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December 11, 2023

Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Jo-Anne Galarneau
Executive Director and Board Secretary

Re: Reliability and Resource Adequacy Study Review – 2023–2024 Winter Readiness Planning Report – Final Report

Further to correspondence received from the Board of Commissioners of Public Utilities (“Board”) on October 13, 2016 directing Newfoundland and Labrador Hydro (“Hydro”) to provide an annual report detailing its winter readiness planning, and correspondence received on March 5, 2020 requesting additional detail, please find enclosed Hydro’s 2023–2024 Winter Readiness Planning Report – Final Report.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Shirley A. Walsh
Senior Legal Counsel, Regulatory
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Encl.

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2023–2024 Winter Readiness Planning Report

December 11, 2023

A report to the Board of Commissioners of Public Utilities



1 **Executive Summary**

2 Newfoundland and Labrador Hydro (“Hydro”) closely monitors its supply-related assets and is confident
3 in its ability to service customers during the 2023–2024 winter season. The results of Hydro's review of
4 the year-to-date planned completion status of its annual work plan (“AWP”) for both the Labrador
5 Interconnected System and the Island Interconnected System indicate that Hydro is sufficiently
6 positioned for this winter.

7 Hydro will continue to service customers reliably using its regulated generation sources and Muskrat
8 Falls generation delivered via the commissioned Labrador-Island Link (“LIL”). As additional support for
9 system reliability, Hydro is also actively working on Capacity Assistance Agreements (“CAA”) in advance
10 of the upcoming winter.¹

11 With the exception of the Upper Salmon Hydroelectric Generating Station (“Upper Salmon”), which has
12 been successfully run up to full load as part of final commissioning,² Unit 1 (currently derated to
13 140 MW due to a turbine control valve issue) and Unit 2 at the Holyrood Thermal Generating Station
14 (“Holyrood TGS”), and the Stephenville Gas Turbine (“Stephenville GT”), all of Hydro’s regulated
15 generating sources were fully available by December 1, 2023. Hydro recognizes that the forced
16 unavailability of Unit 2 at the Holyrood TGS and the Stephenville GT into this coming winter will put an
17 additional strain on the system; however, Hydro is actively working towards returning these units to
18 service as early as possible. Notwithstanding the unavailability of these assets for a period this winter
19 operating season, Hydro is prepared to reliably serve customers with its combined fleet of assets.

20 Since its commissioning in April of 2023, the LIL has continued to operate reliably, and for the 2023–
21 2024 winter operating season, the LIL is available for operation up to 700 MW; a material improvement
22 compared to the 2022–2023 winter operating season. In addition, the four issues encountered on the
23 LIL during this past winter did not affect Hydro’s ability to provide customers on the Island with reliable
24 service, and all critical repairs resulting from the failures are complete.

¹ The proposed CAA between Hydro and Corner Brook Pulp and Paper Limited in “Application for Approval of the Terms of a Capacity Assistance Agreement – Newfoundland and Labrador Hydro and Corner Brook Pulp and Paper Limited,” Newfoundland and Labrador Hydro, November 16, 2023, is currently under review by the Board of Commissioners of Public Utilities (“Board”).

² The Upper Salmon unit tested at full capability on December 10, 2023; the unit is expected to return to service on December 14, 2023 upon completion of final inspections and analysis.

1 Although Hydro has identified risks as outlined in this report, it is important to note that the
2 identification of risks is a normal and important piece of Hydro’s comprehensive planning process. The
3 identification of risk does not automatically result in customer impact and as to the extent possible,
4 Hydro has put mitigations in place to prevent significant issues during the upcoming winter season.

5 Hydro continues to track the remaining work activities and will provide an update to the Board in
6 January 2024, at which time it expects that the majority of the remaining activities will be complete,
7 acknowledging the exception of those noted for Unit 2 at the Holyrood TGS and the Stephenville GT.
8 Hydro remains focused on the completion of the final activities of its annual maintenance program to
9 ensure the reliability of its existing assets and infrastructure throughout the 2023–2024 winter operating
10 season.

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Appendix B: Status of Winter Readiness Testing of Plant and Equipment for Thermal Generation

Appendix C: Status of Winter Readiness Testing of Plant and Equipment for Hydraulic Generation

Appendix D: Master Generation Outage Schedule

Appendix E: Critical Spares Status Listing for Thermal Generation

Appendix F: Critical Spares Status Listing for Gas Turbine Generation

Appendix G: Critical Spares Status Listing for Hydraulic Generation

1.0 Background and Introduction

The Board, in correspondence dated October 13, 2016,³ directed Hydro to provide an annual report detailing its winter readiness (“WR”) planning. This report, for the 2023–2024 winter season, addresses the following items as requested by the Board:

- The status of AWP items, for Hydro’s generating plant and transmission and terminal stations, including the completion to date, outstanding items to complete, and any risks to completion or as a result of failure to complete.
- A description and schedule for all outstanding [2023] capital projects for Hydro’s generating plant and transmission and terminal stations, including progress on completion status to date and expected completion date.
- Identification of all equipment and plant testing to be carried out in advance of the winter period (generation plant, emergency diesels, black start generators, fire systems, transmission system equipment), including progress on completion status to date.
- The planned generation outage schedule for the period November 1 to March 31, [2024], including an explanation for any planned outages extending beyond December 1, [2023].⁴
- An update of critical spares assessment and procurement.
- Identification of any risks that could impact the winter readiness of assets as of December 1, [2023] and associated contingency plans.⁵

Except where otherwise noted, information presented in this report covers both the Island Interconnected System and the Labrador Interconnected System for the period ending December 1, 2023.⁶

³ “Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System – Directions further to the Board’s Phase One Report,” Board of Commissioners of Public Utilities, October 13, 2016, p. 2, item iii).

⁴ In previous years, Hydro’s WR report included a Near-Term Reliability and Resource Adequacy section. The Board approved the removal of the duplicate information in “Newfoundland and Labrador Hydro - Reliability and Resource Adequacy Study Review – Schedule for Future Updates,” Board of Commissioners of Public Utilities, August 17, 2023. The information was provided “Reliability and Resource Adequacy Study Review – 2023 Near-Term Reliability Report – November Report,” Newfoundland and Labrador Hydro, November 15, 2023.

⁵ “Request to Hydro to file Winter Readiness Planning 2016-2017,” Board of Commissioners of Public Utilities, September 13, 2016.

⁶ The data used to generate the status charts in Section 2.0 reflect a data cutoff date of December 1, 2023.

2.0 Annual Work Plan and Winter Readiness Status

Hydro’s AWP integrates all planned activities for the year (i.e., corrective maintenance (“CM”), preventive maintenance (“PM”), and capital project support) that are critical to the safe and reliable production and transmission of electricity. Hydro regularly measures the progress of its AWP execution in comparison with the plan, and is able to track the AWP status down to the level of individual work plan items. The individual AWP items for various assets are incorporated into an integrated AWP. While some AWP activities are planned for completion through December 2023, those tagged as WR activities are generally planned for completion by December 1, 2023.

This report provides a consolidated summary of operation and maintenance progress, both for the entire AWP (i.e., first chart in each set) and the WR tasks (i.e., second chart in each set), as of December 1, 2023, for each of the following areas of operations:

- Holyrood TGS:
 - Units 1, 2, and 3; and
 - Balance of Plant, including black start diesels;
- Gas Turbines:
 - Holyrood (“Holyrood GT”);
 - Hardwoods (“Hardwoods GT”);
 - Stephenville GT; and
 - Happy Valley (“Happy Valley GT”);
- Hydraulic Generation:
 - Bay d’Espoir Hydroelectric Generating Facility (“Bay d’Espoir”);
 - Cat Arm Hydroelectric Generating Station (“Cat Arm”);
 - Hinds Lake Hydroelectric Generating Station (“Hinds Lake”);
 - Paradise River Hydroelectric Generating Station (“Paradise River”);
 - Upper Salmon; and
 - Granite Canal Hydroelectric Generating Station (“Granite Canal”);

- 1 • Transmission and Rural Operations for the Island Interconnected System and the Labrador
- 2 Interconnected System:
- 3 ○ Transmission; and
- 4 ○ Terminal stations; and
- 5 • Network Services.

6 Each chart in Section 2.0 includes the completed and remaining operations and maintenance AWP and
7 WR tasks, as well as an indication of the planned task completion target to date. A text box adjacent to
8 each chart set indicates Hydro’s forecasted completion status as of December 1, 2023 in relation to AWP
9 and WR activities (i.e., Green: On Target, Yellow: Caution – Recovery Required, Orange: Target Will Not
10 be Fully Met). Relevant highlights are also provided.

11 Hydro’s WR plan reflects the status of Hydro’s regulated assets and historically has not included Muskrat
12 Falls assets,⁷ as Hydro’s WR preparations have previously focused on completing the necessary
13 operations and maintenance work to ensure system readiness and availability without any additional
14 capacity from Muskrat Falls assets. As the LIL was commissioned on April 14, 2023, Hydro has provided
15 overall statistics on AWP and WR status for the Muskrat Falls assets in Section 2.6.

16 Since commissioning, the LIL has performed as expected and has been operating reliably; the LIL is
17 expected to be available for capacity up to 700 MW during the winter season. Hydro has operational
18 protocols in place to ensure reliable operation of the current software version of the LIL, and has
19 performed supply adequacy analysis to confirm its sufficiency to meet forecasted load expectations for
20 the coming winter at this capacity.⁸ Hydro will continue to address remaining punchlist items, including
21 delivery of a final version of LIL software and execution of a 900 MW pole overload test.⁹

22 Section 3.0 and Appendix A provide the status of capital projects that include additional WR tasks.

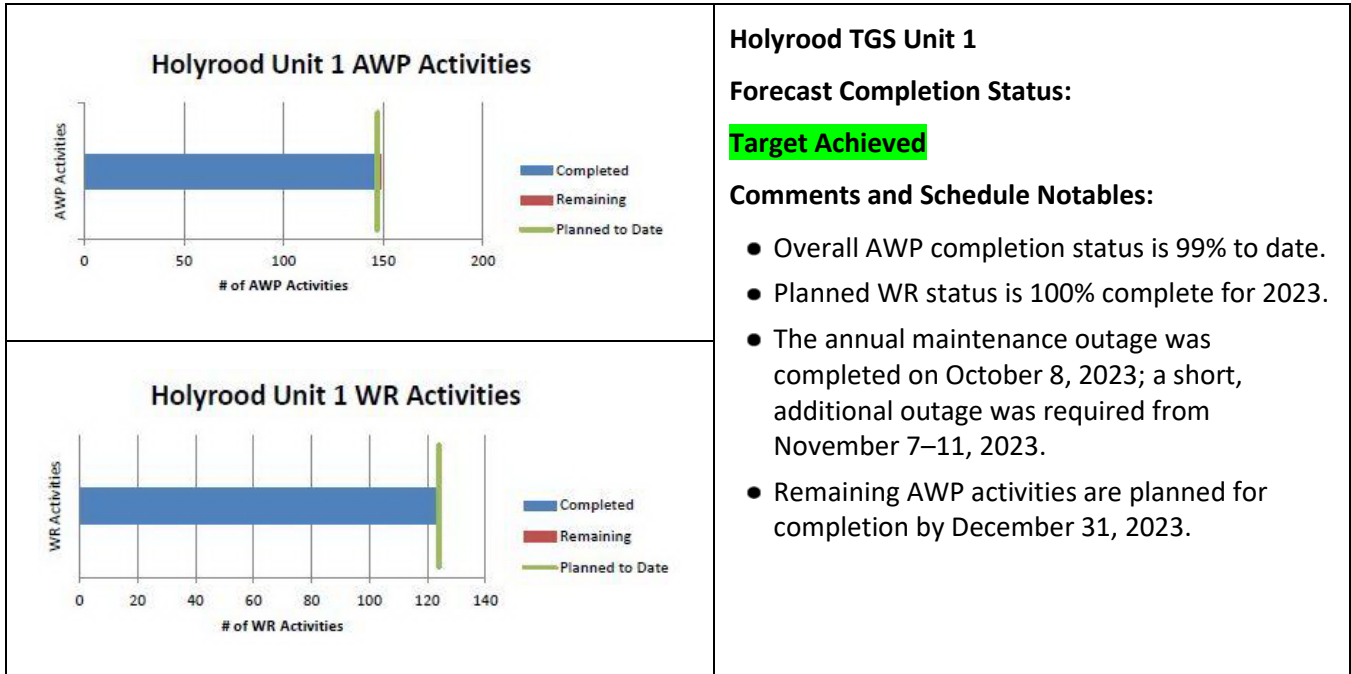
⁷ The Muskrat Falls assets are comprised of the LIL, Labrador Transmission Assets and the Muskrat Falls Hydroelectric Generating Facility.

⁸ "Reliability and Resource Adequacy Study - 2023 Update - Volume II: Near-Term Reliability Report – May Report," Newfoundland and Labrador Hydro, June 2, 2023.

⁹ Due to supply limitations associated with generators that are currently scheduled to be out of service this fall, particularly Holyrood TGS Unit 2, and the extended outage that would be required for the installation and testing of the new software version, Hydro has decided to delay the installation of the new software version until spring 2024.

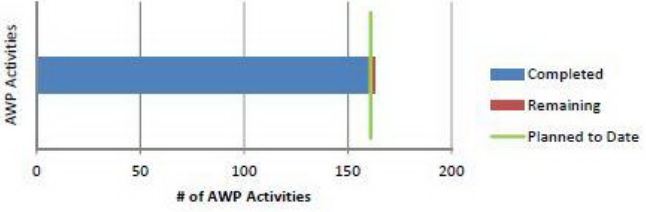
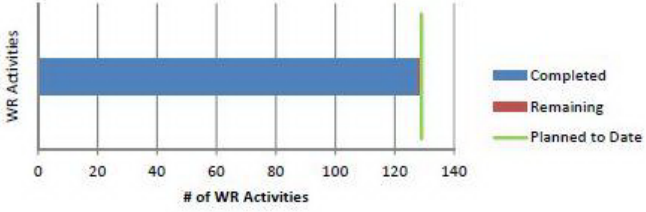
1 **2.1 Thermal Generation**

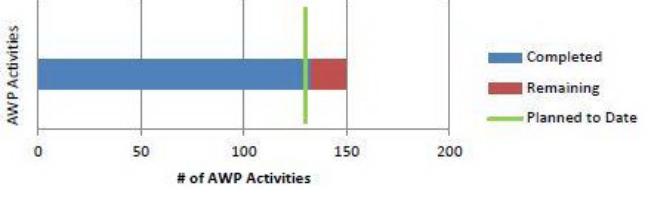
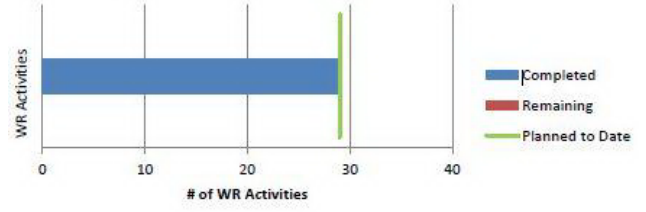
2 The status of AWP and WR execution at the Holyrood TGS is summarized in the following charts. All
 3 planned 2023 WR work was completed by December 1, 2023, aside from activities related to Unit 2 and
 4 one activity related to Unit 3, which is expected to be completed by December 17, 2023. As discussed in
 5 Section 7.2.4, Unit 2’s return to service is delayed until March 2024 due to the required replacement of
 6 the low pressure blades on Unit 2 turbine.



<p style="text-align: center;">Holyrood Unit 2 AWP Activities</p> <p style="text-align: center;">AWP Activities</p> <p style="text-align: center;"># of AWP Activities</p>	<p>Holyrood TGS Unit 2</p> <p>Forecast Completion Status:</p> <p>Target Completion Anticipated March 2024</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 76% to date. ● Planned WR status is 71% complete for 2023. ● The unit is currently unavailable, and will not return to service for the remainder of 2023 due to the required replacement of the low pressure blades on the Unit 2 turbine.¹⁰ ● The return to service date for this unit is tentatively scheduled for March 2024; as such, while some progress has been made on the completion of Unit 2 work activities, maintenance efforts have focused on Unit 1 and Unit 3. ● All AWP and WR items are scheduled to be completed prior to the unit being returned to service in March 2024.
<p style="text-align: center;">Holyrood Unit 2 WR Activities</p> <p style="text-align: center;">WR Activities</p> <p style="text-align: center;"># of WR Activities</p>	

¹⁰ As stated in Hydro’s response to CA-NLH-057 of the 2024 Capital Budget Application (“CBA”) proceeding, this issue was found during the regularly scheduled Unit 2 turbine overhaul, as approved in Hydro’s 2023 CBA. These are the low pressure next-to-last stage (“L-1”) blades, a separate stage of blades from the last stage blades (“L-0”), which are being repaired under a separate supplemental CBA.

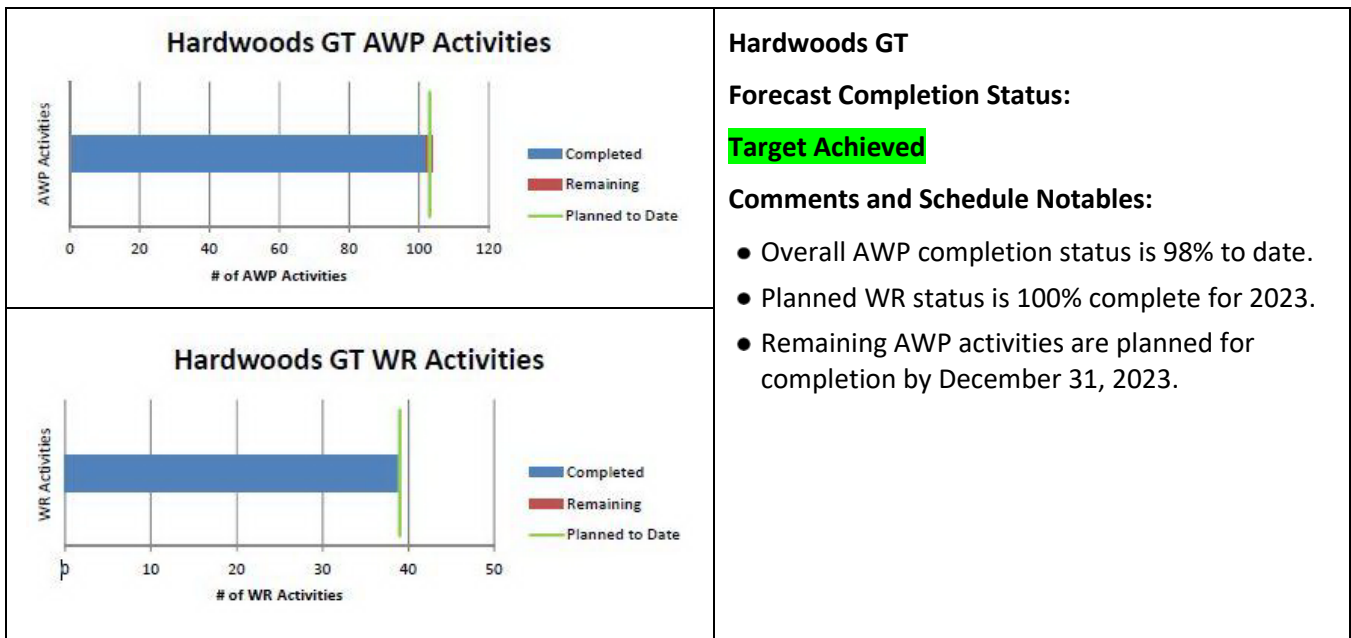
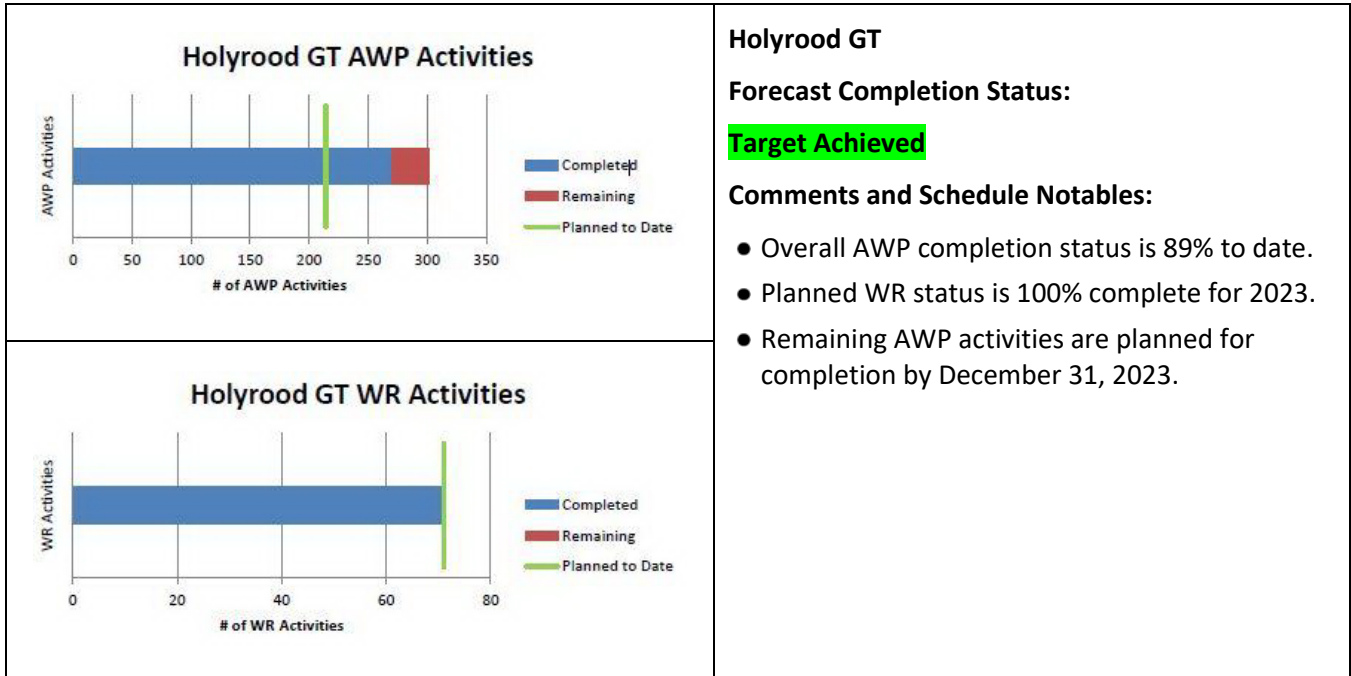
<h3 style="text-align: center;">Holyrood Unit 3 AWP Activities</h3>  <p style="text-align: center;"># of AWP Activities</p>	<h3>Holyrood TGS Unit 3</h3> <p>Forecast Completion Status: Target Completion Anticipated December 17, 2023</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 98% to date. ● Planned WR status is 99% complete for 2023.¹¹ ● Unit 3 was taken off synchronous condenser mode on October 16, 2023, and returned to service in generation mode on October 28, 2023. ● Remaining AWP activities are planned for completion by December 31, 2023.
<h3 style="text-align: center;">Holyrood Unit 3 WR Activities</h3>  <p style="text-align: center;"># of WR Activities</p>	

<h3 style="text-align: center;">Holyrood Balance of Plant AWP Activities</h3>  <p style="text-align: center;"># of AWP Activities</p>	<h3>Holyrood Balance of Plant</h3> <p>Forecast Completion Status: Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 89% to date. ● Planned WR status is 100% complete for 2023. ● Remaining AWP activities are planned for completion by December 31, 2023.
<h3 style="text-align: center;">Holyrood Balance of Plant WR Activities</h3>  <p style="text-align: center;"># of WR Activities</p>	

¹¹ The one outstanding WR activity for Holyrood TGS Unit 3 is a low-risk work order which requires Unit 3 to operate at full load capability for a short period of time before it is completed. It is expected that this item will be completed by December 17, 2023.

1 **2.2 Gas Turbine Generation**

2 The status of AWP and WR execution at the Holyrood GT, Hardwoods GT, Stephenville GT, and Happy
 3 Valley GT is summarized in the following charts. Planned WR work for all gas turbines was completed by
 4 December 1, 2023, aside from activities related to the Stephenville GT. As discussed in Section 7.4.1, the
 5 Stephenville GT is not expected to return to service until early February 2024 due to the current
 6 alternator cooling fan repair schedule.

