

ECOPLEXUS, INC.



Independence, MN

“Delano Project”

**APPLICATION FOR
ZONING ORDINANCE AMENDMENT**

December 16, 2015



INTRODUCTION

On behalf of Ecoplexus, Inc., Landform is pleased to submit this application for a Zoning Ordinance amendment to allow community solar gardens as a conditional use in the Agricultural Districts. Ecoplexus is making this request with interest in constructing a five megawatt (MW) community solar garden, as allowed under Minnesota Statute 216B.1641 at 1351 Nelson Road (PID # 30-118-24-23-0001). We are excited about the potential project and want to work with the City to develop standards that support recent legislative efforts to make Minnesota a national leader in solar energy production.

ABOUT COMMUNITY SOLAR GARDENS

In 2007, Minnesota adopted legislation that created a Renewable Portfolio Standard (RPS) for investor-owned utilities and public/cooperative utilities, which mandates that a certain percentage of each utility's generation portfolio be derived from renewable sources by a certain year. In particular, Xcel Energy is required to obtain 31.5% of their generation from renewable sources by 2020, and Minnesota's 2013 legislation further requires that an additional 1.5% of the utility's retail electricity sales be derived from solar power by the year 2020. The State Legislature established the Community Solar Garden program in order to facilitate the production of solar energy in the State and help the utilities achieve these standards. Minnesota State Statute §216B.1641 allows the construction of one megawatt (MW) solar gardens that may be clustered with up to four other solar gardens on a single parcel, for a total maximum output of five MW per site. The community solar garden model allows individuals, businesses, schools, and civic entities – known as “subscribers” – that have limited options to install their own on-site solar panels to purchase or “subscribe” to a portion or a “share” of the output from a given solar garden. This allows subscribers to purchase clean, renewable energy at a savings compared to their current utility bill, without making costly upfront investments in a solar system.

Subscribers

Individual homeowners, cities and counties, and businesses can all become subscribers by entering into a 25-year subscription agreement with one of the many operators of solar gardens in the state. For example, the City of Independence could become a subscriber to community solar gardens at no cost and receive the economic benefits of reduced energy bills. However, the City would be limited to subscribing to community solar gardens that are located in Hennepin County or a neighboring county.

Tax credits

There is a significant push in the solar industry to permit and build community solar gardens quickly, as each garden must be constructed and online by the end of 2016 in order to qualify for the 30% federal Investment Tax Credit (ITC) for solar facilities, which is slated to be reduced to 10% at the end of next

year. The ITC allows developers to offer subscribers a significantly greater savings than what would currently be possible in the absence of the ITC.

Tax Benefits to the Community

While the solar facility itself is exempt from being taxed under Minnesota Statutes, the land is taxed at an increased rate. If the principal use of the land is solar panels, then the land is taxed at the utility (3a classification) rate of 2%, rather than the agricultural (2a tax classification) rate of 1%. In addition, for facilities greater than one MW, the solar developer must pay a production tax rate of \$1.20 per megawatt hour, the revenue from which is split 80/20 between the County and City.

GENERAL DEVELOPMENT PLAN

Code requirements

Section 520.05 of the Zoning Ordinance provides standards for zoning *map* amendments and zoning amendments. Zoning *map* amendments typically apply to one or a limited number of parcels, however, we are asking for a text amendment that would apply to an entire zoning district. Section 520.05, Subd. 2 of the Zoning Ordinance requires that applicants submit a general development plan for *map amendments* that addresses the following items: (a) The proposed site with reference to existing development on adjacent properties; (b) Proposed public and private road arrangements, walkways, and recreation and open space and other public areas; (c) General location of proposed structures; (d) General location of parking areas; (e) Soil classifications and ground water elevation; (f) General locations of wells and on-site sewage treatment systems; (g) General drainage pattern; (h) Plans and proposals generally describing the applicant's future expansion plans and intentions. While the code does not require a general development plan for text amendments, we are providing a general development plan to help inform decision-makers in considering a text amendment for panels in the Agricultural District.

