

**STATE OF NEBRASKA
NEBRASKA POWER REVIEW BOARD**

IN THE MATTER OF THE APPLICATION)	PRB-3807-G
OF THE CITY OF FALLS CITY, NEBRASKA,)	
REQUESTING AUTHORIZATION TO INSTALL)	
ONE 9.3 MEGAWATT DUAL FUEL)	ORDER
ELECTRIC GENERATING UNIT.)	

On the 23rd day of October, 2015, the above-captioned matter came on for consideration before the Nebraska Power Review Board (“the Board”). The Board, being fully advised in the premises, and upon reviewing said application and the evidence presented to the Board at said hearing, HEREBY FINDS AS FOLLOWS (references to testimony are designated by a “T” followed by the transcript page, then the lines upon which the testimony appears, while references to exhibits are designated by “Exh.”):

Lichter, Grennan, Haase, Morehouse and Reida, participating.

FINDINGS OF FACT

1. That on August 27, 2015, the City of Falls City, Nebraska, (“the City”) filed an application with the Board requesting authorization to install a nine and three-tenths (9.3) megawatt dual fuel electric generation unit in Richardson County, Nebraska. (Exh. 1). The City estimated that the total cost of the project would be approximately eleven million five hundred thousand dollars (\$11.5 million). (T19:21 to 20-2 ; Exh. 1, pages 3-4). The City plans to install the new generator on or about March 1, 2016. (Exh. 1, page 2). The application was designated “PRB-3807-G.”

2. The proposed 9.3 megawatt generation unit would be installed inside the City's existing municipal power plant. (T27:20-22; Exh. 5, page 17).

3. That those power suppliers and entities, other than the applicant, that the Board deemed to be potentially affected by or interested in PRB-3807-G were the City of Auburn, the Nebraska Public Power District, the Omaha Public Power District, the Municipal Energy Agency of Nebraska, the City of Nebraska City, and the City of Tecumseh. Written notice of the filing of the application and the hearing date was provided to these potentially interested parties and to the City of Falls City via certified U.S. mail (Exh. 2).

4. Notice of the filing and the opportunity to request to participate in the proceedings was provided to the general public by publication of notice in the *Lincoln Journal Star* newspaper on September 17, 2015 (Exh. 3) and in the *The Falls City Journal* newspaper on September 22, 2015. (Exh. 6). Both the *Lincoln Journal Star* and *The Falls City Journal* are legal newspapers with circulation in the general area where the proposed generation unit would be located.

5. That no Petitions to Intervene, written Protests, or Complaints were filed with the Power Review Board concerning this application.

6. That pursuant to the requirement set out in Neb. Rev. Stat. § 37-807(3), the Board consulted with the Nebraska Game and Parks Commission ("the Commission") to ensure that the Board utilizes its authority in furtherance of the purposes of the Nebraska Nongame and Endangered Species Act, and to ensure that approval of the proposed generation unit would not jeopardize the continued

existence of any endangered or threatened species or result in the destruction or modification of habitat of such species which is determined by the Commission to be critical. The Commission provided a letter to the Board dated September 14, 2015. (Exh. 4). The Commission determined that the generating unit will have “No Effect” on any state-listed endangered or threatened species and did not object to the Board approving the project. (Exh. 4, page 2).

7. The City currently has six generating units designated for emergency use only. These units have a total rated capacity of 10,032 kilowatts, or just over ten megawatts. (T18:13-16; Exh. 5, page 4). These units were installed long ago and are becoming difficult to maintain. The newest of the six units is fifty years old, and the oldest is 85 years old. (Exh. 5, page 4). Replacement parts for the existing units have to be purchased used or manufactured from scratch. (T15:21-24; T17:6-15). The aging units cannot economically be retrofitted to meet new federal emissions standards applicable to reciprocating engines. (T15:18 to 16:4). The cost to install emission controls on units this old and close to or at the end of their life cycle would not be cost effective. Some of the units do not have exhaust temperatures that are high enough to install modern emission controls. Due to this, these six units can only be operated in emergency situations. (T16:11 to 17:5).

