



City of Grand Island

Tuesday, March 7, 2017

Study Session

Item -2

Solar Power Update

Staff Contact: Tim Luchsinger, Utilities Director

Council Agenda Memo

From: Timothy Luchsinger, Utilities Director

Meeting: March 7, 2017

Subject: Solar Power

Presenter(s): Timothy Luchsinger, Utilities Director

Background

State statute requires that public utilities in Nebraska provide its customers with adequate electric service at as low of an overall cost as possible, consistent with sound business practices. To do so, public utilities must look at long-term, in addition to immediate, issues in an overall context. The Utilities Department has taken an approach in its energy supply strategy to incorporate multiple facilities using a blend of fuel sources. This allows flexibility in managing costs that can occur because of market conditions due to industry issues or environmental concerns. Energy supply planning must also take into account the long timeframes that are common in electric generation development, therefore, utilities plan for conditions projected at least five to ten years in the future, sometimes even longer.

Traditional energy sources in Nebraska have been based on coal because of the close proximity of mines in Wyoming and a robust railroad system through this area. These have been supplemented with hydro, natural gas and nuclear facilities, resulting in low cost power to Nebraska customers.

Due to developing environmental concerns, the State's utilities have been developing facilities with renewable energy sources, primarily wind generation because of its potential compared to solar or biofuels. Grand Island participated in some of these early projects on a minor basis to learn more of the details of wind generation costs and operational issues.

On May 8, 2012 Council approved a resolution to direct the Utilities Department to evaluate potential renewable energy projects and provide to Council recommendations for participation as needed to maintain a balanced energy portfolio.

Since that time, the City has entered into Power Purchase Agreements with developers for two projects, Prairie Breeze located at Elgin, and Prairie Hills at Callaway, for a total of 86 megawatts, or about 45 percent of Grand Island's annual energy requirements.

Discussion

As part of the Request for Proposals issued last summer for renewable energy that resulted in the selection of the Prairie Hills project, the Department also solicited solar projects that could be done on a pilot program basis, similar to the early wind projects, which would allow first-hand experience to solar generation costs and operational issues. A status of the progress of the solar evaluation will be presented to Council during this Study Session, with possible consideration of a project at a later date.

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Solar Pilot Project

- 1 Megawatt capacity
- Annual production for approximately 180 homes
- Project cost paid on power produced
- Shares may be offered to customers