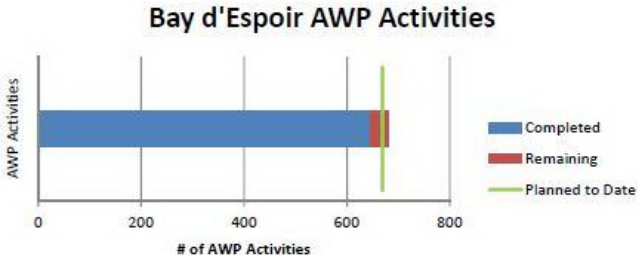
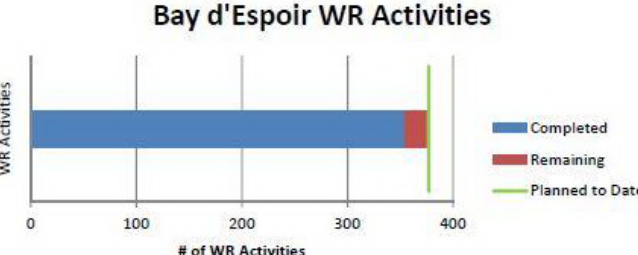


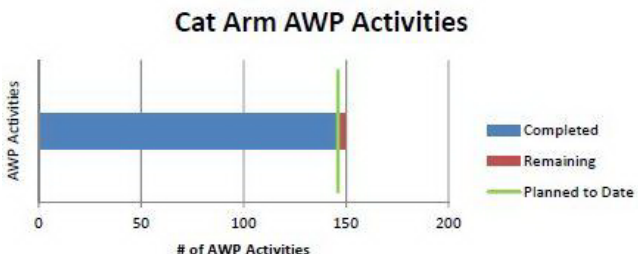
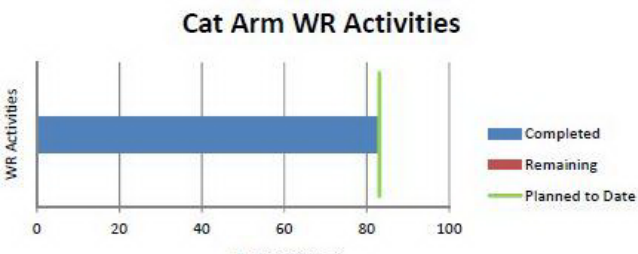
<h3 style="text-align: center;">Stephenville GT AWP Activities</h3> <p style="text-align: center;"># of AWP Activities</p>	<h3>Stephenville GT</h3> <p>Forecast Completion Status: Target Completion Anticipated February 2024</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 71% to date. ● Planned WR status is 51% complete for 2023. ● The unit is currently unavailable and is not expected to return to service until early February 2024. ● Remaining AWP and WR activities items are scheduled to be completed prior to returning the unit to service.
<h3 style="text-align: center;">Stephenville GT WR Activities</h3> <p style="text-align: center;"># of WR Activities</p>	

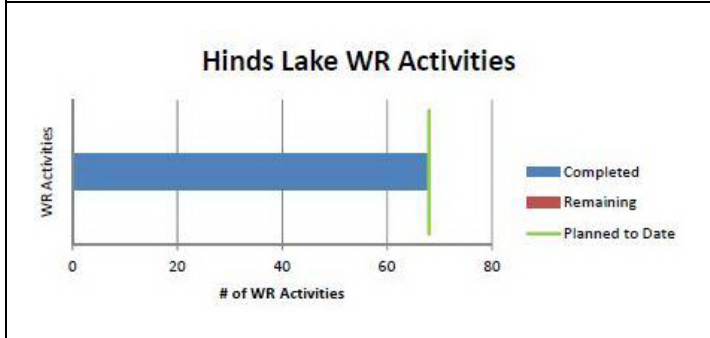
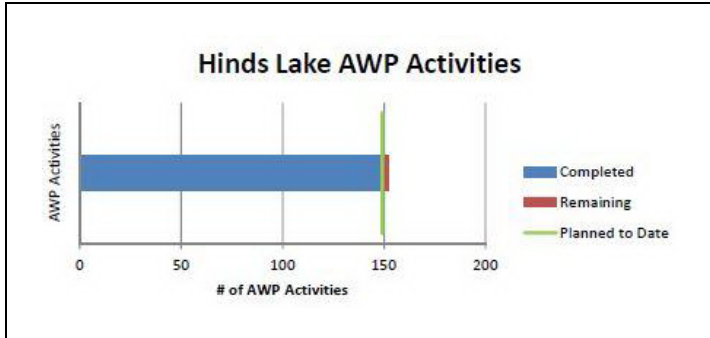
<h3 style="text-align: center;">Happy Valley GT AWP Activities</h3> <p style="text-align: center;"># of AWP Activities</p>	<h3>Happy Valley GT</h3> <p>Forecast Completion Status: Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 95% to date. ● Planned WR status is 100% complete for 2023. ● Remaining AWP activities are planned for completion by December 31, 2023.
<h3 style="text-align: center;">Happy Valley GT WR Activities</h3> <p style="text-align: center;"># of WR Activities</p>	

1 **2.3 Hydraulic Generation**

2 The status of AWP and WR execution at hydraulic generation facilities is summarized in the following
 3 charts. WR work for all hydraulic generation units was completed by December 1, 2023, with the
 4 exception of Upper Salmon.

	<p>Bay d'Espoir</p> <p>Forecast Completion Status:</p> <p>Target Completion Anticipated December 15, 2023</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 95% to date. ● Planned WR status is 94% complete for 2023. ● Due to ongoing capital projects at Burnt Dam and the Ebbegunbaeg hydroelectric structure (“Ebbegunbaeg”), WR activities at the spillways associated with these structures were unable to be completed by December 1, 2023. WR activities at Burnt Dam were completed during the first week of December 2023; WR activities at Ebbegunbaeg are planned for completion by December 15, 2023.
	

	<p>Cat Arm</p> <p>Forecast Completion Status:</p> <p>Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 98% to date. ● Planned WR status is 100% complete for 2023. ● Remaining AWP activities are planned for completion by December 31, 2023.
	



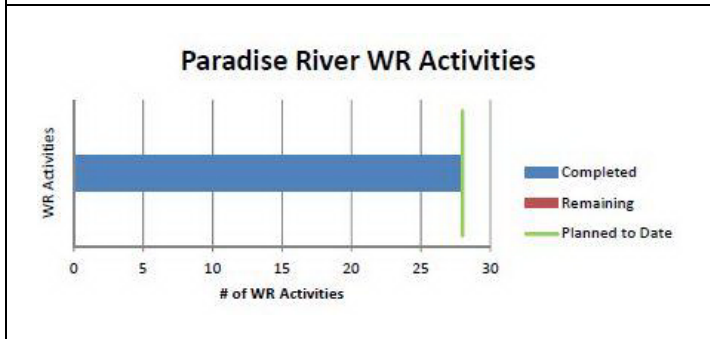
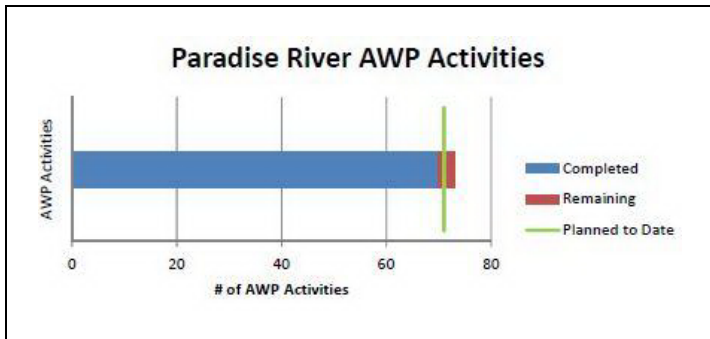
Hinds Lake

Forecast Completion Status:

Target Achieved

Comments and Schedule Notables:

- Overall AWP completion status is 98% to date.
- Planned WR status is 100% complete for 2023.
- The annual maintenance outage took place from November 12–25, 2023 to accommodate the extension of the annual maintenance outages for Units 1 and 2 in Bay d’Espoir.
- Remaining AWP activities are planned for completion by December 31, 2023.



Paradise River

Forecast Completion Status:

Target Achieved

Comments and Schedule Notables:

- Overall AWP completion status is 96% to date.
- Planned WR status is 100% complete for 2023.
- Remaining AWP activities are scheduled for completion by December 31, 2023.

<p style="text-align: center;">Upper Salmon AWP Activities</p>	<p>Upper Salmon</p> <p>Forecast Completion Status:</p> <p>Target Completion Anticipated December 14, 2023</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 93% to date. ● Planned WR status is 91% complete for 2023.¹² ● The annual maintenance outage is ongoing; all tasks are forecast for completion and the unit returned to service by December 14, 2023.¹³ ● Remaining WR activities for this unit are scheduled for completion upon return to service of the unit.
<p style="text-align: center;">Upper Salmon WR Activities</p>	

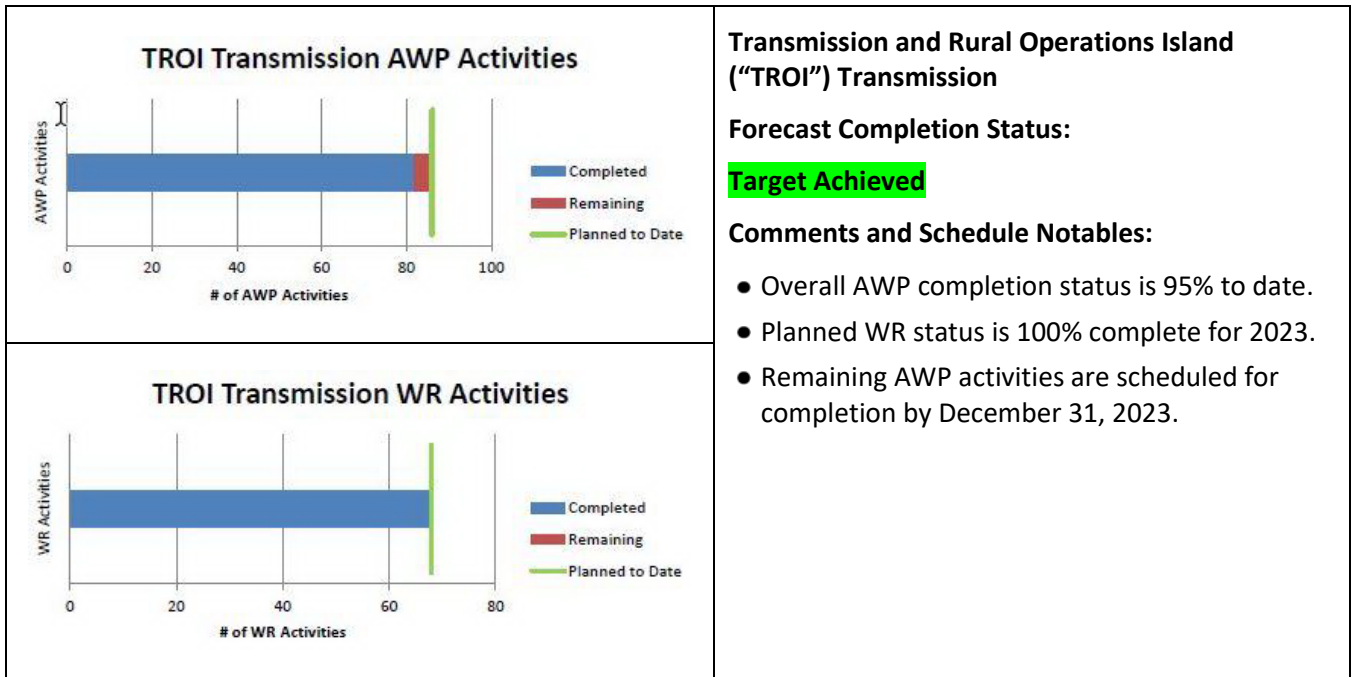
<p style="text-align: center;">Granite Canal AWP Activities</p>	<p>Granite Canal</p> <p>Forecast Completion Status:</p> <p>Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 99% to date. ● Planned WR status is 100% complete for 2023. ● Remaining AWP activities are scheduled for completion by December 31, 2023.
<p style="text-align: center;">Granite Canal WR Activities</p>	

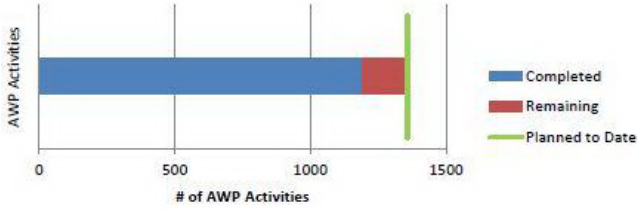
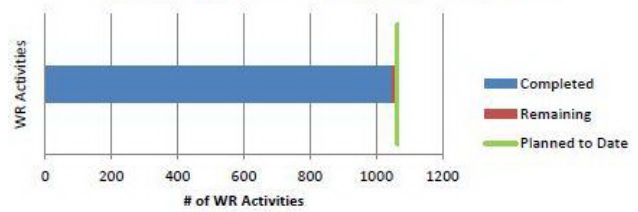
¹² WR activities at the North Salmon Dam Spillway were unable to be completed until after the unit came online and water was no longer being bypassed at the structure; these activities were completed on December 10, 2023 and are not included in the 91% completion status.

¹³ The Upper Salmon unit came online at full capability on December 10, 2023; the unit has not yet been released for service as testing and engineering review is ongoing.

1 **2.4 Transmission and Terminal Stations**

2 The status of AWP and WR execution for transmission line and terminal station facilities on both the
 3 Island Interconnected System and the Labrador Interconnected System is summarized in the following
 4 charts. All planned WR activities were completed by December 1, 2023, aside from 14 WR activities
 5 within TROI Terminal Stations.



<p style="text-align: center;">TROI Terminal Station AWP Activities</p>  <p style="text-align: center;">AWP Activities</p> <p style="text-align: center;"># of AWP Activities</p> <p style="text-align: right;"> ■ Completed ■ Remaining ■ Planned to Date </p>	<p>TROI Terminal Stations</p> <p>Forecast Completion Status:</p> <p style="background-color: orange;">Target Completion Date To Be Determined</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> ● Overall AWP completion status is 88% to date. ● Planned WR status is 99% complete for 2023. ● There are 14 WR activities outstanding as of December 1, 2023. ● Three of the outstanding activities were completed on December 3, 2023. ● Five of the outstanding activities will be complete by December 15, 2023. ● The remaining six WR activities are associated with three current transformers (“CT”) in Oxen Pond.¹⁴ The completion of these activities requires an outage that will affect some Newfoundland Power Inc. (“Newfoundland Power”) customers; Hydro is working to determine an acceptable time to facilitate this outage.
<p style="text-align: center;">TROI Terminal Station WR Activities</p>  <p style="text-align: center;">WR Activities</p> <p style="text-align: center;"># of WR Activities</p> <p style="text-align: right;"> ■ Completed ■ Remaining ■ Planned to Date </p>	

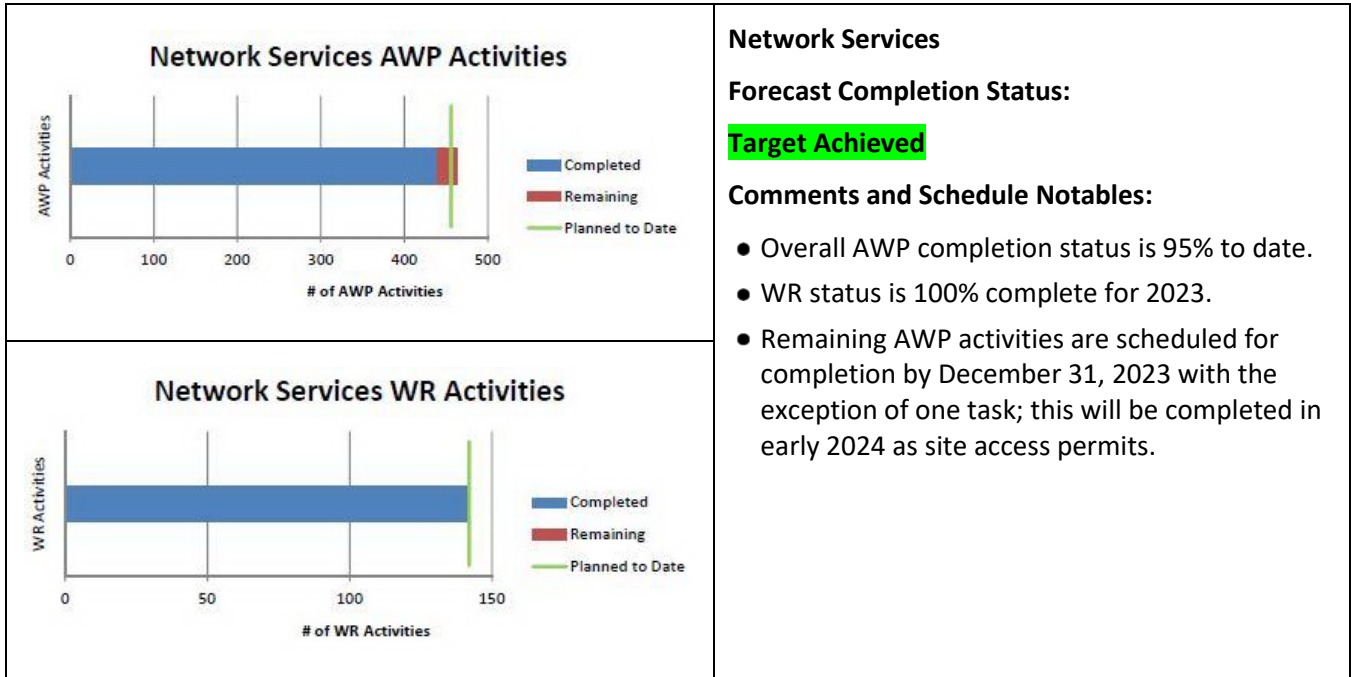
¹⁴ The three CTs were installed in 2017 and have no outstanding corrective maintenance issues. Hydro does not anticipate any issue with the CTs; however, until the work has occurred, a monthly inspection will be completed. The primary purpose of the CTs is metering, not system protection; in the event of a failure, the immediate response would be to by-pass the CTs and coordinate replacement.

<p style="text-align: center;">TROL Transmission AWP Activities</p>	<p>Transmission and Rural Operations Labrador (“TROL”) Transmission</p> <p>Forecast Completion Status: Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> • Overall AWP completion status is 100% complete; and • Planned WR status is 100% complete for 2023.
<p style="text-align: center;">TROL Transmission WR Activities</p>	

<p style="text-align: center;">TROL Terminal Station AWP Activities</p>	<p>TROL Terminal Stations</p> <p>Forecast Completion Status: Target Achieved</p> <p>Comments and Schedule Notables:</p> <ul style="list-style-type: none"> • Overall AWP completion status is 96% to date. • Planned WR status is 100% complete for 2023. • Remaining AWP activities are scheduled for completion by December 31, 2023; however, due to plant operation extending into the first week of November and resource constraints in the area, AWP activities at the L'Anse-au-Loup Diesel Plant may carry into January 2024.
<p style="text-align: center;">TROL Terminal Station WR Activities</p>	

1 **2.5 Network Services**

2 The status of AWP and WR execution for Network Services is summarized in the following charts. All
 3 planned WR activities were completed by December 1, 2023.



4 **2.6 Muskrat Falls Assets**

5 **2.6.1 Transmission Assets**

6 For the LIL, Labrador Transmission Assets and synchronous condensers at Soldiers Pond, overall AWP
 7 completion is 76%¹⁵ complete to date for 2023.

8 For the LIL and the Labrador Transmission Assets, 91%¹⁶ of the WR work orders are complete.

9 Approximately 4% of the outstanding items are planned to be completed early- to mid-December 2023,
 10 and the remaining 5% are planned to be completed early- to mid-January 2024.

11 Some low- and medium-risk work orders associated with the LIL high-voltage direct current (“HVdc”)
 12 and alternating current terminal stations have been deferred to 2024 as a result of the stop work order
 13 placed on the use of non-insulated aerial lifts by Service NL (Occupational Health and Safety). Hydro

¹⁵ AWP activity status is as of October 31, 2023.

¹⁶ WR activity status is as of December 8, 2023.

1 made use of insulated lifts that were available in other regions to complete the highest priority work and
2 minimize the impact to WR.

3 **2.6.2 Generation Assets**

4 The status of the Muskrat Falls Hydroelectric Generating Facility (Units 1 to 4) overall AWP completion is
5 71%¹⁷ to date, and planned WR activities are 84%¹⁸ complete for 2023. The annual maintenance outage
6 on Muskrat Falls Unit 3 is expected to be completed on December 11, 2023, at which point planned WR
7 activities will be 100% complete.

8 **3.0 Status of Winter Readiness for Capital Projects**

9 **3.1 Regulated Hydro Capital Projects**

10 The status of 2023 planned capital projects that include scope related to 2023–2024 WR for the Island
11 Interconnected System and the Labrador Interconnected System is provided in Appendix A. Table 1
12 summarizes the status of the WR scope of these projects by asset category.

Table 1: Status of Capital Projects with WR Scope

Asset Category	Complete as of	Incomplete, Expected	Total
	December 1, 2023	Completion after December 1, 2023	
Hydraulic Generation	1	1	2
Thermal Generation	3	4 ¹⁹	7
Gas Turbine Generation	1	1	2
Terminal Stations	2	3	5
Telecontrol	1	0	1
Total	8	9	17

13 As of December 1, 2023, the WR scope for 8 of the 17 capital projects and programs is complete. A
14 portion of the WR scope within 9 projects and programs is expected to be completed after
15 December 1, 2023. The statuses of those 9 projects and programs are as follows:

¹⁷ AWP activity status is as of October 31, 2023.

¹⁸ WR activity status is as of November 27, 2023.

¹⁹ One of these four projects and programs is the Holyrood – Fuel Tank 1 Fuel Inspection and Refurbishment project, for which the expected completion date is to be determined, as discussed in Section 7.2.6.

1) Upper Salmon – Rotor Rim Shrink and Stator Recentering

The WR scope in this project is to refurbish the generating unit rotor and stator assemblies at Upper Salmon, and includes inspection and refurbishment of the powerhouse overhead crane to facilitate the generator removal. The powerhouse crane inspection and refurbishment was completed in April 2023 and the generator refurbishment work was substantially completed throughout summer and fall 2023. The unit is reassembled and commissioning commenced in late November 2023. The unit was originally scheduled to be returned to service prior to December 1, 2023; however, the expected return to service date of the generating unit has shifted to December 14, 2023 as the generator refurbishment, reassembly, and commissioning took longer than expected. Specifically, the additional refurbishment work identified following disassembly and inspection of the unit included the requirement to:

- Remove, clean, and re-install the generator rotor poles to remove excessive contamination from the windings; and
- Adjust the unit head cover position to correct unit alignment issues and improve turbine clearances.²⁰

2) Holyrood – Overhaul Unit 2 Turbine and Valves Program

The WR scope in this program is to overhaul the turbine and turbine valves, and to complete electrical testing on the generator for Unit 2 at the Holyrood TGS.

- **Turbine Overhaul:** The planned overhaul work is complete; however, the planned turbine rotor inspection at the original equipment manufacturer’s (“OEM”) shop identified cracking on the L-1 blades on the Unit 2 turbine, resulting in the unanticipated requirement to replace that set of blades. New blades have been ordered and will be installed at the OEM shop prior to returning the turbine to the plant for installation and commissioning.
- **Turbine Valves Overhaul:** This activity is complete; final commissioning will occur during the start up and return to service of Unit 2.
- **Generator Electrical Testing:** Testing is expected to be completed in January 2024 prior to the start up and return to service of Unit 2.

²⁰ Please refer to Section 7.1.1 for a summary of the risk and risk mitigation associated with this activity.

1 The expected return to service date for this generating unit is March 2024; the delay is a result
2 of the unanticipated requirement to replace the L-1 blades on the Unit 2 turbine as discussed
3 above.²¹

4 **3) Holyrood – Upgrade Unit 2 Turbine Controls Project**

5 The WR scope in this project is to replace the obsolete turbine control system hardware for
6 Unit 2 at the Holyrood TGS. The construction activity is substantially complete; final
7 commissioning will be completed during the start up and return to service of Unit 2, which is
8 delayed due to the aforementioned Overhaul Unit 2 Turbine and Valves Program.

9 **4) Holyrood – Overhaul Pumps**

10 The WR scope in this program is to overhaul the west boiler feedwater pump and the west
11 cooling water pump for Unit 2 at the Holyrood TGS. Construction activities for the west boiler
12 feedwater pump are expected to be completed by December 15, 2023; final commissioning will
13 be completed during the start up and return to service of Unit 2, which is delayed due to the
14 aforementioned Overhaul Unit 2 Turbine and Valves Program. Construction activities for the
15 west cooling water pump are expected to be completed by December 15, 2023; final
16 commissioning will be completed by December 23, 2023.

17 **5) Holyrood – Fuel Tank 1²² Fuel Inspection and Refurbishment Program**

18 The WR scope in this program is to refurbish Fuel Tank 1. Construction activity was completed in
19 2023; however, during initial filling of Tank 1 following the work, a small leak was identified on
20 the north side of the tank. Tank cleaning and assessment were required before an assessment
21 could be made to determine the scope of repairs; these were completed in October and
22 November 2023, respectively. The engineering details for the repair scope are under
23 development; the expected return to service date for Tank 1 remains to be determined.²³

²¹ Please refer to Section 7.2.4 for a summary of the risk and risk mitigation associated with this activity.

²² This was originally proposed as Fuel Tank 2, but changed to Fuel Tank 1 in “Request for Change or Modification to Board Order No. P.U. 24(2022) – Approval of Various Supplemental Capital Projects at the Holyrood Thermal Generation Station,” Newfoundland and Labrador Hydro, September 26, 2022 and approved in *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 30(2022), October 7, 2022.

²³ Please refer to Section 7.2.6 for a summary of the risk and risk mitigation associated with Fuel Tank 1.

1 **6) Happy Valley – Replace Human-Machine Interface**

2 The WR scope in this project is to replace the human-machine interface hardware and software
3 components that control and monitor plant equipment. The new hardware is installed and the
4 new software has been developed; however, issues with the software were identified during
5 testing. Software logic troubleshooting by the vendor and Hydro’s Engineering team is in
6 progress and the system is expected to be in service by December 22, 2023.

7 **7) Various Locations – Refurbishment and Modernization of Power Transformers²⁴**

8 The WR scope in this program is to refurbish the tap changer for Transformer 1 (“T1”) at the
9 St. Anthony Diesel Plant. Planned refurbishment was completed in June 2023, but an additional
10 issue was discovered with the tap changer that prevented it from being placed back into service.
11 Further work was completed by the OEM in late July 2023; however, the cause of the issue was
12 unable to be determined at that time. Additional testing was completed in November 2023, and
13 a mechanical issue with the tap changer was identified. Further discussions with the OEM are
14 ongoing to determine if a repair is possible or if replacement is required.²⁵

15 **8) Various Locations – Upgrade Circuit Breakers Program**

16 The WR scope in this program is to replace five circuit breakers and refurbish three circuit
17 breakers. The status of this work is as follows:

- 18 • 62.5% of the WR scope of this program is complete;
- 19 • 37.5% of the WR scope of this program will be completed after December 1, 2023, which
20 includes the following work:
 - 21 ○ Replacement of Buchans Circuit Breaker B1L28;
 - 22 ○ Replacement of Bay d’Espoir Circuit Breaker B1T1; and
 - 23 ○ Refurbishment of Roddickton Wood Chip Circuit Breaker B1L57.

24 The Buchans Circuit Breaker B1L28 was replaced as planned in 2023, but an issue was identified
25 during testing of the new equipment. The issue has since been resolved, and the circuit breaker
26 was returned to service on December 8, 2023.

²⁴ This program is part of the Terminal Station Renewal Program (2023–2024).

²⁵ Please refer to Section 7.5.2 for a summary of the risk and risk mitigation associated with this transformer.