8. The City also has two generating units that have a combined capacity of 12,250 kilowatts, or 12.25 megawatts. (T18:22-24; T20:18-20; Exh. 5, page 5). Unit 7 is 43 years old, and Unit 8 is 34 years old. (Exh. 5, page 5). The

City's summer peak electric demand is approximately 15 megawatts. The City's two non-emergency generating units are not capable of meeting the City's peak demand. The City therefore must depend on the transmission interconnection with the Omaha Public Power District's (OPPD) grid system to provide the City with the shortfall when the City reaches its peak electric load without operating its emergency generators. If any of the aged emergency generators would fail during an outage, the City would not have sufficient generating capacity to serve the City's peak electric load. (T20:21 to 21:3; Exh. 5, page 6).

9. The City's only connection to the transmission grid is one 45-year old, 26 mile long 69 kilovolt (kV) radial transmission line owned and operated by OPPD. (T21:19-23; Exh. 5, page 8). In 2013 OPPD had to take the line out of service to effectuate repairs to the line caused by a severe thunderstorm. During that time the City used its non-emergency generators for power supply. Unfortunately, one of the units failed and the City was forced to implement rolling blackouts to maintain partial service. (T21:4-13; Exh. 5, page 7).

10. OPPD presented the City with three options to increase transmission capacity into the City. These options range from 10 to 33 million dollars in cost. (T21:23 to 24:25; Exh. 5, pages 9 and 10).

11. The options presented by OPPD were designed to increase transmission capacity into the City. Due to the electrical configuration of the City, OPPD's options would not be able to provide electric power to the City in the event the OPPD interconnections failed for any reason. (T83:11 to 86:22).

12. The City determined that a dual fuel generating unit would be the most economical. A dual-fuel unit will allow the City to take advantage of current relatively low-cost natural gas, but will also allow the City to use diesel in the event the natural gas supply were disrupted during a transmission outage. (T27:20 to 28:1; Exh. 5, page 16). The size of the unit is designed to fit into the City's existing power plant, and to nearly offset the capacity of the aged units that are now designated as emergency-use only. The unit will also be able to extend the life of the existing two non-emergency generating units. (T28:12-20; Exh. 5, page 17).

13. The emergency-use units, one through six, can only safely be operated at eighty percent of their rated capacity due to their age. At full capacity they are susceptible to failure, which could leave the City without sufficient emergency power in the event of a transmission outage. (T31:13 to 38:8).

14. The City does not want to retire the oldest of the emergency-use units due to the potential impact on the electrical reliability for a portion of the City. Although the upgrade options offered by OPPD would be less expensive than the proposed generating unit, the upgrades proposed by OPPD are designed to enhance the reliability of the City's transmission interconnection. Due to the configuration of the City's internal electrical distribution system, OPPD's options would not ensure service reliability for the older residential parts of the City in the event of a transmission outage. An OPPD transformer steps down power from 69 kV to 13.8 kV. The City's primary distribution system operates on 13.8 kV. The

proposed new generation unit would operate at 13.8 kV. The City's non-emergency generators (units 7 and 8) also operate at 13.8 kV. A significant portion of the residential neighborhoods in the City, many of the City offices and schools, and the downtown business district, constituting approximately two-thirds of the City, still operate on a 4.16 kV system. A transformer and a breaker convert the voltage that can be supplied by the City's non-emergency generators or the OPPD interconnection from 13.8 kV to 4.16 kV. The City's emergency-only generators (units one through six) produce power at 4.16 kV. If the City experienced a problem with the transformer or breaker that converts the power from 13.8 to 4.16 kV, those areas of the City operating on the 4.16 kV system would be isolated and without electrical power. The City would be unable to supply electricity to those areas of the City using the City's new generator or the OPPD interconnection. (T73:24 to 80:6; T82:8 to 83:4; Exh. 7).

