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Request for Proposal
City of Escanaba, Michigan

for
**Sale of Steam and/or
Combustion Turbine
Generation Facilities**

November 14, 2008

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**Power System
Engineering, Inc.**

Madison, WI · Minneapolis, MN · Marietta, OH · Indianapolis, IN



City of Escanaba Michigan

Request for Proposal

Sale of Steam and/or Combustion Turbine Generation Facilities

Summary

Escanaba, Michigan is located 120 miles north and east of Green Bay, Wisconsin on the shores of Lake Michigan. Escanaba Electric Department (EED) is responsible for providing electricity to residents of Escanaba, Michigan. EED provides electricity needs using its own generation including two 12.5 MW coal-fired steam generation facilities and a 15 MW oil-fired combustion turbine (CT) unit. EED is considering the sale of the coal-fired steam generation plant and the CT.

EED is requesting proposals from entities with an interest in acquiring and continuing the operation of generation facilities. The CT unit could be purchased and moved to another facility, or could be operated under a separate agreement with the City of Escanaba using operating personnel from the steam plant generation facilities. It is not necessary to provide a proposal on the CT, as the City may wish to retain the CT.

The possible acquisition and continued operation of the generation facilities is proposed to commence as soon as June 4, 2011 but could be earlier, depending on the termination date of existing agreements. Timing may also be dependent on the EED securing an all requirements power purchase agreement.

Any entity interested in providing all requirements power and energy must submit a purchase power proposal through the separate RFP issued November 6, 2008.

Prospective parties are required to provide a notice of their intent to bid by November 26, 2008. For parties intending to provide a proposal, plant tours will be conducted during the week of December 8; and the proposals are due on January 16, 2009. Power System Engineering, Inc. (PSE) will evaluate the proposals and will provide a summary of all viable summaries including a recommendation of the top two proposals to the Electric Advisory Committee (EAC) at the February 11, 2009 meeting. The Escanaba City Council will consider the recommendation of the EAC and may approve language to be on the ballot at the February 19, 2009 meeting. If ballot language is approved by the City Council, a special election will be conducted on May 5, 2009 to allow Escanaba citizens the opportunity to voice their opinion on the future of the Escanaba Power Plant. If the citizens vote for the plant to transfer ownership, negotiations will be pursued with the recommended bidder. In the event that negotiations break down with the recommended bidder, negotiations will be initiated with the second place bidder. An escrow deposit will be required from the first and second place bidders.

See Appendix I for the one-line diagram of the current substation, Appendix II for the plant survey, Appendix III for more information on the steam generation facilities and Appendix IV for more information on the CT unit.

Transmission and Delivery Point(s)

Escanaba does not currently have a defined MISO generation node for its steam plant. UPPC.ESCCT is the node for the CT plant. Depending on the outcome of this RFP process, and the eventual ownership of the facilities, a new node may be established for the steam plant. For the purposes of evaluating this RFP, the UPPC.ESCCT node can be considered the node for the steam plant.

The current transmission and distribution configuration is shown in Appendix I and indicates that the plants are connected to the 12.5 kV distribution network, with two step-up transformers to two 69 kV lines. Future plans are to move the distribution feeders, protection equipment, and the capacitor bank to a new substation outside of the generation plant site. This will allow the plant generation asset(s) to have a direct connection to the transmission system. Substation facilities include the 12.47 kV generator breakers and two 12.47 kV to 69 kV transformers (12/16/20 MVA). Any additional equipment required for generation interconnection that may be needed is the responsibility of the purchasing party.

Regional Transmission Capacity

The American Transmission Company (ATC) is in the process of increasing transmission capacity into the Upper Peninsula with the Northern Umbrella Plan. Depending on the source of the all requirements energy, there may or may not be adequate transmission capacity to deliver energy from the generation facilities to the desired location. If all or a portion of the energy from the Escanaba Generating Station is to be sold to EED, the transmission requirements may not be an issue; but this cannot be assumed without going through the process of making transmission interconnection requests. Escanaba has filed three Load Interconnection Request Forms (LIRF) with the ATC in order to start the process of determining what facilities may be needed to serve EED.

