



BORDER WINDS ENERGY PROJECT

WEEKLY PROJECT REPORT

Weekly report no:	40
Report for week period ending COB Friday:	05/1/2015
Calendar week no:	18

Executive Summary

This Week's Highlights

- Started cable sheath testing on Circuit 5 and 6.
- Completed crane pad subgrade at T1 & T2 on Circuit 5.
- Performed test to assess the condition of the subgrade under the mud mats at T10, T11 & T34.
- Completed the 6" pour for O&M floor on Tuesday, April 28, 2015.
- Installed all electrical panels inside the mechanical room and finished all electrical rough-in.
- Finished all door framing, window trim and installed all doors at the O&M Building.
- RRC mobilized to site on Monday, 4/27/2015 for soil testing at the substation and Turbine site excavations and backfill.
- Completed all seven (7) medium voltage breakers delivery to site and foundation pour for the breakers.
- Completed the excavation and concrete pour of four (4) foundations for cap bank.
- Started mobilization of second trenching crew to site
- Received new empty bin for contaminated soil.

This Week's Key Issues

- Identified culverts on the west side of the project that required clean up. Civil crew has been working to clean them.
- Observed excessive settling at T-16 backfill after the thaw. Following procedures recommended by RES engineering, this was fixed after excavating the soft material and compacting in lifts.



Safety

*Full description of week's Safety Log can be found in Exhibit 2

Type	Lost Time	Recordable Injury (Medical Aid)	Minor Injury (First Aid)	Equipment Property Damage	Near Miss	3X20 Observation
Current Period	0	0	1	0	2	7
Project To Date	1	0	10	20	70	473

Previous Week's TRIR = 1.27 / Current Week's TRIR = 1.27

((Lost Time + Medical Aid) * 200,000) / Total Man Hours

Previous Week's RES Safety Index = 0.87 / Current Week's RES Safety Index = 0.87

((Lost Time * 64) + (Injury * 16) + (Minor Injury * 4) + (Damage * 1) + (Near Miss * 0.25)) / Man Hours * 1000

Weeks Highlights:

- Improved the work and arrangement around the laydown yard with everyone's contribution
- Rosendin Electric new Safety Supervisor Oscar Vasquez has arrived on site on 04/29/15.

Weeks Issues:

- Monthly inspections of tools and equipment color coded for the month April were not all completed. Next week Safety Supervisors will work with team members to ensure inspections are completed.

Project Work Hours:

- Weekly Man-hours: 3,815.50
- Total Project Man-hours: 165,302
- Hours since Last Recordable Injury: 63,072.50



Environmental

*Full description of week's Environmental Report can be found in Exhibit 2

Type	Major Incident	Minor Incident	Near Miss	Observation
Current Period	0	1	0	1
Project to Date	0	53	3	32

Rolling Incident Score: Previous week: 0.95 / Current Week: 0.96

((Major Incident * 16) + (Minor Incident * 4) + (Near Miss * 0.25) + (Observation * 0)) * 1000 / Total Man Hours

Week's Highlights:

- Received new bin for contaminated soil.
- Ongoing BMP inspection and efforts to keep the site clean.

Week's Issues:

- Identified culverts on the west side of the project that required clean up. Civil crew has been working to clean them.
- Site experienced one minor radiator leak (1 quart) from a belly dump truck while trying to pull itself from the aggregate. The leak was controlled with absorbent pads and disposed into the contaminated soil bin
- The contaminated soil bin, trash and steel bins are full and will be taken off site next week.

Quality

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

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	7	1	6	0	0	0

Week's Highlights:

- Building & Earth checking density's for collector trench backfills, roads and culverts, testing Class 5 material gradations & processing proctors.
- Monitored construction at the O & M Building.
- Monitored concrete placement for the slab on grade at the O&M building.
- Collecting information and assembling Job Books.
- RRC mobilized to site on Monday, 4/27/2015 for soil testing at the substation and Turbine site excavations and backfill.
- Ongoing monitoring of collector trenching, backfills, site compactions, culvert installations.



Week's Issues:

- Observed excessive settling at T-16 backfill after the thaw. Following procedures recommended by RES engineering, this was fixed after excavating the soft material and compacting in lifts.

