

# Le Sueur County, MN

Thursday, July 13, 2017 Regular session

Item 1

**Novel Energy-Vetter Packet** 

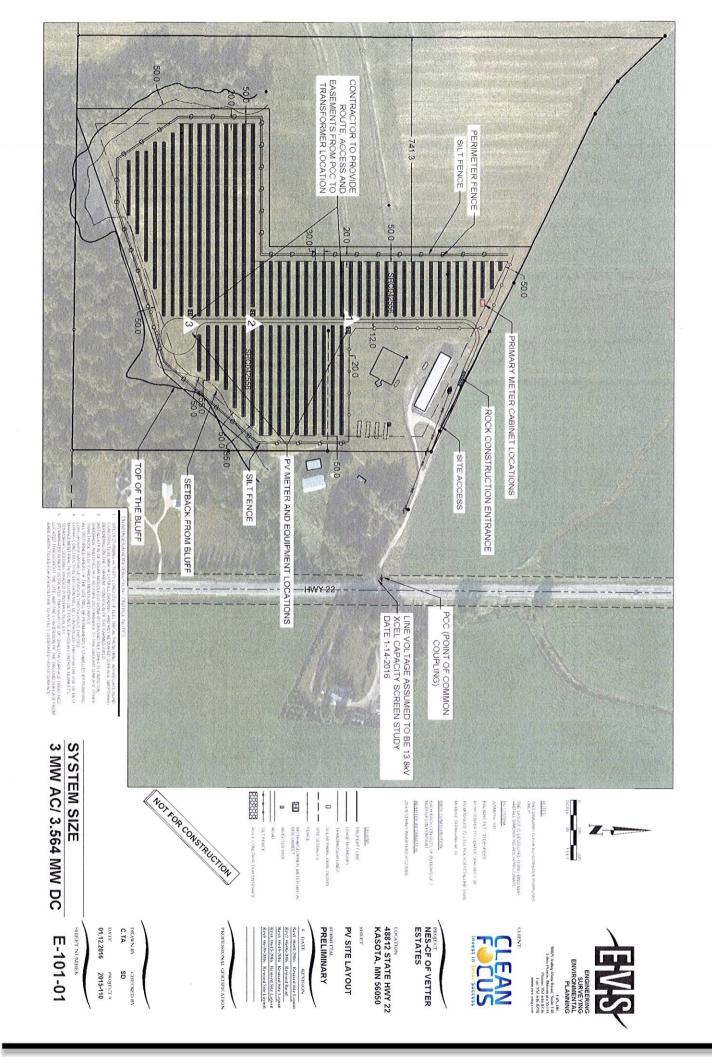
Staff Contact: Kathy Brockway or Michelle Mettler



# Vetter Highway 22, 3MW Megawatt Solar Garden A Novel Energy Solutions Project

#### Introduction

On August 2, 2016, the Le Sueur County Board of Commissioners approved a 3MW Solar Garden on the Vetter Property (Please see attached Conditional Use Permit). CF Novel Solar Gardens Eleven LLC still plans on constructing the Community Solar Garden, but, the project has not moved forward as quickly as expected due to the fact that interconnection with Xcel Energy hasn't moved as quickly as anticipated. The easement for Xcel has been finalized, however, Xcel is still upgrading their infrastructure. CF Novel Solar Gardens Eleven LLC is hereby requesting an extension to Conditional Use Permit #16155.



# CONDITIONAL USE PERMIT

# LE SUEUR COUNTY PLANNING AND ZONING 88 SOUTH PARK AVENUE LE CENTER MN 56057 Direct Dial (507) 357-8538 Fax (507) 357-8541

DDRESS: 1628 2ND AV TY: ROCHESTER ATE: MN HONE: 507-961-350 1: 48812 ST HWY 22, KASO	ZIP:	55904	ADDRESS: CITY: STATE: PHONE:	OWNER: VETTER I 33201 SHANASKA ST PETER MN	
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LE SUEUR COUNTY PLANNING AND ZONING COMMISSION August 2, 2016

TO:

LE SUEUR COUNTY BOARD OF COMMISSIONERS

FROM:

LE SUEUR COUNTY PLANNING AND ZONING COMMISSION

SUBJECT:

"REQUEST FOR ACTION"

The Planning Commission recommends your action on the following item:

ITEM #1: NOVEL ENERGY SOLUTIONS, ROCHESTER, MN (APPLICANT); VETTER ENTERPRISES, LLC, ST. PETER, MN (OWNER): Request that the County grant a Conditional Use Permit to allow the applicant to construct a 3MW solar garden in an Agricultural "A" District. Property is located in the SW1/4, Section 16, Kasota Township.

