment Failure or leak	Austin Harris	7/1/2015	2 quart of radiator fluid leaked after a belly dump tried to drive away after dumping aggregate.	The spill was immediately controlled using absorbent pads. Used a backhoe to collect and dispose 4 ft3 of spoil into the contaminated soil bin.	Vehicle taken off site until fixed.
79	Minor Incident (Below RQ)	Equipment Failure or leak	All	7/3/2015	1 cup of oil from unknown source found on the ground in the laydown yard.	The spoil was collected in a 5 gallon container (0.25 ft3)	Advised everyone to inspect their vehicle for leaks every morning.
80	Observation	Trash or other Refuse	All	7/3/2015	Wood recycle bin is full and will need to be taken off site by AMR	Contact AMR recycling	No action required. Request replacement special waste bin.

Exhibit 4 – Quality Log

- Incidents - None
- CPARs - None
- NCRs - 8

NCR log

Description of Material	NCR Opened (Current Period)	NCR Closed (Current Period)	Total NCR Open (As of this Week)	Total NCR Closed (As of this Week)
Totals			2	6
NCR-15-016 Backfills and compactions of the turbine bases in freezing conditions			X	
NCR-2014-38, T3 grounding was not installed per specifications			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
23053-30	Shabeeb Khader	RES	Bradley Morrison	Xcel Energy - Generation	Install crushed aggregate on the substation site	10/31/14	11/6/14	Civil	Xcel Responded. RES to perform density test.	
23053-093	Lester Archer	RES	Chris Ayika	Xcel Energy Transmission	Xcel End to End Tests	06/17/15	06/23/15	Substation		07/01/15
23053-096	Emad Alaydi	RES	Ritchie Farmer	Vestas	Ice detection documentation	06/22/15	06/29/15	SCADA	Vestas responded on 6/23/15. Requested additional information from RES	
23053-097	Lester Archer	RES	Pete Doherty	Xcel Energy - Generation	Low side bus ground	06/23/15	06/30/15	Substation		06/24/15
23053-098	Emad Alaydi	RES	Ritchie Farmer	Vestas	VPN Tunnel in tunnel communication	06/25/15	07/02/15	Turbine		
23053-099	Jessica Coffey	RES	Ritchie Farmer	Vestas	Communication cable installation	06/29/15	07/06/15	Turbine		
23053-100	Emad Alaydi	RES	Chris Ayika	Xcel Transmission	Fiber Transceiver	06/30/15	07/08/15	BW Substation		07/01/15
23053-101	John Radabaugh	RES	Ritchie Farmer	Vestas	Removing lifting yoke - nacelle	06/30/15	07/07/15	Turbine		07/01/15



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	\$ 11,000.00	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	\$ 11,151.00	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.