1 The Bay d'Espoir Circuit Breaker B1T1 replacement has carried over to 2024 due to restricted
2 generating unit outage availability²⁶ prior to the start of the WR period.²⁷

3 The refurbishment of Roddickton Wood Chip Circuit Breaker B1L57 commenced in July 2023;
4 however, its completion was delayed due to issues discovered with the circuit breaker during
5 the refurbishment. Addressing these issues required the replacement of parts that neither
6 Hydro nor the OEM have in stock; the parts were ordered and received, and the refurbishment
7 completed on December 8, 2023.²⁸

8 **9) Various Locations – Replace Disconnect Switches²⁹**

9 The WR scope in this program is to replace two disconnect switches. One of these replacements
10 is complete, while the other, the replacement of Bay d'Espoir Disconnect Switch B1B10-2, is
11 expected to be completed after December 1, 2023. This work has carried over to 2024 due to
12 late delivery of the new disconnect switch, which delayed construction to the fall of 2023, and
13 subsequently restricted generating unit outage availability³⁰ prior to the start of the WR
14 period.³¹

15 **3.2 Muskrat Falls Assets Capital Projects**

16 **3.2.1 Transmission Assets**

17 **1) Various Locations – Replace Turnbuckles and Install Airflow Spoilers Program**

18 With regards to capital programs for transmission assets impacting WR, Hydro is actively
19 addressing the recommendations resulting from four types of failures last winter on different
20 sections of the LIL. These failures were localized issues each affecting specific transmission line
21 components in local areas.³² The compounding effect of these failures has had a relatively minor
22 impact on LIL key reliability metrics and Hydro has taken proactive steps to mitigate the risk of
23 customer and/or system impact resulting from similar failures in the upcoming winter season.

²⁶ Restricted unit outage availability is primarily a result of the Bay d'Espoir Transformer 6 ("T6") failure, which resulted in subsequent delays in other unit outages.

²⁷ Please refer to Section 7.1.3 for a summary of the risk and risk mitigation associated with Bay d'Espoir circuit breakers.

²⁸ Please refer to Section 7.5.3 for a summary of the risk and risk mitigation associated with this circuit breaker.

²⁹ This project is part of the Terminal Station Refurbishment and Modernization Project (2022–2023).

³⁰ Restricted unit outage availability is primarily a result of the Bay d'Espoir T6 failure, which resulted in subsequent delays in other unit outages.

³¹ Please refer to Section 7.5.1 for a summary of the risk and risk mitigation associated with this circuit breaker.

³² "Reliability and Resource Adequacy Review – Summary of Findings from L3501/2 Failure Investigations," Newfoundland and Labrador Hydro, October 4, 2023.

1 In preparation for the upcoming winter season, Hydro has advanced its capital programs to
2 replace turnbuckles and install airflow spoilers to reduce galloping, prioritizing the high-priority
3 areas of the LIL.³³ Hydro has completed year one of the turnbuckle replacements and installed
4 airflow spoilers in the high-priority zones.³⁴ As the capital project for turnbuckle replacement is
5 a four-year project, there is some residual risk of failure on the remaining scope; however,
6 Hydro has mitigated the risk of a prolonged customer outage as a result of turnbuckle failures by
7 focusing on the priority areas which represent the most remote locations on the LIL where
8 galloping has been observed.

9 The remaining issues were related to communications and electrode conductor systems, and
10 similar damage in the future would not cause a prolonged power interruption. To address these
11 issues, Hydro has increased real-time monitoring of the ice conditions along the transmission
12 line by installing a weather station in the Labrador Straits, and has also increased line patrols
13 and the collection of field observation data as maintenance activities are performed.

14 **3.2.2 Generation Assets**

15 At this time, there are no capital programs impacting WR related to the Muskrat Falls Hydroelectric
16 Generating Facility.

17 **4.0 Plant and Equipment Testing**

18 To ensure WR, Hydro follows a structured checklist for planning and documenting its testing and
19 inspection of plant and equipment in its thermal and hydraulic generation facilities, as provided in
20 Appendix B and Appendix C, respectively.

21 In its transmission, terminal station, network services, and gas turbine operations, Hydro relies on its
22 AWP process to plan and track its WR testing and inspection of these assets. The AWP in these areas
23 include planned PM activities and CM items, both of which involve inspection and testing. Planned PMs
24 and CMs, and any other activities pertaining to WR, are flagged inside the respective AWP and may be
25 tracked separately from other AWP items that are not WR related.

³³ Based on the outcome of its galloping study, Hydro is installing airflow spoilers on priority areas of the LIL to control galloping and mitigate further damage to turnbuckles.

³⁴ The total percent complete of the turnbuckles and airflow spoiler project scopes are 26% and 40%, respectively.

1 **4.1 Thermal Generation**

2 WR testing of generating equipment in thermal generation is focused primarily around annual unit
3 maintenance outages. Following these annual outages, units are run up and synchronized and all
4 systems are verified before the unit’s operating status is determined and preparedness is confirmed.
5 Unit load tests are performed at this time as well; however, all required load testing is not completed
6 until later in the fall when system conditions allow. The WR testing protocol includes the testing of
7 appropriate Balance of Plant components, including the black start diesel generators.³⁵ The current
8 status of equipment/plant testing for thermal generation is indicated in Appendix B.

9 Unit 3 has been online without load constraint issues since the return of the east forced draft fan motor
10 on November 25, 2023. As indicated in Appendix B, start-up checks are essentially complete for this unit,
11 with the exception of activities related to the condensate drains pumps. These pumps are not required
12 for safe and reliable operation of the unit at full capability.

13 Unit 1 came online following its annual maintenance outage on October 8, 2023, and is available up to
14 140 MW. The load on this unit is limited due to turbine control valve issues, which are discussed further
15 in Section 7.2.9. Hydro is preparing a plan to address these issues, which will require an outage of
16 approximately three weeks duration. As indicated in Appendix B, the majority of the start-up checks are
17 complete for this unit, aside from activities related to the feedwater heater condensate drains pump
18 and the economizer manual inlet valve,³⁶ which are not required for safe and reliable operation of the
19 unit at full capability.

20 Unit 2 will remain on a forced extension of the annual outage until March 2024 due to the required
21 replacement of the L-1 blades on the Unit 2 turbine. As indicated in Appendix B, most of the start-up
22 checks have not been completed on this unit due to the extended outage. The start-up checks will
23 commence in preparation to return the unit to service, with the remainder completed when the unit is
24 started up for system generation needs.

³⁵ The black start diesel generators are run up to speed and synchronized on a weekly basis to confirm their availability. The function of all associated breakers are also tested and confirmed.

³⁶ This valve failed on start up and is unavailable; it is primarily used for unit shutdown and will be refurbished during the 2024 annual maintenance outage.

1 **4.2 Gas Turbine Generation**

2 Examples of WR activities that are included in the AWP for the Holyrood GT, Hardwoods GT,
3 Stephenville GT, and Happy Valley GT include the following:

- 4 ● PMs and CMs for major components and auxiliary systems;
- 5 ● Black start testing;
- 6 ● Monthly operational testing; and
- 7 ● Execution of capital upgrades and refurbishment.

8 AWP charts, which include WR activities, are shown in Section 2.2.

9 Black start testing of Happy Valley, Hardwoods, and Holyrood gas turbines is complete. Black start
10 testing of the Stephenville GT was not completed prior to December 1, 2023 due to the current
11 alternator repair schedule.

12 Operational testing of all gas turbines was performed throughout the year as planned and all WR capital
13 upgrades and refurbishments were completed by December 1, 2023, aside from the aforementioned
14 activities at the Stephenville GT.

15 **4.3 Hydraulic Generation**

16 WR testing of generating equipment in hydraulic generation is focused primarily around annual unit
17 maintenance outages. Following these annual outages, units are run up and synchronized and all
18 systems are verified before the unit’s operating status is determined and preparedness is confirmed.
19 Unit load tests are also performed as system conditions permit. The WR testing protocol includes the
20 testing of appropriate Balance of Plant components.

21 The status of equipment and plant testing for hydraulic generation is indicated in Appendix C. All
22 inspection and testing of hydraulic generating facilities is complete, with the exception of Upper Salmon,
23 which will be completed when the unit returns to service on December 14, 2023.

24 **4.4 Transmission and Terminal Stations**

25 **4.4.1 Transmission**

26 The summary of maintenance, refurbishment, and replacement criteria that Hydro uses for its
27 transmission lines was included in the “Transmission System and Terminal Station Asset Management

1 Execution Report.”³⁷ The report includes criteria for wood pole and steel structure line management
2 programs, helicopter patrols, ground patrols, infrared inspections, wood pole treatment, and right-of-
3 way maintenance.

4 **4.4.2 Terminal Stations**

5 The “Terminal Station Asset Management Overview” document includes the maintenance,
6 refurbishment, and replacement criteria used by Hydro for terminal station assets. Version 7 of
7 “Terminal Station Asset Management Overview” was included in the 2024 Capital Budget Overview,
8 filed as part of Hydro’s 2024 CBA.³⁸

9 **4.4.3 Transmission and Terminal Station Testing**

10 The AWP for both transmission and terminal stations are predominantly comprised of PMs and CMs,
11 which inherently involve inspection and testing. Examples of WR activities that are included in the AWP
12 work scopes include the following:

- 13 • Transformer PMs and CMs;
- 14 • Annual exercises on all high-voltage circuit breakers;
- 15 • Exercise of 230 kV circuit breakers from protection during PM inspections;
- 16 • Infrared scans at all terminal stations;
- 17 • Annual ultrasonic leak testing on all terminal station air systems; and
- 18 • Annual helicopter patrol of transmission lines prior to the winter season.

19 AWP charts, which include WR activities, are provided in Section 2.4. All WR activities were completed
20 by December 1, 2023, aside from 14 WR activities within TROI Terminal Stations.

21 **4.5 Network Services**

22 The AWP for Network Services is comprised of PMs and CMs, which inherently involve inspection and
23 testing of various assets and systems. AWP charts, which include WR activities, are shown in Section 2.5.
24 All WR activities were completed by December 1, 2023.

³⁷ “Transmission System and Terminal Station Asset Management Execution Report,” Newfoundland and Labrador Hydro, April 25, 2022.

³⁸ “2024 Capital Budget Application,” Newfoundland and Labrador Hydro, rev. September 21, 2023 (originally filed July 12, 2023), sch. 1, app. F.

1 5.0 Generation Outage Schedule

2 As reflected in Section 2.0, a number of generating unit annual maintenance programs have been
3 completed across the fleet and Hydro plans to complete annual maintenance on all of its units in
4 advance of the winter season, with the exception of Holyrood TGS Unit 2, Stephenville GT, Muskrat Falls
5 Unit 3, Upper Salmon, Star Lake and the LIL. Given that the LIL has been commissioned, its maximum
6 contribution at peak to the Island system is now included in Hydro’s Island reserve calculations.³⁹

7 Since the previous report, maintenance programs have been completed on Bay d’Espoir Units 1 and 2,
8 Muskrat Falls Unit 3 and Hinds Lake. At this time, maintenance activities are continuing on Upper
9 Salmon and Star Lake.

10 Currently, Holyrood Unit 1 is available up to 140 MW due to recent issues with the Unit 1 turbine control
11 valve. A plan is being developed with the OEM to correct the issues in a future outage; this unit will be
12 derated to 140 MW for the interim period.⁴⁰ Holyrood Unit 3 east forced draft fan motor was returned
13 to service on November 25, 2023 and the unit has been successfully tested to its maximum capacity of
14 150 MW.

15 The following assets have planned outages extending beyond December 1, 2023:

- 16 ● Muskrat Falls Unit 3: The planned outage of this unit from October 31–December 11, 2023 does
17 not impact WR, as energy from Muskrat Units 1, 2, and 4 is available to the Island
18 Interconnected System via the LIL.
- 19 ● LIL: Planned outages on the LIL in early to mid-December 2023, and early January 2024⁴¹ are
20 required to replace four DC current transformers (“DCCT”) and to facilitate testing
21 requirements.⁴²

22 The following generating units have unplanned outages extending beyond December 1, 2023:

- 23 ● Holyrood TGS Unit 2: This unit is currently unavailable, and will not return to service for the
24 remainder of 2023 due to the unexpected replacement of the L-1 blades on the Unit 2 turbine.

³⁹ The maximum LIL contribution to Island Reserves at peak is a function of Island load, the LIL operating mode (i.e., monopole or bipole), the number of available Muskrat Falls units and contractual Maritime Link exports. It is measured at Soldier’s Pond.

⁴⁰ Hydro is currently assessing opportunities to complete this work during the winter period.

⁴¹ For the duration of the outage period, the LIL will be on monopole outages with intermittent bipole outages. Exact dates for the planned outage on the LIL in January 2024 remain to be confirmed.

⁴² The DCCT replacement is necessary to ensure LIL reliability through the winter period, as discussed in Section 7.6.1.

1 The return to service date for this unit is tentatively scheduled for March 2024 due to lead times
2 for specialized parts and services.

3 ● Stephenville GT: This unit is currently unavailable due to alternator cooling fan repair, and is not
4 expected to return to service until early February 2024 due to lead times for specialized repair
5 services.

6 ● Upper Salmon: This unit is currently unavailable, with an expected return to service date of
7 December 14, 2023. The contractor has completed work on the unit, and unit reassembly is
8 complete; commissioning remains ongoing.⁴³

9 ● Star Lake: This unit is currently unavailable, with an expected return to service date of
10 December 15, 2023 due to material delays and limited personnel availability.

11 The Master Generation Outage Schedule for November 1, 2023–March 31, 2024 is provided as
12 Appendix D.

13 **6.0 Critical Spares**

14 **6.1 Overview**

15 In 2014, Hydro completed extensive reviews of its critical spares requirements in all three areas of its
16 generation operations: hydraulic generation, thermal generation (Holyrood TGS), and the gas turbines in
17 Hardwoods and Stephenville. These reviews included a detailed analysis of asset criticality and spare
18 parts in reference to several factors, including the impact on generation reliability and the availability of
19 replacement parts. A second phase of spares analysis was completed in 2017 for Hydro’s hydraulic
20 generating facilities and 569 additional items were added to the critical spares list. In 2021, Hydro
21 included details on its critical spares status for the Happy Valley GT.

22 Hydro's evaluation of critical spares is an ongoing process with consideration given to asset condition,
23 level of criticality, part availability, order lead time, and cost. In some cases, a balanced consideration of
24 these factors may result in the decision to not procure a part into inventory where the risk to reliability
25 is judged as low and/or other measures are available to mitigate against generation unavailability.

⁴³ The Upper Salmon unit tested at full capability on December 10, 2023; the unit has not yet been released for service as testing and engineering review is ongoing.

1 A full update on the status of Hydro’s critical spares, as of December 1, 2023, for the 2023–2024 winter
2 season is provided in Appendices E through G. This update includes a detailed listing of critical spares
3 requirements for each area of generation operations and the status of each item.

4 **6.2 2023–2024 Winter Season**

5 Hydro’s critical spares status leading into the 2023–2024 winter season is strong. For thermal generation
6 (Appendix E), gas turbines (Appendix F), and hydraulic generation (Appendix G), 2,521 critical spares
7 have been identified by Hydro’s three generation operations areas. Of this total, 2,513 items are in stock
8 (>99%) and 8 items are in the procurement process.

9 **6.2.1 Thermal Generation**

10 As summarized in Table 2, there are seven critical spare stock items currently not in stock. All of these
11 items are on order through Hydro’s Supply Chain Department and are in varying stages of procurement.
12 One item is being refurbished at a specialized maintenance facility out of province, and is expected to be
13 returned to site by December 13, 2023.⁴⁴ Supply Chain is expediting the purchase of one item that was
14 issued from Inventory on November 21, 2023. A Purchase Order has been issued; the expected delivery
15 date is January 3, 2024.⁴⁵ Supply Chain is preparing to issue a Purchase Order on the final item; a quote
16 has been received and the expected lead time is five to six weeks upon receipt of the Purchase Order.⁴⁶
17 Hydro continues to track the status of the outstanding critical spare stock items and will provide an
18 update to the Board in January 2024.

19 The complete list of critical spares for the Holyrood TGS is provided in Appendix E. This list contains
20 three inventory status descriptions:

- 21 **1) In Stock:** Part is in inventory;
22 **2) Non-Stock:** Part is critical but it is not necessary to keep it in stock (e.g., because the part is
23 readily available locally);⁴⁷ and

⁴⁴ This item is a spare component for the Stage 1 (Unit 1 and 2) boiler feed pumps, which covers four operating pumps. While failure of these pumps is unlikely, it would result in derating the affected unit to approximately 50% load until the refurbishment can be completed and installed.

⁴⁵ This item is listed as a critical spare for five different components. For reporting purposes, this is counted as five items. This item is a spare level transmitter which is essential for unit operation; however, failure of this component is rare.

⁴⁶ This item is a spare component for the two Unit 3 forced draft fan motors. While failure of these components is unlikely, it would result in derating Unit 3 to approximately 50 MW until the motor is refurbished and reinstalled. Hydro is also evaluating an option for a complete spare motor assembly; it will be decided which option will be purchased upon receipt of quotes.

⁴⁷ For the Non-Stock parts, an explanation of the reason why it is Non-Stock is provided in the Notes column in Appendix E.

1 3) **On Order:** Part is required to be in stock but is not.

Table 2: Critical Spares for Thermal Generation

Status	Quantity
In Stock	751
On Order	7
Not Yet On Order	0
Total	758

2 **6.2.2 Gas Turbines**

3 Table 3 summarizes the status of spare parts for the Hardwoods GT, Stephenville GT, Holyrood GT, and
 4 Happy Valley GT and Appendix F contains detailed lists for each gas turbine.

Table 3: Critical Spares for Gas Turbine Generation

Status	Hardwoods/ Stephenville	Holyrood	Happy Valley	Total	
In Stock	90	403	53	546	100.0%
On Order	0	0	0	0	0.0%
Not Yet On Order	0	0	0	0	0.0%
Total	90	403	53	546	100.0%

5 Hydro has utilized a number of its spare parts to address deficiencies found during the 2023
 6 maintenance season. These items have been identified and the spare components have been
 7 replenished.

8 **6.2.3 Hydraulic Generation**

9 Table 4 provides an overview of the critical spares program for hydraulic generation and Appendix G
 10 contains detailed spares lists for the various facilities.

Table 4: Critical Spares for Hydraulic Generation

Status	Quantity
In Stock	1,216
On Order	1
Not Yet On Order	0
Total	1,217

1 The Upper Salmon T2 spare transformer remains outstanding but does not present a risk to WR.⁴⁸ This
2 spare transformer was delivered to Upper Salmon in August 2021 from a factory in Turkey; however, the
3 unit was not accepted by Hydro due to unit damage most likely caused by an impact event that occurred
4 during shipping from the factory.⁴⁹ The transformer was returned to Turkey in 2022 to be repaired and
5 tested; however, challenges have been encountered with FAT⁵⁰ throughout 2023. Hydro continues to
6 work with the supplier to expedite repairs and deliver the transformer back to Upper Salmon and
7 expects the transformer to be returned to Upper Salmon in the first quarter of 2024.

8 **7.0 Risk and Risk Mitigation**

9 Hydro’s readiness planning for the 2023–2024 winter season is nearing completion. All regulated
10 generating assets were available by December 1, 2023, with the exception of Unit 2 at the
11 Holyrood TGS, Upper Salmon, and the Stephenville GT. Additionally, Muskrat Falls Unit 3 and the LIL
12 have planned outages extending beyond December 1, 2023. Potential system risks and associated
13 mitigation plans are provided in the sections that follow.

14 **7.1 Bay d’Espoir Operations**

15 Bay d’Espoir generation was fully available as of December 1, 2023, with the exception of the Upper
16 Salmon unit. Three risks to WR and/or reliable operations are identified in Sections 7.1.1 to 7.1.3.

17 **7.1.1 Upper Salmon Rotor Key Cracking and Rotor Rim Guidance Block Defects**

18 In 2021, Hydro completed replacement of all rotor rim guidance blocks on the Upper Salmon unit
19 following the discovery of cracking through the completion of non-destructive testing (“NDT”) during
20 the 2021 annual maintenance outage, as previously reported. In consultation with the OEM, Hydro
21 performed regularly scheduled NDT inspections throughout 2022 and part of 2023.

22 An inspection in March 2023 revealed rotor rim lamination failures and guidance block cracking which,
23 following consultation with the OEM, resulted in the recommendation that the unit could no longer
24 support the safe and reliable generation of electricity. The Upper Salmon unit was subsequently

⁴⁸ The existing transformer is in good condition. A failure of T2 would not impact available generation from Upper Salmon; it provides power to some upcountry structures for which there are other contingencies.

⁴⁹ The unit was initially shipped off site to a manufacturer-affiliated repair facility in the United States of America (“USA”) for inspection, testing and repair.

⁵⁰ Factory Acceptance Testing (“FAT”).

1 removed from service, upon which Hydro proceeded with capital life extension activities⁵¹ required to
2 remediate the issue. Since the commencement of supplemental activities, in consultation with the OEM,
3 Hydro has expanded the project scope to include the required corrections to the alignment of the
4 turbine and generator assembly. The construction on the unit commenced in the second quarter of 2023
5 and has since been completed; Hydro is working with the OEM to complete unit reassembly and
6 commissioning work. This unit was originally scheduled to be returned to service prior to the WR target
7 date of December 1, 2023; however, this date has shifted to December 14, 2023 to accommodate delays
8 in the completion of unit reassembly and required commissioning activities.

9 **7.1.2 Bay d’Espoir Penstocks**

10 As a result of previous ruptures of the Bay d’Espoir Penstocks, with the most recent being September
11 2019, Hydro has continued to complete annual inspections of Bay d’Espoir Penstocks 1, 2, and 3 to
12 monitor penstock condition and ensure reliability in the short term.

13 Penstock 3 was inspected in May 2023; during the inspection, nine new weld indications were
14 discovered in areas which had not been previously repaired. Weld repairs were completed and the
15 penstock was returned to service. The inspection of Penstock 2 was also completed in May 2023. During
16 the inspection, three new weld indications were discovered in areas which had not been previously
17 repaired. Weld repairs were completed and the penstock was returned to service.

18 The inspection of Penstock 1 commenced on October 17, 2023 and was completed on
19 November 7, 2023. The inspection duration was extended to execute repairs to the additional weld
20 indications discovered during the inspection. The inspection revealed 82 weld indications in 72 cans⁵²
21 between Can 1 and Can 160. Refurbishment activities have since been completed and the penstock was
22 returned to service on November 10, 2023.

23 Hydro has used the information obtained through the inspection and refurbishment process to inform
24 its long-term plan for the penstocks; the details of which were filed in a supplemental capital application

⁵¹ “Application for Approval for Rotor Rim Shrinking and Stator Recentering at the Upper Salmon Hydroelectric Generating Station,” Newfoundland and Labrador Hydro, April 26, 2022, approved by the Board in *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 18(2022), Board or Commissioners of Public Utilities, May 20, 2022.

⁵² Each penstock is constructed of many cans, each of which were constructed individually by welding two halves together horizontally along the longitudinal axis of the can, then welded end-on-end using a circumferential weld.

1 to the Board on December 7, 2022,⁵³ which has since been approved.⁵⁴ Although Hydro has mitigated
2 risk of failure to the extent possible, there is residual risk that a failure could occur before further life
3 extension work is completed. Modifications remain in place to the Automatic Generator Control
4 application in Hydro’s Energy Management System, designed to limit the amount of rough zone
5 operation, as well as the more prescriptive operating regime for Units 1 and 2.⁵⁵

6 Hydro has estimated a 13- to 23-day repair timeline depending on circumstances, should a new failure
7 occur, and has continued to take proactive measures to reduce generating unit downtime in the event
8 of failure. In order to minimize response time in the event of a penstock rupture, Hydro has maintained
9 its inventory of pre-rolled steel plate, consulted with third-party contractors to confirm priority
10 availability of local welding resources, and will ensure heavy equipment availability and readiness to
11 avoid potential transportation issues during winter months when access roads can be snow covered and
12 icy.

13 **7.1.3 Bay d’Espoir Terminal Station Circuit Breaker Failures**

14 Since October 2018, Hydro has experienced four failures of 230 kV General Electric (“GE”) dead tank
15 circuit breakers at the Bay d’Espoir Terminal Station.⁵⁶ Hydro has developed plans to minimize outage
16 duration in the event of another failure by ensuring the availability of a spare breaker and spare breaker
17 phases. In the event of a failure, the associated outage duration to complete repairs is estimated to be
18 three to four days. Hydro is also continuing with its new generator operating instructions, supplemented
19 with additional breaker protection, to reduce the risk of failure.

20 Hydro has developed a plan for replacement of the five GE generator breakers installed at Bay d’Espoir.
21 Hydro included the replacement of three of the Bay d’Espoir Terminal Station unit circuit breakers in its
22 Replace Circuit Breaker (2022–2023) project,⁵⁷ with one originally planned for installation in 2022, and

⁵³ “Application for Approval of Capital Expenditures for Section Replacement and Weld Refurbishment for Bay d’Espoir Hydroelectric Generating Facility Penstock 1,” Newfoundland and Labrador Hydro, December 7, 2022.

⁵⁴ *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 6(2023), Board or Commissioners of Public Utilities, April 12, 2023.

⁵⁵ Under this operating regime, once dispatched, Units 1 and 2 are limited to a minimum loading of 50 MW and are not cycled or shut down as part of normal system operations.

⁵⁶ “2022 Capital Budget Application,” Newfoundland and Labrador Hydro, rev. September 17, 2021 (originally filed August 2, 2021), vol. II, sch. 8, tab 18, att. 1.

⁵⁷ “2022 Capital Budget Application,” Newfoundland and Labrador Hydro, rev. September 17, 2021 (originally filed August 2, 2021), vol. II, sch. 8, tab 18.

1 two in 2023. Hydro included the replacement of the remaining two unit circuit breakers in its Circuit
2 Breakers Renewal Program 2023–2024⁵⁸ with installation planned for 2024.

3 Two of these five unit circuit breakers have been installed.⁵⁹ Subject to unit outage availability, Hydro
4 plans to install the final three breakers in 2024. The circuit breaker for Unit 1 was planned for
5 installation in 2023 but has carried over to 2024; the circuit breakers for Unit 4 and Unit 6 remain
6 planned for 2024. The Unit 1 circuit breaker replacement has carried over to 2024 due to uncertainty in
7 unit outage availability prior to the start of the WR period, primarily due to the Bay d’Espoir T6 failure,
8 which resulted in delays in other unit outages.

9 While one of the 2023 circuit breaker replacements has carried over to 2024, there is no change to the
10 risk of failure. Hydro’s mitigation plan remains in place to ensure a limited impact to the system should a
11 failure occur.

