



Williams/Via

**RESOLUTION NO. 6530**

**WHEREAS**, the Nebraska City Station Unit 1 (“NC1”) steam turbine and the associated four steam turbine intercept valves were inspected and it was found that all four of the steam turbine intercept valves were in need of repair or replacement of the IV bonnet assemblies; and

**WHEREAS**, the District’s Engineer has certified that the original equipment manufacturer, Siemens Energy, Inc. (“Siemens”), is the only available source of supply for the IV bonnets due to the technologically complex and unique design of the IV bonnet assemblies; and

**WHEREAS**, pursuant to Nebraska Revised Statute Section 70-637 (as amended), and upon approval of the Engineer’s Certification by the Board of Directors, the District may negotiate and enter into a contract or contracts related to such project without sealed bidding.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the Omaha Public Power District that:

1. The Engineer’s Certification that Siemens, the original equipment manufacturer, is the only available source of supply for the parts and technical expertise needed to repair or replace the IV bonnet assemblies for the NC1 steam turbine is hereby approved.

2. Management is hereby authorized and directed to negotiate and enter into the necessary contract or contracts with Siemens to supply parts and specialized services for the repair or replacement of the IV bonnet assemblies for the NC1 steam turbine, subject to review and approval of the final contract(s) by the District’s General Counsel.

3. The notice required by Nebraska Revised Statutes Section 70-637 shall be published in the Omaha World Herald, or other similar newspaper of general circulation.



# Board Action

## BOARD OF DIRECTORS

October 18, 2022

### ITEM

Nebraska City Station Unit 1 steam turbine intercept valve bonnet assembly materials and services

### PURPOSE

Provide material and services to repair or replace the steam turbine intercept valve bonnet assemblies for Nebraska City Station Unit 1.

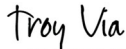
### FACTS

- a. The Nebraska City Station Unit 1 steam turbines intercept valve bonnet assemblies wear has increased the risk for safe and reliable unit operation and require repair or replacement.
- b. The steam turbine intercept valve bonnet assemblies are original equipment and are not readily available replacement materials. Repair and replacement options are being reviewed with the original equipment manufacturer.
- c. The District's engineer has certified the use of the sealed bid process is impractical and not in the public's interest due to the technologically complex and unique design of the intercept valve assemblies.


### ACTION

Approval of the Engineer's Certification and authorization by management to negotiate and enter into a contract or contracts with Siemens Energy, Inc. for the supply of materials and services for repair or replacement of the steam turbine intercept valve bonnet assemblies for Nebraska City Station Unit 1.

#### RECOMMENDED:

DocuSigned by:  
  
181187221FA24AE...  
 Troy R. Via  
 Chief Operating Officer and Vice  
 President – Utility Operations

#### APPROVED FOR BOARD CONSIDERATION:

DocuSigned by:  
  
AC399FDCE56247E...  
 L. Javier Fernandez  
 President and Chief Executive Officer

TRV:sae

Attachment: Letter of Recommendation  
Engineer's Certificate  
Legal Opinion  
Resolution

**DATE:** September 30, 2022

UO-2022-011

**FROM:** S. A. Eidem

**TO:** T. R. Via

**SUBJECT:** Nebraska City Station Unit 1 steam turbine intercept valve bonnet assembly materials and services

1.0 GENERAL

Siemens Energy, Inc. (Siemens) is the original equipment manufacturer (OEM) of the Nebraska City Station Unit 1 (NC1) steam turbine and the associated four steam turbine intercept valves (IV). The IV are original equipment and have been in service for the life of the unit. During the scheduled spring 2022 outage, noticeable wear was discovered on all four of the IV bonnet liners. Operational cycling of the IV over the service life has worn away the hardened nitride layer of the bonnet liner and created a groove with the potential to interfere with proper valve operation. Interim repairs were completed on the IV at that time to allow continued operation. On September 9, 2022, the IV bonnet liners were inspected during a forced outage per OEM recommendations. The inspection resulted in Siemens recommending additional repair or replacement of the IV bonnet assemblies, ideally by the end of 2022.

Siemens is the only available source of supply for the IV bonnets due to the technologically complex and unique design of the IV bonnet assemblies. Additionally, it is important to address this risk to safe and reliable unit operation in a timely manner.