General Development Plan

Our team has developed a general development plan that addresses the relevant items required by Section 520.05, Subd. 2 of the Ordinance. The general development plan is conceptual in nature to help inform the City of what community solar garden could look like at the proposed location. At this time, we are not asking for approval of this plan. If the Council votes to allow an Ordinance Amendment, we will develop full site plans according to Council-approved standards.

The subject parcel is zoned residential and guided low density residential in the Comprehensive Plan. The subject parcel and the surrounding parcels are currently being used as either open space or as farm land. Our plan shows compliance with principal building setbacks and wetland setbacks for the district and proposes landscaping along the roadway and the on-site residential structure.

Panel Configuration

Solar panels will be mounted on 4-6 foot tall metal racking structures that are affixed to the ground using either driven posts or helical ground screws. These types of configuration require minimal ground disturbance and allows for stormwater infiltration under the panels.

Landscaping

Ecoplexus provides a low-growing, shade-tolerant, native species seed-mix that is planted between and underneath the arrays to facilitate stormwater infiltration and to help incorporate the overall facility into agricultural landscapes. Pollinator plantings are typically used in sunny areas as pollinators do not grow well underneath the panels. Fencing is incorporated into plans to protect the panels from vandalism and animals.

Maintenance

The site is maintained by crews on an as-needed basis. This includes mowing vegetation as needed or attending to the facility if an error or anomaly is registered by the remote monitoring system. There is no daily maintenance required and no staff on site.

Stormwater and grading

Construction of a solar facility is a very low-impact activity: one that requires little site grading and has no impact on stormwater runoff. Impervious surfaces are limited to the inverter pads and the actual panel posts. The Minnesota State Solar Panel model ordinance recommends that communities do not apply traditional stormwater rules to the panels, stating, "*The [LGU] should consider an important distinction between a ground-mount solar array and the roof of an accessory building; the uncompacted and vegetated ground under the array can be used to infiltrate stormwater.*"

Federal regulators allow for solar panels in wetlands and allow LGUs to determine whether or not panels are located in them. Ecoplexus does not place panels in open water and typically avoids hydric soils, but will work with hydric soil should the site conditions require it.

Power distribution

Electrical conduit in the interior of the facility is buried underground and routed to on-site interconnection facilities for each installed megawatt. "Interconnection facilities" consist of a meter, air switch, and recloser, and provide the interface between the solar garden and the electrical grid. Typically, these facilities—which are owned and maintained by the utility—are mounted on 1-3 utility poles arranged in a row. Normally, interconnection facilities could be shared between all five MWs; however, Minnesota statutes and Public Utility Commission regulations require each one MW garden to be able to operate independently of each other. Therefore, Xcel is requiring unique interconnection facilities for each one MW block. We have included pictures of what these facilities look like in our submittal.

ZONING TEXT AMENDMENT

We are requesting that the City amend the Zoning Ordinance to allow community solar gardens as a conditional use in the Agricultural District. Community solar gardens are similar in nature to wind energy conversion systems (WECS). Section 530.01, Subd. 4. of the Zoning Ordinance allows wind energy conversion systems as a conditional use in the Agricultural District, and we ask that community solar gardens also be allowed as a conditional use in the Agricultural District.

Section 520.07. Subd 1. of the Zoning Ordinance allows the Planning Commission and the City Council to consider the following criteria in approving or denying zoning amendments:

- 1. Zoning amendments must conform to the Independence City Comprehensive Plan.*

The proposed zoning amendment conforms to the Independence City Comprehensive Plan. Section 6.1 of the Comprehensive Plan lists the basic tenets of the Land Use Plan. Amending the Zoning Ordinance to allow community solar gardens meets several of the stated tenets including protection of local agriculture, expansion of local opportunities of commerce and industry, empowering the local community to control its future, diversifying the tax base, and utilizing in-place infrastructure and systems.