Based on the information submitted by the applicant, as required by the Le Sueur County Zoning Ordinance, the Planning Commission developed the following findings for this request:

Therefore, the Planning Commission recommends approval of the application with the following conditions:

- 1. Approval of site from the FAA prior to construction, if negative response from the FAA, the panels will either be eliminated or moved to the west of the property.
- 2. If site plan changes the applicants shall submit a new drawing to the Department.
- 3. A bond is submitted to the County for decommissioning of the project.

ACTION:

ITEM#1: PAPROVED 5-0

DATE: 8/2/16

COUNTY ADMINISTRATOR'S SIGNATURE:

## FINDINGS OF FACT

WHEREAS, NOVEL ENERGY SOLUTIONS, ROCHESTER, MN (APPLICANT); VETTER ENTERPRISES, LLC, ST. PETER, MN (OWNER), has applied for a Conditional Use Permit to allow the applicant to construct a 3MW solar garden in an Agricultural "A" District. Property is located in the SW1/4,

WHEREAS, the Le Sueur County Planning and Zoning Commission held on public hearing on July 14, 2016 in order to hear public testimony from the applicants as well as interested parties pertaining to and as provided by the Zoning Ordinance of Le Sueur County.

WHEREAS, the Le Sueur County Planning and Zoning Commission, acting as an advisory board to the Le Sueur County Board of Commissioners recommends approval of the application with conditions due to the following findings:

- 1. With the imposition of the conditions, the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity. Agreed.
- 2. With the imposition of the conditions, the establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area. Agreed.
- 3. With the imposition of the conditions, adequate utilities, access roads, drainage and other facilities are being provided. Agreed.
- 4. With the imposition of the conditions, adequate measures will be taken to provide sufficient off-street parking and loading space to serve the proposed use. Agreed.
- 5. With the imposition of the conditions, adequate measures will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result. Agreed.
- 6. With the imposition of the conditions, the Conditional Use Permit consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance? Agreed.
- 7. The Conditional Use Permit consistent with the Comprehensive Land Use Plan?

  The current Land Use Plan as adopted in 2009, does not make reference to the use as requested.

WHEREAS, On August 2, 2016, at their regularly scheduled meeting, the Le Sueur County Board of Commissioners APPROVED/DENIED the Conditional Use Permit application as requested by NOVEL ENERGY SOLUTIONS, ROCHESTER, MN (APPLICANT); VETTER ENTERPRISES, LLC, ST. PETER, MN (OWNER).

NOW, THEREFORE, IT IS HEREBY RESOLVED, the following Findings of Fact were adopted at the August 2, 2016 Le Sueur County Board meeting in order to protect the public health, safety and general welfare of the citizens of Le Sueur County.

- 1. With the imposition of the conditions, the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.
- With the imposition of the conditions, the establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses

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predominant in the area.

- 3. With the imposition of the conditions, adequate utilities, access roads, drainage and other facilities are being provided.
- 4. With the imposition of the conditions, adequate measures will be taken to provide sufficient offstreet parking and loading space to serve the proposed use.
- 5. With the imposition of the conditions, adequate measures will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.
- 6. With the imposition of the conditions, as the Conditional Use Permit consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance.
- 7. The Conditional Use Permit consistent with the Comprehensive Land Use Plan?

  The current Land Use Plan as adopted in 2009, does not make reference to the use as requested.

**BE IT FURTHER RESOLVED,** by the Le Sueur County Board of Commissioners that based on the above Findings of Fact, a Conditional Use Permit to allow the applicant to construct a 3MW solar garden in an Agricultural "A" District. Property is located in the SW1/4, Section 16, Kasota Township, is approved/denied-

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John King, Chairman, Le Sueun County Board of Commissioners.

Darrell Pettis, Le Sueur County Administrator

DATE: 8/2/16



# Vetter Highway 22, 3MW Megawatt Solar Garden A Novel Energy Solutions Project

#### Introduction

Novel Energy Solutions (NES) works to make affordable clean energy available to farms, companies, non-profit organizations, and individuals alike.