Therefore, it is impractical and not in the public's interest to utilize the sealed bid process. Direct negotiations with the OEM to supply the IV bonnet assemblies allows the District staff to efficiently determine the best repair or replacement solution balancing technical requirements, value, schedule and risk mitigation.

2.0 RECOMMENDATION

An Engineer's Certificate of the above has been prepared. Approval of that Certification is recommended. We request the Board of Directors to approve the Engineer's Certification and to authorize management to negotiate and enter into a contract with Siemens Energy, Inc. for the repair or replacement of the IV bonnet assemblies for Nebraska City Station Unit 1.



S. A. Eidem, P.E.  
Director, Engineering Services  
Energy Production and Nuclear Decommissioning

## ENGINEER'S CERTIFICATE

The Omaha Public Power District's (OPPD) Nebraska City Unit 1 (NC1) steam turbine intercept valve (IV) bonnet liners were found to have wear during the scheduled outage in April 2022, which significantly increases the risk of valve sticking. Minor repairs were made with the original equipment manufacturer (OEM), Siemens Energy (Siemens), to mitigate the risk of additional wear and valve misoperation.

On September 9, 2022, the IV bonnet liners were inspected by Siemens during an unplanned outage of NC1 to evaluate if the initial repairs mitigated the risk of additional wear and valve sticking. The inspection confirmed additional wear and the repairs did not mitigate the wear or overall risk, and Siemens recommends repair or replacement of the IV bonnet assemblies by the end of 2022.

The undersigned, a Nebraska professional engineer employed by the OPPD, certifies the following:

- The repair or replacement of the IV bonnet liner assemblies requires special tooling, manufacturing capability, and extensive turbine engineering knowledge. As the OEM, Siemens has the tooling, manufacturing capability, and engineering knowledge to conduct a repair or replacement of NC1 intercept valve bonnet assemblies.
- Siemens, as the OEM, is the only available source of supply for the IV bonnet assemblies due to the technologically complex and unique design of the IV bonnet assemblies.
- Additionally, it is important to address this reliability and safety risk to NC1 in a timely manner.

Pursuant to Section 70-637 of the Revised Statutes of Nebraska, the Board of Directors is requested to approve this Engineer's Certificate and authorize management to negotiate and enter into a contract with Siemens, the original equipment manufacturer, for the repair or replacement of the NC1 intercept valve bonnet assemblies without compliance with the sealed bidding requirements of Sections 70-637 to 70-641 of the Revised Statutes of Nebraska.

I, Brian J. Langel (registered Professional Engineer in the State of Nebraska), certify the above to be true and correct to the best of my knowledge and belief.

  
Brian J. Langel, P.E.



10/3/22  
Date



## FRASER STRYKER

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September 30, 2022

Omaha Public Power District  
444 South 16th Street  
Omaha, NE 68102

RE: Nebraska City Station Unit 1 - Engineer's Certification for steam turbine intercept valve bonnet liners

Ladies and Gentlemen:

We have reviewed the Engineer's Certification of Brian J. Langel, P.E., a registered professional engineer in the State of Nebraska employed by the District. The Certification states that it is necessary to repair and/or replace steam turbine intercept valve ("IV") bonnet liners at Nebraska City Station Unit 1 ("NC1"). The Certification further states that Siemens Energy, the original equipment manufacturer for NC1, is the only available source of supply for the IV bonnet liner assemblies due to the technologically complex and unique design of this equipment.

Section 70-637(6) of the Nebraska Revised Statutes authorizes the District's Board of Directors, by a two-thirds vote, to approve an Engineer's Certification to purchase replacement parts or services for any generating unit from the original manufacturer of such equipment upon certification that such manufacturer is the only available source of supply for such replacement parts or services and that such purchase is in compliance with standards established by the board. After receipt of such Certification, but not necessarily before Board review, the District is required to advertise notice of such purchase once a week for at least three consecutive weeks in one or more newspapers of general circulation in the District's service area.

It is our opinion that Mr. Langel's Engineer's Certification complies with Section 70-637 and is in a form that is appropriate for approval by the District's Board of Directors. Therefore, the Board of Directors may approve the Engineer's Certification and authorize Management to negotiate and enter into the necessary contract with Siemens Energy, the original equipment manufacturer, for the NC1 steam turbine intercept valve bonnet assemblies. We recommend that any such contract be subject to review and approval by the District's General Counsel.

Very truly yours,

Stephen M. Bruckner  
FOR THE FIRM