



BORDER WINDS ENERGY PROJECT

WEEKLY PROJECT REPORT

Weekly report no:	38
Report for week period ending COB Friday:	04/17/2015
Calendar week no:	16

Executive Summary

This Week's Highlights

- Five Safety Leadership Recognitions Awards; Awarded to REC Employees for excellence when working on site and going above and beyond normal work duties;
- Ongoing density check for collector trench backfills.
- The Well contract has been awarded and the permit will be submitted for the county in the next couple of days.
- Civil crew mobilized to site on Monday, 4/13/2015. Crew installed culverts and fixed existing culverts on site.
- Started excavation at T4, T10, T11 & T34 to thaw and allow water drainage.
- Cable crew installed 10,484' of cable on Circuit 5.
- Received approval for trenching from John Takala of Fish and Wildlife for collection segment between T71 to T76.
- Westwood was on site to stake intersections, center points, O&M, points at sub, collection as built, and started staking ahead for next circuit.
- Rosendin mobilized to site on Tuesday, 4/14/2015.
- Completed the storm shelter wall with plans to pour the grout on Monday, 4/20/2015.
- Completed window framing and installation.
- Geo-technical EOR has confirmed that no frost is found in the O&M subgrade and the slab pour is planned for mid-week of 4/20/2015.
- Completed the final grading on the O&M floor and tested the compaction. The results will be available early next week.
- Received (6) six LV breakers on Friday, 4/17/2015.

This Week's Key Issues

- Fire risk advisory in effect for site area, controlled brush fires observed in the site foot print that was unrelated to site activities.
- Experienced high wind condition on 4/14-4/15/2015. Wind gust up to 55 mph.



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	0	0	0	5
Project To Date	1	0	9	20	68	461

Previous Week's TRIR = 1.30 / 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:

- Returning employees who haven't worked on site since the fall came back to site and worked without incident;
- More Safety Walks being completed on site weekly as work activity increases;
- Five Safety Leadership Recognitions Awards; Awarded to REC Employees for excellence when working on site and going above and beyond normal work duties;
- All personnel onsite were reminded of the RES safety culture onsite specifically, "you see it, you own it" and the correction of work place hazards when they are found;
- With high wind advisories on site, there was no damage incidents related to the wind.

Weeks Issues:

- Fire risk advisory in effect for site area, controlled brush fires observed in the site foot print that was unrelated to site activities.

Project Work Hours:

- Weekly Man-hours: 3,089.00
- Total Project Man-hours: 156,491.70
- Hours since Last Recordable Injury: 54,262.00



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	2	0	1
Project to Date	0	51	3	27

Rolling Incident Score: Previous week: 0.87 / Current Week: 0.97

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

Week's Highlights:

- Discussed with AMR regarding recycling. The bins will be on site by Monday, 4/20/2015.
- Ongoing culvert installation and clean out.
- All equipment is equipped with spill kits for immediate spill/leak control.

Week's Issues:

- Site experienced two (2) minor spills that were contained and cleaned up.
 - Approximately 2 gallon of diesel found at the batch plant entrance from an unknown source. The leak was cleaned and disposed into the contaminated soil bin
 - Approximately 3 cup of transmission fluid leaked while operating the forklift at the substation. The leak was cleaned and disposed into the contaminated soil bin
- Experienced high wind condition on 4/14-4/15/2015. Wind gust up to 55 mph.

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 for collector trench backfills.
- Monitored construction at the O & M Building.
- Started the daily quality meeting with Xcel on 4/15/2015.
- Collecting information at each turbine site for bolt heat #'s for the Job Books.
- RRC to mobilize 4/23/15 for soil testing at the substation.



Schedule Status

Project duration	68
No. of weeks into contract	40
Contract time passed (%)	59%

Key Activities (Construction)	Weighted %	Percent Complete		
		Contract Schedule	Construction Schedule	Actual
Design Engineering	2.5%	100%	100%	100%
Roads	14%	100%	83%	83%
Crane Pads	6%	0%	0%	0%
Foundations	20%	100%	95%	95%
Collection System	20%	46%	37%	35%
Substation	10%	55%	33%	26%
WTG Delivery, Erection, MCC	20%	0%	0%	0%
O&M Building	5%	100%	43%	38%
Completion	2.5%	0%	0%	0%
Overall Actual Percent Complete				42%

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

- The Well contract has been awarded and the permit will be submitted for the county in the next couple of days.

Construction Status

Certificates	Total	Submitted	Signed
Foundation Completion Certificate	75	71	0
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			0%
Shape and Compact Sub Grade	40%	75	0	75	0%
Place and Compact Road Base	60%	75	0	75	0%

Comments:

- Civil crew mobilized to site on Monday, 4/13/2015.
- REC installed culverts and fixed existing culverts on site.
- Westwood staked the radius of intersection across the site for turbine delivery.
- Assess road condition and repair

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:

- Started excavation at T4, T10, T11 & T34 to thaw and allow water drainage.
- Excavated T11 around the mud mat to allow it to drain.