Schedule Status

Project duration	68
No. of weeks into contract	42
Contract time passed (%)	62%

Key Activities (Construction)	Weighted %	Percent Complete		
		Contract Schedule	Construction Schedule	Actual
Design Engineering	2.5%	100%	100%	100%
Roads	14%	100%	83%	85%
Crane Pads	6%	0%	3%	3%
Foundations	20%	100%	95%	95%
Collection System	20%	46%	40%	39%
Substation	10%	55%	34%	28%
WTG Delivery, Erection, MCC	20%	0%	0%	0%
O&M Building	5%	100%	61%	55%
Completion	2.5%	0%	0%	0%
Overall Actual Percent Complete				43%

PROGRESS REPORT

Permit Status

Permit Type / Description	County / State	Responsible Group	Date Needed By	Status
O&M Well Permit	ND State	AB Systems	8/30/15	Pending submittal

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			69%
Clear and Grub	20%	152,837	152,837	0	100%
Subgrade	25%	152,837	141,346	11,491	92%
Place and Compact Road Base	30%	207,469	185,555	21,914	89%
Shoulders	15%	152,837	0	152,837	0%
Ditches	10%	152,837	0	152,837	0%
Crane Pads	30%	Crane Pads			2%
Shape and Compact Sub Grade	40%	75	4	71	6 %
Place and Compact Road Base	60%	75	0	75	0%

Comments:

- Completed crane pad subgrade at T1 & T2 on Circuit 5.
- Ongoing culverts installation, clean up and repairs.
- Continuing to maintain 108st following damages due to haul trucks and snow thaw.

FOUNDATIONS

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Excavations	10%	75	71	4	95%
Mud Mats	5%	75	71	4	95%
Bases	45%	75	71	4	95%
Pedestals	20%	75	71	4	95%
Backfilled	15%	75	71	4	95%
Vestas Ground Kit	5%	75	71	4	95%

Foundation Progress 95%

Comments:

- Continue working at T4, T10, T11 & T34 to thaw and allow water drainage;
- Completed compaction on the backfill at T16 after observing soft spots after spring thaw.
- Performed test to assess the condition of the subgrade under the mud mats at T10, T11 & T34.
- Continuing dewater at T4.



COLLECTION SYSTEM

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
Deliveries	30.0%	Deliveries			91%
Grounding Transformers	10.00%	6	0	6	0%
MV Cable 3/0 AWG AL	15.00%	308,288	314,910	0	100%
MV Cable 350 Kcmil AL	7.50%	140,708	143,964	0	100%
MV Cable 750 Kcmil AL	15.00%	217,740	208,085	0	100%
MV Cable 1000 Kcmil AL	7.50%	88,167	90,485	0	100%
MV Cable 1250 Kcmil AL	20.00%	147,069	150,472	0	100%
Fiber 12 count	2.50%	328,520	336,590	0	100%
Fiber 120 count	2.50%	6,587	6,587	0	100%
Ground Cable	10.00%	299,663	299,663	0	100%
Junction Boxes	5.00%	28	28	0	100%
Rubber Goods	5.00%	1420	1420	0	100%
Installations	50.0%	Installations			20%
Trench	60%	278,230	59,180	219,050	21%
MV & Fiber/Ground Cable	30%	297,841	67,810	230,031	23%
Grounding Transformers	5%	6	0	6	0%
Junction Boxes	5%	28	0	28	0%
Terminations	20.0%	Terminations			0%
Grounding Transformers	10.00%	6	0	6	0.00%
Junction Boxes	30.00%	28	0	28	0.00%
Turbines	60.00%	75	0	75	0.00%

Collection System Progress: 39%

Comments:

- Started cable sheath testing on Circuit 5 and 6.
- Working with Northern Plains for hourly rates for billing of line drops.
- Continued trenching on circuit 6.
- Working to have Boring Contractor return to site to complete final 3 bores.
- Started mobilization of second trenching crew to site
- Received final quote for additional cable support inside towers.
- Started planning for tower wiring testing requirements.
- Working with engineering on box pad solutions for grounding transformers.
- Working to provide additional short circuit data for Vestas.