Response Package and Pricing

All applicable Response Package(s) must be included as part of each submittal. If more than one submittal is made, separate packages, clearly marked, must be prepared for each submittal.

All price quotes must be communicated in the attached Response Package. Prices quoted shall be firm offers and always include all payments that Escanaba will receive for selling the generation facilities. Indication should be clear as to which facilities are of interest and how the facilities are intended to be operated in the future.

Proposals must include a description of expected fuel usage, and whether the facility is expected to be converted to biomass. A description of the expected sources and a range of anticipated costs of fuel should also be included.

Bidding Process

If a party is interested in submitting a bid, notice must be made by November 26, 2008. On-site facility tours of three to four hours will be provided during the week of December 8, with the goal of providing tours within a two- to three-day window, depending on the available dates selected by potential bidders. Generation Purchase Proposals must be provided by January 16, 2009. PSE will evaluate the proposals and make recommendation of the top two proposals to the Electric Advisory Committee on February 11, 2009. City of Escanaba residents will vote on May 5, 2009 to determine if the ownership of the generation facilities will be sold. If the vote passes, negotiations with the top bidder are expected to begin in June 2009.

EED is requesting that questions from bidders be submitted through the www.escanabaenergy.com website or to the Official Contact by email or fax. Questions will be posted anonymously and responses will be confidentially shown on the www.escanabaenergy.com website to allow an exchange of information. There will be a separate area set up for this exchange of formation. Questions and answers will be provided to all parties who have filed a notice of intent through a secure website access.

Reservation of Rights

EED reserves the right to accept or reject any proposals at its sole discretion. In addition, EED reserves the right to consider other alternatives outside of this request to satisfy its requirements.

Schedule

The following schedule and deadlines apply to this RFP:

Activity	Date
Issue RFP	November 14, 2008
Notice of Intent to Bid	November 28, 2008
On-Site Tour (1/2 Day)	Week of Dec 8
RFP Response Package Due (5 PM Eastern Time)	January 16, 2009
Short-list Selection	January 23, 2009
Recommendation on Purchase Proposals	February 11, 2009
Escanaba City Council Approve Ballot Language	February 19, 2009
Escanaba Election to Decide Future of Plant	May 5, 2009

EED reserves the right to unilaterally revise or suspend the schedule.

Proposal Responses and Inquiries

Please direct any questions and send proposals to the EED Official Contact. Questions must be provided in writing to the email address and will be posted (without reference to party asking question) on the www.escanabaenergy.com website.

EED Official Contact:

Thomas Butz

Power System Engineering, Inc.