COLLECTION SYSTEM

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
Deliveries	30.0%		Deliveries		91%
Grounding Transformers	10.0%	6	0	6	0.0%
MV Cable 3/0 AWG AL	15.0%	308,288	314,910	0	100%
MV Cable 350 Kcmil AL	7.5%	140,708	143,964	0	100%
MV Cable 750 Kcmil AL	15.0%	217,740	208,085	0	100%
MV Cable 1000 Kcmil AL	7.5%	88,167	90,485	0	100%
MV Cable 1250 Kcmil AL	20.0%	147,069	150,472	0	100%
Fiber 12 count	2.5%	328,520	336,590	0	100%
Fiber 120 count	2.5%	6,587	6,587	0	100%
Ground Cable	10.0%	299,663	299,663	0	100%
Junction Boxes	5.0%	28	28	0	100%
Rubber Goods	5.0%	1420	1406	14	99%
Installations	50.0%		Installations		15%
Trench	60%	278,230	44,427	233,803	16%
MV & Fiber/Ground Cable	30%	297,841	51,264	246,577	17%
Grounding Transformers	5%	6	0	6	0.0%
Junction Boxes	5%	28	0	28	0.0%
Terminations	20.0%		Terminations		0.0%
Grounding Transformers	10.0%	6	0	6	0.0%
Junction Boxes	30.0%	28	0	28	0.0%
Turbines	60.0%	75	0	75	0.0%

Collection System Progress: 35%

Comments:

- Cable crew installed 10,484' of cable on Circuit 5.
- Received approval for trenching from John Takala of Fish and Wildlife for collection segment between T71 to T76.
- Westwood was on site to stake intersections, center points, O&M, points at sub, collection as built, and start staking ahead for next circuit.
- Received pricing on patch panels for each tower. Awaiting internal review to confirm use and additional terminations.
- Dolan was on site to install bore on 107th and 52nd, 1 of 2 bores under HWY 30 and demobilized.
- Purchased additional cable caps to seal collection cable.
- Submitted six collection line movements to Xcel for review
- Continued to contact Jeff Richardson to set up ground grid testing contractor and billing for Northern Plains electric.
- Continued to price and find additional options for cable clamps where needed for support on the 750 and larger cable.



O&M BUILDING

Activity Description	Required	Unit	Remains	% Comp.
Earthworks	100	%	10	90%
Foundation	100	%	10	90%
Deliver Building	100	%	0	100%
Building Enclosed	100	%	1	99%
Building Interior Framing	100	%	100	0%
Building Electrical	100	%	90	10%
Building HVAC	100	%	100	0%
Plumbing	100	%	70	30%
Building Interior Trim & Finishing	100	%	100	0%
Septic System	100	%	100	0%
Water Well	100	%	100	0%
Fence and Yard Rock	100	%	100	0%

O&M Building Progress: 38%

Comments:

- Completed the storm shelter wall with plans to pour the grout on Monday, 4/20/2015.
- Completed window framing and installation.
- Geo-technical EOR has confirmed that no frost is found in the O&M subgrade and the slab pour is planned for mid-week of 4/20/2015.
- Completed the final grading on the O&M floor and tested the compaction. The results will be available early next week.
- Well contract has been awarded and will apply for the permit to the county in the week of 4/20/2015.
- Awarded the septic system contract and the work will proceed as per schedule.
- Received the updated SOW from VTI as per XCEL's requests. A meeting is scheduled mid-next week with VTI and ABS to discuss the installation schedule.



SUBSTATION

Item	Weighted	Required	Total Completed	Total Remaining	Percent Complete
Design	20%	Design			70%
Design Drawings	20%	100	70	30	70.0%
Deliveries	35%	Deliveries			0%
Structural Steel	5%	100	0	100	0.0%
Main Transformer	15%	100	0	100	0.0%
Control House	5%	100	0	100	0.0%
Relay Panel	2.5%	100	0	100	0.0%
Arrestors	2.5%	100	0	100	0.0%
Switches	2.5%	100	0	100	0.0%
Breakers	2.5%	100	60	40	60.0%
Construction	45%	Construction			9%
Grading & Drainage	5%	100	75	25	75.0%
Foundations	10%	100	11	89	11.0%
Underground/Grounding	5%	100	0	100	0.0%
Structural Steel Work	5%	100	0	100	0.0%
Equipment Installation	5%	100	0	100	0.0%
Control Building/Wiring	5%	100	0	100	0.0%
Transformer Fit Out	5%	100	0	100	0.0%
Commission	5%	100	0	100	0.0%
Fence, Gravel, & Clean Up	2.5%	100	0	100	0.0%

Substation Progress: 26%

Comments:

- Setting up schedule and logistics for shipping MPT
- Rosendin mobilized to site on 4/14/2015 with supervisory personnel
- Cleaned up yard in preparation for construction start
- Received (6) six LV breakers on Friday, 4/17/2015.
- Backfilled MPT pad with pea gravel