Community solar gardens protect local agriculture are considered a commodity like corn and soy beans, allowing farmers to grow energy. Because of the long-term nature of the agreements with property owners, the low-impact nature of the development, and groundcover plantings, agricultural land is preserved from high intensity development, improves soil by allowing for many years of rest and recovery, and enhances overall site hydrology. Solar supports opportunities for local commerce and industry by providing opportunities for land owners to use land in an alternative manner that is compatible with other uses in the Agricultural District, while providing for living-wage jobs during the construction phase and significant local expenditures on food, lodging, gas, beverages, etc. Solar production empowers the local community to control its future by reducing energy dependence on fossil fuels. Tax base is diversified through a production tax and the ability to charge a utility tax rate on solar gardens that are a principal use on the property. Finally, the community solar gardens does not require added municipal infrastructure and utilizes existing power lines located near the sites.

- 2. The zoning amendment application must demonstrate that a broad public purpose or benefit will be served by the amendment.*

Allowing for community solar gardens serves a broad public purpose or benefit. As described above, the State of Minnesota has mandated increased energy production from solar and renewable energy, in general. Increased solar development in the State of Minnesota also serves a broader public purpose by decreasing dependence on fossil fuels and reducing CO₂ emissions and other pollutants that are associated with their usage. While we are asking for an amendment to allow community solar gardens, the City could consider allowing several different intensities of solar development in the Agricultural District, which would further benefit property owners. Finally, the City itself could participate in the community solar program by becoming a subscriber, which would dramatically reduce energy costs to taxpayers. Subscribers to community solar gardens must subscribe to a community solar garden that is located within the county or a neighboring county, making location an important aspect of solar development.

- 3. The zoning amendment application must demonstrate that the proposed zoning is consistent with and compatible with surrounding land uses and surrounding zoning districts.*

The zoning amendment is consistent and compatible with surrounding land uses and surrounding zoning districts. Solar gardens have minimal site impacts, do not produce emissions or pollutants, and have no detrimental effects on surrounding properties. Solar facilities are non-toxic, non-polluting, and benign land uses. Modern panels are designed to absorb light, not reflect light. The use will not depreciate values of surrounding properties, given that the facility will produce no odors, air emissions, or hazardous materials. Additionally, it will not produce any noises that are discernible beyond the interior of the facility. (The only components of the facility that will make any noise are the inverters, which produce a slight electrical "hum" that can be heard within an approximate radius of 100 ft.) Solar arrays can be easily removed and do not negatively impact the soils, ensuring that the host property remains adaptable to new development.

- 4. The zoning amendment application must demonstrate that the subject property is generally unsuited for the uses permitted in the present zoning district and that substantial changes have occurred in the area since the subject property was previously zoned.*

Since we are asking for a Zoning Ordinance amendment to allow for community solar gardens in the Agricultural District—not an amendment to the zoning map—this standard does not apply. We feel that community solar garden development would be suited to the agricultural zoning

district as a conditional use; however, the current Zoning Ordinance does not have provisions for the use described in the code.

5. The zoning amendment application must demonstrate merit beyond the private interests of the property owner.

The proposed zoning amendment has merit beyond the private interests of the property owner. We are not asking for a change that would apply to only the subject property. We are asking that the City consider amending the ordinance to allow the development of community solar gardens in the Agricultural District, generally. Therefore, any property owner that has a property that is zoned for agricultural could develop solar on their property. Since community solar gardens are part of a State program, there are many that would benefit from solar development in Independence. The community has the opportunity to participate in the community solar garden program and benefit from lowered energy bills.

As part of this submittal package, we have included the Minnesota's model ordinance for solar panel development. We are happy to provide staff with several ordinances that we have worked with on other sites, in order to help guide changes and standards for the ordinance amendment. By amending your ordinance to allow for the construction of community solar gardens in the Agricultural District, Independence will be taking a proactive approach to supporting solar development in the community and the state.

SUMMARY

We look forward to hearing your feedback on the general development plan and discussing a Zoning Ordinance amendment to allow solar gardens in the Agricultural District. We look forward to working with staff and answering your questions at the Planning Commission meeting on January 11, 2016 and City Council meeting on January 26, 2016.

CONTACT INFORMATION

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