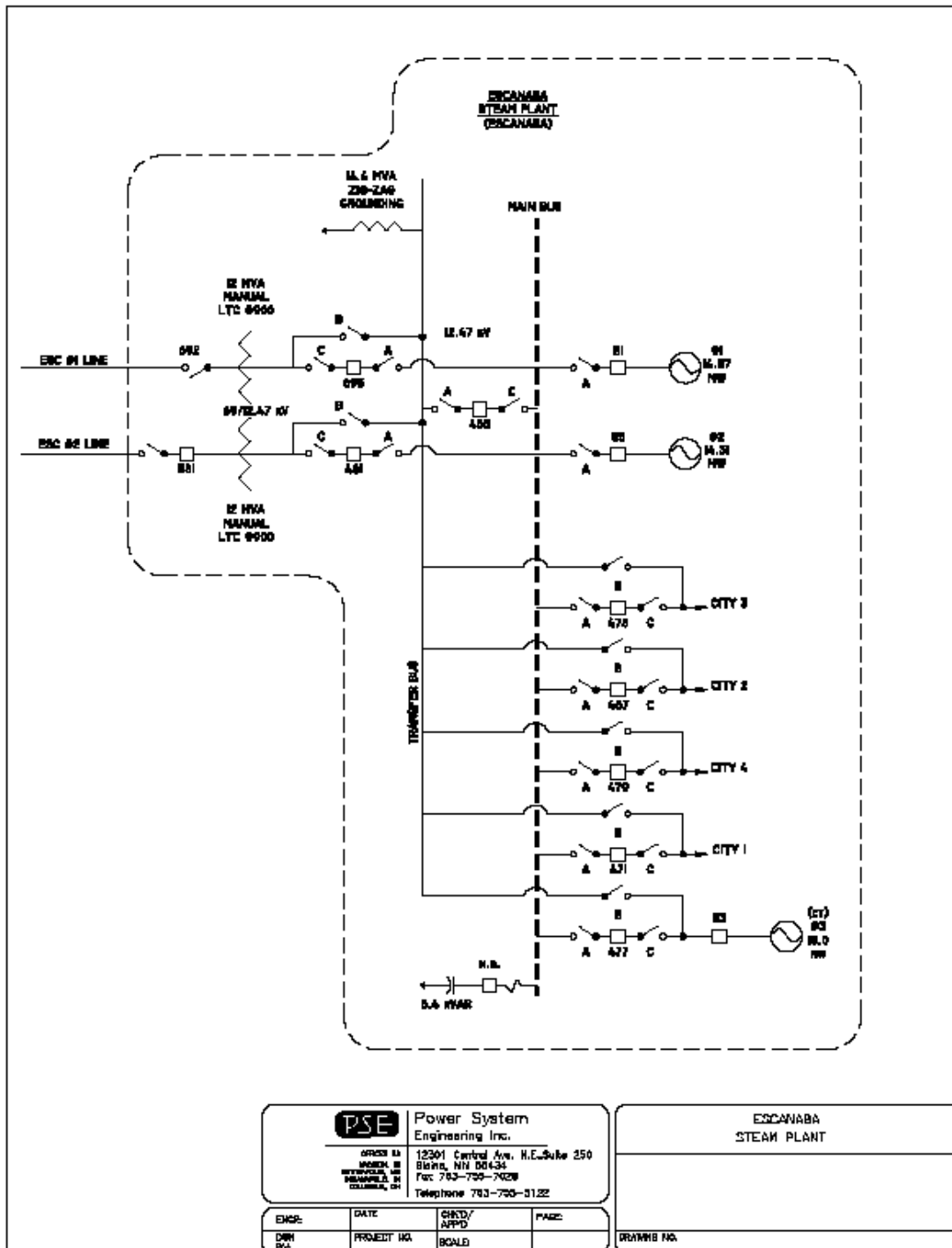
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Appendix 1 - One-Line Diagram



Appendix III - Steam Plant Description

General Description

The Escanaba Generating Station consists of two coal-fired generating units (CT is located adjacent to the coal-fired generating units). EED owns a parcel of land that is approximately 35 acres in area. It is located just north of the City of Escanaba, Michigan on the shores of Lake Michigan. The 16-acre parcel that is the subject of this document is presently part of this 35-acre parcel. This description relates solely to the coal-fired units.

The coal-fired units were designed by Black and Veatch and began commercial operation in 1958. The units are basically identical. Each includes a top supported two-drum boiler supplied by Babcock and Wilcox. The units are rated for 125,000 lbs. per hour of steam at 600 psig and 825°F. Steam temperature control is accomplished by balancing boiler overfire air. The boiler may be operated at 140,000 lbs. per hour of steam flow for up to two hours.

The coal is fed to the boiler by Alstom stokers and burned on a Detroit Stoker Rotograte traveling grate. Each grate is 15'-4-½" wide by 18' net length for a surface area of 276.7 square feet. Each boiler has an economizer for preheating feedwater to the boiler, but does not have an air preheater. At rated capacity, boiler performance data states the efficiency of the boiler at 84.3 percent. The average annual net heat rate of the steam generation plant is 14,500 Btu/kWh. The design grate heat release at 125,000 lbs. per hour steam flow burning coal is an extremely conservative 592,477 Btu/hr.-square foot. If this boiler were converted to burning wood at 55 percent moisture content, the grate heat release appears to be adequately sized.

Site ash disposal is accomplished by dumping every day. Ash from the site is presently being trucked to the Delta County Solid Waste Disposal Authority.

