



PV Site Assessment Worksheet

Lead Assessor: Roger Garton with UMN Student Group Date Assessed: 16 March 2016
 Organization: UMN Solar Endowment Program: Solar Endowment

Client Information

Name Umore Park			
Site Address Blaine Ave E and 152nd St, near Wind Tower	City Rosemount	State MN	Zip 55068
Mailing Address	City	State	Zip
County Dakota	GPS Coordinates 44.7258, -93.0482	Township 115	Miles from HQ
Email	Phone(s)		
How did client hear of RREAL / REAL Solar?			
What are client's goals with the system? 2MW Solar Farm, UMN Owned, or Community Solar, Energy Sales and Carbon Reduction			

Solar Resource

Azimuth (90=E, 180=S, 270=W) Orient Due South	Tilt 35-40 Ideal	Shading (always take pathfinder photo)
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Proposed System Type and Description

System Type, Description, Size 2 MW Ground Mount Proposed Avoid Wind Turbine Fall Zone	
Rebate Program	PV Module and Inverter Make/Model

Mounting Options

Roof:

Contiguous Space (provide drawing, consider roof setback)	Mounting Obstructions	
Roof Trusses (size, spacing, material, span length)		
Roofing Material (make and model for metal)	Roof Pitch	Age of Roof
Roof Access Location and Method	Height to Roof at Access Point	

Ground:

Soil Type and Condition Waukegan Silt Loam, See Soils Report	Obstructions (site, trench, buried) ~850' from N. Line of Solar to Wind Tower Location
Trench Route and Length Trench from Solar to Wind Tower Switch Gear	Building Entry Location Enter Switchgear Cabinet via new Transformer

Utility and Building Details

Utility Company Xcel Energy	Building Zoning Type	Building Permit Req'd? AHJ Contact
Utility Rate (special rate? off peak?) TBD based on Xcel Energy and UMN		Special Utility Req's (disconnect, meter)
Meter(s) (quantity, location, size/amp rating, type, off peak?) Single meter by wind turbine at switchgear cabinet, verify metering details with Xcel Energy		
Electrical Inspector Name and Contact Info		Within City Limits or Township In City Limits (S36 T115 R19) Parcel ID 34-03600-25-010

Electrical Details

Make and Model of Existing Main Service Panel Build New Solar Service	Service Voltage and Phase TBD, New Transformer	Main Breaker/Disconnect Location and Size
Location of Service Panel Switchgear located near Wind Turbine	Service Panel Bus Bar Amp Rating	
Point of Interconnection (location, type) Interconnect at existing switchgear using new solar transformer	BOS Equipment Mounting Space (location, space) Propose ground mount central inverter(s) located in solar field	
Rapid Shutdown (required, location, type)	Location of proposed PV disconnect	
AC Wire (length, route, obstructions) 900+ ft, Trench from Solar to Wind Turbine site	DC Wire (length, route, obstructions)	

Data Monitoring

Monitoring Equipment (type, location)	Internet Equipment (type, model, location) Verify existing equipment for Wind Turbine
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Off Grid Details

Average Daily Consumption (complete load chart)	Maximum Amp Draw (simultaneous largest load usage)
Days of Autonomy	Generator (size, fuel, autostart) Battery Bank Location, Space

Use Space Below for Other Project Notes and Drawings

Existing Wind Turbine:

- 2.5 MW Unit
- Wind turbine has fall zone that must remain clear
- Wind turbine has 1000 meter "ice throw" zone, verify how this might impact solar array and potential ice damage to solar array

Existing Transformer:

- Existing transformer for Wind Turbine is 2750 KVA and is at full capacity with wind turbine
- New solar transformer will be required

Existing Switchgear:

- 34.5kV design voltage
- 600A rated
- States Manufacturing
- Siemens breakers, type SGIM-3528A
- Switchgear should be adequate to handle additional solar capacity

Proposed System:

- 2MW Ground Mount Solar Field using typical ground mount racking
- Racking type, panels and inverter selection TBD