12 **7.2 Holyrood Thermal Generating Station Operations**

13 Hydro completed a Condition Assessment and Life Extension Study of the Holyrood TGS in 2021, and
14 concluded that, as per the 2022 update to the Reliability and Resource Adequacy Study,⁶⁰ the
15 Holyrood TGS shall remain available for a “Bridging Period”⁶¹ until 2030, or until such time that sufficient
16 alternative generation is commissioned, adequate performance of the LIL is proven, and generation
17 reserves are met. It is recognized that the majority of the Holyrood TGS assets are 40 to 50 years old;
18 increased age can result in an increased risk of in-service failures. Recent age-related failures have been
19 experienced on the boilers, turbines, and electrical equipment at the Holyrood TGS. Hydro mitigates this
20 risk through regular overhaul programs on major components including the boilers, turbines,
21 generators, major pumps, loading arms, increased condition assessment work, and a robust critical
22 spares program.

23 Unit 3 at the Holyrood TGS is fully available. Unit 1 is available at a reduced capacity of 140 MW as a
24 result of the turbine control valve issues discussed in Section 7.2.9. Unit 2’s return to service is delayed

⁵⁸ “2023 Capital Budget Application,” Newfoundland and Labrador Hydro, July 13, 2022, vol. II, sch. 6, prog. 1.

⁵⁹ The circuit breakers for Unit 3 and Unit 5 are installed.

⁶⁰ “Reliability and Resource Adequacy Study – 2022 Update,” Newfoundland and Labrador Hydro, October 3, 2022.

⁶¹ Hydro considers the Bridging Period to be from 2023 to 2030. During the Bridging Period, the system would rely primarily on existing sources of generation capacity to maintain reliability while new generation capacity is being built. The primary, readily available supply options in this period are extending the retirements of the Holyrood TGS and the Hardwoods GT until their capacities can be adequately replaced.

1 until March 2024 due to the required replacement of the L-1 blades, as discussed in Section 7.2.4. Items
2 influencing WR and/or reliable operations are identified in Sections 7.2.1 to 7.2.9.

3 **7.2.1 Variable Frequency Drives**

4 Variable frequency drives (“VFD”) on the Holyrood TGS units’ forced draft fans present a risk for forced
5 outages. Since they were installed approximately eight years ago, they have been prone to cause unit
6 trips due to failures of power cells, an internal component of the drives. In 2021, the VFDs on Unit 3
7 were bypassed, eliminating the risk of a Unit 3 trip due to VFD failures. Unit 1 and Unit 2 continued to
8 operate on VFD control. During the 2022 outage season, the Unit 2 VFDs were also bypassed. Final
9 commissioning of this work was successfully completed when the unit was returned to service on
10 October 30, 2022. Hydro plans to bypass the Unit 1 VFDs in 2024. With the elimination of the VFDs on
11 Unit 3 and now Unit 2, Hydro has a good supply of spare power cells to support operation of Unit 1.

12 **7.2.2 Unit 3 Steam Chest Crack**

13 Hydro has been monitoring a crack in the Unit 3 turbine steam chest since 1998. A repair completed by
14 the OEM in 2001 was expected to prevent further crack growth for approximately 15 to 25 years. In
15 2019, some growth was observed, and a study completed by the OEM in February 2023 recommended
16 re-inspection of the crack after nine start-stop cycles. As the 2023 inspection found no crack growth, the
17 unit is cleared for operation for the 2023–2024 winter. Should stop-start cycles be kept within the
18 normal range for this unit, no further inspection of the crack will be required until summer 2024.⁶²

19 **7.2.3 Unit Boiler Tubes**

20 Each of the three thermal generating units at the Holyrood TGS has a boiler that contains tubes, the
21 failure of which are a common issue in thermal power plants.⁶³ To mitigate the possibility of tube
22 failures, Hydro conducts a thorough annual tube inspection and test program, which was executed
23 during the 2023 annual outage season, and is scheduled to reoccur in 2024. Hydro has determined that
24 the boiler tube sections as a whole are in good condition; however, tube failures continue to pose a risk.
25 Hydro maintains a thorough selection of spare tube material and a contract with an experienced boiler
26 contractor for the provision of emergency repairs in the event of tube failures.

⁶² It is highly unlikely that the number of start-stop cycles will surpass the normal range for this unit; however, if they do, another inspection of the crack will be required, resulting in a unit outage of approximately two to three weeks.

⁶³ Boiler tube failures are a common issue in thermal power plants due to the inherent design, which requires relatively thin walls for heat transfer to be subjected to high temperatures and stresses.

1 **7.2.4 Unit 1 and 2 Turbine Last Stage Blades**

2 During the major overhaul of the Unit 1 steam turbine in 2021, a crack was discovered in one of the L-0
3 blades on the turbine rotor. The OEM, GE, determined that this crack was an indicator that the L-0
4 blades are approaching end of life and that further cracking would be expected. GE successfully
5 completed a weld repair of the crack as a short-term fix to return the unit to service. There were no
6 plans to replace the L-0 blades during the 2021 overhaul due to no known issues which would require
7 replacement, and no spare set of blades available.⁶⁴

8 Hydro completed a rotor in-situ inspection of the L-0 blades in 2022, which confirmed no further
9 cracking. Due to similar age and operating history, GE identified both Unit 1 and Unit 2 as being at risk of
10 L-0 blade failure. Rotor in-situ inspections were completed during spring 2023 to determine which unit
11 was at a higher risk of failure. These inspections found Unit 2 to be at higher risk, as three cracks were
12 found on Unit 2, and none on Unit 1.

13 In 2023, Hydro proceeded with the approved project to overhaul the Unit 2 turbine and replace the L-0
14 blades on this unit at the GE shop in the USA.⁶⁵ Subsequent turbine rotor inspection at the GE shop
15 identified additional and unexpected cracking on the L-1 blades, resulting in the required replacement of
16 that set of blades. As a result of the additional work and required component manufacturing, Unit 2 will
17 not return to service until March 2024.⁶⁶

18 Hydro submitted a supplemental capital project application to purchase a second set of L-0 blades for
19 Unit 1, which are expected to arrive in spring 2024.⁶⁷ Unit 1 came online for the 2023–2024 operating
20 season on October 8, 2023 following successful inspection. The Unit 1 L-0 blades will be replaced in 2024
21 during the summer outage season with potential further repairs required upon inspection.⁶⁸

⁶⁴ It is not uncommon to be without a spare set of L-0 blades due to the significant cost associated with the purchase of one set. A spare set of LSBs were ordered when it was determined that Holyrood TGS operation would be extended; this set was delivered in May 2023 and are currently being installed in the Unit 2 turbine rotor.

⁶⁵ Approved in *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 17(2022), Board of Commissioners of Public Utilities, May 20, 2022.

⁶⁶ Until the work is complete, there remains a risk of further delay related to global supply chains and repair facility workloads.

⁶⁷ Approved in *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 12(2023), Board of Commissioners of Public Utilities, May 5, 2023.

⁶⁸ There remains a risk that the Unit 1 rotor will also require replacement of the second-last stage blades. Hydro is proceeding with the purchase of spare blades within the Thermal In-Service Failures program to expedite replacement should it be deemed necessary.

1 **7.2.5 Air Compressors**

2 As a result of recent failures, Hydro reported in its October 2023 filing of the 2023–2024 Winter
3 Readiness Planning Report that it had one of its three air compressors available for service for the 2023–
4 2024 operating season. Since that time, repair work was completed on one of these compressors,
5 making it available for service. However, a subsequent failure of a different component on this
6 compressor occurred, and again Hydro has one of the three air compressors available for service.

7 In order to supply the necessary compressed air to the various systems for which it is required, and
8 provide system redundancy, Hydro has secured two 900 CFM⁶⁹ portable air compressors to temporarily
9 connect to the system.⁷⁰ The portable air compressors create minimal risk to operational reliability, but
10 are not ideal for long-term use. These units will stay on site and in service, as required, until the
11 necessary repairs are completed on the remaining compressors, which is expected to be after the 2023–
12 2024 operating season.

13 **7.2.6 Fuel Tank 1 Inspection and Refurbishment**

14 In the early morning on September 14, 2023, as crews were transferring oil from the tanker to Tank 1 at
15 Holyrood TGS, a small leak was identified in the floor of Tank 1. Once containment was complete,
16 offloading recommenced, with the fuel oil being pumped to Tanks 2, 3 and 4.⁷¹ Holyrood TGS is a three-
17 tank operation, and Hydro must utilize Tank 2 to facilitate repairs to Tank 1 and to ensure adequate fuel
18 supply for this winter. The utilization of Tank 2 is an emergency measure, taken after consultations with
19 stakeholders. Hydro is actively working to execute the repair and return to service of Tank 1 to ensure it
20 is available for future fuel shipments, upon which Hydro will proceed with plans to retire Tank 2.⁷² Hydro
21 has taken all practical measures to mitigate risk, to ensure reliable service to customers this winter.

22 **7.2.7 Fuel Oil Contamination**

23 Since the return to service of Unit 1 on October 8, 2023, Hydro has experienced issues with fuel oil
24 contamination, resulting in the need for more frequent cleaning of fuel oil strainers and burner tips. The

⁶⁹ Cubic feet per minute (“CFM”).

⁷⁰ Hydro reported in its October 2023 filing of its 2023–2024 Winter Readiness Report that it had secured a 375 CFM and 900 CFM portable air compressor for the 2023–2024 operating season. Upon the completion of repair work on one of Hydro’s own air compressors, the 375 CFM portable air compressor was returned.

In order to supply the necessary compressed air to the various systems for which it is required, and provide system redundancy, Hydro now has secured two 900 CFM portable air compressors to temporarily connect to the system.

⁷¹The oil remaining in Tank 1 was also transferred to Tank 2.

⁷² “Request for Change or Modification to Board Order No. P.U. 24(2022) – Approval of Various Supplemental Capital Projects at the Holyrood Thermal Generation Station,” Newfoundland and Labrador Hydro, September 26, 2022.

1 fuel delivered to the Holyrood TGS in September 2023 met Hydro’s fuel specification;⁷³ as such, the
2 likely source of contamination is considered to be from residual material stirred up from the bottom of
3 Tank 2.

4 To date, this condition has not resulted in any interruptions to service; Hydro is managing the situation
5 by completing additional maintenance as required and through controlling the consumption of fuel from
6 Tank 2.

7 As discussed in Section 7.2.6, Hydro had intended to retire Tank 2 prior to the identification of a small
8 leak on Tank 1 in September 2023. As Tank 2 had already been drained to minimum storage levels in
9 preparation for clean-out and decommissioning in spring 2024, it is possible that the fuel added to Tank
10 2 in September 2023 stirred up sludge from the bottom of the tank. Tank 2 was the first to be put in
11 service when Unit 1 was started up; as a result, sludge may have been carried down to the day tank,
12 causing the contamination issue. A switch of fuel supply from Tank 2 to Tank 3 seemed to improve the
13 situation, but there have still been occasional periods where the fuel strainers have fouled more quickly
14 than normal. In November 2023, when the level of Tank 2 and Tank 3 had equalized, Tank 2 was put
15 back in-service in parallel with Tank 3 to allow a more controlled consumption of the fuel from Tank 2.
16 Initially an increase in fouling was observed by Operations, but contamination has since returned to
17 normal.

18 **7.2.8 Unit 3 East Forced Draft Fan Motor**

19 During the startup of Unit 3 on October 23, 2023, a failure of the east forced draft fan motor occurred,
20 which resulted in the deration of Unit 3 to 50 MW until the fan could be returned to service. The failed
21 motor has been refurbished and re-installed, and is functioning properly, with the unit successfully
22 tested to its maximum capacity of 150 MW.

23 **7.2.9 Unit 1 Turbine Control Valves**

24 On November 3, 2023, the Unit 1 turbine experienced a turbine control valve stem failure. The turbine
25 valves on this unit were last overhauled in 2021, and are due for overhaul again in 2024. The control

⁷³ Ash content was slightly higher than most deliveries, but was still within specification.

1 valve stems are exposed to very high temperatures and stresses, and previous failures have occurred;
2 however, normally the overhaul frequency is sufficient to prevent in-service valve stem failures.⁷⁴

3 There are six control valves on the Unit 1 turbine, and five are required to achieve sufficient steam flow
4 to the turbine to achieve full load. With one valve out of service after the stem failure, the turbine
5 controls restricted the valve opening, which resulted in a maximum load of 125 MW. On
6 November 17, 2023, the OEM arrived on site to adjust the valve to enable full steam flow with one valve
7 out of service. This effort increased the unit output to 140 MW, but the final control valve, which has
8 not been in service since the 2021 overhaul, was found to be mechanically seized and would not open
9 further to allow load beyond 140 MW.

10 To restore the capability of the turbine, the valve with the broken stem must be removed from the
11 turbine and overhauled. Replacement stems are onsite, along with other required parts to complete this
12 work. It is estimated that a three week outage would be required, which would include cool down, work
13 protection permits, scaffold erection and removal, valve removal and overhaul, and return to service of
14 the unit. The unit will be derated to 140 MW until this work can be completed.

15 **7.3 Generator Step-Up Transformer Spares**

16 In July 2023, Hydro experienced a failure of the generator step-up transformer T6 in Bay d’Espoir.
17 Following the failure, Hydro’s spare generator step-up transformer, which is located in Bay d’Espoir, was
18 released for service in the T6 slot on October 7, 2023.⁷⁵ With this spare transformer being placed in
19 service in Bay d’Espoir, Hydro does not currently have a spare generator step-up transformer for Bay
20 d’Espoir, Granite Canal or Upper Salmon. Hydro also does not currently have a spare for the
21 Holyrood TGS generator step-up transformers, and has recently submitted a supplemental capital
22 budget proposal for the purchase of such.⁷⁶ This supplemental has been approved and this spare is
23 estimated to be delivered in the third quarter of 2026.

⁷⁴ An investigation into the reason for the pre-mature failure will be conducted when the valve is overhauled to determine if any findings can be applied to prevent future in-service failures.

⁷⁵ Replacement of T6 is ongoing within Hydro’s Terminal Station In-Service Failure program. The estimated cost is approximately \$1.6 million.

⁷⁶ “Purchase Spare Generator Step-Up Transformer,” Newfoundland and Labrador Hydro, September 21, 2023, approved in *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 28(2023), Board of Commissioners of Public Utilities, October 18, 2023.

1 Hydro is working with the OEM to refurbish the failed T6 to be used as a spare generator step-up
2 transformer.⁷⁷ It is expected that the refurbishment of T6 will be completed in January 2024; however,
3 modification of bus duct adaptor kits is required to enable the utilization of this transformer as a spare
4 for Bay d’Espoir T4, Bay d’Espoir T7 (derated to 50 MVA due to rough zone on Bay d’Espoir Unit 7),
5 Granite Canal and Upper Salmon. No bus duct adaptor kits are required for Bay d’Espoir T1, T2, T3, T5
6 and T6. Hydro is continuing to work with the manufacturer to develop a plan to have the existing bus
7 duct adaptor kits modified as required.⁷⁸

8 **7.4 Gas Turbine Operations**

9 All gas turbines are fully available by December 1, 2023, with the exception of the Stephenville GT. Two
10 risks to WR and/or reliable operations are discussed in Section 7.4.1 and Section 7.4.2.

11 **7.4.1 Stephenville Gas Turbine – Alternator Cooling Fan Failure**

12 On July 14, 2023, the Stephenville GT tripped due to high vibration while operating in synchronous
13 condense mode. During subsequent test runs, the alternator tripped again due to high exciter and
14 alternator temperatures. A visual inspection of the unit determined the vibration trip was caused by the
15 failure of one of the alternator cooling fans.⁷⁹ The OEM was engaged to complete more thorough
16 inspections and testing; it was confirmed the alternator cooling fan had failed, and additional damage
17 was observed on the stators winding insulation.

18 Based on their inspections, the OEM recommended that the alternator be removed from the unit. The
19 rotor was removed from the alternator and sent to the OEM’s facility in the USA for inspection and
20 repair on December 6, 2023. The disassembly of the unit has been impacted by poor weather and the
21 unexpected presence of asbestos within the unit; as a result, the return to service date for this unit is
22 expected to be early February 2024.

23 **7.4.2 Hardwoods Gas Turbine – End B Engine Repair**

24 On July 8, 2023, internal damage was found on the high-pressure turbine normal guide vane seals of the
25 engine installed in End B at the Hardwoods GT. While the damage was relatively minor in nature, the

⁷⁷ Refurbishment of T6 is intended to be completed within Hydro’s Terminal Station In-Service Failure program. The estimated cost is approximately \$1.7 million.

⁷⁸ Bus duct adaptor kit modification will only be completed if and when needed in the case of an additional transformer failure.

⁷⁹ The alternator at the Stephenville GT has the cooling fan shrunk onto the rotor shaft which forces air through the rotor and stator air gap, then through the stator coils and core to remove heat from the alternator. The warm air is then cooled by the alternator cooling system and then recirculates through the generator.

1 location of the damage required the engine to be removed from service and sent to an overhaul facility
2 for repair, to eliminate the risk of a catastrophic failure. The damaged engine was removed and its spare
3 installed during the planned maintenance outage from June 28 to July 15, 2023, returning the
4 Hardwoods GT to full capacity.

5 The engine was expected to be returned from the overhaul facility in November 2023; however, due to
6 reassembly delays and lack of availability at the testing facility, the engine is not expected to be returned
7 until the end of December 2023. Hydro will not have a spare engine onsite until the return of the
8 repaired engine.

9 Hydro has developed contingency plans should an operational issue occur in Hardwoods which requires
10 an engine replacement. The Stephenville GT is currently unavailable due to the alternator cooling fan
11 failure; therefore, should operational issues occur which requires an engine replacement prior to the
12 return of Hydro’s spare engine, an engine from the Stephenville GT will be removed and installed in
13 Hardwoods. The spare engine will then be installed in the Stephenville GT to ensure the plant is at full
14 capacity when the repair work is completed.

15 **7.5 Transmission and Terminal Stations**

16 Existing risk to WR and/or reliable operations related to Hydro’s Transmission and Terminal Station
17 assets are discussed in Sections 7.5.1 through 7.5.4.

18 **7.5.1 Bay d’Espoir B1B10-2 Replacement**

19 The Bay d’Espoir Disconnect Switch B1B10-2 replacement has carried over to 2024 due to late delivery
20 of the new disconnect switch, which delayed construction to the fall of 2023, and subsequent restricted
21 generating unit outage availability⁸⁰ prior to the start of the WR period. An infrared scan completed of
22 the existing disconnect did not identify any immediate concerns for 2024 operation; as a result, this
23 disconnect was deemed to be low risk to remain in service through this coming winter for replacement
24 in 2024.

25 **7.5.2 St. Anthony Diesel Plant Transformer T1 Tap Changer Refurbishment**

26 The planned refurbishment of St. Anthony T1 tap changer was completed by the OEM in June 2023, but
27 an additional issue was discovered that prevented it from being placed back into service. The solution to

⁸⁰ Restricted unit outage availability is primarily a result of the Bay d’Espoir T6 failure, which resulted in subsequent delays in other unit outages.

1 this issue was determined in November 2023 and the implementation of this solution, the replacement
2 of a tap changer component, is anticipated to be scheduled for December 2023. Hydro’s mobile
3 substation will remain in service until the issue with the St. Anthony T1 tap changer is resolved to
4 minimize customer reliability risks this winter.

5 **7.5.3 Roddickton Wood Chip Terminal Station Circuit Breaker B1L57 Refurbishment**

6 The planned refurbishment of Roddickton Wood Chip Terminal Station circuit breaker B1L57 was
7 planned for July 2023. Work began in July 2023, but completion was delayed due to issues discovered
8 with the circuit breaker during the refurbishment. Addressing these deficiencies required the
9 replacement of components that neither Hydro, nor the circuit breaker’s OEM, have in stock. The circuit
10 breaker remained out of service until the required components were procured and its refurbishment
11 was complete; customers were supplied via a bypass switch during this time. The completion of this
12 refurbishment occurred on December 8, 2023.

13 **7.5.4 Holyrood TGS T7 Transformer Replacement**

14 In 2022, Hydro had planned to have relocated the Churchill Falls T31 transformer to be installed in the
15 position of Holyrood T7 transformer. However, due to difficulties encountered during the transportation
16 phase of the move, the transportation of this unit did not occur until after winter 2023.

17 Hydro relocated the Churchill Falls T31 transformer in 2023, and it is currently assembled and in the
18 Holyrood T7 position. As a result of resource challenges and delays associated with a workplace fatality
19 at the Holyrood Terminal Station⁸¹, this transformer is not expected to be in service until January 2024.

20 For the past three years, delays in interconnecting Happy Valley Terminal Station to Muskrat Falls did
21 not allow Churchill Falls T31 to be moved to Holyrood. As a result, Hydro worked with Newfoundland
22 Power to develop operating procedures to ensure the reliable operation of the 138 kV network on the
23 Avalon Peninsula. These same operating instructions will remain in place into 2024, until Holyrood T7 is
24 placed back in service.

⁸¹ The workplace fatality in the Holyrood Terminal Station resulted in a work slowdown at Holyrood Terminal Station and the requirement for an approved work procedure for non-insulated aerial lifts.

1 **7.6 Muskrat Falls Assets**

2 All Muskrat Falls assets are fully available by December 1, 2023, aside from planned outages to Muskrat
3 Falls Hydroelectric Generating Facility Unit 3 and the LIL. Existing risk to WR and/or reliable operations
4 related to these assets is discussed in Section 7.6.1.

5 **7.6.1 Muskrat Falls HVdc Converter Station– Replace DCCTs**

6 Multiple trips on the LIL occurred in early 2023; investigations into these trips by the OEM and Hydro’s
7 Engineering teams indicated that low ambient temperatures in the Muskrat Falls HVdc Converter Station
8 were influencing the measurement accuracy of DCCTs. This issue resulted in false protection trips and
9 power control issues on the LIL. Mitigating measures were implemented to allow safe and reliable
10 operation of the LIL while the OEM continued to investigate, identify the root cause and implement the
11 required permanent solution to this issue.

12 The OEM has since identified the root cause of the issue to be a manufacturing defect with the Delay
13 Coil Fiber Optical Cable located within the DCCTs; this issue occurred with a select batch of fiber optic
14 cables, affecting five DCCTs at the Muskrat Falls HVdc Converter Station. One DCCT was replaced in
15 September 2023, and the remaining four will be replaced in mid-December 2023, and early January
16 2024.⁸²

17 **8.0 Conclusion**

18 Hydro is confident in its ability to serve its customers during the 2023–2024 winter season. The results
19 of Hydro's review of the year-to-date planned completion status of its AWP for both the Labrador
20 Interconnected System and the Island Interconnected System indicate that Hydro is sufficiently
21 positioned for winter.

22 Hydro’s regulated generating sources were fully available by December 1, 2023, with the exception of
23 Upper Salmon, Units 1 and 2 at the Holyrood TGS, and the Stephenville GT. The Upper Salmon unit is
24 expected to return to service on December 14, 2023; the return to service of Holyrood TGS Unit 2 is
25 delayed until March 2024; and the Stephenville GT is not expected to return to service until early
26 February 2024. Hydro will continue to monitor progress and mitigate work execution risks. Additionally,

⁸² This work is scheduled to conclude after the WR date of December 1, 2023 due to the time required by the OEM to identify the root cause of the issue, implement the proposed solution, and subsequently test each replaced DCCT. Mitigations remain in place to prevent protection mis-operation until the replacement has occurred.

- 1 Muskrat Falls Unit 3 and the LIL have planned outages extending beyond December 1, 2023. The
2 planned outage of Muskrat Falls Unit 3 until December 11, 2023 does not impact WR, as energy from
3 other Muskrat Falls generating units is available via the LIL.
- 4 All planned WR activities for network services are complete. Outstanding WR activities remain for
5 Holyrood TGS Unit 2 and 3, Bay d’Espoir, Upper Salmon, Stephenville GT, TROI terminal stations, and the
6 Muskrat Falls assets. Eight capital projects with WR scope were completed by December 1, 2023; a
7 portion of the WR scope within nine projects and programs is expected to be completed after
8 December 1, 2023.
- 9 Hydro continues to track remaining work activities and will provide an update to the Board in January
10 2024.

Appendix A

Status of Capital Projects Related to Winter Readiness





Status of Winter Readiness Scope
in 2023 Capital Projects and Programs
on the Island and Labrador Interconnected Systems

Asset Category	Project or Program Title	Expected Completion of Winter Readiness Scope (1-Dec-2023 Update)
Hydraulic Generation	Various Locations – Hydraulic Unit Overhauls	Complete
Hydraulic Generation	Upper Salmon – Rotor Rim Shrink and Stator Recentering	14-Dec-2023
Thermal Generation	Holyrood – Unit 1 and Unit 2 Turbine Last Stage Blades	Complete
Thermal Generation	Holyrood – Inspect and Refurbish Day Tank	Complete
Thermal Generation	Holyrood – Boiler Condition Assessment and Miscellaneous Upgrades	Complete
Thermal Generation	Holyrood – Overhaul Unit 2 Turbine and Valves	Mar-2024
Thermal Generation	Holyrood – Upgrade Unit 2 Turbine Controls	Mar-2024
Thermal Generation	Holyrood – Overhaul Pumps	Mar-2024
Thermal Generation	Holyrood – Fuel Tank 1 Fuel Inspection and Refurbishment	TBD
Gas Turbine Generation	Holyrood – Control System Replacement	Complete
Gas Turbine Generation	Happy Valley – Replace Human Machine Interface	22-Dec-2023
Terminal Stations	Wabush – Major Condition Assessment and Miscellaneous Refurbishments Synchronous Condensers 1 and 2	Complete
Terminal Stations	Various Locations – Upgrade Reclosing for Circuit Breakers ¹	Complete
Terminal Stations	Various Locations – Refurbishment and Modernization of Power Transformers ²	TBD
Terminal Stations	Various Locations – Upgrade Circuit Breakers	30-Sep-2024
Terminal Stations	Various Locations – Replace Disconnect Switches ¹	30-Sep-2024
Telecontrol	Various Locations – Replace 48 V Battery Banks and Chargers	Complete

¹ This project is part of the Terminal Station Refurbishment and Modernization Project (2022–2023).

² This program is part of the Terminal Station Renewal Program (2023–2024).