The boilers are balanced draft units, each with a single forced draft fan providing combustion air from the ground floor elevation and a single induced draft fan located between the mechanical collectors and the electrostatic precipitators. Flue gas cleaning consists of centrifugal mechanical collectors followed by a three-field electrostatic precipitator installed in 1979. Steam from the boiler in each unit is piped to a turbine generator that was supplied by Allis Chalmers and has a nameplate rating of 12,650 kW gross. Steam is extracted to four feedwater heaters, and the turbine exhausts to a surface condenser utilizing circulating water from Lake Michigan. The steam turbine drives a Allis Chalmers generator operating at 3,600 rpm.

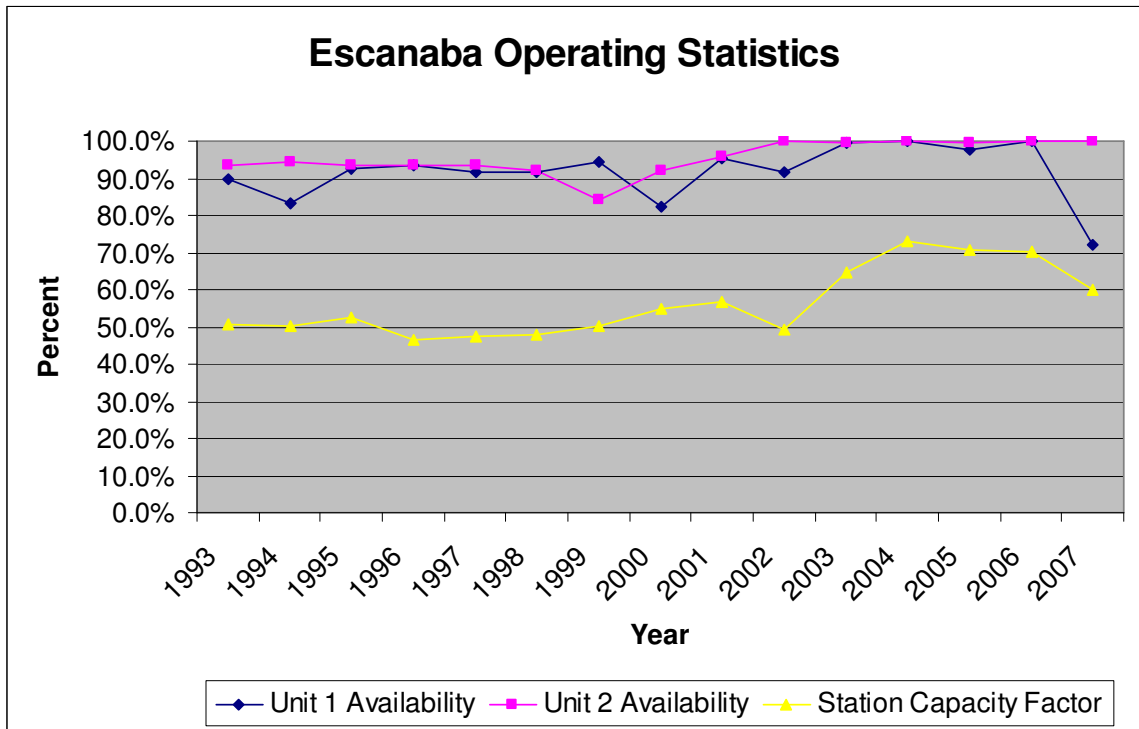
Operation

The coal-fired units operate continuously whenever they are available. Typically, during the day, they are operating at high loads, as much as 13 MW gross for each unit. Considering the station service requirements of 500 kW for each unit, the net output is approximately 12.5 MW. The current State of Michigan Operating Permit references a nameplate rating of 12.5 MW.

During the night, the units are typically ramped down in load to allow economy purchases of energy at costs lower than self-generation costs. The minimum load for each unit is 4 MW gross. Operating the units at minimum load during the off-peak hours as opposed to shutting them down and restarting has most probably helped the availability of the units.

Currently, the plant operators have the ability to monitor the MISO Real Time market price and make short-term decisions on how to dispatch the plant.

