OFFICIAL PROCEEDINGS
CITY COUNCIL
ELECTRICAL ADVISORY COMMITTEE
CITY OF ESCANABA, MICHIGAN
Special Joint Meeting
Thursday, November 11, 2015

Pursuit to a meeting notice posted November 5, 2015, the meeting was called to order by the Mayor Marc D. Tall at 6:00 p.m. in the Council Chambers of City Hall located at 410 Ludington Street.

Present: Mayor Marc D. Tall, Council Members, Patricia A. Baribeau, Ronald J. Beauchamp, Ralph B. Blasier, and Michael R. Sattem.

Absent: None.

Present: Electrical Advisory Committee (EAC) Members: Chairperson Tim Wilson, John Anthony, John Mellinger, Ann Bissell, and Glendon Brown.

Absent: Electrical Advisory Committee (EAC) Members: Larry Arkens, One vacancy and Power Plant Liaison.

Also Present: City Manager James V. O'Toole, Electric Superintendent Mike Furmanski, County Commissioners Dave Rivard and John Malnar, Marilyn Kinsey-Brown, members of the public and media.

ADJUSTMENTS TO THE AGENDA

Beauchamp moved, Sattem seconded, **CARRIED UNANIMOUSLY**, to approve the Joint City Council & Electrical Advisory Committee Agenda as submitted.

CONFLICT OF INTEREST – None

UNFINISHED BUSINESS – None

NEW BUSINESS

Update - Electric Department –General Operations.

Electrical Superintendent Mike Furmanski updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.

- Garland was up on Main Street;
- Staff was Working on LED lights on Ludington Street and finishing Commercial Services;
- Council Members discussed an SSR status update with Administration;
- Reviewed electric rates compared with other municipalities around the state;

Discussion – Community Solar Garden Concept – P.A. 295 – The Clean, Renewable and Efficient Energy Act.

Electric Superintendent Mike Furmanski, and Electric Advisory Board Member Glendon Brown discussed the concept of installing a Community Solar Garden in the City of Escanaba that would be in compliance with energy efficient requirements found in P.A. 295, the Clean, Renewable and Efficient Energy Act. The following was discussed:

- Reviewed the basics of a community solar garden, how would it benefit the City, and asked Council how they would want to proceed (See Attachment – A);
- Requested Council and Electrical Advisory Committee for permission to pursue an internal staff and volunteer feasibility study of the Community Solar Garden concept, with specific deliverables at the completion of the study in 5 months.

It was the consensus of the Electrical Advisory Committee to pursue the Community Solar Garden concept.

Blasier moved, Baribeau seconded, to support an internal staff and volunteer feasibility study of the Community Solar Garden concept, with specific deliverables at the completion of the study in 5 months.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Baribeau, Sattem, Beauchamp, Tall
Nays: None

MOTION CARRIED.

Update – Power Plant Facility and Site.

Administration updated the City Council, Electrical Advisory Committee and the Citizens of Escanaba regarding the status of the sale of the Power Plant.

GENERAL PUBLIC COMMENT – None

COUNCIL/COMMITTEE, STAFF REPORTS – None

ADJOURNMENT

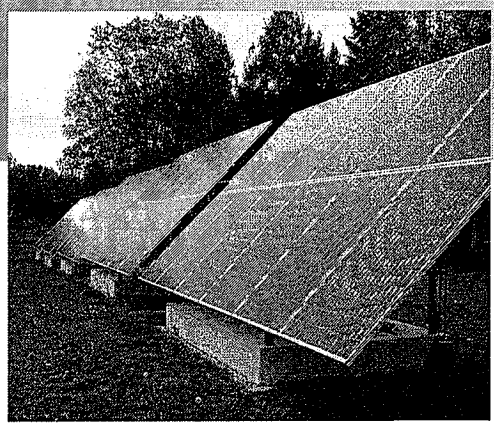
Hearing no further public comment, or further reports from the Electrical Advisory Committee or Council, the meeting adjourned at 7:35 p.m.

Respectfully submitted,

Robert S. Richards
City Clerk

Approved: _____
Marc D. Tall, Mayor

Community Solar Garden Discussion



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What is a Community Solar Garden?

- Larger scale solar generation facility, e.g., 50KW through 5MW
- Typically built by a municipal, co-operative or an investor owned utility
- Shares in the solar generation facility capacity are sold to individual residents or businesses in exchange for generation output credits to apply against their normal monthly electric bill for 20 to 25 years. (Virtual Net Metering)
- Potentially eligible for the Federal Production Tax credits, 30% off the total cost of the solar panel and installation costs if the facility is operational before 12/31/2016
- Large Scale projects are the most cost effective approach for solar generation
- Economies of scale – lower installed cost
- Ideal site locations (full sun, secure, easily accessible)

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Community Solar Gardens in the Midwest

	Company	Size, KW	Cost, $/KW	Notes
Michigan	Cherryland Electric Cooperative and Traverse City Light & Power	53		2013 • 61% of the capacity was sold at start-up.
	Consumers Energy	3000	$2,580	Spring 2016 at Grand Valley State University • Suniva panels manufactured in Michigan • Participation by any full service Consumer Energy electric customer
Wisconsin	Eau Claire Energy Co-op	875	$2,100	1st phase started up in October, 2015
	Clark Co-op	53	$2,610	2015 start-up
	Taylor Co-op	95	$2,700	2015
Many more community solar garden projects are under development by WPPI Energy, Xcel, Madison Gas & Electric and other Co-ops				
Minnesota: A major area of community solar installation activity since 2013. Legislature required Xcel Energy, the largest utility in Minnesota, to offer community solar programs. Individual projects are up to 1MW in size.				
Nationwide		68MW		33% of that capacity was added in 2014

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What are the Benefits of an Escanaba Community Solar Garden?

