

#### BOARD OF DIRECTORS

September 19, 2023

## <u>ITEM</u>

Nebraska City Station Unit 1 Replacement Modular Power System for the Distributed Control System

### PURPOSE

Provide materials and services to replace existing Distributed Control System (DCS) power supplies for Nebraska City Station Unit 1 (NC1)

### FACTS

- a. The modular power system for the NC1 DCS is entering obsolescence and demonstrating reliability issues for the generating unit.
- b. The needed replacement parts are proprietary and only the original equipment manufacturer (OEM), ABB, is known to have the proprietary parts and expertise to perform the necessary replacements.
- c. The District's engineer has certified the proprietary nature of the work and that the OEM is the only available source of supply for this work.

#### <u>ACTION</u>

Approval of the Engineer's Certificate and authorization for Management to negotiate and enter into a contract with ABB for replacement of the Nebraska City Station Unit 1 DCS power supplies.

#### **RECOMMENDED**:

DocuSigned by: Troy Via

Troy R. Via Vice President – Utility Operations and Chief Operating Officer

TRV:sae

Attachments: Letter of Recommendation Engineer's Certificate Legal Opinion Resolution APPROVED FOR BOARD CONSIDERATION:

**Board Action** 

DocuSigned by: 1. Javier Fernandez

L. Javier Fernandez President and Chief Executive Officer



**DATE:** September 5, 2023

UO-2023-014

FROM: S.A. Eidem

TO: T.R. Via

**SUBJECT:** Nebraska City Station Unit 1 Replacement Modular Power System for the Distributed Control System (DCS)

1.00 GENERAL

Like all other generation units, Nebraska City Station Unit 1 (NC1) uses an DCS to control nearly every system and component (e.g. pumps, fans, motors) used in the operation of the unit as well as providing most of the system interlocks to ensure that equipment runs as designed. Operations personnel also interact with the DCS to ensure safe and reliable operation of the unit.

OPPD utilizes regular inspections and studies that show when specific pieces of equipment are nearing their end of life status and need to be replaced. The NC1 DCS system is an Asea Brown Boveri (ABB) system and the existing power supplies for this DCS are becoming obsolete and in need of replacement. OPPD has begun to experience failure of these power supplies which threaten reliability of the unit.

Compliance with the sealed bidding requirements of the Nebraska Statues is impractical and not in the public's best interest. ABB is the original equipment manufacturer and the only vendor with the proprietary parts and technical expertise to perform the necessary replacement.

## 4.00 <u>RECOMMENDATION</u>

An Engineer's Certificate of the above statements 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 a sole source contract with ABB.

with an

S.A. Eidem, P.E. Director, Engineering Services Utility Operations

# ENGINEER'S CERTIFICATION

The ABB Modular Power System III's (MPS III) installed in the District's Nebraska City Unit 1 (NC1) Distributed Control System (DCS) have now entered the "Classic" life cycle phase per the manufacturer (ABB). This is the first phase in moving a product to obsolete. The current age of the existing MPS III power supplies and a recent equipment failure indicate that the existing MPS III power supplies should be replaced. A detailed technical and economic evaluation has determined that the optimal solution is to replace the existing MPS III power supplies with the newer MPS IV power supplies.

Pursuant to Nebraska Revised Statute Section 70-637(6), the undersigned professional engineer employed by the District certifies that ABB is the original equipment manufacturer (OEM) for the DCS power supply systems described above and is the sole available source of supply for the equipment and such sole source purchase would be in compliance with standards established by the Board of Directors. In support of this Certification, the undersigned further states as follows:

- The engineering and equipment integration for this project are technically complex and the OEM upgrade is designed specifically to upgrade our existing DCS modular power systems.
- Upgrading to the newer MPS IV system would ensure the long-term reliability and availability of the DCS power system and components.
- The MPS IV upgrade would be able to reuse our existing DCS integration.
- ABB, the OEM of the existing DCS, has specific knowledge related to the hardware and controls.

Pursuant to Section 70-637(6) of the Revised Statues of Nebraska, the Board of Directors is requested to approve this Engineer's Certificate and authorize Management to negotiate and enter into a contract to ABB for the supply of MPS IV's to retrofit the existing MPS III's currently installed on the NC1 DCS without compliance with the sealed bidding requirements of Sections 70-637 through 70-639 of the Nebraska Revised Statutes.

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

Jason A. Bergman, P.E.

8/17/23 Date





Stephen M. Bruckner ATTORNEY 402.978.5225 sbruckner@fraserstryker.com fraserstryker.com

August 17, 2023

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

RE: Nebraska City Station Unit 1 - Engineer's Certification for Modular Power System

Ladies and Gentlemen:

We have reviewed the Engineer's Certification of Jason A. Bergman, P.E., a registered professional engineer in the State of Nebraska employed by the District. The Certification states that it is necessary to replace the Modular Power System III ("MPS III") in the Distributed Control System ("DCS") for Nebraska City Station Unit 1 ("NC1"). The Certification further states that ABB, the original equipment manufacturer for the Distributed Control System ("DCS") for NC1, is the only available source of supply for replacement of the MPS. Mr. Bergman further certifies that the engineering and equipment installation for the project are technically complex, that ABB has specific knowledge relating to the hardware and controls, and that upgrading this Modular Power System will provide long-term reliability and availability of the DCS.

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 complies 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. Bergman'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 ABB, the original equipment manufacturer, for the NC1 Distributed Control System's Modular Power System. 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

SMB/sac 3049698



Moody/Via

# RESOLUTION NO. 6593

*WHEREAS,* the Nebraska City Station Unit 1 ("NC1") undergoes regular inspections and studies that show when specific pieces of equipment are nearing the end-of-life status and need replacement; and

**WHEREAS,** NC1 uses a Distributed Control System ("DCS") to control nearly every system and component (e.g., pumps, fans, motors) used in the operation of the unit as well as providing most of the system interlocks to ensure that the equipment runs as designed; and

*WHEREAS,* the NC1 DCS system is an Asea Brown Boveri ("ABB") system and the existing power supplies for this DCS are becoming obsolete and require replacement; and

**WHEREAS,** the District's Engineer has certified that the original equipment manufacturer, ABB, is the only vendor with the proprietary parts and technical expertise to perform the necessary replacement; 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 ABB, the original equipment manufacturer, is the only available source of supply for the parts and expertise needed to perform the necessary replacements of the NC1 DCS power supplies is hereby approved.

2. Management is hereby authorized and directed to negotiate and enter into the necessary contract or contracts with ABB to supply parts and specialized services for the replacement of the NC1 DCS power supplies, 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.