Appendix B

Status of Winter Readiness Testing of Plant and
Equipment for Thermal Generation





**Holyrood Thermal Generating Station
Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Plant: Holyrood Operations	Unit 1	Unit 2	Unit 3	Balance of Plant
Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre ("ECC"), Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at This Time.				
Black Start Test of the Black Start Systems is Performed Prior to the Winter Operating Season	N/A	N/A	N/A	Y
Perform Megger Testing of 600 V Motors Prior to the Winter Operating Season	Y	Y	Y	Y

Safety	Unit 1	Unit 2	Unit 3	Balance of Plant
Boiler Service Pressure Test Performed as Required by Regulator	Y	S/U	Y	N/A
Safety Valves Testing as Required (Post Start-Up)	Y	S/U	Y	N/A
Boiler Operational Offline High/Low Drum Level Trip Tests	Y	S/U	Y	N/A
Hydrogen ("H ₂ ") Emergency Venting Valving	Y	S/U	Y	N/A
Breaker and Disconnect Operation Verified by Operations Department and Whitbourne Crew	Y	S/U	Y	N/A

Service Air and Instrument Air Systems	Unit 1	Unit 2	Unit 3	Balance of Plant
All Stationary Air Compressors Available	N/A	N/A	N/A	S/U
All Portable Air Compressors Available	N/A	N/A	N/A	Y
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)	N/A	N/A	N/A	Y
Air Compressor Standby/Sequencing Capability	N/A	N/A	N/A	Y

Raw and Makeup Water System	Unit 1	Unit 2	Unit 3	Balance of Plant
Quarry Brook Dam Integrity	N/A	N/A	N/A	Y
Raw Water Sump Water Supply Control Valve Operational	N/A	N/A	N/A	Y
Raw Water Pumps Operational	N/A	N/A	N/A	Y
Adequate Supply of Chemicals (1172, 1179, Polymer, etc.)	N/A	N/A	N/A	Y
1172, 1179, Polymer Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc. Operational	Y	Y	Y	N/A
Portable Diesel Pump Check of Emergency Plant Water Supply from Quarry Brook Dam	N/A	N/A	N/A	Y
Adequate and Readily Available Supply of Hoses for the Portable Diesel Pump from Quarry Brook Dam to Plant	N/A	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Raw and Makeup Water System and Water Treatment Plant			
Instrumentation and Controls Operational	Y	Y	N/A
Analytical Rack Sample Cooler Filters Cleaned/Replaced as Required	Y	Y	N/A
Analytical Rack Sample Coolers Cooling Water In Service	Y	Y	N/A
Two Sample Cooling Water Pumps Availability	N/A	N/A	Y
Clarifier			
Clarifier Recirculator, Variable Frequency Drive ("VFD") Motor, VFD Controller	N/A	N/A	Y
Clarifier Recirculator Scraper	N/A	N/A	Y
Clarifier Badger Meter and Clearwell Instrumentation	N/A	N/A	Y
Sand Filters			
Sand Filters (Nos. 1, 2 and 3) Resin Integrity	N/A	N/A	Y
Sand Filters (Nos. 1, 2 and 3) Valve Operation (Normal and Backwashing, etc.)	N/A	N/A	Y
Two Clearwell Pumps Available	N/A	N/A	Y
Deminerlization System			
Cation and Anion Trains (A, B and C) Resin Integrity	N/A	N/A	Y
Adequate Supply of Chemicals (Caustic Soda, Sulphuric Acid, 1172, 1179, Polymer, etc.)	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Transfer Pumps, Valves, Lines, etc.	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Regeneration Sets, Pumps, Valves, Lines, etc.	N/A	N/A	Y
Caustic Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	Y
Brine Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Reserve Feedwater System ("RFW")			
RFW Transfer Pump Oil Normal Operating Level	Y	Y	N/A
RFW Transfer Pumps Operational	Y	Y	N/A

Circulating Water ("CW") and Screen Wash System			
Vacuum Seal Pits Operational	Y	Y	N/A
All CW Travelling Screens Operational	Y	Y	N/A
CW Pump Motorized Discharge Valves 'Manual' and 'Auto', 'Cracked' Position Operation Verified	Y	S/U	N/A
CW Pump Motors Oil Normal Operating Level	Y	S/U	N/A
CW Pumps Operational	Y	S/U	N/A
CW Pump Discharge Vacuum Breakers Operational	Y	Y	N/A
CW Travelling Screens Wash Pumps Operational	Y	Y	N/A
Condenser Flushed	Y	S/U	N/A
Condenser Backwashed	Y	S/U	N/A
General Service ("GS") Coolers Backwashed, Cleaned, etc.	Y	S/U	N/A
Turbine/Generator ("TG") Coolers Backwashed, Cleaned, etc.	Y	S/U	N/A
Vacuum Pump Coolers Backwashed, Cleaned, etc.	Y	S/U	N/A

Boiler			
Pre-Outage Valve Survey Conducted of Boiler Drains	Y	Y	N/A
Service Pressure Test on Boiler for Tube Leaks	Y	S/U	N/A

Condenser Air Extraction System			
Vacuum Pumps Available and Tested for Standby 'Auto-Start'	Y	S/U	N/A
Vacuum Pump Seal Water Tank Water Level Controller Operational	Y	S/U	N/A
Vacuum Pump Seal Water Pump Operational	Y	S/U	N/A
Condenser Vacuum Breakers Operational	Y	S/U	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



**Holyrood Thermal Generating Station
Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

High Pressure ("HP") Feedwater System	Unit 1	Unit 2	Unit 3	Balance of Plant
Boiler Feed Pumps				
Boiler Feed Pumps Available	Y	S/U	Y	N/A
Boiler Feed Pump Oil Tank Normal Operating Level and Checked for Moisture Content	Y	S/U	Y	N/A
Boiler Feed Pump Auxiliary Oil Pumps Available	Y	S/U	Y	N/A
Boiler Feed Pump Suction Valves and Limit Switches	Y	S/U	Y	N/A
Boiler Feed Pump Emergency Gland Seal Injection Pump Available	Y	S/U	Y	N/A
Boiler Feed Pump Emergency Gland Seal Pump Oil Normal Operating Level	Y	S/U	Y	N/A
Boiler Feed Pump Gland Seal Water Available from the Emergency Pump and Condensate Extraction Pumps	Y	S/U	Y	N/A
Boiler Feed Pump Gland Seal Water Control Valve Operational	Y	S/U	Y	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Float Operated Valve Operational (Units 1 and 2)	Y	S/U	N/A	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Units 1 and 2)	Y	S/U	N/A	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Control Valve Operational (Unit 3)	N/A	N/A	Y	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Unit 3)	N/A	N/A	Y	N/A
Boiler Feed Pump Recirculation Control Valves Operational	Y	S/U	Y	N/A
Boiler Feed Pump Motorized Discharge Pilot and Main Valves Operational	Y	S/U	Y	N/A
Low Load Feedwater Isolator and Control Valves Operational	Y	S/U	Y	N/A
Main Feedwater Isolator and Control Valves Operational	Y	S/U	Y	N/A
HP Heater Motorized Valves (Inlet, Outlet and Bypass) Checked for Proper Operation, Sequencing, etc.	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



**Holyrood Thermal Generating Station
Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Miscellaneous				
Economizer 'Manual' Operated Valve Operational	S/U	S/U	Y	N/A
Economizer Motorized Recirculation Valve Operational (Unit 3)	N/A	N/A	Y	N/A
Boiler Drum Level Instrumentation Operational	Y	S/U	Y	N/A
HP Heater Bled Steam Check Valves Operational	Y	S/U	Y	N/A
Start-Up Desuperheater Steam and Water Valving Operation/Position Verified	Y	S/U	Y	N/A
Main Steam and Reheat Steam Desuperheater Spray Water Isolators and Control Valves Operational	Y	S/U	Y	N/A
Auxiliary Steam Desuperheater Spray Water Control Valve Operational	N/A	N/A	Y	N/A

Low Pressure ("LP") Feedwater System				
Condenser				
Condenser Hotwell Makeup/Surplus Control Valves Operation Verified	Y	S/U	Y	N/A
Condenser Hotwell Makeup Motorized Isolating Valve Operation Verified	Y	S/U	Y	N/A
Condenser Dye Test for Leaks, as Required	Y	S/U	Y	N/A

Ammonia and Control System				
Adequate Supply in Place	Y	Y	Y	N/A
Pumps Operational	Y	Y	Y	N/A
Control Instrumentation Operational	Y	Y	Y	N/A

Condensate Extraction Pumps				
Condensate Extraction Pumps Available	Y	S/U	Y	N/A
Condensate Extraction Pump Motors Bearing Oil Normal Operating Level	Y	S/U	Y	N/A
Condensate Extraction Pump Motor Cooling Water Available (Unit 3)	N/A	N/A	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Condensate Polishers				
Resin Integrity Verified	Y	S/U	Y	N/A
Two Polishers Rinsed and Available	Y	S/U	Y	N/A
Valve Operation (Normal and Regenerating, etc.)	Y	S/U	Y	N/A
Regeneration System Skids Available (Valving, Pumps, Plowers, Tanks, etc.)	Y	S/U	Y	N/A
Condensate Polisher Bypass Control Valve Operational	Y	S/U	Y	N/A

LP Heaters				
Low Load Recirculation Control Valve Operation	Y	S/U	Y	N/A

Deaerator				
Deaerator Normal Operating Level	Y	S/U	Y	N/A
Deaerator Steam Coil Operational	Y	S/U	Y	N/A
Deaerator Pegging Steam Operational	Y	S/U	Y	N/A
Deaerator Low Level Trip Test	Y	S/U	Y	N/A

Miscellaneous				
Condenser Flash Tank Control Valve Operation/Position	Y	S/U	Y	N/A
Turbine LP Exhaust Hood Spray Motorized Valve Operation	Y	S/U	Y	N/A
Start-Up Desuperheater Steam and Water Valving Operational (Units 1 and 2)	Y	S/U	N/A	N/A
LP Heater Bled Steam Check Valves Operational	Y	S/U	Y	N/A

Bled Steam and Heater Drains System				
LP and HP Instrumentation and Control Operational	Y	S/U	Y	N/A
LP and HP Heater Level Control Operational	Y	S/U	Y	N/A
LP Heater Condensate Drains Pumps Operational	S/U	S/U	S/U	N/A
#4 HP Heater Condensate Drains Pump Operational	Y	S/U	S/U	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Air and Flue Gas System	Unit 1	Unit 2	Unit 3	Balance of Plant
Instrumentation and Control Operational	Y	S/U	Y	N/A

Forced Draft ("FD") Fans and Air Dampers	Unit 1	Unit 2	Unit 3	Balance of Plant
Two FD Fans Available	Y	S/U	Y	N/A
Bearing Oil Normal Operating Level	Y	S/U	Y	N/A
Cooling Water on to Fans	Y	S/U	Y	N/A
Stroke Variable Inlet Vanes	Y	S/U	Y	N/A
Stroke Discharge Dampers	Y	S/U	Y	N/A
FD Fan Motor Variable Speed Drives Operational	Y	N/A	N/A	N/A
All Burner Auxiliary Air Dampers/Positioners Operation (Units 1 and 2)	Y	S/U	N/A	N/A
All Elevation Air Flow Dampers/Positioners Operation (Unit 3)	N/A	N/A	Y	N/A

Rotary Air Heaters	Unit 1	Unit 2	Unit 3	Balance of Plant
Rotary Air Heaters Operational	Y	S/U	Y	N/A
Rotary Air Heaters Bearing Oil (Top and Bottom) Normal Operating Level	Y	S/U	Y	N/A
Rotary Air Heaters Bearing Cooling Water On	Y	S/U	Y	N/A
Rotary Air Heaters Electric Motor Drives Operational	Y	S/U	Y	N/A
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open	Y	S/U	Y	N/A
Rotary Air Heaters Start-Up of Air Motor Drive Upon Loss of Alternating Current ("AC") Power Supply to the Normal Operating Electric Drive Motor	Y	S/U	Y	N/A
Rotary Air Heaters Steam Supply Control Valves Operational (*Note: Two Steam Supplies on Units 1 and 2)	Y	S/U	Y	N/A
Rotary Air Heaters Sootblowers Operational	Y	S/U	Y	N/A

Boiler Sootblowing System	Unit 1	Unit 2	Unit 3	Balance of Plant
Sootblower Control Panel Operational	Y	S/U	Y	N/A
Sootblowers Steam Supply Control Valve Operational	Y	S/U	Y	N/A
Sootblowers Overhauled During Annual Outage Verify Operation (e.g., Rotation, Travel Advancing/Retracting from Furnace, Leaks, etc.) First Time Unit is Placed Online	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



**Holyrood Thermal Generating Station
Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

	Unit 1	Unit 2	Unit 3	Balance of Plant
Light Fuel Oil System				
Hydro Pad Operational	Y	S/U	Y	N/A
Light Oil Pumps Available	Y	S/U	Y	N/A
Pumps, Valves (Including Control and Trip), Lines, Strainers, Pressure (Locally and UCB)	Y	S/U	Y	N/A
Check Light Oil Supply and Return Lines to/from Plant Respectively	Y	S/U	Y	N/A
Suction Strainers Cleaned with Covers Secured	Y	S/U	Y	N/A
Ignitors Cleaned, Securely in Place with Associated Lines Securely Fastened	Y	S/U	Y	N/A
Ignitors all Checked for Operation During Unit Start-Up (e.g. Ignitor Control Box, Valve Operation, Lighting, etc.)	Y	S/U	Y	N/A

	Unit 1	Unit 2	Unit 3	Balance of Plant
Fuel Oil Delivery System, Auxiliary Steam and Fuel Oil Piping System				
Adequate Heavy Oil Storage	N/A	N/A	N/A	Y
Heavy Oil Piping from Dock to Tankfarm, Tankfarm to Plant Day Tank and Day Tank to Heavy Oil Sets	N/A	N/A	N/A	Y
Adequate Light Oil Storage	N/A	N/A	N/A	Y
Light Oil Piping from Road Tanker Transfer Pump to Tanks and from Tanks to Light Oil Sets in Plant	N/A	N/A	N/A	Y
All Storage Tanks Suction Heaters Available when Required	N/A	N/A	N/A	Y
All Storage Tanks Flatform Heaters Available when Required	N/A	N/A	N/A	N/A
Auxiliary Steam for Suction Heaters Available	N/A	N/A	N/A	Y
Auxiliary Steam for Flatform Heaters Available	N/A	N/A	N/A	N/A
Auxiliary Steam for Heat Tracing Available	N/A	N/A	N/A	Y
Electrical Heat Tracing for Fuel Oil Lines Available	N/A	N/A	N/A	Y
Day Tank Supply Line Trip Valve Tested	N/A	N/A	N/A	Y
Day Tank Available to Receive Oil	N/A	N/A	N/A	Y
Day Tank Steam Coil Available	N/A	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

	Unit 1	Unit 2	Unit 3	Balance of Plant
Fuel (Heavy) Oil System				
Fuel Oil Heating Sets	Y	S/U	Y	N/A
Fuel Oil Heaters Available	Y	S/U	Y	N/A
Fuel Oil Heaters Cleaned and Inspected	Y	S/U	Y	N/A
Steam Supply to Heavy Oil Set Heaters Available as Required	Y	S/U	Y	N/A
Fuel Oil Heaters Temperature Steam Control Valve Operational	Y	S/U	Y	N/A
Suction Strainers Cleaned (including standby and extras) with Covers Secured	Y	S/U	Y	N/A
Fuel Oil Accumulator Operational	Y	S/U	Y	N/A
Fuel Oil Pumps Available	Y	S/U	Y	N/A
Pumps 'Auto-Start' Check Offline	Y	S/U	Y	N/A
Header Pressure Control Valve Operational	Y	S/U	Y	N/A
Fuel Oil Meter Operational	Y	S/U	Y	N/A

	Unit 1	Unit 2	Unit 3	Balance of Plant
Fuel Oil Supply Control, Trip, Long and Short Recirculation Valves				
Fuel Oil Supply Control Valve Operational	Y	S/U	Y	N/A
Fuel Oil Trip Valve Operational	Y	S/U	Y	N/A
Fuel Oil Long Recirculation Valve Operational (Units 1 and 2)	Y	S/U	N/A	N/A
Fuel Oil Short Recirculation Valve Operational (Units 1 and 2)	Y	S/U	N/A	N/A
Elevation Fuel Oil Trip Valves Operational (Unit 3)	N/A	N/A	Y	N/A
Elevation Fuel Oil Minimum Supply Control Valves Operational (Unit 3)	N/A	N/A	Y	N/A
Elevation Fuel Oil Supply Control Valves Operational (Unit 3)	N/A	N/A	Y	N/A
Main Fuel Oil Recirculation Valve Operational (Unit 3)	N/A	N/A	Y	N/A
Elevation Recirculation Valves Operational (Unit 3)	N/A	N/A	Y	N/A

	Unit 1	Unit 2	Unit 3	Balance of Plant
Burners				
All Burners Cleaned, Securely in Place with Associated Lines Securely Fastened	Y	S/U	Y	N/A
All Burners Checked for Operation During Unit Start-Up (e.g. Advancing/Retracting, Valve Operation, Lighting, etc.)	Y	S/U	Y	N/A
All Burner Tilts Checked for Operation (Units 1 and 2)	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Fuel Additive System	Unit 1	Unit 2	Unit 3	Balance of Plant
Adequate Supply Available	Y	Y	Y	N/A
Pumps Available	Y	S/U	Y	N/A
Tanks, Agitators, etc. Available	N/A	N/A	N/A	N/A

GS System	Unit 1	Unit 2	Unit 3	Balance of Plant
GS Heat Exchangers Backwashed, Cleaned, etc.	Y	Y	Y	N/A
Stage I GS Plate Cooler Strainers Cleaned	Y	Y	Y	N/A
Stage I GS 'Auto-Clean' Strainer Operational	N/A	N/A	N/A	N/A
Stage I GS Duplex Strainers Cleaned	Y	Y	Y	N/A
GS Pump Suction Strainers Cleaned	Y	Y	Y	N/A
GS Pump Oil Normal Operating Level	Y	Y	Y	N/A
GS Pumps Available and Tested for Standby 'Auto-Start'	Y	S/U	Y	N/A

TG Auxiliary Cooling System	Unit 1	Unit 2	Unit 3	Balance of Plant
TG Head Tank Normal Operating Level	Y	S/U	Y	N/A
Turbine Lube Oil Coolers Operational	Y	S/U	Y	N/A
TG Heat Exchangers Backwashed, Cleaned, etc.	Y	Y	Y	N/A
TG Pump Oil Normal Operating Level	Y	Y	Y	N/A
TG Pumps Available and Tested for Standby 'Auto-Start'	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
Y - Test completed.
N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
 Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

TG System			
Hydraulic System Units 1 and 2			
Hydraulic System Accumulators Operational	Y	S/U	Y
Hydraulic System Storage Tank Normal Operating Level and Checked for Moisture Content	Y	S/U	Y
Hydraulic System Storage Tank Air Purging of Moisture in Place	Y	S/U	Y
Hydraulic Set Primary, Secondary Filter Indications Ok	Y	S/U	Y
Two Hydraulic Fluid Pumps Availability	Y	S/U	Y
Hydraulic Pump Auto-Start Testing	Y	S/U	Y
Two Hydraulic Fluid Pump Coolers Availability	Y	S/U	Y

Valves			
Pre-Outlet Valve Survey Conducted of Boiler Drains	Y	Y	Y
Turbine Main Stop Valve Testing (Units 1 and 2)	Y	S/U	N/A
Turbine Two Main Stop Valves Testing (Unit 3)	N/A	N/A	Y
Turbine 'Left-Hand' and 'Right Hand' Reheat Stop and Intercept Control Valve Testing Verified	Y	S/U	Y
Turbine Six Main Control Valve Operation (Units 1 and 2)	Y	S/U	N/A
Turbine Four Main Control Valve Operation (Unit 3)	N/A	N/A	Y
Turbine Blowdown Valve Operation	Y	S/U	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
 Y - Test completed.
 N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



**Holyrood Thermal Generating Station
 Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Lubricating System				
Lube Oil Tank Normal Operating Level and Checked for Moisture Content	Y	S/U	Y	N/A
Portable Centrifuge Operational	N/A	N/A	N/A	N/A
Lube Oil Tank Vapor Extractor Operation	Y	S/U	Y	N/A
Bowser Oil Conditioner Vapor Extractor Operation (Units 1 and 2)	Y	S/U	N/A	N/A
Two ac Lube Oil Pumps Available and Tested for Standby 'Auto-Start' (Units 1 and 2)	Y	S/U	N/A	N/A
Direct Current ("DC") Pump Testing and Starting from UCB (Units 1 and 2)	Y	S/U	N/A	N/A
Verify Discharge Pressure of Each AC Lube Oil Pumps (Locally and UCB) (Units 1 and 2)	Y	S/U	N/A	N/A
Verify Discharge Pressure of DC Lube Oil Pump (Locally and UCB) (Units 1 and 2)	Y	S/U	N/A	N/A
Jacking Oil Pump Testing and Starting from UCB (Unit 3)	N/A	N/A	Y	N/A
Verify Discharge Pressure of Jacking Oil Pump (Locally and UCB)	N/A	N/A	Y	N/A
Auxiliary Oil Pump ("AOP") Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	Y	N/A
Verify Discharge Pressure of AOP Pump (Locally and UCB) (Unit 3)	N/A	N/A	Y	N/A
AC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	Y	N/A
Verify Discharge Pressure of AC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	Y	N/A
DC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	Y	N/A
Verify Discharge Pressure of DC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	Y	N/A

Barring/Turning Gear				
Turning Gear Operation Verified	Y	S/U	Y	N/A
Perform Trip Test of Turning Gear	Y	S/U	Y	N/A

Miscellaneous				
Steam Seal Regulator Operational	Y	S/U	Y	N/A
Operational Online/Offline Overspeed Trip Tests	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

H ₂ and Carbon Dioxide ("CO ₂ ") System	Unit 1	Unit 2	Unit 3	Balance of Plant
H₂ Generation and Storage System				
System in Operation	N/A	N/A	N/A	Y
Electrolyzer/H ₂ Generator Operational	N/A	N/A	N/A	N/A
Chiller Operational	N/A	N/A	N/A	N/A
DI Water Purifier Operational	N/A	N/A	N/A	N/A

H ₂ and CO ₂ Bulk Packs	Unit 1	Unit 2	Unit 3	Balance of Plant
Adequate H ₂ Bulk Packs on Hand for Contingency Purposes	N/A	N/A	N/A	Y
CO ₂ Adequate Bulk Packs on Hand	N/A	N/A	N/A	Y

Generator	Unit 1	Unit 2	Unit 3	Balance of Plant
Generator Exciter Operation Checked Offline and Online	Y	S/U	Y	N/A
Seal Oil System Tested with 'Air' on Generator in Preparation for Leak Testing	Y	S/U	Y	N/A
Seal Oil Regulator Operational	Y	S/U	Y	N/A
AC Seal Oil Pumps Available and Tested for Standby 'Auto-Start' (Units 1 and 2)	Y	S/U	N/A	N/A
AC Seal Oil Pump Available (Unit 3)	N/A	N/A	Y	N/A
DC Seal Oil Pump Available and Tested for Standby 'Auto-Start'	Y	S/U	Y	N/A
Seal Oil Vacuum Pumps Available	Y	S/U	Y	N/A
Vacuum Tank Level Control Operational	Y	S/U	Y	N/A
H ₂ System in Operation and/or Adequate Bulk Packs on Hand for Contingency Purposes	N/A	N/A	N/A	Y
CO ₂ Adequate Bulk Packs on Hand	N/A	N/A	N/A	Y
Leak Testing Performed Prior to 'Gassing Up' Generator	Y	S/U	Y	N/A
Purity, Dew Point, etc. Instrumentation Operation Verified	Y	S/U	Y	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



Holyrood Thermal Generating Station
 Winter Readiness Testing

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Powerhouse and Switchyard Single Line			
Plant 129 V System			
129 V Battery Banks Checked Stage I and II	Y	S/U	Y
129 V Battery Chargers Checked Stage I and II	Y	S/U	Y
Plant 258 V System			
258 V Battery Banks Checked Stage I and II	Y	S/U	Y
258 V Battery Chargers Checked Stage I and II	Y	S/U	Y
Plant Uninterrupted Power Supplies ("UPS")			
Nos. 1, 2, 3 and 4 UPS including Batteries, Cooling Fans, etc., Checked			
Y	S/U	Y	Y
Emergency Diesel Generators			
Stage I and II Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A
Stage I and II Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A
Diesel Bus Tie Breaker Operation Verified	N/A	N/A	N/A
Fire Protection System			
All Fire Protection Zones in Service	N/A	N/A	N/A
Fire Control/Alarm Panel Status	N/A	N/A	N/A
Fire Alarm Beacons Operational	N/A	N/A	N/A
Diesel Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A
Diesel Fire Pump Controller, Charger and Battery Check	N/A	N/A	N/A
Electric Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A
Electric Fire Pump Controller Check	N/A	N/A	N/A
Public Address System Status	N/A	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

Y - Test completed.

N/A - Not Applicable for specific unit or Balance of Plant, as indicated.



**Holyrood Thermal Generating Station
 Winter Readiness Testing**

27-Nov-23

Status of Test			
Unit 1	Unit 2	Unit 3	Balance of Plant

Holyrood Main Powerhouse				
Backup ECC and Guardhouse Propane Generator	N/A	N/A	N/A	Y

Plant Air Conditioning System				
Control and Relay Rooms	N/A	N/A	N/A	Y
UPS #1 Room	N/A	N/A	N/A	Y
Generator Excitation and UPS #'s 2, 3 and 4 Room (Unit 3)	N/A	N/A	N/A	Y

Plant Heating Steam				
All Systems Operational for When Required	N/A	N/A	N/A	Y

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.
 Y - Test completed.
 N/A - Not Applicable for specific unit or Balance of Plant, as indicated.