The historical equivalent availability and capacity factor of the coal-fired units at Escanaba have been excellent as summarized graphically below:



The Upper Peninsula Power Company (UPPCO), under contract by the City of Escanaba, has operated the station since 1958. UPPCO has been acquired by the Wisconsin Public Service Corporation. The plant is operated and maintained by a staff of 27 people, as follows (three Full Time Equivalents are currently used for UPPCO hydro operations): 4 - Shift Engineers, (1 per operating shift).

- 4 - Boiler Turbine Engineers, (1 per operating shift).
- 4 - Oilers, (1 per operating shift).
- 1 - Electrical and Controls Technician.
- 2 - Generation Technologist.
- 2 - Coal Handling Personnel.
- 3 - Relief Operators.
- 1 - Station Clerk.
- 1 - Station Supervisor.
- 1 - Station Superintendent.
- 4 - Maintenance Generation Specialist.

Fuel

Escanaba Units 1 and 2 are solely fueled by coal. There is no auxiliary fuel capability. Startup is accomplished by using waste wood on the boiler grates. Given the infrequency of plant startups, this works quite adequately.

Annually, plant staff requests proposals from potential coal suppliers. Coal is requested to be sized 2"x 0". The coal typically has a calorific value of 12,500 Btu/lb. and must contain less than 1.5 percent sulfur in accordance with the current Operating Permit. Coal is currently transported by ship and stored on a dock immediately north of the plant. There are also rail facilities adjacent to the property that could be developed for fuel delivery. This dock is not owned by Escanaba, but leased from C. Reiss Coal Company. There is adequate draft next to the coal pile, so that the ship can unload directly to the storage pile. Generally, the plant purchases sufficient coal to operate the plant for one year. Annual coal requirements vary between 60,000 and 80,000 tons. Coal is loaded into a dump truck from the storage pile using a front-end loader and transported to the in feed hopper at the station.

Permit Requirements

The Escanaba Generating Units operate under an Operating Permit issued by the State of Michigan. The permit is presently due for renewal by June 2009. The new Operating Permit will be valid through 2014.

The coal units are limited to 1.5 percent sulfur coal, and a stack opacity of 20 percent based on a 6-minute average except for one 6-minute average of not more than 27 percent opacity. The particulate emissions must not exceed 0.30 pounds per million Btus of heat input to the boiler. The plant has a very good operating history of permit compliance.

Historic operating costs are available for parties submitting notice of intent to bid.

The plant is in a fugitive dust non-attainment zone. This fugitive dust issue is primarily related to the operation of the Canadian National ore dock operations located just south of the Escanaba Generation Units.

Appendix IV - Combustion Turbine Unit Description

General Description

The Escanaba Generating Station consists of two coal-fired generating units and an oil-fired combustion turbine (CT) generator. The site is located just north of the City of Escanaba, Michigan on the shores of Lake Michigan.

The CT is a General Electric Frame 5 unit that was manufactured in 1968. The unit was originally installed in New Hampshire and then in Ecuador. The air-cooled generator is rated at 21,176 kVA at .85 power factor which equates to 18 MW output. Prior to being shipped to Escanaba in 2002, the purchase contract required the unit to be completely overhauled. It is uncertain how many operating hours were on the unit prior to purchase by Escanaba, but since that time the turbine has operated for 2,689 hours and been started 280 times. The unit is equipped with an evaporative cooler for the combustion air to improve capacity and efficiency in hot weather, and water injection for capacity enhancement as well as NO_x reduction. Water for the NO_x reduction is provided by the coal-fired generation facilities. A 100,000-gallon tank for number 2 fuel oil is located adjacent to the CT. The unit has black start capability. While this unit is currently fueled only with number two fuel oil, it could be adapted to use fuel oil and/or natural gas fuel.

Operation

The CT typically operates between 350 to 500 hours annually. Operation is typically driven by the need for transmission support. For the period from 2003 through 2007, the CT had a 2.7 percent capacity factor and a 99.72 percent equivalent availability factor.

Fuel

Fuel for this unit is delivered by truck and must be less than .05 percent sulfur content.

Permit Requirements

The current Renewable Operating Permit limits this unit to 35.9 tons of nitrogen oxide emissions annually. This is equivalent to approximately 1,360 hours of operation at full load.