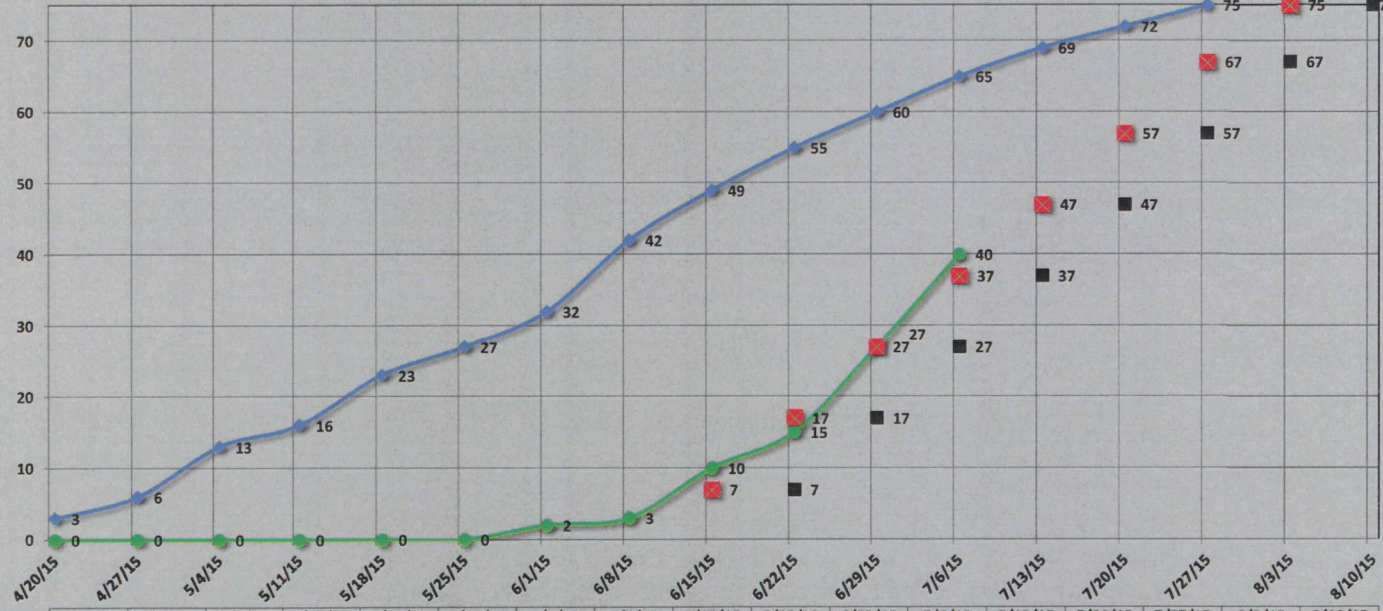


CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
10	06/11/15			Upgrade to the capacitor bank interlock system	\$ 10,846.00	Typical interlocks for capacitor banks only include a time delay after opening the associated capacitor/circuit switched to release a key that 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	