O&M BUILDING

Activity Description	Required	Unit	Remains	% Comp.
Earthworks	100	%	5	95%
Foundation	100	%	3	97%
Deliver Building	100	%	0	100%
Building Enclosed	100	%	0	100%
Building Interior Framing	100	%	5	95%
Building Electrical	100	%	40	60%
Building HVAC	100	%	80	20%
Plumbing	100	%	30	70%
Building Interior Trim & Finishing	100	%	90	10%
Septic System	100	%	90	10%
Water Well	100	%	100	0%
Fence and Yard Rock	100	%	100	0%

O&M Building Progress: 55%

Comments:

- Completed the 6" pour for O&M floor on Tuesday, April 28, 2015.
- Finished all door framing, window trim and installed all doors.
- Installed all electrical panels inside the mechanical room and finished all electrical rough in.
- Finished all the interior framing and in-wall plumbing in preparation for sheet rocking next week.
- Interior and exterior cleanup and material rearrangement.
- RES has proposed to shift the fence line 15ft to the south to allow more space for trees on the north side.
- RES has provided the revised grading Plan to Xcel. The grading work will commence next week.
- AB Systems has provided a response on RFI-80 regarding the building grounding; however, additional testing will be completed as part of the first round of turbine ground testing.
- AB system will issue revised schedule early next week.



SUBSTATION

Item	Weighted	Required	Total Completed	Total Remaining	Percent Complete
Design	20%	Design			70%
Design Drawings	20%	100	70	30	70%
Deliveries	35%	Deliveries			2.5%
Structural Steel	5%	100	0	100	0%
Main Transformer	15%	100	0	100	0%
Control House	5%	100	0	100	0%
Relay Panel	2.5%	100	0	100	0%
Arrestors	2.5%	100	0	100	0%
Switches	2.5%	100	0	100	0%
Breakers	2.5%	100	100	0	100%
Construction	45%	Construction			10%
Grading & Drainage	5%	100	75	25	75.0%
Foundations	10%	100	35	65	35%
Underground/Grounding	5%	100	0	100	0%
Structural Steel Work	5%	100	0	100	0%
Equipment Installation	5%	100	0	100	0%
Control Building/Wiring	5%	100	0	100	0%
Transformer Fit Out	5%	100	0	100	0%
Commission	5%	100	0	100	0%
Fence, Gravel, & Clean Up	2.5%	100	0	100	0%

Substation Progress: 21%

Comments:

- All seven foundations for the collection medium voltage breakers have been poured.
- Four foundations for cap bank have been poured.
- The LV and high voltage breaker at main power transformer are being excavated.
- One pier in northwest corner is presently being drilled.
- All seven medium voltage breakers are on site.