Exhibit 1 – Site Photographs



Collection System – Trenching at T24



Collection System – Trenching at T26



Collection System – Trenching at T26



O&M Building – Storm Shelter construction



Substation – Low voltage breaker delivery



Laydown yard –Setting up fuel tanks



Exhibit 2 – Safety log

#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
487	4/13/2015	Normal Work Activities	Hazard Observation	RES Earth and Cable	A sign that identified "trucks entering highway" posted on HWY 5 had blown over due to a torn sand bag and high winds.	Safety Supervisor stopped and fixed the sign, resetting it.	All signs had their weights adjusted so that they would not blow over.
488	4/13/2015	Safety Walk	Hazard Observation	RES Americas	The cigarette butt can had blown over and broken spilling butts over the ground.	Safety Supervisor and Electrical Manager bought a metal trash can and fashioned it into a non-combustible container.	A new container was fashioned and weighted down to prevent it from blowing over.
489	4/13/2015	Safety Inspection	Safe Work Observation	RES Earth and Cable	Section 16 PPE completed. Adequate at the time of inspection.	None, this was a Safe Observation.	None, this was a Safe Observation.
490	4/13/2015	Safety Inspection	Safe Work Observation	RES Americas	Section 15 SDS completed. Adequate at the time of inspection.	None, this was a Safe Observation.	None, this was a Safe Observation.
491	4/13/2015	Safety Walk	Safe Work Observation	RES Earth and Cable	Collection crew brought JHA directly to people entering the site.	None, this was a Safe Observation.	None, this was a Safe Observation.
492	4/14/2015	Normal Work Activities	Near Miss	RES Earth and Cable	Personnel stepped over a trench that was open.	Employee was advised to walk around trench and not to step over an open excavation.	During the 15Apr15 safety meeting all personnel were made aware of the hazard and informed of the correct way to move around excavations.
493	4/14/2015	Safety Walk	Safe Work Observation	RES Earth and Cable	When exiting the truck the employee donned all of their PPE.	None, this was a Safe Observation.	None, this was a Safe Observation.
494	4/13/2015	Safety Walk	Hazard Observation	RES Earth and Cable	A semi-truck trailer was set up with steps into the back of the trailer. The steps had no hand rails on the sides.	Electrical Manager spoke to the REC Superintendent about the steps needing hand rails	All personnel were made aware that steps set up for a trailer or connex need hand rails.
495	4/15/2015	Safety Walk	Hazard Observation	RES Earth and Cable	With high winds in the area hard hats were blowing off team members heads.	Team members were issued chin straps for hard hats.	Team members were reminded about the correct use of PPE and the chin straps in weather.
496	4/15/2015	Safety Inspection	Safe Work Observation	RES Americas	Section 5 Electrical Work completed. Adequate at the time of inspection.	None, this was a Safe Observation.	None, this was a Safe Observation.
497	4/15/2015	Safety Inspection	Safe Work Observation	RES Americas	Section 4 Compound Electrics completed. Adequate at the time of inspection.	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
23053-15-34	Minor Incident (Below RQ)	Equipment Failure or leak	Unknown	4/14/2015	Diesel fuel found on the ground at the batch plant entrance.	The spoil was collected using a back hoe and disposed in the contaminate soil bin in the laydown yard.	Advised everyone to inspect their vehicle for leaks every morning.
23053-15-35	Observation	Weather Event	All	4/15/2015	High Wind conditions. Wind gust up to 55 mph.	none	none
23053-15-36	Minor Incident (Below RQ)	Equipment Failure or leak	Rosendin	4/17/2015	Gear oil leaked on the ground while operating forklift at the substation entrance.	The spoil was collected using a back hoe and disposed in the contaminate soil bin in the laydown yard.	Advised everyone to inspect their vehicle for leaks every morning.
23053-15-37	Observation	Trash or other Refuse	All	4/18/2015	Trash seen across the site that blew during the high winds.	Crew picked trash across the site.	Fasten all material being transported across the site.

Exhibit 4 – Quality Log

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

Material Receipt

Description of Material	Delivery Date	Vendor	Quantity	Cumulative Qty	Balance

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	



**FIELD QUALITY CONTROL PROGRAM
DEFICIENCY REPORT REGISTER**

No.	Description i.e. Roads, Foundations, Electrical	LOCATION	Turbine #	Test Document 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 material used for back fill	11/05/2014	
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.	
23053-74	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Xcel Drawing NX Series	4/15/2015	4/22/2015	Substation		04/17/15
23053-75	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Substation signage	4/15/2015	4/22/2015	Substation		04/17/15
23053-76	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Arc Flash Hazard Process and Labels	4/15/2015	4/22/2015	Substation		04/18/15
23053-77	Shabeeb Abdul Khader	RES	Brad Morrison	Xcel Energy - Generation	Existing Circuit Breaker Conduits	4/15/2015	4/22/2015	Substation		