Last Updated: 7/6/2015

Border Winds - Crane Pad Completion Progress Chart

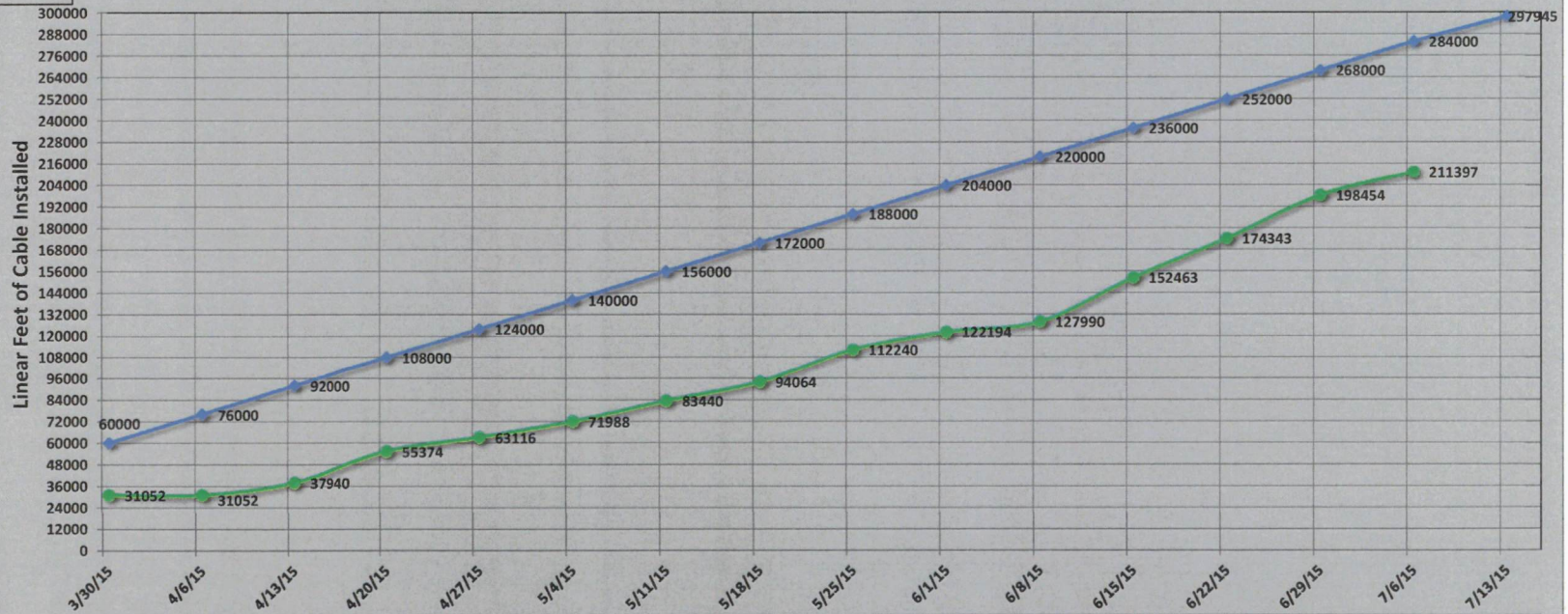
Number of Crane Pads Complete



	4/20/15	4/27/15	5/4/15	5/11/15	5/18/15	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15
Planned Crane Pads Complete	3	6	13	16	23	27	32	42	49	55	60	65	69	72	75		
Actual Crane Pads Complete	0	0	0	0	0	0	2	3	10	15	27	40					
Anticipated WTG Deliveries									7	17	27	37	47	57	67	75	
Guaranteed WTG Deliveries										7	17	27	37	47	57	67	75

Last Updated: 7/6/2015

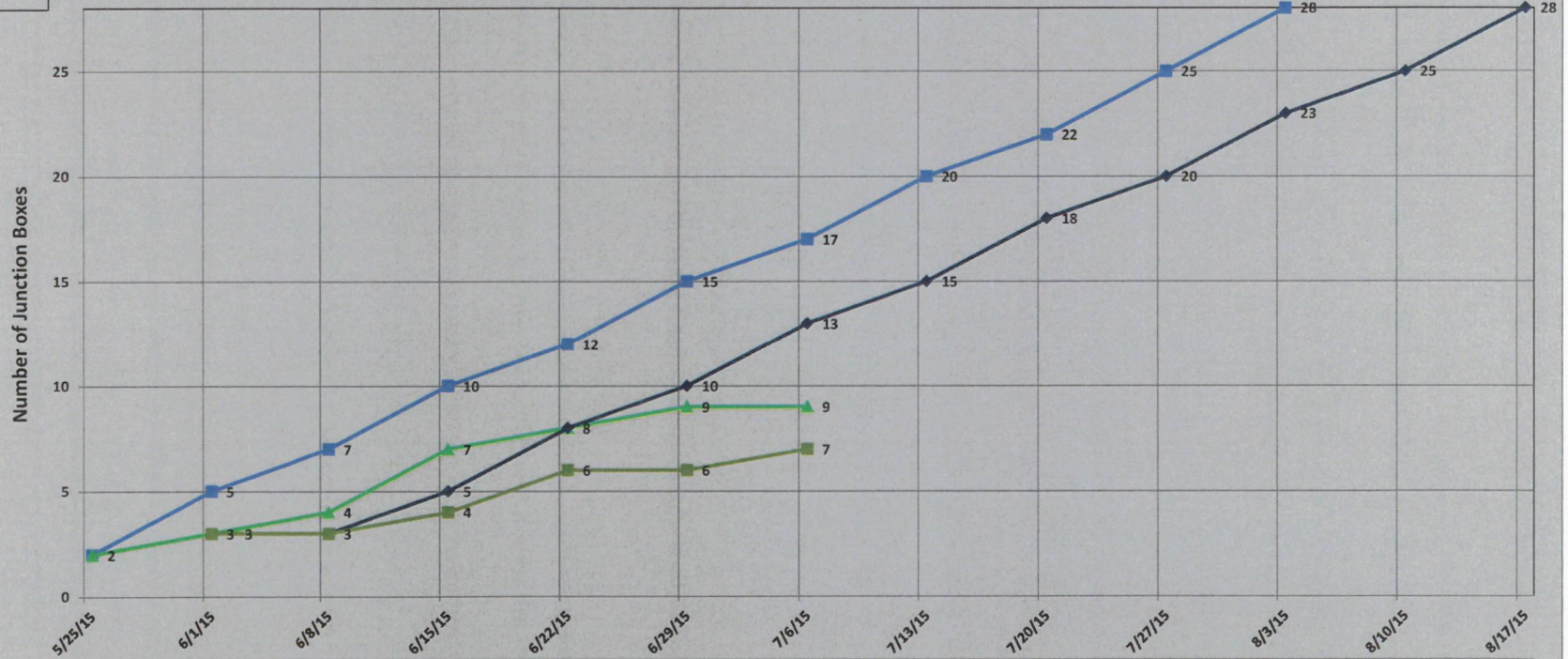
Border Winds - Cable Installation Progress Chart