- A 2015 NextEra study found that ***"total generation costs on a levelized basis over 25 to 30 years, favor new natural gas combined cycle generation plants and wind and solar clean renewable technologies"***
  - Installation costs for solar generation have dropped dramatically in the last decade, and are continuing to decrease
  - Combining City, resident and business investment, drives down the investment cost per KWH. Bigger solar farms, buying solar panels by the truckload, have significantly lower installation costs than smaller scale installations.
- Solar generation provides an essentially fixed electricity cost for 25+ years after the initial investment.
- Fuel is free
- Very low maintenance costs, e.g., clean the panel surface annually
- A Community Solar Garden offers residents and businesses, who do not have a suitable solar panel installation site (**most residences and businesses**), or do not want to research, contract and purchase their own system, the opportunity to participate in a Solar Community Garden at a known cost.
- The 30% Production Tax Credit (PTC) ends 12/31/2016 (unless extended by Congress), and is reduced to 10% in 2017 under the current legislation. Private individuals and businesses may be eligible for the PTC which covers purchase and installation costs.

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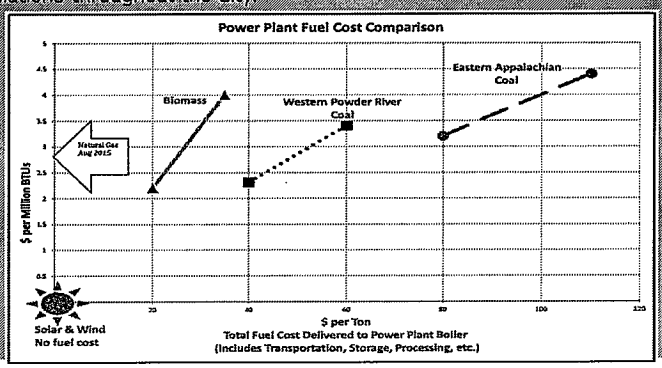
What are the additional Benefits to the City of Escanaba?

- Reduces purchased electric energy on a one to one basis
- Lowers Capacity purchases
- Decreases ATC Transmission costs
- In 2015, Energy + Capacity + Transmission costs made up 74% of the energy cost of providing electricity to Escanaba businesses and residents.
- Reduces City net-metering administrative costs compared to many small solar installations throughout the City.



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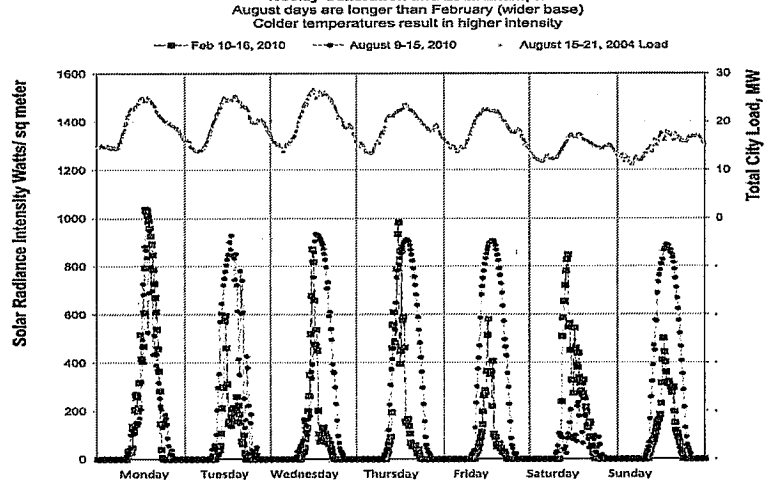

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Proposed Funding Source for Escanaba Community Solar Garden

- The Escanaba Electric Department could construct a Community Solar Garden using a portion or all of the remaining Renewable Energy Fees collected from the Escanaba Electric ratepayers. (Renewable Energy Fees were required by the State of Michigan).
- For example, at a $2,500/KW installed construction cost, a $1 million investment would build a facility with:
- Up to ~400KW or 0.4 MW solar generation capacity
- Up to ~1330 individual 300 watt solar panels
- Solar generation to supply ~1.4% of the City's recent peak loads, or 2.4% of the average load
- ~ 2-3 acre site
- Repayment of the initial investment from the City's Electric Department funds would come from the subscription or participation payments schedule depending on:
- Share payment options (One time up front, or monthly payment over XX years)
- % of capacity sold to residents and businesses

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This specific request is for the EAC and Council to support an internal staff and volunteer feasibility study of the Community Solar Garden concept, with the following specific deliverables at the completion of the study in 5 months:

- Research restrictions on using Renewable Energy Fees
- Estimate cost and capacity of the proposed facility based on utility scale contractor/developer contacts and proposals.
- Propose site or sites for Community Solar Garden project(s)
- Preliminary economic analysis and payback period for investment in the Community Solar Garden capacity by:
- Escanaba residents
- Escanaba businesses
- Escanaba Municipal Government
- Quantify benefits to Escanaba Electric Department: Reduced energy, capacity (Variable Energy Resource for MISO?) & transmission costs
- Develop a new net metering policy for Escanaba
- Survey residents and business community interest in the concept
- Clarify Federal Production Tax Credit (30% on installed cost if operational by 12/31/2016) for residents and businesses.
- Define impact of any new Michigan energy legislation on concept and economics.
- Propose contract language and terms for purchase of Community Solar Garden capacity by a resident or business.

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