Appendix C

Status of Winter Readiness Testing of Plant and
Equipment for Hydraulic Generation





Bay d'Espoir Hydroelectric Generating Facility

Status of Test								
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2

Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre, Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at this Time.	✓	✓	✓	✓	✓	✓	N/A	N/A
All Alternate Sources of Station Service Tested and Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

Spherical Valves								
Turbine Main Stop Valve Annual PM Complete	✓	✓	✓	✓	✓	✓	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	N/A	N/A

Service Air and Instrument Air Systems Compressors								
All Stationary Air Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Sequencing Capability Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
High Pressure Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Low Pressure Compressor Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Instrumentation Control and Alarms Operational	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

Turbine/Generator ("TG") Cooling Water Systems								
Cooling Water Pumps Available	✓	✓	✓	✓	✓	✓	N/A	N/A
Emergency Cooling Water Available Penstock Supply	✓	✓	✓	✓	✓	✓	N/A	N/A
Cooling Water System Available	✓	✓	✓	✓	✓	✓	N/A	N/A
Shaft Seal System Available	✓	✓	✓	✓	✓	✓	N/A	N/A
Cooling Water Strainers Inspected and Available	✓	✓	✓	✓	✓	✓	N/A	N/A

TG Governor System								
Hydraulic System Accumulators Operational	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Annual PM Complete	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Available	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic Pump(s) Available	✓	✓	✓	✓	✓	✓	N/A	N/A

Generator								
Generator Exciter Operation Checked Offline and Online	✓	✓	✓	✓	✓	✓	N/A	N/A
Generator Exciter Available	✓	✓	✓	✓	✓	✓	N/A	N/A
Brush Condition Verified	✓	✓	✓	✓	✓	✓	N/A	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable



Bay d'Espoir Hydroelectric Generating Facility

Status of Test									
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2	

Lubricating System									
Portable Oil Pump (Jacking)	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A
Oil Level System Generator Metering Available	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Oil Level System Turbine Metering Available	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Alternating Current High Pressure Jacking Oil Pump Available Automatic	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A

Switchyard/Terminal Station									
Breakers and Disconnects Operational	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Operate Breaker PM Complete (TRO)	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A

Intake									
Water Elevation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Trashrack System	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Gate Operation	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A

Surge Tank									
Heating System	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Alarm Systems	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A

Spillway									
Water Elevation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Gate Heating/Ice Away Unit	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Gate Operation	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Emergency (Backup) Diesel Generator	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
Emergency Lift Operation and Tested	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓

Battery Banks And Battery Chargers									
Plant 129 V System									
129 V Battery Banks Checked	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
129 V Battery Chargers	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
129 V Battery Banks Available	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓

Plant Uninterrupted Power Supplies ("UPS")									
UPS Power Supplies (Inverter NWS)	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable



Bay d'Espoir Hydroelectric Generating Facility

	Status of Test							Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7		
Emergency Diesel Generators									
Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Alternate Alternating Current Sources Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Station Services Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Transfer Alternate Source	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Plant Air Conditioning System									
Control Rooms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Communications Rooms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Plant Heating Steam									
All Systems Operational for when Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable



Hydraulic Generating Stations (Remote Units)

Status of Test									
Cat Arm		Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
Unit 1	Unit 2	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1

Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per Energy Control Centre, Prior to Coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at this Time.	✓	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓	N/A
	N/A	N/A	✓	✓	N/A	N/A	✓	N/A	✓	N/A	✓

Spherical Valves											
Turbine Main Stop Valve Annual PM Complete		Turbine Main Stop Valve Operational									
✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Service Air and Instrument Air Systems Compressors											
All Stationary Air Compressors Available											
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, etc.)											
Air Compressor Sequencing Capability Available											
High Pressure Compressors Available											
Low Pressure Compressor Available											
Instrumentation Control and Alarms Operational											
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
N/A	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓

Turbine/Generator ("TG") Cooling Water Systems											
Cooling Water Pumps Available											
Emergency Cooling Water Available Penstock Supply											
Cooling Water System Available											
TG Pumps Available and Tested for Auto/Manual Start											
Shaft Seal System Available											
Rotary Strainer Inspected and Available											
✓	✓	N/A	✓	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A
✓	✓	N/A	N/A	N/A	N/A	14-Dec	N/A	✓	N/A	✓	N/A
✓	✓	N/A	✓	N/A	N/A	14-Dec	N/A	✓	N/A	✓	N/A
N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A
N/A	N/A	N/A	✓	N/A	N/A	14-Dec	N/A	✓	N/A	✓	N/A
✓	✓	N/A	✓	N/A	N/A	14-Dec	N/A	✓	N/A	✓	N/A

TG Governor System											
Hydraulic System Accumulators Operational											
Governor System Annual PM Complete											
Governor System Available											
Hydraulic Pump(s) Available											
✓	✓	N/A	✓	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
✓	✓	N/A	✓	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
✓	✓	N/A	✓	N/A	N/A	✓	N/A	✓	N/A	✓	N/A
✓	✓	N/A	✓	N/A	N/A	✓	N/A	✓	N/A	✓	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable



Hydraulic Generating Stations (Remote Units)

Status of Test										
Cat Arm			Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
Unit 1	Unit 2	Balance of Plant Powerhouse	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant

Generator											
Generator Exciter Operation Checked Offline and Online	✓	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓	N/A
Generator Exciter Available	✓	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓	N/A
Brush Condition Verified	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A

Lubricating System											
Oil Level System Generator Metering Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Oil Level System Turbine Metering Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Alternating Current High Pressure Jacking Oil Pump Available Automatic	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A

Miscellaneous											
Breakers and Disconnects Operational	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Operate Breaker PM Complete (TRO)	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A

Control Structure											
Water Elevation	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
Gate Operation	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A

Intake											
Water Elevation	N/A	N/A	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓
Trashrack System	✓	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓	N/A
Gate Operation	✓	✓	N/A	✓	N/A	14-Dec	N/A	✓	N/A	✓	N/A

Spillway/Bypass											
Water Elevation	N/A	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	N/A
Gate Heating/Ice Away Unit	N/A	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	N/A
Gate Operation	N/A	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	N/A
Emergency (Backup) Diesel Generator	N/A	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	N/A
Emergency Lift Operation and Tested	N/A	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	N/A

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable



Hydraulic Generating Stations (Remote Units)

Status of Test									
Cat Arm		Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
Unit 1	Unit 2	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant

Battery Banks And Battery Chargers									
Plant 129 V System									
129 V Battery Banks Checked									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
129 V Battery Chargers									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
129 V Battery Banks Available									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓

Plant 48 V System (Network Services)									
48 V Battery Banks Checked									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓

Emergency Diesel Generators									
Emergency Diesel Generators Tested for Emergency Stop									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
Alternate Alternating Current Sources Available									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
Station Services Available									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
Transfer Alternate Source									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓

Plant Air Conditioning System									
Control Rooms									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓
Communications Rooms									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓

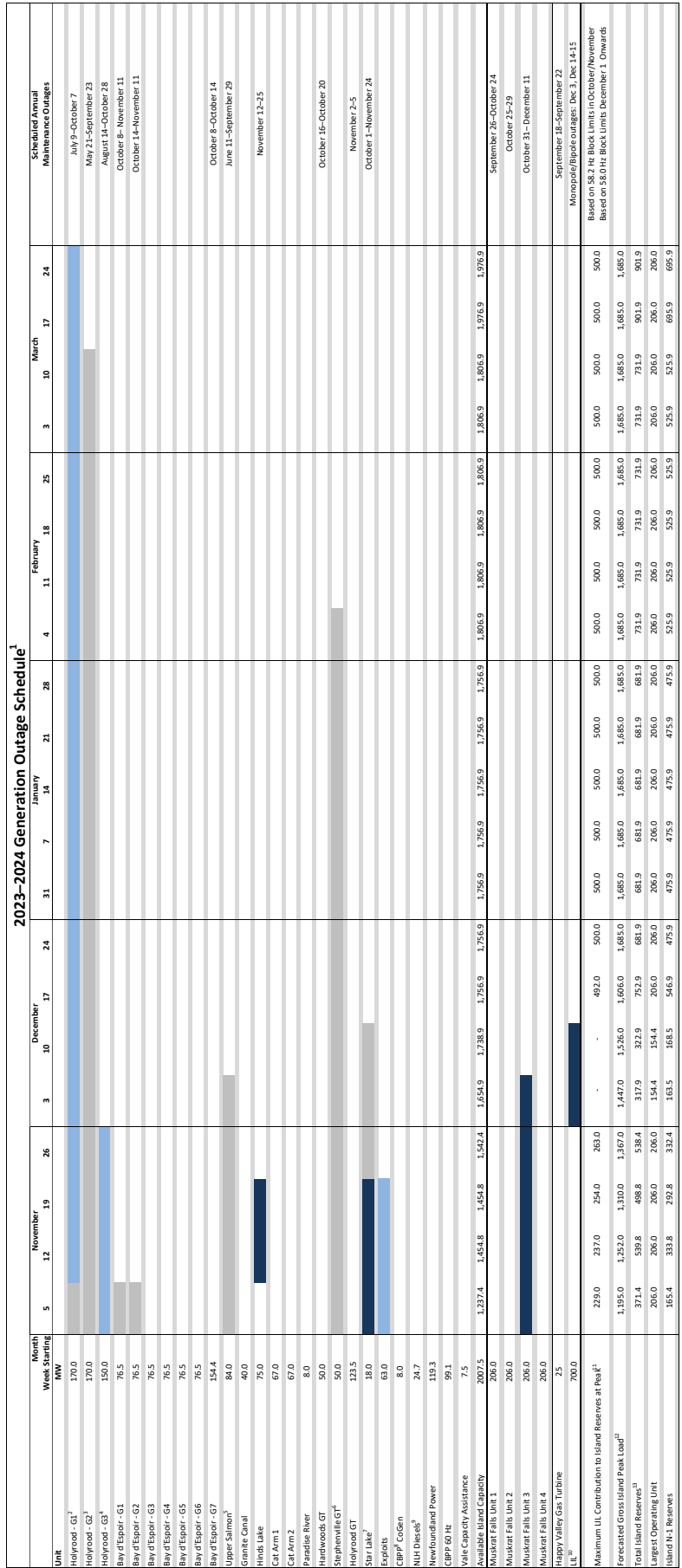
Plant Heating Steam									
All Systems Operational for when Required									
N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓

S/U - Final confirmation completed during Start-Up. When possible, test also completed during annual outage.
 ✓ - Test completed
 N/A - Not Applicable

Appendix D

Master Generation Outage Schedule





¹ Preventative maintenance items that require short-duration outages are not reflected in this chart. They are planned in conjunction with system operation for an appropriate time.

² Hollywood G1 is available up to 140 MW due to issues being experienced with a turbine control valve.

³ Hollywood G2 will be on an unplanned outage for the remainder of 2023 due to cracks identified on the L-1 blades. Return to service date is estimated to be mid-March 2024.

⁴ Hollywood G3 will be on an unplanned outage for the remainder of 2023 due to cracks identified on the L-1 blades. Return to service date is estimated to be mid-March 2024.

⁵ Hollywood G4 will be on an unplanned outage for the remainder of 2023 due to cracks identified on the L-1 blades. Return to service date is estimated to be mid-March 2024.

⁶ Hoppy Valley Gas Turbine is scheduled for service on November 25, 2023. Load commitment issues have now been resolved and the unit has been proven to its maximum capacity of 150 MW.

⁷ Hoppy Valley Gas Turbine is scheduled for service on December 14, 2023.

⁸ Stephenville GT is unavailable due to a damaged generator cooling fan. The expected return to service date is early-February 2024.

⁹ Starr Lake return to service date is December 15, 2023.

¹⁰ Corner Brook Pulp and Paper Limited ("CBPP").

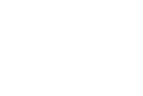
¹¹ 24.7 MW includes Hawkes Bay (5 MW), HRD Diesel (10 MW), and St. Anthony (9.7 MW).

¹² Labrador Island Link ("LIL").

¹³ Island Reserves: 1 peak is a function of island load. It identifies the number of available Muskrat Falls units and Mainline Link exports, and is measured at Soldier's Point.

¹⁴ Island Peak Load from the last week of December through March is representative of winter 2023–2024 peak.

¹⁵ November to March Total Island Reserves include CBPP Capacity Assistance (80 MW) and System Voltage Reduction (20 MW).



Appendix E

Critical Spares Status Listing for Thermal Generation





Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	In Stock	
Fire Protection System	Electrical Driven Pump	Pump	Outboard Bearing		BEARING,PEERLESS OUTBOARD	In Stock	
Fire Protection System	Electrical Driven Pump	Pump	Casing Ring		RING,PEERLESS CASING	In Stock	
Fire Protection System	Electrical Driven Pump	Pump	Casing Gasket		GASKET,PEERLESS CASING	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Day Tank Trip Valve	8" Butterfly Valve and Actuator		VALVE,BTFY 8" 150#	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Day Tank Trip Valve	Actuator		ACTUATOR,BETTIS CB520	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Fuel Line Block Valve	16" Gate Valve		VALVE,GATE 16" NEWCO	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Day Tank Fill Line Control Valve	6" Control Valve		VALVE,CONTROL 6" FISHER	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Actuator	Actuator		ACTUATOR,PNEU 1-BSW-5-LT	In Stock	
Hydrogen Generation and Storage	Valves	Motorized Valves	1/2" Valve		SOLENOID,VALVE ASCO 8316	In Stock	
Hydrogen Generation and Storage	Tubing	Tubing	Tubing		TUBING,SS 1" OD X.083 316	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	Charger	Control Unit		CONTROL UNIT,BATTERY CHG 129V	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2205C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2206C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3205C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3206C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2203C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2207C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2202C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2208C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3203C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3207C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3202C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3208C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4003B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4004A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4005B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4006B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4007B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4008B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4009B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4010A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4011A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - PCV4071	Non-Stock is OK since there are non critical uses for this TX which can be "borrowed"	VALVE,PRESS REGULATING	Non-Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Sodium Monitor	Non-Stock is OK since there are non critical uses for this TX which can be "borrowed"	ANALYZER,ORION 2111LLEN	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Clarifier	Agitator	Frequency Drive		CONTROLLER,SPEED CLARIFIER	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Clarifier	Agitator	Recirculator - Double Induction Speed Reducer - In Stock		RECIRCULATOR,STERLING 9A6108	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Raw and Makeup Water System & Water Treatment Plant	Cleanwell	Cleanwell Pump	Pump, single stage, 750GPM	Critical repair parts stocked for this pump. No need to stock the entire pump.	PUMP ASSY, KSB 6"	Non-Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Dock Quick Closing Valves	18" Butterfly Valve		VALVE,BTFY 18" 150#	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Dock Capstan	Gear Box		CAPSTAN GEARBOX,SADI	In Stock	
Fire Protection System	Electrical Driven Pump	Control Panel	Fire Pump Controller	Spare Controller on site in Warehouse	N/A	Non-Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	30A DC Breaker		BREAKER,DC HFD2030 30A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	25A DC Breaker		BREAKER,DC HFD2025 25A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	15A DC Breaker		BREAKER,DC HFD2015 15A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	400A DC Breaker		BREAKER,DC KD3400 400A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	50A DC Breaker		BREAKER,DC HFD2050 50A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	Charger	Control Unit		CONTROL UNIT,BATTERY CHG 129V	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	36" Butterfly Valve		VALVE,BUTTERFLY 36"	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	Actuator		ACTUATOR ASSY,ROTORK	In Stock	
Circulating Water and Screen Wash System	CW Pumps	Motor	Coils		WINDING COILS	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules		MODULE,NETWORK INTERFACE	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays		RELAY,AB TYPE P	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor		MODULE,PROCESSOR FOXBORO	In Stock	
Combustion Air & Gas Instruments	Burner Management	Flame Scanners	24Vdc Scanner Power Supply		POWER SUPPLY,WEIDMULLER	In Stock	
Combustion Air & Gas Instruments	Burner Management	Air Flow Transmitters	Transmitter		TRANSMITTER, DP 1 KPA TO 1 KPA	In Stock	
Combustion Air & Gas Instruments	Burner Management	Oil Flow Transmitter	Transmitter - Unit 1	One spare F.O. Flow TX for both units	FLOWMETER,ROSE	In Stock	
Condenser Air Extraction System	Vacuum Breakers	Seals	6" Flanged		VALVE,AIR & VACUUM 6 FLG	In Stock	
Generator	Seal Oil System	Controls	See Parts List #U1&2 - 1 from ArcNet Coupler		HYDROGEN SEAL RINGS,GE	In Stock	
Generator	Exciter	Controls	Conduction Monitor		CARD,ABB UNS0672	In Stock	
Generator	Exciter	Controls	Crowbar		CARD,ABB UNS0673	In Stock	
Generator	Exciter	Controls	Digital ArcNet		CARD,ABB UNS0017AVAR1	In Stock	
Generator	Exciter	Controls	Binary Input		CARD,ABB UFC090	In Stock	
Generator	Exciter	Controls	Output Relay		CARD,ABB URC093	In Stock	
Generator	Exciter	Controls	Measuring Card		CARD,ABB UINC4672	In Stock	
Generator	Exciter	Controls	Measuring Card		CARD,ABB UINC4673	In Stock	
Generator	Exciter	Controls	I/O Connection		CARD,ABB UINC4674	In Stock	
Generator	Exciter	Controls	Converter		CARD,ABB UNS3670	In Stock	
Generator	Exciter	Controls	Snubber Bridge		SNUBBER,ABB UNS4681V1,2	In Stock	
Generator	Exciter	Controls	Control		CARD,ABB HIEE300900R001	In Stock	
Generator	Exciter	Controls	Power Supply		CARD,ABB KUC321	In Stock	



Critical Spares – Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System		Asset		Critical Spare		Inventory Status	
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	Inventory Status
Generator	Exciter	Controls	Pulse Gen		CARD,ABB GDB021	In Stock	In Stock
Generator	Exciter	Controls	Combined I/O		CARD,ABB UAC326	In Stock	In Stock
Generator	Exciter	Controls	Control Panel		CARD,ABB AFC094	In Stock	In Stock
Generator	Exciter	Controls	Breaker		BREAKER,FIELD ABB F3/SE	In Stock	In Stock
Generator	Exciter	Controls	Transformer	On Site	N/A	Non-Stock	Non-Stock
Generator	Stator	PT Cubicle	Primary Contact for Generator P.T.		CONTACT ASSY,PT	In Stock	In Stock
Generator	Seal Oil System	Regulator	1.5" Regulating Valve		SEAL OIL REG KIT, RK	In Stock	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1" Valve		VALVE,FISH F.O. TRIP	In Stock	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Ignition Transformer		XFMIR,FOSSIL S870-542F	In Stock	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Snuspot		BASE,AMPLIFIER & TERMINAL	In Stock	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Valve Assembly / Oil Igniter		IGNITER,ASSEMBLY ALSTOM	In Stock	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Level Transmitter		TRANSMITTER,LEVEL	In Stock	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relays		RELAY,PLUG-IN 12 PIN AC	In Stock	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe		PROBE,GUIDED WAVE RADAR 26"	In Stock	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Level Switch		SWITCH,LEVEL MOBREY	In Stock	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter		TRANSMITTER,LEVEL	In Stock	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Relay		RELAY,PLUG-IN 12 PIN AC	In Stock	In Stock
L.P. Feedwater System	Ammonia System		Bulk Chemical		AMMONIUM HYDROXIDE,20% TOTE	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	1.2"-150# Gasket Kit		GASKET,S&K 7450397V0010	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	O-Rings		O-RING,S&K 7550144V0090	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 24"	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 16"	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 12"	In Stock	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Seal washers		SEAL,S&K 75G0181V0020	In Stock	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves - #1&2 LP Heaters	Gasket		GASKET,S&K 6750064V0010	In Stock	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	O-Rings		O-RING,S&K 7550144V0090	In Stock	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		O-RING,S&K 7550144V0090	In Stock	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		PACKING,S&K 75G0100V0040	In Stock	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Seal washers		SEAL,S&K 75G0181V0050	In Stock	In Stock
L.P. Feedwater System	Polisher Bypass Valve	Valve	Valve	Non-Stock is OK since there are full rebuild items identified and stocked	VALVE,FISH 5080326PTBNN	Non-Stock	Non-Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT,BALL 3	In Stock	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT,WORCH D-38	In Stock	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT,BALL 2	In Stock	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT,WORCH C-38	In Stock	In Stock
Main Steam & Reheat Steam; Turbine Drains	Vacuum Trip Device		Pressure Transmitter - Unit 1		TRANSMITTER,PRESS-30-0"	In Stock	In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Turbine Generator System Stage 1	Governor		Mark 5 System - cable assemblies		CABLE ASSY,SERVO G.E.	In Stock	
Turbine Generator System Stage 1	Governor		Mark 5 System - 50 gal. Intercept Control Valve Servos		VALVE,SERVO 50.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor		Mark 5 System - 50 gal. Main Control Valve Servos		VALVE,SERVO 50.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor		Mark 5 System - 6 gal. Intercept Control Valve Servos (scream)		VALVE,SERVO 9.0-11.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor		Mark 5 System - 6 gal. Main Stop Valve Servos		VALVE,SERVO 9.0-11.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor		Linear Variable Differential Transducer for Intercept Control Valve & Main Control Valve		TRANSDUCER,GE	In Stock	
Turbine Generator System Stage 1	Governor		Linear Variable Differential Transducers for 1 per Main Stop Valve		TRANSDUCER,GE	In Stock	
Turbine Generator System Stage 1	Governor		Cable		CABLE SET,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		Valve		VALVE,FLUID POWER PILOT	In Stock	
Turbine Generator System Stage 1	Governor		Sensor		SENSOR,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		Coil		COIL,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		Go Switch - Limit Switches		SWITCH,LIMIT GO LEVER	In Stock	
Turbine Generator System Stage 1	Governor		Cable Set		CABLE SET,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		Valve		VALVE,FLUID POWER PILOT	In Stock	
Turbine Generator System Stage 1	Governor		Sensor		SENSOR,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		O-Ring Kit		O-RING KIT,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor		RES,50OHM,5%,40 WATT		RESISTOR,50OHM	In Stock	
Turbine Generator System Stage 1	Governor		DIODE MOD,1200V,45A,SKKD46/12		DIODE,MOD 1200V	In Stock	
Turbine Generator System Stage 1	Governor		RELAY		RELAY,12HGA11J52	In Stock	
Turbine Generator System Stage 1	Governor		CPF MK5 CONTROL POWE		CONTROL,MK5 POWER	In Stock	
Turbine Generator System Stage 1	Governor		TERMINATOR,93 OHMS		TERMINATOR,93 OHMS	In Stock	
Turbine Generator System Stage 1	Governor		RESISTOR		RESISTOR,323A2354P1	In Stock	
Turbine Generator System Stage 1	Governor		RESISTOR		RESISTOR,323A2354P2	In Stock	
Turbine Generator System Stage 1	Governor		RES 100 OHM 5% 40W		RESISTOR,100 OHM	In Stock	
Turbine Generator System Stage 1	Governor		CAP,METALIZED-MYLAR		CAP,METALIZED-MYLAR	In Stock	
Turbine Generator System Stage 1	Governor		MKV, C-Core Terminal Board		TERMINAL BOARD,MKV C-CORE	In Stock	
Turbine Generator System Stage 1	Governor		MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock	
Turbine Generator System Stage 1	Governor		MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock	
Turbine Generator System Stage 1	Governor		MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	In Stock	
Turbine Generator System Stage 1	Governor		MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	In Stock	
Turbine Generator System Stage 1	Governor		MKV, P-Core Terminal Board		TERMINAL BOARD,MKV P-CORE	In Stock	
Turbine Generator System Stage 1	Governor		TERM. BOARD (R-5-T)	DS200Q1TBAG3A is superseded by DS200Q1TBAG3A	TERMINAL BOARD,(R-5-T)	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 1	Governor	Turbine Control System	Main Control Card	New no longer available, remain only	BOARD,GE DS2005DCCG4A	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, LAN Comm Interface Card		BOARD,GE DS2005LCC G3A/PS	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,Thermocouple Terminal Board		TERMINAL BOARD,THERMOCOUPLE	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,TERM.BD @R-S-T TC		TERMINAL BOARD,MKV	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKVe, Analog I/O Terminal Board		TERMINAL BOARD,ANALOG I/O	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKVe, Analog I/O Terminal Board		TERMINAL BOARD,ANALOG I/O	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,TERM BD (R-S-T) EXT		TERMINAL BOARD,(R-S-T) EXT	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Common Analog Card	New no longer available, remain only	BOARD,GE DS200TCCAG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, DIG. I/O BD. CONF. C		BOARD,GE DS200TCDAH1B/PS	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Emergency Overspeed Card	New no longer available, remain only, Has age sensitive components,	BOARD,GE DS200TCEAG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, COMM. CIRCUITS FOR T	Has age sensitive components	BOARD,GE DS200TCEBG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	PDM, Switch & Fuse Card		BOARD,GE DS200TCPDG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, DC INPUT PWR SUPPLY	New no longer available, remain only, Has age sensitive components,	BOARD,GE DS200TCP5G1A	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Analog I/O Card		BOARD,GE DS200TCQAG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, (RST) Extended Analog I/O Card	New no longer available, remain only	CARD,EXTENDED MKV (RST)	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, BOARD-(RST) OVERFLOW	New no longer available, remain only	BOARD,GE DS200TCQCG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Relay Output Card		BOARD,GE DS200TCRAG1A/PS	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Turbine Trip Card	New no longer available, remain only	BOARD,GE DS200TCTS5G1A	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MODULE,AC TO DC	DS2020DACAG1 has been superseded by DS2020DACAG2	MODULE,AC TO DC	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	(Commissioning Kit) Fuses, Resistors , Diodes, Relays		SPARE KIT,MKV	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Oil Pump	Pump		PUMP,DC LUBE OIL	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Motor	Motor		MOTOR,DC LUBE OIL PUMP	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switches	Switch		SWITCH,PRESS-O-150 PSI	In Stock	
Turbine Generator System Stage 1	Hydraulic Fluid System	Fluid Pumps	Pump		PUMP,HYD FLUID POWER UNIT	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Shaft		SHAFT,IR_10 (TYPE 2 ERVH)	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Impeller		IMPELLER,IR_ZRVHDX1-8T3	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Sleeve		SLEEVE,1 RAND I75B135N1B-204	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Key		KEY,IMPELLER,IR_11A9C37	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Motor	Motor		MOTOR,ELECT 20HP 575VAC	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Oil Pressure Regulator	Diaphragm		DIAPHRAGM,GE 920810612	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 2	Switch		SWITCH,PRESS O-150 PSI	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Bushing		BUSHING,FISH 1E845714012	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Diaphragm		DIAPHRAGM,FISH 2E859802202	In Stock	



