



# City of Grand Island

Tuesday, August 09, 2005

Council Session

## Item G13

**#2005-224 - Approving Contract Documents for Participation in  
the Whelan Energy Center Unit #2**

Staff Contact: Gary R. Mader

# Council Agenda Memo

**From:** Gary R. Mader, Utilities Director

**Meeting:** August 9, 2005

**Subject:** Whelan Energy Center Unit #2; Contract Documents

**Item #'s:** G-13

**Presenter(s):** Gary R. Mader, Utilities Director

## Background

### Project Development:

For the last four years, Grand Island has been participating in the development of a new base load, coal fired electric generating plant to be built in Hastings at the same site as the existing Hastings plant. That site is named the Whelan Energy Center (WEC) and the new project is generally referred to as WEC2. WEC2 capacity is designed to be 220 megawatts (MW). The current Grand Island share is 15MW. Other participants include the Municipal Energy Agency of Nebraska (MEAN), the City of Hastings, Heartland Electric Cooperative (S. Dakota), the City of Nebraska City, and Consolidated Wyoming Municipalities.

Phase 1 of the WEC2 project included site design, steam cycle engineering selection, plant cost estimates, and unit design to the point of allowing application for environmental permitting by the Nebraska Department of Environmental Quality (NDEQ). The environmental permitting and public hearing processes have been completed and NDEQ has issued the construction permits. Phase 1 of WEC2 project development is completed.

Phase 1.5 of the project included preconstruction ambient air particulate monitoring as required by the construction permit; initiation of detailed plant design to maintain the permit requirement to begin construction within 18 months of the permit date; application to the Nebraska Power Review Board for project approval as required by state law, that approval has been received; and initiation of the transmission service study for plant output delivery to the participants.

The initial project development work for the WEC2 project has now been completed and all regulatory permits have been issued to allow the project to move forward.

### Project Governance:

The proposed legal structure of the project governance is based upon the Nebraska Interlocal Agreement statutes, wherein public entities are enabled to join forces for public projects. This project proposes to utilize the Interlocal Agreement process to create a governing body for the

power plant project, with the board of that governing body made up of representatives from each of the project participants. That governing agency is named the Public Power Generating Agency (PPGA).

The incorporation documents associated with this project have been reviewed by legal counsel retained by the group to assist in development, the legal counsels of the parties, and in the case of Grand Island, by our Bond Council, Baird Holm.

Each project participant would have a seat on the PPGA Board of Directors, as assigned by the governing entity of each of the participants. In the case of Grand Island, the City Council would appoint a Board Director to represent the City. The creation of the Public Power Generating Agency includes the approval of three documents;

- The Interlocal Agreement – constructed in accordance with statutory requirements to create the Public Power Generating Agency (PPGA)
- The Bylaws of the Public Power Generating Agency (PPGA) – the document defining the operation, governing authority, duties and obligations of the PPGA
- The Participation Agreement – a contract, signed by each of the participants, which describes the terms and conditions for Project rights and obligations.

Each of these documents is interrelated to the others, so a single effective date is proposed for all three of the agreements. That date is September 1, 2005.

## **Discussion**

The last round of construction of large, base load power plants in the state occurred in the late 1970's and early '80's. It was during that time that the cities of Grand Island, Hastings, and Fremont added coal fired plants, and Nebraska Public Power District built the Gerald Gentleman plant in western Nebraska and Omaha Public Power District built the Nebraska City plant in the east. Since that time, electric load growth has been met from the excess capacity built into those plants and, more recently, by the addition of gas turbine peaking units.

The most cost effective generation mix is a combination of base load power plants (those having low operating costs but high first costs) intended for nearly constant operation, and peaking plants (those having low first costs but high operating costs) intended for limited hours of operation to meet only peak loads of short duration.

As load growth has continued, the cost effectiveness of the current generation mix in the state, i.e. the balance of base load units and peaking units, is being diminished as more peaking unit operation is required to meet electric demand.

Differing fuel costs between base load and peaking units create a substantial difference in the cost of generation. The City's Platte Generating Station produces electricity with a fuel cost of \$10 - \$12/MWh; Burdick Station peaking units are fired by natural gas and produce power for a volatile \$100/MWh. From the fiscal '03-'04 audit, Grand Island's retail electric rate averaged

only \$49.00/MWh. To maintain a competitive rate structure, electricity production from Burdick Station must be limited to peaking service only.

As a result of the statewide need for base load electric generating resources, two large projects are currently being developed in Nebraska; Nebraska City Unit #2 (NC #2), a 600 MW coal fired power plant and the Whelan Energy Center Unit #2 project, a 220 MW coal fired power plant. Grand Island is a participant in the Nebraska City project at a 30 MW level. That plant is in the early stages of construction and is scheduled for commercial operation in the spring of 2009. The Whelan Energy Center #2 project is on a later time line with a scheduled commercial operation date of 2012.

Currently, the City's only base load electric power resource is Platte Generating Station, which has a capacity of 100 MW. Grand Island's electric load, like that of the state in general, continues to grow. The City's summer peak loads are now regularly over 150 MW, and the Gas Turbines are routinely used during peak load conditions in the summer months. Electric loads are also growing in non-summer months. In January of 2005, peak electric demand reached 99.2 MW, and the City's electric loads in the winter are projected to continue to grow above the 100 MW capacity of Platte Generating Station. In another five years, the City's loads are projected to exceed 100 MW most months of the year. In order to maintain a near optimum mix of electric generation resources for the future, base load capacity will need to be added. The WEC #2 project offers an opportunity to do so in a staged approach, three years after the NC #2 unit is on line.

### **Alternatives**

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

### **Recommendation**

City Administration recommends that the City participate in the Whelan Energy Center Unit #2 power plant project and that the City Council authorize the Mayor to execute the three base documents for that project participation.

### **Sample Motion**

Motion to approve participation in the Whelan Energy Center Unit #2 power plant project and authorize the Mayor to execute the three contract documents.

RESOLUTION 2005-224

WHEREAS, for the past four years, the City of Grand Island has been participating in the development of a new base load, coal fired electric generating plant to be built in Hastings at the same site as the existing Hastings plant; and

WHEREAS, the site is named the Whelan Energy Center (WEC) and the new project is generally referred to as WEC2; and

WHEREAS, the WEC2 capacity is designed to be 220 megawatts (MW), with the current Grand Island share to be 15 MW; and

WHEREAS, the legal governing agency of the project is the Public Power Generating Agency (PPGA), with one board member to be appointed from each project participant; and

WHEREAS, the creation of the Public Power Generating Agency includes the approval of three documents: the Interlocal Agreement, the Bylaws of the Public Power Generating Agency, and the Participation Agreement; and

WHEREAS, Grand Island's electric load, like that of the state in general, continues to grow; and

WHEREAS, in order to maintain a near optimum mix of electric generation resources for the future, base load capacity will need to be added; and

WHEREAS, the WEC2 project offers an opportunity to add electric base load capacity; and

WHEREAS, the City Attorney has reviewed and approved the above identified contract documents to participate in such project.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the City of Grand Island is hereby authorized to participate in the Whelan Energy Center Unit No. 2 power plant project.

BE IT FURTHER RESOLVED, that the Public Power Generation Agency Participation Agreement, Interlocal Agreement, and Bylaws of the Public Power Generation Agency are hereby approved; and the Mayor is hereby authorized and directed to execute such documents on behalf of the City of Grand Island.

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Adopted by the City Council of the City of Grand Island, Nebraska, August 9, 2005.

Approved as to Form	☐ _____
August 2, 2005	☐ City Attorney

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RaNae Edwards, City Clerk