



## **RESOLUTION NO. 6480**

**WHEREAS**, the Sarpy County Station Unit 5B (SC5B) power turbine was inspected and found to be in need of repair and refurbishment to maintain reliability; and

**WHEREAS,** the District's Engineer has certified that the original equipment manufacturer, Mitsubishi Power Aero (formerly Pratt & Whitney Power Systems, Inc.) (Mitsubishi), is the only available source of supply for the parts and services needed to repair and refurbish the SC5B engine because the work involves proprietary information held by Mitsubishi and only Mitsubishi has the tooling, parts and technical expertise to perform the necessary repairs and refurbishment on the SC5B engine; 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 Mitsubishi Power Aero, the original equipment manufacturer, is the only available source of supply for the parts and technical expertise needed to repair and refurbish the power turbine for Sarpy County Station Unit 5B is hereby approved.
- 2. Management is hereby authorized and directed to negotiate and enter into the necessary contract or contracts with Mitsubishi Power Aero to supply parts and specialized services for the repair and refurbishment of the Sarpy County Station Unit 5B power 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**

December 14, 2021

## <u>ITEM</u>

Sarpy County Station Unit 5B Engine Refurbishment

### **PURPOSE**

Provide services to refurbish and repair Sarpy County Station Unit 5B engine.

### **FACTS**

- 1. The Sarpy County Station Unit 5B engine was inspected in October 2021 and found to have localized damage to the turbine components beyond the normal operational limits for the engine.
- 2. The needed refurbishment and repair work is proprietary and only the original equipment manufacturer, Mitsubishi Power Aero, is known to have the tooling, parts, and expertise to perform the necessary repairs.
- 3. The District's engineer has certified the proprietary nature of the work and that Mitsubishi Power Aero is the only available source of supply for the needed repairs.

### **ACTION**

Approval of the Engineer's Certification and authorization for Management to negotiate and enter into a contract with Mitsubishi Power Aero for refurbishment and repair of the Sarpy County Station Unit 5B engine.

RECOMMENDED:

DocuSigned by:

Troy R. Via

Chief Operating Officer and Vice President – Utility Operations

TRV:cjz

Attachments: Letter of Recommendation

Engineer's Certificate

Legal Opinion Resolution

APPROVED FOR BOARD CONSIDERATION:

DocuSigned by:

L. Javier Fernandez

Javier Fernandes

President and Chief Executive Officer



# **MEMORANDUM**

**DATE:** November 30, 2021 EPND-2021-10

**FROM:** S.A. Eidem

**TO:** T.R. Via

**SUBJECT:** Sarpy County Station Unit 5 "B" Engine Refurbishment

### 1.0 GENERAL

In October 2021, a borescope inspection revealed internal damage to the Sarpy County Station Unit 5 "B" engine (SC5B). The inspection results showed localized degradation of the second stage low pressure turbine components.

The specific damage identified is cracking and material loss of a blade within the turbine section. The existing damage will eventually lead to more material loss which will impact and damage downstream components. The exiting material loss is also causing a loss of cooling air flow to this blade as well as those that surround it which will accelerate their degradation. Finally, the exiting damage poses a risk of large parts of the blade travelling downstream which can cause significant catastrophic damage to the remaining rows of turbine blades as well as the power turbine.

The SC5B engine is still operable with limited total run time remaining with the risks noted above. To preserve the use of these hours of operation for potential critical capacity needs during the winter peak season, the SC5B power turbine has been decoupled and the unit is limited to approximately half its nominal output capacity of approximately 48 MW.

OPPD relies upon the fully rated generation capacity output from Sarpy County Station Unit 5 to assist in meeting our summer accredited generation capacity requirements and mitigate market financial risk within the Southwest Power Pool. Following the winter peak season, the SC5B engine will be removed and sent to a repair facility to repair the damaged components as well complete a typical overhaul incorporating recommended upgrades per existing service bulletins. The repairs will be completed and the unit returned to service prior to the summer 2022 operating season. During the repair work, Sarpy County Unit 5 will remain available at half its nominal output capacity.