	3/30/15	4/6/15	4/13/15	4/20/15	4/27/15	5/4/15	5/11/15	5/18/15	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15
Planned Cable Installation	60000	76000	92000	108000	124000	140000	156000	172000	188000	204000	220000	236000	252000	268000	284000	297945
Actual Cable Installed	31052	31052	37940	55374	63116	71988	83440	94064	112240	122194	127990	152463	174343	198454	211397	

Last Updated: 7/6/2015

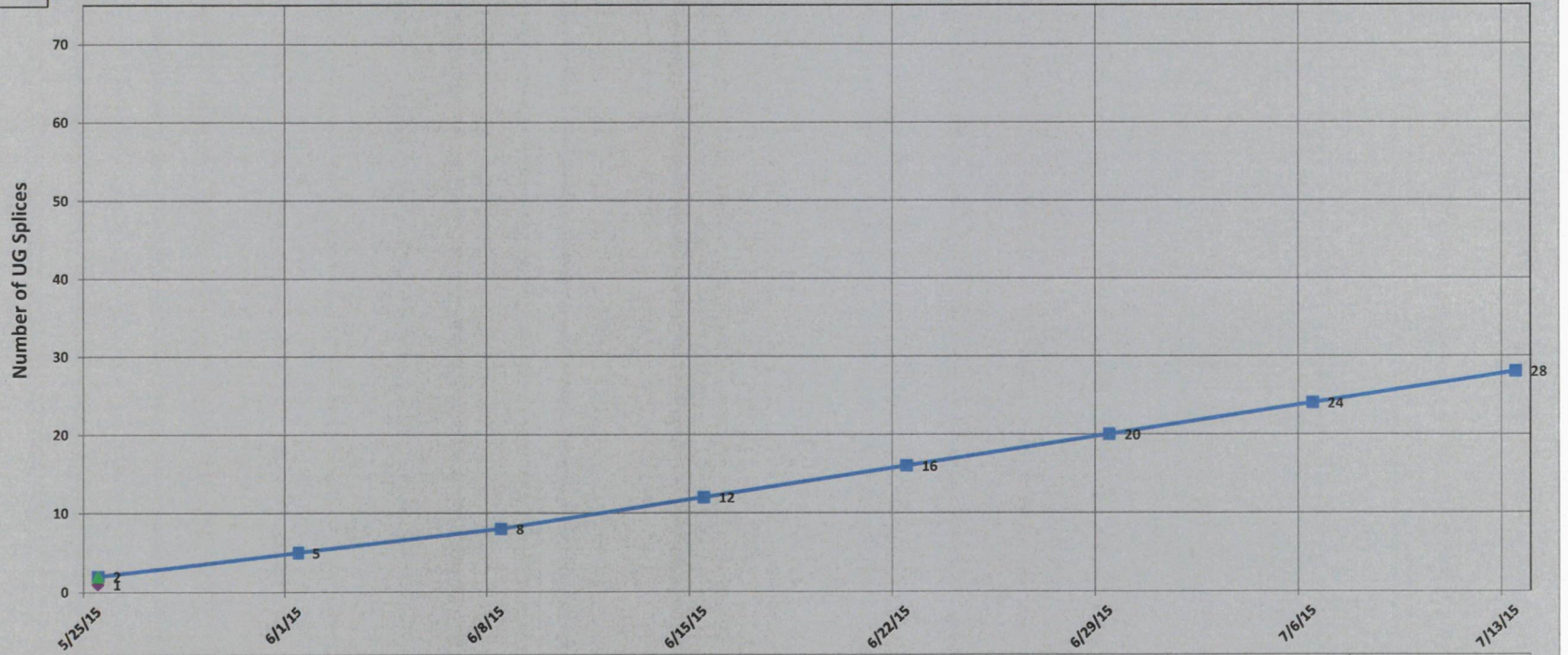
Border Winds - Junction Box Progress Chart