Critical Spares – Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

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Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
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System		Asset		Critical Spare		Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Repair Kit		ACTUATOR KIT,FISH R667X000502	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Body	Packing		PACKING KIT,FISH RPACCKX00011	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Body	Positioner		POSITIONER,FISH DVC6200	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Actuator	Diaphragm		DIAPHRAGM,FISH 2M130902202	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Actuator	Repair Kit		ACTUATOR KIT,FISH R667X000702	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Gasket		GASKET SET,FISH RGASKETX232	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Plug/Stem		PLUG/STEM,FISH 27A3965X052	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Cage		CAGE,FISH 20A3245X092	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Ring		RING,FISH 17A3991X022	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Seat Ring		RING,FISH 20A3260X152	In Stock
Turbine Generator System Stage 1	Pressure Transmitter TX (Trip)	Pressure Transmitter	Pressure Transmitter		TRANSMITTER,DP-8000-8000KPA	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,AIR HEATER 21-1/2"	Non-Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,AIR HEATER U1	Non-Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Rotating Element & Bearings	Bearing		BEARING,BALL 23034CCK/C3W33	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Rotating Element & Bearings	Seal		SEAL,HOWDEN 68-01-615	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Coupling		COUPLING,STEELEFLEX 1-1/8 5-4	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Air Motor		AIR MOTOR,ING RAND	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Motor		MOTOR,HEATER 1/3HP (XL GEAR)	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Sleeve		SLEEVE,RELIANCE 411629-6A	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Coupling		COUPLING,BORE 3/4X5/8	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Roller assembly		ROLLER,ASSEMBLY	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Gasket		GASKET SET,FISH RGASKETX182	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Stud		STUD,DEW 0282336	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Repair Kit		ACTUATOR KIT,FISH R667X000402	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Cage		CAGE,FISH 2U224033272	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Plug/Stem		PLUG ASSY,FISH 1V6575X0052	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Ring		RING,FISH 1U222646172	In Stock
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Bushing		BUSHING,FISH 1E682814012	In Stock
Units 1 & 2 Fuel Oil System	Atomizing Steam Valve	Atomizing Steam Valve	2" Flanged Valve		VALVE,FISH ATOM,STEAM	In Stock
Units 1 & 2 Fuel Oil System	Main Fuel Oil Trip Valve	Main Fuel Oil Trip Valve	Flanged Valve		VALVE,FISH F.O. TRIP	In Stock
Units 1 & 2 Fuel Oil System	Header Pressure Control Valve	Header Pressure Control Valve	Repair Kit		PACKING KIT,FISH RPACCKX00012	In Stock
Units 1 & 2 Fuel Oil System	Header Pressure Control Valve	Header Pressure Control Valve	Diaphragm		DIAPHRAGM,FISH 2E670002202	In Stock
Units 1 & 2 Fuel Oil System	Fuel Oil Pumps	Fuel Oil Pumps	PUMP,IMO C324		PUMP,IMO C324 (COMPLETE)	In Stock
Units 1 & 2 Fuel Oil System	Mechanical Seal	Mechanical Seal	Seal		SEAL,MECHANICAL FUEL C324	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Gasket Set		GASKET SET,FISH RGASKETX312	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Packing		PACKING KIT,FISH RPACCKX00012	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Ring		RING,FISH 1U222535072	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Plug/stem		PLUG/STEM,FISH 1U83550X0022	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Cage		CAGE,FISH 2U215033272	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Gasket		GASKET,FISH 10A4154X012	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Ring		RING,FISH 1U222835072	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Diaphragm		DIAPHRAGM,FISH 2M176902202	In Stock



Critical Spares - Thermal Generation

Inventory Status

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Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Units 1 & 2 Fuel Oil System	Long Recirculatoin Valve	Long Recirculatoin Valve	Cage	Repair Parts Stocked Ref CN116597	CAGE,FISH 2U231833272	In Stock	
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Gaskets	Annual inspection plus online Check. To be ordered as required.	GASKET,FUEL OIL HEATER	In Stock	
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Tube Bundles		HEATER,FUEL OIL STAGE 1	Non-Stock	
Units 1 & 2 Fuel Oil System	Burners	Oil Valve	Oil, Steam & Scavage Valves - All Same		VALVE,BALL 3/4 C/W PNEU	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Cage		CAGE,FISH 42B8570X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Plug/stem		PLUG/STEM,FISH 36A5366X062	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 26A5285X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 26A5299X052	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 10A5411X022	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Pin		PIN,FISH 1V334035072	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Gasket		GASKET,FISH 18A2810X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Gasket		GASKET,FISH 26A5314X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 10A5410X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Packing		PACKING,FISH 1R290601012	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Element Assembly (Volute)	Rebuildable Item If this is not in stock, it is out for	ELEMENT ASSY,VOLUTE/ROTATING	On Order	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Bushing		BUSHING,BI 216507LG	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Shaft Driven Oil Pump		PUMP,BI,DWVG C1F-238	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Ring		RING,BI 612987-EH	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Ring		RING,BI 634599-BG	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Shoe		SHOE ASSY,BI 631163-KD	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Cover		COVER,BI 308952-SA	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	3000HP Motor, 4160Vac (two styles of motor for Stage 1, one each stocked off-site)	Motor stored off site via service contract	SCIM, s/n# 1026366788, frame MGP500B, 3000HP, 4160Vac, 60Hz	Non-Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Gasket		GASKET,FISH 12B7100X082	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Seal	Repair Parts stocked Ref CN12054568	SEAL,FISH 10A4215X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts stocked Ref CN12054568	RING,FISH 10A4217X012	In Stock	



Critical Spares - Thermal Generation

Inventory Status

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Non-Stock
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Asset		Critical Spare				
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts Stocked Ref CN12054568	RING,FISH_10A4219X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring		RING,FISH_2289344X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Plug/Stem		PLUG/STEM,FISH_38A0014X062	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #1 - All HP Heaters	Level Transmitter		TRANSMITTER_DP 0-120" H2O	On Order
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - HP Heater # 4 & 6	Level Transmitter		TRANSMITTER_DP 0-120" H2O	On Order
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - HP Heater # 5	Level Transmitter		TRANSMITTER_DP 0-120" H2O	On Order
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 - All HP Heaters	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - Heater # 4 & 6	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - HP Heater # 5	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2 - All HP Heaters	Conductivity Probe	Hi-Level Switch	PROBE,CONDUCTIVITY	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #1 & 2 - All HP Heaters	Relay		RELAY,PLUG-IN 12 PIN AC	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2	Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve Limit Switch	Oil Tight Limit Switch		SWITCH,LIMIT AB 802T-B	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve	Packing		PACKING,GRAFOIL IDIXI-1/2OD	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Gasket		GASKET,HOP 30037592	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spindle		SPINDLE,HOP 44574-011	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Nut		NUT,HOP 35224-508	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stop		STOP,HOP 8 VALVE 24930W	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 4	Belt		BELT ASSY,HOP 44511-001	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 5	8"-150# Gasket Kit		GASKET,S&K 7450397V0010	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 6	8"-300# Gasket Kit		GASKET,S&K 7450397V0010	In Stock
Units 1 & 2 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Level Transmitter		TRANSMITTER,PRESS 5-800	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" x 1" Valve		VALVE,RELIEF 1/2" 110# SE	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Recirculation Valve to DA	4" Valve		VALVE,GATE 4 CS BW 300#	In Stock
Combustion Air & Gas Instruments	Burner Management	Positioner	2.5" x 5" Pneumatic		VALVE ASSY,373218-001	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Coupling		COUPLING,METASTREAM	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Bearing	Mechanical Engineer to contact	BEARING,JOURNAL MP 215878E	Non-Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller	Flowserve for bearing spec.	IMPELLER,MAT PLA_2788L-P	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		IMPELLER,MAT PLA_27882-P	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		O-RING,M&P 775C	In Stock



Critical Spares - Thermal Generation

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		O-RING, MAT PLA 775D	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Cable	Cable		CABLE, BATTERY 1/0	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - Speed probes		PROBE, SPEED PICKUP	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 1	Switch		SWITCH, PRESS 0-150 PSI	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Positioner		POSITIONER, FISH DVC6200	In Stock	
Condenser Air Extraction System	Mechanical Vacuum Pumps	Motor	Motor		MOTOR, ELECT 50HP 575V	In Stock	
Generator	Stator	PT Cubicle	Potential Transformer (PT)		TRANSFORMER, GE 765X	In Stock	
Generator	Stator	Stand Off Insulators	Stand Off Insulator		BUSHING, HIGH VOLTAGE GE	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Truck V-Fast Cables		CABLE SET, FLUID POWER	In Stock	
Generator	Stator	Stator and Brush Rigging Assembly	Brush		BRUSH, GENERATOR U1 & U2	In Stock	
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Inboard Bearing Liner		LINER, BEARING 6"	In Stock	
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Outboard Bearing Liner		SLEEVE, BEARING 6"	In Stock	
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Bearing Set	U1 West (Dodge)	BEARING, SET, SLEEVE 6"	In Stock	
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	200A Power Cell		POWER CELL, SIEMENS 200A	In Stock	
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	1500HP Motor, 4160Vac	Motor stored off site via service contract	SCIM, sin# 1026842643, frame MGP500C, 1500HP, 4160Vac, 60Hz	Non-Stock	
Powerhouse and Switchyard Single Line	258V DC System	Panel	40A DC Breaker		BREAKER, DC KXD400F 400A	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Panel	40A DC Breaker		BREAKER, DC HFD2040 40A	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-116	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-114-1	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-111-1	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-107-2	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-107-2	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-107-2A	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD, CIGENITEC 81-112-2	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Rectifier		RECTIFIER, CIGENT 323-230	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger Cigenic	Charger	Individual replacement components stocked	CHARGER, BATTERY 250VDC	Non-Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Valve	36" Butterfly Valve		VALVE, BUTTERFLY 36"	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Actuator	CW Butterfly Valve Actuator		ACTUATOR, ASSY, ROTORK	In Stock	
Circulating Water and Screen Wash System	CW Pumps	Motor	Coils		COILS, STAGE 2 MOTOR	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules		MODULE, NETWORK INTERFACE	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays		RELAY, SD 8501XUD0	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor		MODULE, PROCESSOR FOXBORO	In Stock	
Combustion Air & Gas Instruments	Burner Management	Elevation Oil Flow Transmitter	Meter & Transmitter		FLOWMETER, PROMASS 83F40	In Stock	
Combustion Air & Gas Instruments	Burner Management	Elevation Air Dampers	Positioner		POSITIONER, FISH DVC6200	In Stock	
Condenser Air Extraction System	Vacuum Breakers	6" Flange Vacuum Breaker	6" Flange Vacuum Breaker		VALVE, AIR & VACUUM 6 FLG	In Stock	
Generator	Stator	Stator and Brush Rigging Assembly	Brush		BRUSH, GENERATOR U3	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Thrust Bearing		PAD, BEARING U3 SYNC COND	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Seal Ring		RING, SEAL U3 SYNC COND	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Thrust bearing		BEARING, THRUST U3 SYNC COND	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Thrust bearing		BEARING, THRUST U3 SYNC COND	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Seal Ring		RING, SEAL U3 SYNC COND	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Thrust bearing		THERMOCOUPLE, U3 SYNC COND	In Stock	



Critical Spares - Thermal Generation

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Generator	Seal Oil System	Seals	Belows		BELLOWS, HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET, HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET, HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET, HITACHI	In Stock	
Generator	Exciter	Exciter Control System	Converter		CONVERTER, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	ECT Panel		ECT PANEL, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Controller		CONTROLLER, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Computer		COMPUTER, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Firing Board		BOARD, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Message Module		MODULE, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Input Coupling		INPUT COUPLING UNIT, ABB	In Stock	
Generator	Exciter	Exciter Control System	Power Supply		POWER SUPPLY, ABB	In Stock	
Generator	Exciter	Exciter Control System	Crowbar		CROWBAR, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Murr		MURR, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Resistor		RESISTOR, ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	I/O Board		BOARD, ABB COMBINED I/O	In Stock	
Generator	Exciter	Exciter Control System	Field Breaker		BREAKER, FIELD ABB E2/E	In Stock	
Generator	Stator	Stand Off Insulators	Insulator Bushing		BUSHING, HIGH VOLTAGE HIT	In Stock	
Generator	Stator	PT Cubicle	Potential Transformer (PT)		VOLTAGE TRANSFORMER, ABB VIZZ-	In Stock	
Generator	Stator	PT Cubicle	Fuse		FUSE, GE EIO-1-C5881405G1	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1-1/2" Valve		SOLENOID, ASCO 8342C1	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Light Oil / Air Supply Solenoid Valve		SOLENOID, ASCO 8262G232	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Purge Solenoid Valve		SOLENOID, ASCO 8262G232	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Pneumatic Actuator		ACTUATOR, PNEU R16C	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Ignition Transformer		XEMR, IGNITION 120V 60C	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Relay		BOX, IGNITOR C/W CABLES, N-6	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Sunspot - Scammer		SCANNER, FOSSIL 9100-1000	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Snap Action Switch		MICROSWITCH, 16CX12-D01	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	1/4" Light Oil Air Ball Valves		VALVE, BALL 1/4" U3 IGNITOR	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)	Ignitor Control Box	Level Transmitter LP Heater #1		TRANSMITTER, LEVEL	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules		MODULE, AQUARIAN	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid		SOLENOID, ASCO 8300 125 VDC	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relay		RELAY, OMRON MM4XP-DC125	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe		PROBE, CONDUCTIVITY	In Stock	
L.P. Feedwater System	Deaerator System	Deaerator	Gauge Glasses		GAUGE, GLASS 3/4X48	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Level Switch		SWITCH ASSY, MAG 89-7401-052	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Solenoid		SOLENOID, ASCO 8320G184M0	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter		TRANSMITTER, DP 0-120" H2O	On Order	
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Repair Kit		VALVE KIT, BALL 8"	In Stock	
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Repair Kit		ACTUATOR KIT, WORCH C-38	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

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Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

Asset		Critical Spare			Inventory Status	
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Valve		VALVE, FISH 8560-1052-36105	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Disc		DISC, FISH 75B1036X102	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Pin		PIN, FISH 75B1122X052	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Pin		PIN, FISH G13725K0022	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Ring		RING, FISH 75B0311X032	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Shaft		SHAFT, FISH 75B0014X012	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Spring		SPRING, FISH 75B0012X012	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Packing		PACKING, FISH 12A8951X022	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Bearing		BEARING, FISH 75B1076X012	In Stock
L.P. Feedwater System	LP. Heaters	NRV Valves - #2 LP Heater	20" Dia		GASKET COVER HIT	In Stock
L.P. Feedwater System	LP. Heaters	NRV Valves - #1 LP Heater	24" Dia		GASKET COVER HIT	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves (2)	14" Dia on DA		GASKET COVER HIT	In Stock
L.P. Feedwater System	Deaerator System	Safety Valves	Disc		DISC, VALVE SAFETY RELIEF	In Stock
L.P. Feedwater System	Polisher Bypass Valve	Valves	Parts to Repair		VALVE, FISH 8560-1052-36105	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Valve Kit		VALVE KIT, BALL 3	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Actuator Kit		ACTUATOR KIT, WORCH D-38	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Valve Kit		VALVE KIT, BALL 2	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Actuator Kit		ACTUATOR KIT, WORCH C-38	In Stock
Main Steam & Reheat Steam: Turbine Drains	Vacuum Unloading Device	Bel lows			BELLOW ASSY, HIT L11000-1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	400A DC Breaker		BREAKER, DC KD2400F 400A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Governor	40A DC Breaker		BREAKER, DC HFD2040 40A	In Stock
Turbine Generator System Stage 2	Governor	Governor	Piston		PISTON RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	O-Ring		OIL SEAL, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		O-RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		BUSHING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Bushing		BUSHING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		O-RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		BUSHING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		O-RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		BEARING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		BEARING, HITACHI LOAD LIMIT	In Stock
Turbine Generator System Stage 2	Governor	Governor	Governor		BEARING, HITACHI LOAD LIMIT	In Stock
Turbine Generator System Stage 2	Governor	Governor	Piston		PISTON RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Sleeve		SLEEVE, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Trunnion		TRUNNION, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING, BALL HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Pin		SPLIT PIN, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING, BALL HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Oil Seal		OIL SEAL, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Electrical Trip Test Device		PISTON RING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Electrical Trip Test Device		SEAT PACKING, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Electrical Trip Test Device		WASHER, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Electrical Trip Test Device		WASHER, HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Electrical Trip Test Device		WASHER, HITACHI	In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock
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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing	Parts common to AC Pump	BEARING,PLANE HIT ITEM 35	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing	Parts common to AC Pump	BEARING,PLANE HIT ITEM 36	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Auto Start Pressure Switch		SWITCH,PRESS.10-300 TYPE ACW2	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Seal Ring		SEALRING,10P-067-551-17	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Seal Ring		SEALRING,10P-067-551-18	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-13	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-17	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-18	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Brush		BRUSH,HIT 10P 067-551-38	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Bearing		BEARING,PLANE HIT ITEM 35	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Bearing		BEARING,PLANE HIT ITEM 36	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Motor	Refurbishable item. If it is not in stock, it is out for refurbishment.	MOTOR,AUX OIL YELLOW	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Seat		SEAT,10P-061-226-123	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN,10P-061-226-207	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Locking		LOCKRING,10P-061-226-208	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Locking		LOCKRING,10P-061-226-209	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN,HIT 10P-061-226/16	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN,HIT 10P-061-226/98	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Bushing		BUSHING,HIT T-9201	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN,HIT 10P-061-228-125	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		CROSSHEAD,HIT 10P0612283	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN,HIT 10P-061-228/98	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN,HIT 10P-061-228/16	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET,STL #16	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET,HIT 10P-038-197-16	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET,HIT 10P-038-197-71	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Bushing		BUSHING,10P-038-197/15	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Seal Ring		SEAL RING,10P-038-197/14	In Stock	
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Bushing		BUSHING,HIT 10P-038-197/18	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P0611582	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P0611586	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING,HIT 10P06115814	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Rivet		RIVET,HIT 10P-061-158-63	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Stem		STEM,HIT 10P061158/7	In Stock	
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Pin		PIN,HIT 10P06115872	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Pressure Transmitter - Unit 3			TRANSMITTER,PRESS 0-200	In Stock	



Critical Spares - Thermal Generation

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 2	Steam Seal Regulator	2" Valve	Bushing		BUSHING, FISH 1E845714012	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve -	Diaphragm		DIAPHRAGM, FISH 2E859602202	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve -	Actuator repair kit		ACTUATOR KIT, FISH R667X000502	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Body	Packing Kit		PACKING KIT, FISH RPACX00011	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve -	Positioner		POSITIONER, FISH DVC6200	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Auxiliary Steam Control Valve - actuator	Aux Steam Control Valve - Actuator - Unit 3		ACTUATOR KIT, FISH R470X000032	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Aux Steam Control Valve - Body - Unit 3		BODY, VALVE FISH 3N192029022	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Dump Control Valve - Actuator - Repair Kit - Unit 3		ACTUATOR KIT, FISHER R667	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Ring		RING, FISH 17A3990X022	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Ring		RING, FISH 1U508039102	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Pin		PIN, FISH 1V326035072	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Cage		CAGE, FISH 2U505939102	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Series 8500 size 95 w/ 95" @	Plug		PLUG, FISH 27A3953X012	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Drive Motor	Thrust Plate		THRUST PLATE KIT, DODGE 132221	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Formed Coils		COIL, WINDING U3 FD FAN On Order	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Liner		LINER ASSY, DODGE 132423	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Collar		COLLAR, DODGE 132154	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Opposite side bearing		LINER ASSY, DODGE 132951	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	2 - Temperature probes installed in bearings		THERMOCOUPLE, TYPE T	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Falk Steelflex coupling		COUPLING, STEELFLEX GRID	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	2 - Independent bearing pedestals	Gasket		GASKET, DODGE 132170	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Outlet damper	Damper	To be ordered & stocked as required	DAMPER, STOCKBRIDGE 0.866"	Non-Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Outlet damper	Damper	To be ordered & stocked as required	DAMPER, STOCKBRIDGE 1.004"	Non-Stock	
Unit 3 Air & Flue Gas	F.D. Fans	variable inlet vanes	Actuator Repair Kit		DRIVE KIT, BAILEY 532694C1	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	variable inlet vanes	Actuator repair kit		DRIVE KIT, BAILEY 256111A0	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Gearbox	Gearbox		GEARBOX, AIR HEATER U3	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Pneumatic Drive System	Air Drive Motor		AIR MOTOR, ING RAND	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET, AIR HEATER 22-1/2"	Non-Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET, HOT END 22-1/2"	Non-Stock	
Unit 3 Air & Flue Gas	O2 Analyzers		Probe		PROBE, OXYGEN ANALYZER	In Stock	
Unit 3 Air & Flue Gas	O2 Analyzers		Analyzer		ANALYZER, ROSE 3000 OXY	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Gasket		GASKET SET, FISH RGASKETX362	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Packing		PACKING KIT, FISH RPACX00002	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Actuator		ACTUATOR KIT, FISH R667X000502	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Regulator		REGULATOR KIT, FISH WR67AFRX011	In Stock	



Critical Spares - Thermal Generation

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Asset		Critical Spare			Inventory Status	
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Bushing		BUSHING, FISH 1E845714012	In Stock
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Diaphragm		DIAPHRAGM, FISH 2E859802202	In Stock
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Cage		CAGE, FISH 2U236033272	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Ring		RING, FISH 1U217305092	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Seat		SEAT, FISH 1U222046172	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Plug/Stem		PLUG/STEM, FISH 1V6571X0042	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Cage		CAGE, FISH 2U215333272	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Gasket		GASKET SET, FISH RGASKETX242	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Packing		PACKING KIT, FISH RPACCKX00012	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Bushing		BUSHING, FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Combustion Control Valves	Diaphragm		DIAPHRAGM, FISH 2E669902202	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Cage		CAGE, FISH 1U2223733272	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Ring		RING, FISH 1U222646172	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Plug/Stem		PLUG ASSY, FISH 1V6575X0052	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Packing		PACKING KIT, FISH RPACCKX0002	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Gasket		GASKET SET, FISH RGASKETX182	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Diaphragm		DIAPHRAGM, FISH 2E670002202	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Packing		PACKING KIT, FISH RPACCKX0002	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Repair Kit		ACTUATOR KIT, FISH R667X000402	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Bushing		BUSHING, FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Retainer		RETAINER, FISH 1V710935072	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Disc		DISC, FISH 1V711006242	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Seat		SEAT, FISH 1V711135072	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Diaphragm		DIAPHRAGM, FISH 2E669902202	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Repair Kit		ACTUATOR KIT, FISH R667X000402	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Bushing		BUSHING, FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Diaphragm		DIAPHRAGM, FISH 2E669902202	In Stock
Unit 3 Fuel Oil System		Fuel Oil Pumps	Pump		PUMP, MAIN FUEL OIL KRAL	In Stock
Unit 3 Fuel Oil System		Main Fuel Oil Recirculation Valve	1" Welded Flange Valve w/ Actuator		VALVE ASSY, JAMES 1052 1"	In Stock
Unit 3 Fuel Oil System		Oil Valve	3/4" Welded Valve w/ Actuator		VALVE ASSY, JAMES 1052 3/4"	In Stock
Unit 3 Fuel Oil System		Steam Valve	Gasket		VALVE KIT, JAMES RKB5MT	In Stock
Unit 3 Fuel Oil System		Steam Valve	Packing		PACKING KIT, FISH RPACCKX00012	In Stock
Unit 3 Fuel Oil System		Steam Valve	Plug/Stem		PLUG/STEM, FISH 1U2161X0082	In Stock
Unit 3 Fuel Oil System		Steam Valve	Ring		RING, FISH 1U222546172	In Stock
Unit 3 Fuel Oil System		Steam Valve	Cage		CAGE, FISH 2U215033272	In Stock
Unit 3 Fuel Oil System		Scavenge Valve	Gasket		GASKET SET, FISH RGASKETX312	In Stock
Unit 3 Fuel Oil System		Scavenge Valve	Packing		PACKING KIT, FISH RPACCKX00012	In Stock
Unit 3 Fuel Oil System		Scavenge Valve	Plug/Stem		PLUG/STEM, FISH 1U2161X0082	In Stock
Unit 3 Fuel Oil System		Scavenge Valve	Ring		RING, FISH 1U222546172	In Stock
Unit 3 Fuel Oil System		Scavenge Valve	Cage		CAGE, FISH 2U215033272	In Stock
Unit 3 H.P. Feedwater System		Boiler Feed Pumps	Rotating Assembly		CASE ASSY, BOWL (INNER)	In Stock
Unit 3 H.P. Feedwater System		Boiler Feed Pumps	Shoe Assembly		SHOE ASSY, KIT-00166-A-3740	In Stock
Unit 3 H.P. Feedwater System		Boiler Feed Pumps	Throttle bushing (2 req'd)		BUSHING, BOWL 3106181	In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.
Item is not stocked, '0' quantity in warehouse, ordered as required. See Notes column.
Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple 'On Order' Status'.

