

**FUS Board of Trustees special meeting
February 12, 2014**

Board members in attendance: Mike Illes, Bruce Nelson, Martha Hardesty, Scott Eller, Madalyn Cioci, Sue Tincher

Others in attendance: Rev. David Breeden, George Hutchinson, Barb Watts

Meeting called to order at: 6:45

This special meeting is to consider approval of a solar installation proposal. George Hutchinson presented the proposal for a 40 kW rooftop solar project. Details are given in the attached document "FUS solar initiative proposal."

Subsequent discussion:

- Projects to receive the state MiM subsidy will be chosen by lottery. Our chances of being selected in this year's lottery are good, while chances in future years will be diminished because of the likely greater number of projects expected to be submitted.
- The MiM rebate amount would be based on the system performance, that is the amount of kW generated. The projected energy values computed values could be more or less.
- The loss of Child Garden will significantly impact FUS finances. Attracting another day care business would require substantial and expensive changes to meet code. A charter school would be easier to accommodate, but would still require changes.
- Attracting "office" tenants will be challenging and generate limited revenue because the spaces would currently be considered "Class C" space, or marginally suitable. A prospective tenant would likely include a "build out" requirement to make the space suitable. The network cabling project budgeted for completion this year may improve marketability.
- The condition of the windows regarding comfort and security would be a major concern.

Motion passed to submit an application for MiM on Feb 28 based on Option 1 and pay the \$500 registration fee.

Respectfully submitted,
Bruce Nelson. Secretary.

Approved by the Board of Trustees 2/26/14

FUS solar initiative - project outline & action request Feb 12, 2014

Board action requested: Authorize signature on a letter of intent (LOI) to enable submission of Made in Minnesota (MIM) project application by Feb 26 deadline.

Project parameters:

40 kw array with wiring and inverters connected to the NSP/Xcel grid with a production meter.

Array to be located on upper assembly hall (UAH) roof.

Array to be "Ten K" panels mounted on a sled style base resting on the roof without penetrations.

Project business options summary:

- Direct purchase and install.
- PPA (Purchase Power Agreement) with third party equity investor.
- Community Solar project with third party equity investor, management company, and subscribers.

Project business options details:

Option 1: Direct purchase and install:

This is the simplest arrangement. FUS signs a contract to install the system. We pay cash. We own 100% of the production. Please refer to the cash flow illustration for the estimated "break-even" point about 9 years. FUS pays an annual fee (~\$400) for routine maintenance. FUS initial cost is the system cost plus any work needed to prepare the roof to receive the array.

Option 2: PPA (Purchase Power Agreement) with third party equity investor:

A third party investor pays to install the system and sells power to FUS at a specified discount rate. FUS is protected from rate increases for the term of the lease (20 years). FUS has option to buy out investor at conclusion of lease. Please see illustration for projected cost savings. FUS initial cost is limited to work needed to prepare the roof to receive the array.

Option 3: Community Solar project with third party equity investor, management company, and subscribers:

This is the most complex scenario. FUS enters a lease with MN Community Solar. MCS designs and installs the array. MCS sells subscriptions to individuals and FUS for a fixed price. Subscribers receive a credit on their electric utility bills derived from their share of the power production. FUS receives some rent money for use of the roof as the site. FUS would receive credit for subscriptions owned by FUS (up to 40%) FUS initial cost is limited to work needed to prepare the roof to receive the array.

The roof:

We know that the roof is between 12-16 years old. While there is no apparent leakage

visible it is highly likely that the roof will need to be refreshed/refurbished within about 5 years or so. There are two approaches to this:

- Approach one: Do nothing now, repair/refurbish roof when needed and bear the extra cost of demounting the array when the time comes.
- Approach two: Refresh the roof now and add the cost to the overall project budget saving the future cost and complexity of dealing with the array during any repairs.

Additional factor: There are three large sheet metal vents on the UAH roof now. These have been sealed shut to prevent warm air from escaping. Originally designed to provide gravitational cooling for the UAH these are ineffective and are essentially useless. Removing these vents will enable the entire 40 kw array to be installed on the UAH roof which simplifies the installation and reduces the area of the roof impacted by the array.

B&G task group:

The B&G task group met last night and discussed this project including the potential business models described above. The consensus is that the direct purchase/install is the best deal and would provide the best overall value for FUS. We recognized this would involve a fundraising cycle but the feeling was that this would be do-able with a combined program of solar and other projects in the \$300,000 to \$350,000 range.

Event sequence:

FUS decides to move forward with project.

Letter of Intent signed and returned to vendor of choice (VOC)

Vendor of choice files application with State for the MIM program (subsidizes cost of Made in Minnesota equipment)

State conducts lottery to determine which projects will receive funding for 2014. (March 2014)

If project is selected, FUS proceeds with VOC to implement the system.

If project is not selected the process ends for this year.

Project selected:

FUS arranges for roof condition assessment and report.

FUS receives and evaluates report

If report indicates roof in "good" or "fair" condition FUS may proceed with installation of array with no further work on roof. (Not recommended)

FUS takes bids on refresh/refurbish of roof including removal of vents.

Recommendation: At minimum the roof should be reconditioned and the sheet metal vents removed to enable an efficient layout of the array.

FUS arranges for structural evaluation of roof (est \$1000 cost) This is expected to return a favorable result as the roof structure is substantial. We do not expect any surprises here.

FUS conducts fundraising campaign to generate project budget.

FUS enters contract (or lease) with VOC to install array.

VOC installs array and connects to grid.

Note: the MIM program allows for a 1 year project duration so the timing of these events can be optimized to reduce risk and synchronize with fund raising activities.

Project complete.

George Hutchinson
Principal
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