	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15	8/17/15
Planned JB Setting	2	5	7	10	12	15	17	20	22	25	28		
Actual JB Setting	2	3	4	7	8	9	9						
Planned JB Terminations			3	5	8	10	13	15	18	20	23	25	28
Actual JBs Terminated		3	3	4	6	6	7						

Last Updated: 5/11/2015

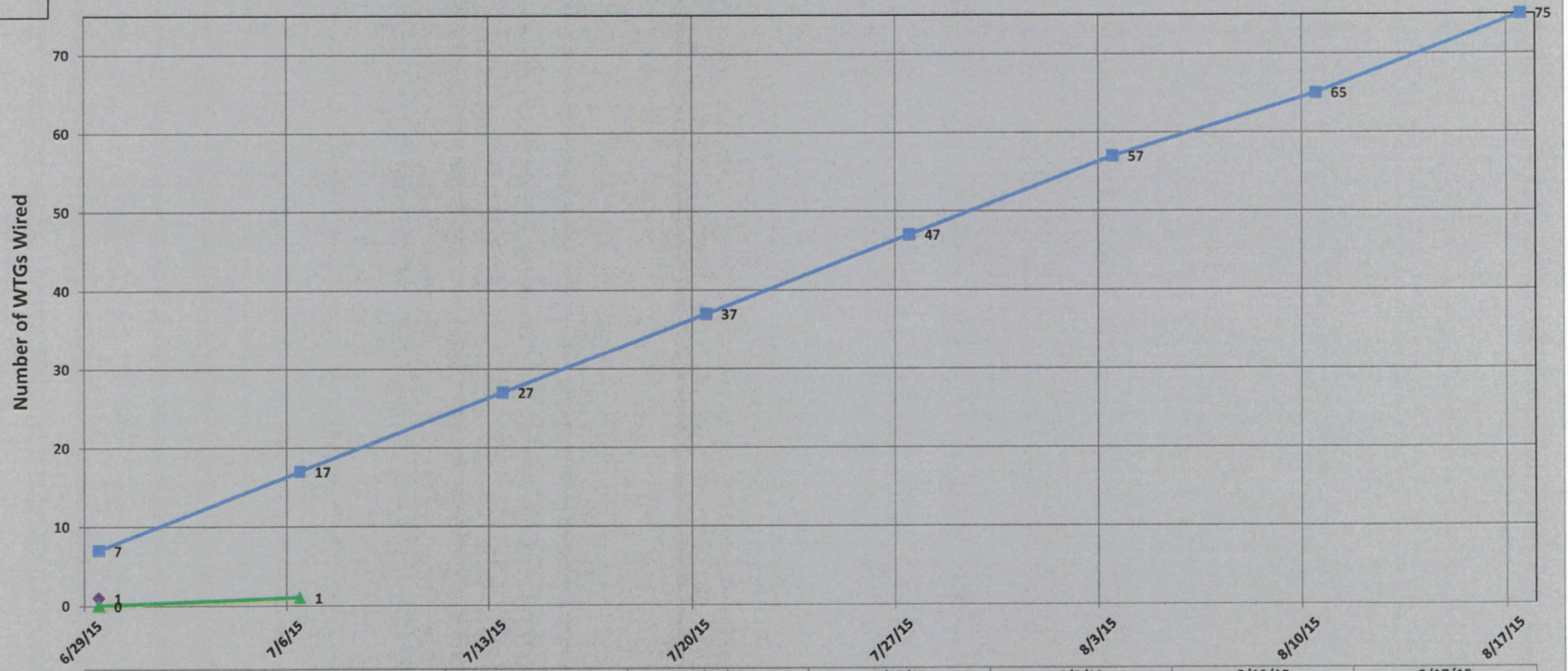
Border Winds - UG Splice Progress Chart



	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15
#REF!	1							
Planned Splices	2	5	8	12	16	20	24	28
Actual Splices	2							