We understand that changing government policies and rapid technological developments can make even a small clean energy project appear overwhelming. Our experienced team helps communities make sense of available clean energy technologies, utility incentives, government programs, and financing options. We will assist in devising and implementing a clean energy plan that will both reduce your community's carbon footprint and keep electric utility dollars local.

Community Solar Gardens are supported by the State of Minnesota as a renewable energy supply. The Xcel Energy program was approved by the State of Minnesota as part of the renewable energy jobs package in 2013. The purpose of constructing a community solar garden (solar array) will be to generate offsite solar energy that will be connected directly to the electric grid for the direct benefit of subscribers to the solar garden.

This proposed site is constructed to produce three megawatts (3MW) of electric generation. The electrical energy will be distributed directly to the existing electrical grid for subscribers to the energy produced by the system. The impact to the area is anticipated to be low. Construction and setup are not invasive. The system will reduce the carbon footprint and greenhouse gas emissions of the end users equal to 854 tons of waste hauled to landfills, over six million passenger vehicle miles driven or 2,383 metric tons of greenhouse gas emissions. Subscribers to the community solar garden will save millions of dollars over the 25 year life of the system which can be saved and spent locally in support of the local economy.

Community solar gardens offer numerous benefits to the community. These multi-million dollar construction projects create jobs, and enhance the tax base. NES works with local contractors for various components of the project as needed. Subscribers have an opportunity to keep electric dollars in the area to support the local economy. Land owners have a new option that brings value to their property without impacting the underlying nature of the land. Land owners and the community have an opportunity to be leaders in renewable energy that sets an example for others to follow, and leaves a positive lasting legacy. Distributed solar generation, energy produced at multiple locations across the grid helps prevent line loss and dependence on carbon-based fuel sources. Careful siting standards



protects the integrity of the land, increases production which increases local revenues and savings, and ensures positive neighbor relations.

Solar panels and systems have been used in the United States for over forty years and have gained in popularity as the cost of solar energy becomes competitive with traditional fossil fuels, and because of the environmental benefits. Solar systems are more widely found on the east and west coasts of the United States due to higher electric costs than Minnesota and the Midwest. Solar systems have been found to be good neighbor land use due to their passive nature, no negative impact on neighbor property values, and benefits to the environment and local economy. The proposed solar systems will not change the underlying nature of the land.

### **Project Description**

The parcel is owned by Brian R., Kevin, and Timothy Vetter

PID#051097900 - Sec 16 Twp 109 Range 26

Legal Description: See attached

Array located on 16 acres in the Agriculture Zoning District

Parcel Description: Parcel is agricultural use. Surrounding property is primarily agricultural use with some residential. Residential properties on the east of the parcel are bordered by trees, and homes generally face away from the proposed solar array. Existing trees will significantly mitigate direct visual impact.

Site access will be off an existing roadway off Highway 22.

#### Equipment

Novel Energy Systems uses only Tier-1, 300-320 Watt, multicrystalline solar panels. Bloomberg New Energy Finance rates solar panels in tiers based on a variety of factors including financeability. All tier-1 panels used have a 25 year warranty. Panels will be tilted at a 30 degree angle, and not exceed 12 feet in height. Panels will feed inverters which ultimately connect to the electric grid at a point of interconnection located on the existing road access to the site. All equipment complies with the Minnesota State Electric Code. Panels are non-reflective with a south facing orientation.

Posts will be pounded or screwed into the ground at a depth adequate to handle engineered loads and mitigate frost heave. Posts can be pulled from the ground at the end of the system's useful life. Racking, panel, and inverter manufacturers will be site specific depending on engineering, topography and array layout. Xcel Energy will provide final approval of interconnection equipment including



transformers, meters, disconnects, utility poles and wires as required by the company's interconnection tariff. All equipment is engineered to meet industry, state and federal standards.

Transformers and related equipment will be placed on concrete slab on grade sized 21'x14', with one pad for each 1MW. Xcel Energy required poles will be standard electric utility poles with overhead wires. All non-Xcel Energy equipment, materials, supplies, concrete, etc. can be removed at the end of the useful life of the project.