Mitsubishi Power Aero (formerly Pratt & Whitney Power Systems), the original equipment manufacturer, has proprietary information regarding repair of these components. They are the only vendor with the tooling and technical expertise to perform the necessary repairs.

# 2.0 <u>RECOMMENDATION</u>

An Engineer's Certification 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 a sole source contract with Mitsubishi Power Aero for repair and refurbishment of the SC5B engine.

S.A. Eidem, P.E.

Scott A. Eidem

Director, Engineering Services

**Utility Operations** 

#### ENGINEER'S CERTIFICATION

The 'B' engine for Unit No. 5 at the Sarpy County Station was inspected in October 2021. The engine was found to have degradation of the blades within the low pressure section of the turbine exceeding the service limits. The degradation poses risk of failure of the damaged components that can cause much more sigficant downstream damage including potential catastrophic failure. In addition, the existing damage will accelerate the deterioration of adjacent components. Due to the existing damage and potential for further damage, it is recommended that the B engine be removed from service and shipped to Mitsubishi Power Aero (formerly Pratt & Whitney Power Systems) for repair.

The undersigned professional engineer employed by the Omaha Public Power District certifies that Mitsubishi Power Aero, the original equipment manufacturer, is the only available source of supply for the parts and services needed to repair and refurbish the engine, because the repair work involves proprietary information held by Mitsubishi Power Aero, and they are the only vendor that has the tooling, parts, and technical expertise to perform the necessary repairs.

Pursuant to Section 70-637 of the Nebraska Revised Statutes the Board of Directors is requested to approve this Engineer's Certification and authorize Management to negotiate and enter into a contract to refurbish the Sarpy County Station Unit #5 'B' engine without compliance with the sealed bidding requirements of Sections 70-637 to 74-641 of the Nebraska Revised Statutes.

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

Clinton J. Zavadil, P.E.

Date

11-24-2021

# FRASER STRYKER

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STEPHEN M. BRUCKNER DIRECT DIAL: 402.978.5225 SBRUCKNER@FRASERSTRYKER.COM

November 23, 2021

Omaha Public Power District 444 South 16<sup>th</sup> Street Omaha, NE 68102

RE: Engineer's Certification for repair of Sarpy County Station Unit No. 5 "B" engine

### Ladies and Gentlemen:

We have reviewed the Engineer's Certification of Clinton J. Zavadil, P.E., a professional engineer employed by the District. Mr. Zavadil's Engineer's Certification explains that the "B" engine of Sarpy County Station Unit No. 5 was inspected in October 2021 and found to have degraded turbine blades, and now requires repair.

Mr. Zavadil's Engineer's Certification certifies that Mitsubishi Power Aero (formerly, Pratt & Whitney Power Systems, Inc.) ("Mitsubishi") is the original equipment manufacturer for the Unit No. 5 engine and is the only available source of supply for the parts and services needed to repair the engine. He further certifies that Mitsubishi has proprietary information, tooling, parts, and technical expertise that make it the only available source for the performance of the necessary repairs.

Section 70-637(6) of the Nebraska Revised Statutes authorizes the District to purchase replacement parts or services for generating units from original equipment manufacturers without advertising for sealed bids, upon appropriate certification by an engineer for the District. In our opinion, Mr. Zavadil's Engineer's Certification meets the requirements of Section 70-637(6) and may be approved by the Board of Directors.

Section 70-637(6) requires that a written statement containing the Engineer's Certification and a description of the purchase from the original equipment manufacturer must be submitted to the District's Board of Directors for approval at the next scheduled meeting of the Board. After receipt of the Certification, but not necessarily before the Board review, the District must publish notice of such purchase once a week for at least three (3) consecutive weeks in one or more newspapers of general circulation in the District and in any other periodicals that may have been selected by the Board.

The District may proceed to complete this sole source purchase subject to compliance with Section 70-637(6) as outlined above. We recommend review and approval of the contract with the manufacturer by the District's General Counsel.

Very truly yours,

Stephen M. Bruckner

FOR THE FIRM

SMB/sac 2707176