Last Updated: 7/6/2015

Border Winds - WTG Wiring Progress Chart

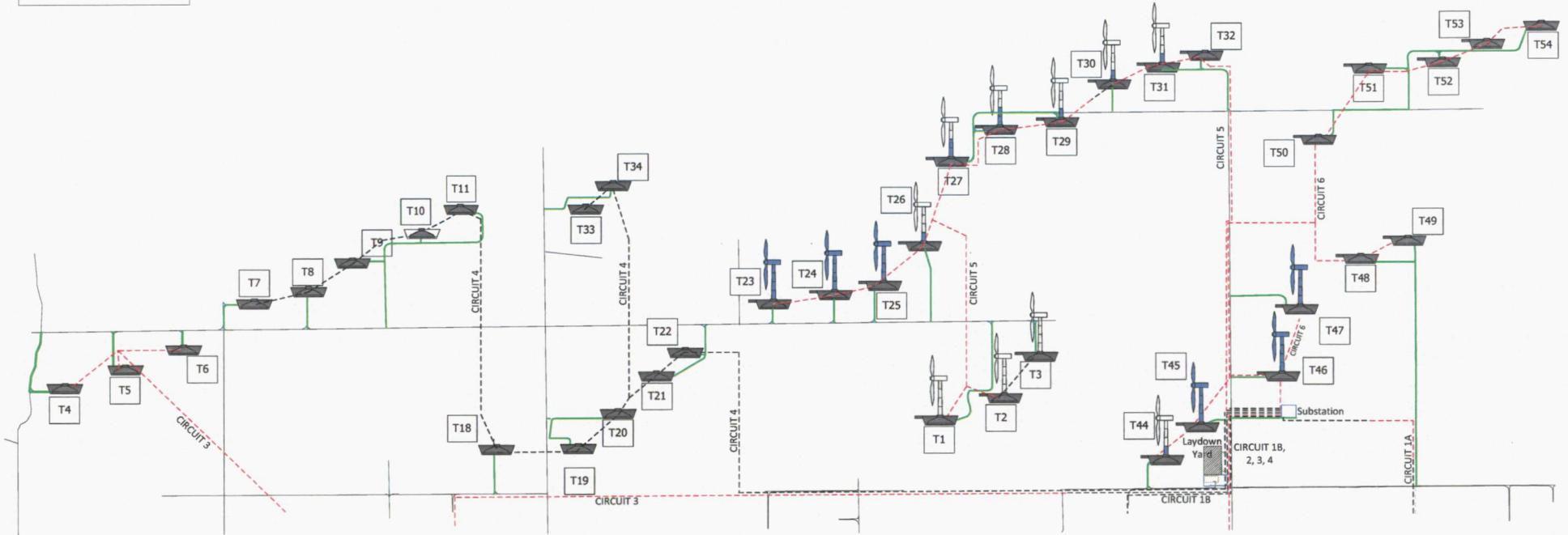


	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15	8/17/15
WTGs Ready to Wire	1							
Planned WTG Wiring Completion	7	17	27	37	47	57	65	75
Actual WTG Wiring Completed	0	1						



Updated - 07/03/2015

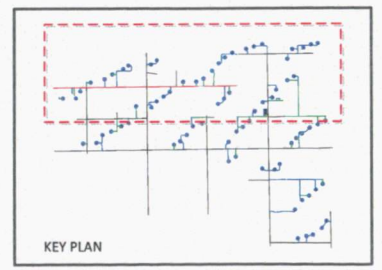
Border Winds – North Construction Progress Status Map



- road design
- road base installed
- - - - 34.5kV underground- design
- - - - 34.5kV underground- installed

foundation status		erection status	
	excavated		pedestal
	mud mat		backfilled
	base		crane pad subgrade complete
			crane pad complete

erection status	
	rotor
	nacelle
	top
	upper mid
	lower mid
	base
	delivered
	installed
	mechanically complete





Border Winds – South Construction Progress Status Map

Updated – 07/03/2015