All equipment must meet Xcel Energy standards for safety and interconnection, and UL listed. Program requirements include adequate levels of insurance coverage, signed interconnection agreement as required by the MN Public Utilities Commission for 25 years and continual production monitoring.

## Site Appearance & Impact

The parcel will consist of a 3MW Solar Garden and 12,960 solar panels. The installation will include rows of solar panel with rows separated by 19 feet. The attached layout provides the proposed layout which is subject to engineering and final Xcel approval. The final layout will continue to meet all Le Sueur County requirements and performance standards.

Through all of our projects, NES works with the property owner and permitting authority on any screening and buffering required by Ordinance or preferred by the property owner if multiple options are available. Absent specific requests from Le Sueur County, Kasota Township, or the property owner a 6' chain linked fence will be installed surrounding the entire site. Gated access will be provided with a key code for Xcel Energy and emergency response personnel.

Grade and fill will only occur at the cement pads for the electrical gear, and some work at the main access point to the site. Posts pounded or screwed in the ground of various lengths will accommodate the terrain change without the need for grade and fill activities.

Following construction of the arrays and any other project requirements, vegetation is established to ensure soil stabilization, improve storm water quality, and for site beautification. Low Maintenance Turf MNDOT 260 or similar seed mix is utilized. Native grasses or specific pollinator plantings will be considered upon request of the property owner as long as solar production and maintenance is not compromised. Once established, this site will filtrate surface waters and minimize erosion even better than traditional crop lands. On-going maintenance to control weeds or unsightly conditions will be performed by or contracted by NES. Being a Minnesota owned and operated company provides greater assurance of proper site maintenance.

A viewshed analysis will be performed on neighboring properties to determine if screening is needed. Where screening is needed, NES will add slats to the fence, however we will work with the neighbors and the property owner in the event other screening options are preferred such as smaller evergreen trees or bushes that blend into the local flora.



### **Hydrological Features**

There are no identified wetlands per the MN DNR Public Waters Inventory or National Wetland Inventory Maps at the array location. Storm water management will be handled by the current best practices. An NPDES permit is not anticipated to be required as less than 1 acre of land is expected to be disturbed per NPDES regulations. Le Sueur County will be notified and receive a copy of the NPDES permit in the event >1 acre will be disturbed.

### **Geology and Soils**

Novel Energy Solutions has completed research relating to the soil types and depth as identified in the Minnesota Geological Survey Surficial Geologic Mapping Mosaic and/or direct borings. This will determine bedrock depth and identify all soils in the project scope. This data will be utilized in the engineering of the posts and racking to ensure adequate wind, snow, and other load factors. Soil review and analysis shows excellent soil types for a solar array.

#### Potential to Effect the Environment and Public Health

This project is focused on bring additional green energy to a large number of people in Minnesota. The proposed solar array is passive with only small fans in the inverters to prevent overheating, and are designed to capture the sun's rays, not reflect them. Solar panels have an equivalent glare factor as a body of water. Potential neighbor glare issues will be handled through project screening on a case by case basis. Research on potential environmental and public health issues will be through the State of Minnesota and the Federal government data bases to ensure compliance. The addition of year-round ground cover will provide improved storm water control over traditional row cropping providing improved soil retention and greater water infiltration.

#### **Decommissioning & Restoration Plan**

Within ninety (90) days of the end of the project useful life, decommissioning will include the removal of all of the solar arrays, cables, electrical components, accessory structures, fencing and other ancillary facilities owned by the solar garden. Since this project includes the establishment of vegetation on site, the soil will be excellent for agricultural utilization upon decommissioning. At year 26, there is almost equal salvage value in the panels and equipment than the costs associated with removing the system.

Detailed decommissioning includes:

- All cables and conduit will be removed
- PV modules will be removed from racking sold or transported to a recycling facility



- Racking equipment will be dismantled and removed, and either re-used or sold for scrap
- Inverters, transformers, switchgear, etc. will be re-sold or scrapped per industry best practices and regulations
- Concrete foundations will be broken down and removed
- The security fence will be removed
- The site will be returned to its current state

#### Conclusion

We are excited to complete this project in a strong partnership with the Vetters and Le Sueur County. Novel Energy Solutions is committed to following best practices and all state, federal and local rules and regulations to develop a community solar garden providing the many benefits to the local community.