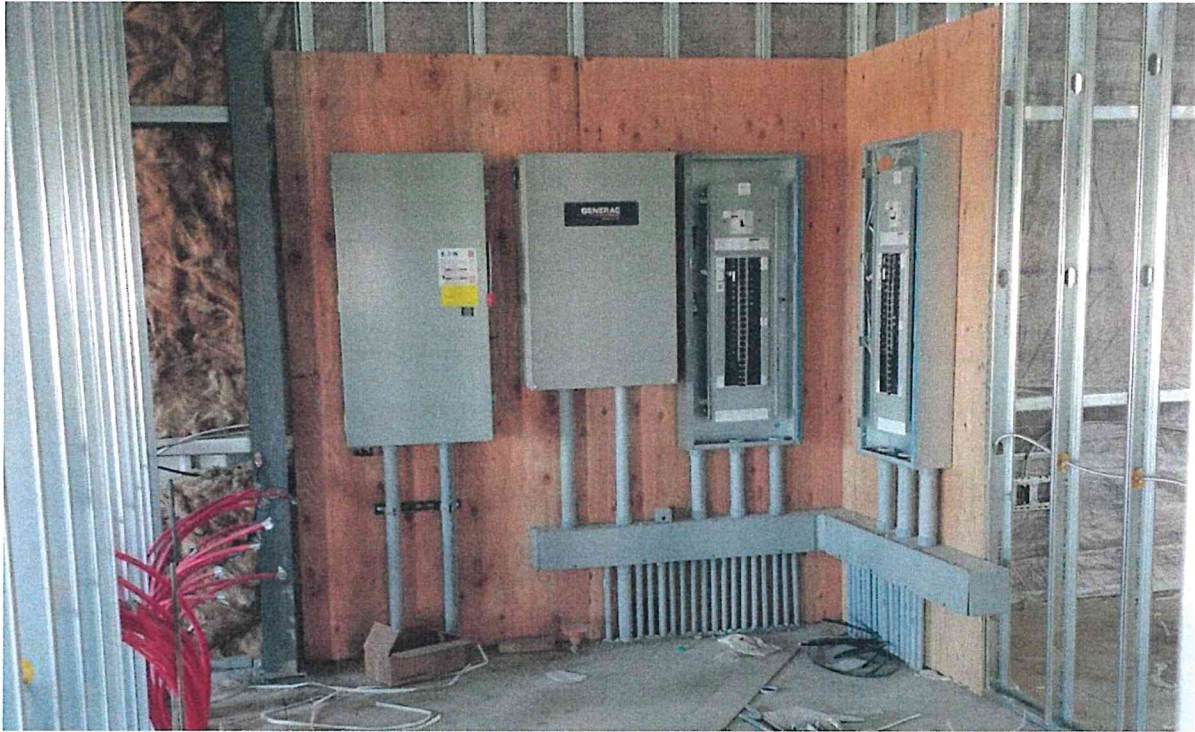
Exhibit 1 – Site Photographs



O&M Building – Window Installation



O&M Building – Floor being poured and finished.



O&M Building – Electric Panels installed.



Excavation at T34



Substation - Foundation work



Crane pad subgrade preparation



Exhibit 2 – Safety log

#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
509	4/27/2015	Safety Inspection	Safe Work Observation	REC	Equipment operators driving around yard safe, Spotters being used to load trailer and move spools good job.	None, this was a Safe Observation.	None, this was a Safe Observation.
510	4/28/2015	Safety Walk	Safe Work Observation	A.B. Systems	Damaged Electrical cords found last week were removed, new cords missing inspection tape on one end foreman correct issue.	Electrical cords missing inspection tape on one end of the cord, foreman corrected issue.	Cord inspection corrected.
511	4/29/2015	Safety Walk	Hazard Observation	A.B. Systems	On a man lift being used control electrical cord badly damaged.	Talked with A.B Systems to repair or replace damaged Electrical cord. Foreman will repair cord.	Cord repaired before man lift to use.
512	4/30/2015	Safety Inspection	Safe Work Observation	Rosendin	Oscar Vasquez new Safety Manager for Rosendin conducting monthly inspections, job site looks good.	None, this was a Safe Observation.	None, this was a Safe Observation.
513	4/30/2015	Safety Inspection	Hazard Observation	RES Americas	Stairs in front of office are on blocks and pads unlevelled. Due to improper installation of stairs.	Talked to civil crew to schedule work date to correct the stairs level and support.	Work scheduled to be done next week.
514	5/1/2015	Safety Walk	Safe Work Observation	REC	"Pulling Blade Out" When blade was pulled out the proper pulling equipment was utilized, all personal were clear no damage occurred.	None, this was a Safe Observation.	None, this was a Safe Observation.
515	5/1/2015	Safety Walk	Safe Work Observation	REC	At pad t-46 REC cable crew, observation JHA completed good, Attitude among the crew good, Safety awareness good.	None, this was a Safe Observation.	None, this was a Safe Observation.



