



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

**Week of July 13th-17th, 2009**

**Otter Tail Power Company**

**Activities:**

- **Activities this week:** Installed most of the below grade ground grid and completed the installation of below grade conduit. Started the above grade grounding on steel and equipment. The oil containment for the GSU transformer was also installed by the building construction crew. Fence posts were installed and the fence will be completed next week. Grounding Transformer basements arrived this week.
- **Activities next week:** We plan to start the Bus Welding and installation of the Control house equipment. The metering department will install the metering and the phone request will be provided in two weeks. Local electrical contractor in Hope will provide the affidavit for the station power next week. Nine Siemens breakers are scheduled to arrive next Wednesday. Relay panels shipped Friday with delivery next week. SEL installation crew will be on site July 27th to install the relay panel and control wiring in the house. Outdoor trenwa will arrive next week and installation may start. Static Poles will also be delivered and static wires installed. Will be removing the SF6 gas from the Barnes 230kV breaker to prepare for shipping to Luverne.
- **Safety/Environmental:**  
None.
- **Lay down Yard:**  
None.
- **Electrical/Construction:**  
None.
- **Potential Schedule Delays:**  
None.

**General Information and Announcements**

Construction	% Complete
<b>Luverne Substation</b>	
Sub Grade Yard and Road	100%
Final Grading Yard and Road-Class V	100%
Concrete Foundations	100%
Install Ground Grid	90%
Install Steel	100%
230 & 35kV bus / Outdoor Welding Conduit	0%
Complete Outdoor Equipment Installation, etc.	30%
Install Fence	40%
Construct Control House	100%
Install Control House Equipment & Wiring	0%
Install Control House Relay Panels and Wiring	0%
Install Yard Rock	0%
Testing & Commissioning	0%

<b>Material Delivery</b>	<b>Required</b>	<b>Rec'd</b>
<b>Luverne Substation</b>		
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	
Steel Structures (230 & 35kv Bays)	Lot	100%