15. The City has a plan to upgrade the electrical system in the parts of town currently served at 4.16 kV, but the plan is expensive and will take a considerable amount of time to complete. The City's plan is to upgrade the 4.16 kV system over the next fifteen to twenty years. The City is uncertain what the upgrade would cost and is currently having a study done, but it would be in excess of one million dollars. (T80:7 to 82:5).

CONCLUSIONS OF LAW

16. Pursuant to Neb. Rev. Stat. §§ 70-1012, 70-1013, and 70-1014, the Board has jurisdiction to conduct a hearing and either approve or deny an application for

authority to construct electric generation and related facilities located in the State of Nebraska. Such approval is required prior to commencement of construction or installation of facilities such as those described in application PRB-3807-G.

17. The Board has complied with the requirement in Neb. Rev. Stat. § 37-807(3) to consult with and request the assistance of the Nebraska Game and Parks Commission in order to utilize the Board's authority in furtherance of the purposes of the Nebraska Nongame and Endangered Species Act, and to insure that approval of the proposed electric generation facility and related facilities would not jeopardize the continued existence of any endangered or threatened species or result in the destruction or modification of habitat of such species which is determined by the Commission to be critical. The Commission determined that the proposed generating unit will have "No Effect" on any state-listed endangered or threatened species and did not object to the Board's approval of the project. The Board believes it is reasonable to defer to the expertise of the Commission and rely on its determination.

18. The Board finds that the evidence shows the proposed project will serve the public convenience and necessity. The project will provide a back-up source of generation in the event the City is unable to receive electricity from outside sources due to any number of potential situations. The City is therefore ensuring redundancy and reliability for its citizens' electric power needs in the event of an emergency. Other options that involve the upgrade of the transmission grid in the area will not address reliability issues in the two-thirds of the City served by a 4.16 kV system. The City cannot retire its emergency-only generators without exposing the parts of the City served

by the 4.16 kV system to power outages if there would be a failure in OPPD's transmission interconnections or in the City's transformer or breaker that convert power from 13.8 to 4.16 kV. It is not currently possible to upgrade the distribution system in the two-thirds of the City served at 4.16 kV without considerable time and expense.

19. The Board finds that the evidence demonstrates that the City can most economically and feasibly supply the electric service resulting from the proposed project.

20. The Board finds that the evidence demonstrates the proposed project will not unnecessarily duplicate other facilities or operations.

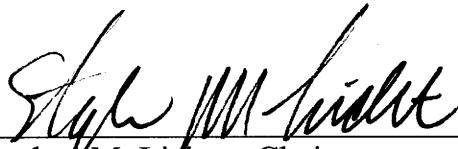
21. That based on the foregoing findings, the City of Falls City is entitled to an Order approving the installation of the proposed electric generation unit described in application PRB-3807-G.

22. That during that part of its public meeting held October 23, 2015, subsequent to the conclusion of the hearing on the merits pertaining to application PRB-3807-G, a majority of the members of the Power Review Board, by a vote of 5 to 0, voted in favor of a motion to approve application PRB-3807-G.

ORDER

IT IS THEREFORE ORDERED by the Nebraska Power Review Board that, pursuant to the Board's action taken during its public meeting held October 23, 2015, application PRB-3807-G filed by the City of Falls City, Nebraska, for authorization to install a 9.3 megawatt dual fuel electric generation unit in Richardson County, Nebraska, and hereby is APPROVED.

Dated this 18th day of December, 2015.

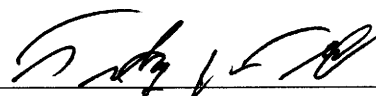


Stephen M. Lichter, Chairman

CERTIFICATE OF SERVICE

I, Timothy J. Texel, Executive Director and General Counsel for the Nebraska Power Review Board, hereby certify that a copy of the foregoing **Order** in PRB-3807-G has been served upon the following parties by mailing a copy of the same to the following persons at the addresses listed below, via certified United States mail on this 18th day of December, 2015.

Michael R. Dunn, Esq.
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Timothy J. Texel