Exhibit 3 – Environmental Log

#	CLASS	SUB-CAT	CONTRACTOR	DATE	INCIDENT DETAILS	ACTION TAKEN TO CORRECT SITUATION	ACTION TAKEN TO PREVENT REOCCURANCE
23053-15-38	Observation	Informational	All	4/21/2015	Received recycling bins for Aluminum, Plastic, Wood and Steel	NA	NA
23053-15-39	Observation	Improper Chemical Storage or Use	RES E&C	4/21/2015	Installed double walled fuel tank do not have physical barrier	Working to receive barriers for the fuel area.	NA
23053-15-40	Observation	Lack of or Damaged BMP	RES	4/24/2015	Damaged silt fence at the substation site.	Possible silt fence damage due to high winds.	Inspect BMPs and repair if damaged when snow thaws
23053-15-41	Minor Incident (Below RQ)	Equipment Failure or leak	RES E&C	4/23/2015	1 gallon of hydraulic fluid leaked after the trencher passed through the wetland.	The spill was immediately controlled using absorbent pads. Used excavator and loader to collect and disposed into the contaminated soil bin.	Check ground condition before pushing the trencher.

Exhibit 4 – Quality Log

- Incidents - None
- CPARs - None
- NCRs - 7

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			1	6
NCR-2014-38, T3 grounding was not installed per specifications			X	



Border Winds

FIELD QUALITY CONTROL PROGRAM

DEFICIENCY REPORT REGISTER

5/1/15

No.	Description i.e. Roads, Foundations, Electrical	LOCATION	Turbine #	Test Documen t No:	DEFICIENCY DESCRIPTION	DATE ENTERED	DATE CLEARED
1	Roads, Culverts	Road K2 Sta. 21+00	T-28/T-29	USCF-001	Incorrect Culvert Installation	9/29/2014	11/24/2014
2	Roads, Culverts	Road W# Sta. 00+12	T-59	USCF-001	Incorrect Culvert Installation	9/29/2014	
3	Foundations	T-49 Base	T-49	USCF-001	Foundation not protected for cold weather per ACI 306	10/08/2014	11/05/2014
4	Roads, Culverts	105 th Ave Sta. 15+25		USCF-001	Geogrid not replace after installation	10/14/2014	
5	Roads, Culverts	Access Road T2	T-74	USCF-001	Road alignment incorrect, Culverts missing	9/30/2014	
6	Roads, Culverts	N1 00+00	T-45	USCF-001	Culvert was not inspected prior or during backfill, improper	11/05/2014	



					material used for back fill		
7	Roads, Culverts	Access Road R1	T-63	USCF-001	Soft spots in road and Geogrid is damaged	10/25/2014	
8	Roads, Culverts	Access Roads to T-9, T-10, T-11, T-34, T-35 & T-71		USCF-001	Class 5 material is out of specification, the roads need to be monitored for performance	11/13/2014	
9	Roads, Culverts	Access road to T-13 Sta. 8+00	T-13	USCF-001	Geogrid was damaged and the repair was not witnessed by Quality	11/13/2014	
10	Roads, Culverts	Culvert at T-26	T-26	USCF-001	Needs to be extended on west end	11/23/2014	
11	Roads, Culverts	Access Road C2	T-10	USCF-001	The access road needs to be re-aligned per the land owner's request.	12/03/2014	
12	Foundations	O&M Building		USCF-002	Stoop footer at S/E end of building has wrong backfill material	12/05/2014	



Exhibit 5 – RFI Log

*Open RFIs and RFIs closed last week

	Generated By	Company	Sent To	Company	Subject	Date Sent	Response Requested By	Type: Civil, Electrical, etc.	Status / Comments	Date Closed
23053-30	Shabeeb Abdul Khader	RES	Bradley Morrison	Xcel Energy - Generation	Install crushed aggregate on the substation site	10/31/2014	11/6/2014	Civil	Xcel Responded. RES to monitor the spring thaw.	
23053-77	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Existing Circuit Breaker Conduits	4/15/2015	4/22/2015	Substation		04/29/15
23053-78	Emad Alaydi	RES	Brad Morrison	Xcel Energy - Generation	Substation Backup RTU	4/22/2015	4/27/2015	Substation		
23053-79	Emad Alaydi	RES	Brad Morrison	Xcel Energy - Generation	Substation alarms into Vestas HMI	4/22/2015	4/28/2015	Substation		05/01/15
23053-80	Emad Alaydi	RES	Pete Schuller	AB Systems	O&M Building Grounding	4/23/2015	4/29/2015	O&M Building	Requested AB system for additional information.	
23053-81	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Cap Switchers	5/1/2015	5/4/2015	Substation		5/1/2015