



**Luverne Wind Farm
Substation Construction
Plan of the Week (POW)**

Week of June 29th-July 3rd, 2009

Otter Tail Power Company

Activities:

- **Activities this week:** Crews formed and installed the Control House slab and GSU Transformer Pads this week. ICS installed below grade conduits on the North feeders and the fiber optic duct for the T-Line. ICS also installed all of the steel except the 230kV dead-end and switch stand. Fence also arrived this week and surveyors staked the perimeter. Nodak electric installed the secondary station service primary cable and 25kva transformer this week. Plans are to have power available next week. Also the substation road and yard seeding will take place on disturbed areas by Jensen Brothers Excavating (sub contractor).
- **Activities next week:** OTP crews will be constructing the Control House. ICS will be working on steel and ground grid and preparing for bus welding and equipment installation.
- **Safety/Environmental:**
None.
- **Lay down Yard:**
None.
- **Electrical/Construction:**
None.
- **Potential Schedule Delays:**
None.

General Information and Announcements

Construction	% Complete
Luverne Substation	
Sub Grade Yard and Road	100%
Final Grading Yard and Road-Class V	100%
Concrete Foundations	90%
Install Ground Grid	0%
Install Steel	75%
230 & 35kV bus / Outdoor Welding Conduit	0%
Complete Outdoor Equipment Installation, etc.	0%
Install Fence	0%
Construct Control House	0%
Install Control House Equipment & Wiring	0%
Install Control House Relay Panels and Wiring	0%
Install Yard Rock	0%
Testing & Commissioning	0%

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8 PU-09-407 Filed: 7/6/2009
Luverne Wind, Substation, Construction Activities
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Otter Tail Corporation
Kathryn Burgau

Material Delivery	Required	Rec'd
Luverne Substation		
High Voltage 230kV Circuit Breaker at Barnes Substation	1	
High Voltage 230/34.5kV Transformer-HiCO	1	
Metering CT/PT Combo, 230kV	3	
Three phase 35kV group-operated Switch, 4000 amp	1	1
SF6 Circuit Breaker, 69kV	8	
Three phase 230kV group-operated Switch, 2000 amp	1	1
Single Phase hookstick Disconnect Switch, 35kV, 1200 amps	48	48
Reactor, Neutral Grounding, 34.5kV	1	
Potential Transformer, 35kV, Single Bushing	11	8
Station Class Surge Arrester Polymer Type 152 MCOV	3	
230kV Station Post Insulator	3	3
35kV Station Post Insulator, TR-231	18	18
35kV Station Post Insulator, TR-210	60	60
Outdoor Control Cable (4 & 12 Conductor #10)	Lot	
Aluminum Bus Tubing and Welded Connectors	Lot	75%
Steel Structures (230 & 35kv Bays)	Lot	100%