System		Asset		Critical Spare		Inventory Status	
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Bearing		BEARING,HIT 9-60-1	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Bearing		BEARING,HIT 9-60-2	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Balance bushing		BUSHING,BWL 3106181	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Thrust bearing		BEARING ASSY,THRUST JHJ-5	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Gaskets		GASKET,BWL T-101204IG	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	2350HP Motor, 4160Vac	Motor stored off site via service contract	SCIM, sir# 1026842642, frame MGP450D, 2350HP, 4160Vac, 60Hz	Non-Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	6" - EHT valve 1500lb - Welded		DIAPHRAGM,FISH 2R6376X00	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 10A5411X022 - Seal Ring		RING,FISH 10A5411X022	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 13A5599X052 - O-Ring		O-RING,FISH 13A5599X052	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 26A5299X052 - Seat Ring Retainer		RING,FISH 26A5299X052	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 27A2798X042 - Seat Ring, O-Ring		RING,FISH 27A2798X042	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 42B3570X012 - Cage, Eq%		CAGE,FISH 42B3570X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 36A5366X062 - Plug/Stem Bal		PLUG,STEM,FISH 36A5366X062	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	2 - 26A5314X012 - Gasket		GASKET,FISH 26A5314X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1872906332 - Upper Wiper		WIPER,FISH 1872906332	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1873435072 - Packing Box Ring		RING,FISH 1873435072	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1R290601012 - Packing Set		PACKING,FISH 1R290601012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1H7441X0022 - Bushing Seal		SEAL,FISH 1H7441X0022	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 2R6376X0082 - Diaphragm		DIAPHRAGM,FISH 2R6376X0082	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - R667X000802 - Repair Kit		ACTUATOR,KIT FISHER R667	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water)	All HP Heaters	Conductivity Probe		PROBE,CONDUCTIVITY	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water)	H.P. Heater Controls (Water)	Aquarian Alarm Module		PROBE,AQUARIAN	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water)	H.P. Heater Controls (Water)	Level Transmitter		TRANSMITTER, DP 0-120" H2O	On Order	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water)	H.P. Heater Controls (Water)	Relay		RELAY,OMRON M1M4XP-DC125	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water)	H.P. Heater Controls (Water)	Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Bushing		BUSHING,DEW 0800109	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Clip		CLIP,DEW 0540097	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Ring		RING,DEW 0760093	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Ring		RING,DEW 668215DEW	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Screw		SCREW,DEW 0440024	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spacer		SPACER,DEW 0660065	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spring		SPRING,DEW 6580312 (3/SET)	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stem		STEM,DEW 0040851	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stud		STUD,DEW 0282351	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stud		STUD,DEW 0280514	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Packing		PACKING,DEW 6442946	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Nut		NUT,DEW P71ER250	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #6 HP Heater	6" Dia		GASKET,COVER HIT	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #5 HP Heater	8" Dia		GASKET,COVER HIT	In Stock	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #4 HP Heater	10" Dia		GASKET,COVER HIT	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0280443	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0280513	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Disc		DISC,DEW 051095	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock
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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Ring		RING,DEW 0760072	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Ring		RING,DEW 2004920	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0440024	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,DEW #2003863	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,DEW 2000006	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,KEYSTONE 903-735	In Stock	
Unit 3 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Transmitter		TRANSMITTER, PRESS 5-800	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Cage		CAGE ASSY,FISH 22A3525X022	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Packing		PACKING,FISH 1R290601012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Plug/Stem		PLUG/STEM,FISH 22A3527X052	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Gasket		GASKET,FISH 10A4155X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Gasket		GASKET,FISH 10A4154X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 10A4210X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 12A3529X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 11A3306X012	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" Dia		VALVE,RELIEF 1/2"110# SF	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Body		BODY,VALVE MASON 37-79264	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Ring		RING KIT,MASON 01148734399	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Gasket		GASKET,MASON 356154-152-825	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seal		SEAL,MASON 354810-034-779	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Retainer		RETAINER,MASON 358754-000-163	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seal		SEAL,MASON 358753-000-210	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Pin		PIN,MASON 971342-023-250	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Stem		STEM,MASON 358738-113-210	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Plug		PLUG,MASON 011508398-206-0000	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seat		SEAT,MASON 358748-000-596	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Liner		LINER,MASON 011509395-213-0000	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Diaphragm		DIAPHRAGM,MASON 010275-040-77	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Stem		STEM,MASON 770354-027-152	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Feeder to MCC E1 - breaker C4	Shares spare re-build kit/critical breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Feeder to MCC C12 - breaker C7	Shares spare re-build kit/critical breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Feeder to Power Centre - breaker C14	Shares spare re-build kit/critical breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Feeder to Power Centre - breaker C15	Shares spare re-build kit/critical breakers.	BREAKER,EATON 600V	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

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Quantity of '0' stock in warehouse, quantity of 1 or more on order or out for refurbishment.
NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C3	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C8	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C9	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C10	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C11	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C12	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C13	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C16	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C17	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Feeder to MCC - breaker C18	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C19	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (S5B1)			SSB-3 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (S5B1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	



Critical Spares - Thermal Generation

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System	Asset				Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description			
Station Board SB12 (SB81)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C		In Stock	
Station Board SB12 (SB81)			Feeder to transformer ATC - breaker SSB-3	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock	
Station Board SB12 (SB81)			SSB-4 Relay	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C		In Stock	
Station Board SB12 (SB81)			SSB-4 Relay	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C		In Stock	
Station Board SB12 (SB81)			Feeder to Station Board - breaker SSB-2	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock	
Station Board SB12 (SB81)			Feeder to Station Board - breaker SSB-4	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Boiler Area MCC BAB3 - breaker SDB-34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	GPB34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	AC34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	CWP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	LDP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	WTP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus DB34 - Breaker DB34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus - D2	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus - DBT	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER, SCHNEIDER 600V		In Stock	
Station Board SB34 (ST34)			breaker ST34 relays	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C		In Stock	



Critical Spares – Thermal Generation

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Station Board SB34 (ST34)			breaker ST34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			breaker SAT34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			breaker SAT34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			TB3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			TB3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB34 (ST34)			Feeder to Station Board - breaker ST34 & relays	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock
Station Board SB34 (ST34)			Feeder to Station Board - breaker TB12 & relays	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock
Station Board SB34 (ST34)			Circuit Breaker TB3	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock
Station Board SB34 (ST34)			breaker PSM3 & relay	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT, SYN5201		In Stock
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C		In Stock
Station Board SB34 (ST34)			TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C		In Stock
Station Board SB34 (ST34)			TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C		In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock
Non-Stock
On Order

Explanation

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System	Sub-System	Asset	Asset			Critical Spare			Inventory Status
			Defined Spare	Notes	Inventory Description	Notes	Inventory Description		
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			Circuit Breaker UB1-1	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A			In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT,SYN5201			In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C			In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C			In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			Circuit Breaker UB2-12	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A			In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT,SYN5201			In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C			In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C			In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Feeder to Power Centre A - A1	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Feeder to Power Centre A - A9	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	Feeder to transformer LT-A - breaker A3	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	Feeder to MCC A1 - breaker A4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V			In Stock	



Critical Spares – Thermal Generation

Inventory Status

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Explanation

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System	Asset		Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Unit Board UB1 (UB1-2)			UB1-4 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock
Unit Board UB1 (UB1-2)			UB1-9 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock
Unit Board UB1 (UB1-2)			UB1-11 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA-2	In Stock
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA-1	In Stock
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMS-1	In Stock
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMH-2	In Stock
Unit Board UB1 (UB1-2)			UB1-3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL551C	In Stock
Unit Board UB1 (UB1-2)			UB1-3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL551C	In Stock
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL551C	In Stock
Unit Board UB1 (UB1-2)			Feeder to Unit Board UB1 - breaker UB1-2	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK VR-250-2000A	BREAKER, EATON 4160V 2000A	In Stock
Unit Board UB1 (UB1-2)			Feeder to transformer ATA - breaker UB1-3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock
Unit Board UB1 (UB1-2)			breaker UB1-4	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock
Unit Board UB1 (UB1-2)			breaker UB1-5	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock
Unit Board UB1 (UB1-2)			breaker UB1-6	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock
Unit Board UB1 (UB1-2)			breaker UB1-7	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock



Critical Spares – Thermal Generation

Inventory Status
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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit Board UB1 (UB1-2)			breaker UB1-8	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB1 (UB1-2)			breaker UB1-9	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB1 (UB1-2)			breaker UB1-10	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB1 (UB1-2)			breaker UB1-11	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY, VOLTAGE ABB SPAU121C		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to Power Centre B - breaker B1	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to transformer LT-B - breaker B4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to MCC B1 - breaker B5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B2	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B8	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER, EATON 600V		In Stock
Unit Board UB2 (UB2-1)			UB2-3 relay	Shares spare with all other P&B Golds devices.	RELAY, RETRO. PBSJ3E5N11		In Stock
Unit Board UB2 (UB2-1)			UB2-4 relay	Shares spare with all other P&B Golds devices.	RELAY, RETRO. PBSJ3E5N11		In Stock
Unit Board UB2 (UB2-1)			UB2-9 relay	Shares spare with all other P&B Golds devices.	RELAY, RETRO. PBSJ3E5N11		In Stock
Unit Board UB2 (UB2-1)			UB2-10 relay	Shares spare with all other P&B Golds devices.	RELAY, RETRO. PBSJ3E5N11		In Stock



Critical Spares - Thermal Generation

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System	Asset		Critical Spare		Inventory Status
	Sub-System	Asset	Defined Spare	Notes	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	In Stock
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	In Stock
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	In Stock
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	In Stock
Unit Board UB2 (UB2-1)			UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	In Stock
Unit Board UB2 (UB2-1)			UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	In Stock
Unit Board UB2 (UB2-1)			Feeder to Unit Board - breaker UB2-1 & relays	Shares spare with Feeder to Station Board - breaker SSB-1.	In Stock
Unit Board UB2 (UB2-1)			Feeder to Transformer ATB, breaker UB2-2	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-4	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-5	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-6	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-7	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-8	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-9	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock
Unit Board UB2 (UB2-1)			UB2-10	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	In Stock



Critical Spares - Thermal Generation

Inventory Status

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Relays	Spares spare with CGE IAC51 and ICA53 devices	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Relays	Spares spare with CGE IAC51 and ICA53 devices	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to Aux Board - breaker UAB-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to transformer LDP-3 - breaker LDP-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to MCC BAB3 - breaker BAB-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	AOP3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	TAB3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	ACL2	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Tie Breaker to Station Board - breaker ATB3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11		In Stock
Unit Board UB3 (UT3)			UT3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UT3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			Feeder to Unit Board - breaker UT3	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A		In Stock
Unit Board UB3 (UT3)			Feeder to transformer UAT3 - breaker UAT3	Shares spare with Feeder to transformer SAT34 - breaker SAT34_5HK-YR-250-1200A	BREAKER,EATON 4160V 1200A		In Stock



Critical Spares – Thermal Generation

Inventory Status

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	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit Board UB3 (UT3)			BFE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			BFV3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			FDE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			FDW3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			CEN3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			CE33	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			CWE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			CWW3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A		In Stock
Unit Board UB3 (UT3)			UT3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY, VOLTAGE ABB SPAU121C		In Stock
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY, VOLTAGE ABB SPAU121C		In Stock
Station Board SB12 (SB1)			SSB-3 Relay	Replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C		In Stock
Station Board SB12 (SB1)			Relays	Replaced by SEL701	RELAY, PROTECTION SEL701		In Stock
Station Board SB12 (SB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to Station Board - breaker SSB-1 & Relays	Direct replacement breaker 5HK-VR-250-2000A	BREAKER, EATON 4160V 2000A		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB SYN5201-0271	SYNCHROCONTACT, SYN5201		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB SPAU121C	RELAY, VOLTAGE ABB SPAU121C		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY, AUXILIARY RXMA-2		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY, AUXILIARY RXMA-1		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY, AUXILIARY RXMS-1		In Stock
Station Board SB12 (SB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY, AUXILIARY RXMH-2		In Stock
Station Board SB34 (ST34)			Breaker PSM3 relay	n/a	RELAY, PROTECTION SEL701		In Stock
Unit Board UB1 (UB1-2)			UB1-5 relay	n/a	RELAY, PROTECTION SEL701		In Stock
Unit Board UB1 (UB1-2)			UB1-6 relay	n/a	RELAY, PROTECTION SEL701		In Stock
Unit Board UB1 (UB1-2)			UB1-7 relay	n/a	RELAY, PROTECTION SEL701		In Stock
Unit Board UB1 (UB1-2)			UB1-8 relay	n/a	RELAY, PROTECTION SEL701		In Stock



Critical Spares - Thermal Generation

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System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB1 (UB1-2)			UB1-10 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB2 (UB2-1)			UB2-5 relay	Replaced by SEL701		RELAY,PROTECTION SEL701	In Stock
Unit Board UB2 (UB2-1)			UB2-6 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB2 (UB2-1)			UB2-7 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB2 (UB2-1)			UB2-8 relay	Replaced by SEL701		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			BF63 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			BFW3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			FDE3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			FDW3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			CEN3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			CES3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			CWE3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			CWM3 relay	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Board UB3 (UB3)			Relays	n/a		RELAY,PROTECTION SEL701	In Stock
Unit Aux Transformer (UAT3)		Aux Board UAB3 (UAB3)	Relays	n/a		RELAY,PROTECTION SEL701	In Stock
Station Board SB12 (SB12)		Power Center C SAB12 (C1)	Feeder to Power Centre - breaker C1	Purchasing re-build kit/critical		BREAKER,EATON 600V	In Stock
Station Board SB12 (SB12)		Power Center C SAB12 (C1)	Feeder to MCC C1 - breaker C2	Purchasing re-build kit/critical		BREAKER,EATON 600V	In Stock
Station Board SB34 (ST34)		Power Center C SAB12 (C1)	Feeder to MCC C1 - breaker C2	Purchasing re-build kit/critical		BREAKER,EATON 600V	In Stock
Station Board SB34 (ST34)		Station Aux Board (SAB34)	Feeder to transformer SAT34 -	Direct replacement breaker 5HK-		BREAKER,EATON 4160V 1200A	In Stock
Station Board SB34 (ST34)		Station Aux Board (SAB34)	Feeder to Station Board - breaker	Purchasing re-build kit/critical		BREAKER,SCHNEIDER 600V	In Stock
Station Board SB34 (ST34)		Station Aux Board (SAB34)	Feeder to Station Board - breaker	Purchasing re-build kit/critical		BREAKER,SCHNEIDER 600V	In Stock
Station Board SB34 (ST34)		Station Aux Board (SAB34)	WAM34	Purchasing re-build kit/critical		BREAKER,SCHNEIDER 600V	In Stock
Unit Board UB1 (UB1-2)		Power Center A UAB1 (A1)	Relays	Shares spare with all other P&B		RELAY,RETRO. PBSJ3E5N11	In Stock
		(Alternate Feed Transfer Bus A9)	Relays	Shares spare with all other P&B		RELAY,RETRO. PBSJ3E5N11	In Stock
Unit Board UB1 (UB1-2)		Power Center A UAB1 (A1)	Relays	Shares spare with CGE IAC51 and		RELAY,OVERCURRENT SEL551C	In Stock
Unit Board UB2 (UB2-1)		Power Center B UAB2 (B1)	Relays	Shares spare with all other P&B		RELAY,RETRO. PBSJ3E5N11	In Stock

Appendix F

Critical Spares Status Listing for Gas Turbine Generation





Critical Spares Status
Hardwoods and Stephenville – Gas Turbines

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
High Energy Ignition Unit, Gas Generator, Prime Mover Systems	In Stock	High	N/A	
Bearing (494047), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Bearing (494056), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Vibration Accelerometer, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Jacking Oil Pump, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Fuel Filter, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Oil Filter Unit - Complete (B.108506), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Filter (494064), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Proximity Switch, Clutch, Prime Mover Systems	In Stock	Medium	N/A	
Alfair Quick Shutoff Valve (AV-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	High	N/A	
Fuel Valve (FC-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	High	N/A	
Fuel Recirculation Solenoid Valve (LF-7), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Fuel Regulator (LF-4), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Jacking Oil Permissive Pressure Switch, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Valve (181536), Power Turbine Model CT2, Prime Mover Systems	In Stock	Low	N/A	
Primary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	High	N/A	
Primary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	High	N/A	
Secondary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	High	N/A	
Secondary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	High	N/A	
Ring that the Primary Pawl and spring are installed	In Stock	Medium	N/A	
Primary Pawl Spring, Clutch, Prime Mover Systems	In Stock	High	N/A	
Primary Pawl, Clutch, Prime Mover Systems	In Stock	High	N/A	
Secondary Pawl, Clutch, Prime Mover Systems	In Stock	Medium	N/A	
Limit Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, SVL GT	In Stock	Medium	N/A	
Thermocouple (181398N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Speed Pickup (181487), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Thermocouple (181397), Power Turbine Model CT2, Prime Mover Systems	In Stock	High	N/A	
Thermocouple (181398N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Probe (181414N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Probe (181414N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Thermocouple (184847), Power Turbine Model CT2, Prime Mover Systems	In Stock	High	N/A	
Motor Operated Tank Shutoff Valve (LF-38), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	High	N/A	
Final Fuel Filter (F-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Heater Filter Coalescer, Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Prefilter, Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
High Efficiency Farr HP-100 Filter (2'x2'x2"), Filter Box - Curtiss Wright, Prime Mover Systems	In Stock	Medium	N/A	
Filter (F-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Unloading Filter, Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	
Duplex 25u Filter (F-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A	
Filter/Coalescer Heater (HTR-LF-1), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	Medium	N/A	
P3 Pressure Transducer (PT-P3-1), Liquid Fuel System, Auxiliary Systems	In Stock	High	N/A	
Fuel Supply Thermocouple (TC-LF-1), Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	
Alternator Cooling Air Temperature Thermocouple (TC-A-1), Alternator Cooling System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	
Common Drain Clutch B Thermocouple (TC-LO-11), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	



Critical Spares Status
Hardwoods and Stephenville – Gas Turbines

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
Compressor Start-Stop Pressure Switch (PS-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Compressor Start-Stop Pressure Switch (PS-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Anti-Icing Hot Air Valve - Complete (810-501-0747), Gas Generator, Prime Mover Systems	In Stock	Low	N/A	
Gas Generator Permissive Start Pressure Switch, Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Starter Overpressure Pressure Switch (PS-CA-3), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Pressure Regulating Valve (LO-8), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A	
Inlet Temperature Thermocouple, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A	
Resistance Temperature Detector Probe, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A	
NC Solenoid Valve (SV-CA-3), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Combustion Chamber, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Lower Fuel Pump Assembly, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Outer Fuel Pump Drive Assembly (BDA.7591), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Upper Fuel Pump Assembly, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Exciter Bearing, 63MVA 50MW Generator, Power Generation Systems	In Stock	High	N/A	
Rotor Bearing, 63MVA 50MW Generator, Power Generation Systems	In Stock	High	N/A	
Pressure Switch, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	
Oil to Clutch A Pressure Transducer (PT-LO-1), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	High	N/A	
Fuel Pressure Transducer (PT-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Oil Pump - Complete, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Outer Oil Pump Drive Assembly (47-1-1-006409), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Outer Starter Drive Assembly (BDA.1153), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Scavenge Pump Assembly (47-1-1-006418), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
HP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	Low	N/A	
LP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	Low	N/A	
Low Liquid Level Alarm Switch (LL-GL-1), MLO/Glycol Cooling System, Auxiliary Systems	In Stock	Medium	N/A	
Heater Control Temperature Switch (TS-GLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A	
Heater Control Temperature Switch (TS-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A	
Final Fuel Filter Differential Pressure Switch (PSD-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Inlet Pressure Transducer, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A	
Clutch Control Solenoid Valve (LO-6), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A	
Proximity Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, HWD GT	In Stock	Low	N/A	
Vibration accelerometer (181571), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Liquid Fuel Burner - Complete (BDC.3026), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
NC Solenoid Valve (SV-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
NO Solenoid Valve (SV-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Pressure Switch, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Pressure Switch, Liquid Fuel System, Auxiliary Systems, HWDGT	In Stock	Medium	N/A	
Pressure Switch, Gas Generator Lube Oil System, Auxiliary System, HWDGT	In Stock	Medium	N/A	
3-Way Thermostatic Valve (GL-2), MLO/Glycol Cooling System, Auxiliary Systems	In Stock	Low	N/A	
Alternator Bearing Drain Oil Thermocouple (TC-LO-3), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	Low	N/A	
Oil Drain Alternator Bearing Thermocouple, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Low	N/A	
Oil Drain Clutch Bearing Thermocouple, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Low	N/A	
Oil Drain Thermocouple (TC-LO-2), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	Low	N/A	
Oil Supply Thermocouple (TC-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Low	N/A	



Critical Spares Status
 Hardwoods and Stephenville – Gas Turbines

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
Fuel Temperature Sensor (TS-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Low	N/A	
Snow Door Pneumatic Cylinder	In Stock	Medium	N/A	

Critical Spares Status
Holyrood – Gas Turbine



Recommended Component	Stock	Risk Score	Expected Delivery	Comments
TURBINE EXHAUST TUNNEL - THERMAL DETECTOR, KIDDE-FENWAL-12-H27121-020-08	Provided Under Service Contract	Medium	N/A	
FIRE CONTROL PANEL TROUBLE ALARM TO DCS, DET-TRONICS:U9500A	Provided Under Service Contract	Low	N/A	
FIRE CONTROL PANEL DISCHARGE -ALARM TO DCS, NOTIFIER-APP-300	Provided Under Service Contract	Low	N/A	
LP COMPRESSOR BLEED VALVE, 18", METSO AUTOMATION:815W 11 22HB XZC VA	In Stock	High	N/A	
HP COMPRESSOR BLEED VALVE, 14", FISHER-A31A-1031/33082 SR80	In Stock	High	N/A	
Module, ControlNet - Combination Generator	On Hand - Under Parts			
Control Module with ControlNet communication	Management-Agreement	High	N/A	
IFM, Analog, 16 channel - Fusible 16 Channel Analog IFM,	On Hand - Under Parts			
24V Blown Fuse Indicators, 5 Terminals per Input, Analog Interface Module	Management-Agreement	Medium	N/A	
IFM, analog, 8 channel - Feed-Through 8 Channel Analog IFM,	On Hand - Under Parts			
3 Terminals per Input, Analog Interface Module	Management-Agreement	Medium	N/A	
IFM, digital, 40 point - 40-Point Isolated Fusible Digital IFM,	On Hand - Under Parts			
5 x 20mm Fuse Clips, 24V AC/DC Blown Fuse Indicators,	Management-Agreement	Medium	N/A	
4 Terminals per Input, Digital Interface Module	Management-Agreement	Medium	N/A	
Module, relay expander - Relay Expander Module,	On Hand - Under Parts			
24V DC, 16 Relays with Fusing	Management-Agreement	Medium	N/A	
10 Slot ControlLogix Chassis	On Hand - Under Parts	Medium	N/A	
4 Slot ControlLogix Chassis	Management-Agreement	Medium	N/A	
ControlNet Interface Module (100 connections)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
ControlNet Redundant Interface Module (100 connections)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
ControlNet Redundant Bridge Module (40-48 connections)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
EtherNet 10-100M Interface Module	On Hand - Under Parts			
(supports 128 TCP/IP connections)	Management-Agreement	Medium	N/A	
EtherNet 10-100M Interface Module	On Hand - Under Parts			
(supports 64 TCP/IP connections)	Management-Agreement	Medium	N/A	
10-30 VDC Isolated Input 16 Pts (36 Pin)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
10-30 VDC Individually Isolated Input 16 Pts (36 Pin)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
Analog Input - Current/Voltage 16 Pts (36 Pin)	On Hand - Under Parts			
Controller, controlLogix 5570, 2MB	Management-Agreement	Medium	N/A	
ControlLogix 5570 Controller with 2 MB Memory,	On Hand - Under Parts			
USB Port, 4 Character Alpha/Numeric Display.	Management-Agreement	High	N/A	
Controller, ControlLogix 5570, 4MB	On Hand - Under Parts			
ControlLogix 5570 Controller with 4 MB Memory, USB Port, 4 Character Alpha/Numeric Display.	Management-Agreement	High	N/A	
10-31 VDC Output 32 Pts (36 Pin)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
10-31 VDC Output 32 Pts (36 Pin)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	
Analog Output - Current/Voltage 8 Pts (20 Pin)	On Hand - Under Parts			
Management-Agreement	Management-Agreement	Medium	N/A	

Critical Spares Status
Holyrood – Gas Turbine



Recommended Component	Stock	Risk Score	Expected Delivery	Comments
ControlLogix, 85-265 VAC Power Supply (10 Amp @ 5V)	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlLogix, 85-265 VAC Power Supply (13 Amp @ 5V)	On Hand - Under Parts Management Agreement	Medium	N/A	
Redundancy Module	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlLogix Position and Time Services	On Hand - Under Parts Management Agreement	Medium	N/A	
Stratix 5700 Switch, Managed, 16 Fast Ethernet Copper Ports, 2 Fast Ethernet Fiber SFP Slots, Lite Software, DLR	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, ControlNet Repeater Adapter Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Long-distance Fiber Ring Repeater Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Long-distance Fiber Ring Repeater Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Right-angle T-tap	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Right-angle Y-tap	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, ControlNet FLEX I/O Adapter Module	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 16 Sink Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 32 Sink Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Module, 16 Bit, 4 Point Isolated	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 2-Channel High Resolution Frequency	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 8 Point RTD	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Non-Isolated, Thermocouple / RTD / Mv	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Thermocouple, 8 Point	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Output Module, 24V DC, 16 Source Outputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Output Module, 24V DC, 32 Source (2 groups of 16)Outputs, Protected	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Output Module, 16 Bit, 4 Point Isolated	On Hand - Under Parts Management Agreement	Low	N/A	
PF750-24V I/O Module-2AI,2AO,6DI,2RO	On Hand - Under Parts Management Agreement	Low	N/A	



Critical Spares Status
Holyrood – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
PowerFlex Architecture Class DeviceNet Communication Adapter	On Hand - Under Parts	Medium	N/A	
PowerFlex 753 AC Drive, With Embedded I/O, Air Cooled, AC Input with DC Terminals, Open Type, 14 Amps, 10HP ND, 7.5HP HD, 480 VAC, 3 PH, Frame 2, Filtered, CM Jumper Removed, DB Transistor, Blank (No	Management Agreement	Medium	N/A	
PowerFlex Architecture Class Remote Enhanced HIM, IP66 (NEMA 4X/12) Indoor Use Only. Includes 1202-C30 cable.	On Hand - Under Parts	Medium	N/A	
PanelView Plus Display Keypad/Touch, 15-inch TFT Display, Color, No Options	Management Agreement	Medium	N/A	
PanelView Plus Display Touch Screen, 12.1-inch TFT Display, None, High Bright	On Hand - Under Parts	Medium	N/A	
ControlNet Scheduled and Unscheduled Communication Module for Marine Certified PanelView Plus 700-1500 and PanelView Plus CE	Management Agreement	Medium	N/A	
PanelView Plus 6 Logic Module, Windows CE 6.0, 80 MB Non Volatile storage for applications, DC Power Input, No Options	On Hand - Under Parts	Low	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 1.0-5.0A, NEMA 2	Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 3-15A, NEMA 2	On Hand - Under Parts	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 5-25A, NEMA 2	Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 2	On Hand - Under Parts	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 3	Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 18-90A, NEMA 3	On Hand - Under Parts	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 0.4-2.0A, NEMA 00	Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 60-302A, NEMA 5	On Hand - Under Parts	Medium	N/A	
ProSoft Technology DNP 3.0 Ethernet Server Communication Module	Management Agreement	Low	N/A	
ProSoft Technology Modbus Master/Slave Enhanced Communication Module	On Hand - Under Parts	Low	N/A	
PURGE SOLENOID REPAIR KIT, SURESITE:3153515	Management Agreement	Low	N/A	
BARKESDALE HEATER CONTROL TEMPERATURE SWITCH, MODEL # T1X-S154-A, STAINLESS STEEL	In Stock	Low	N/A	
VALVE, SHUTDOWN PURGE	In Stock	Low	N/A	
1", OS0065-4 DXP-L21GNEB-JBHC8327G041-125VDC	In Stock	High	N/A	
VALVE, CONTINUOUS PURGE	In Stock	High	N/A	
3", OS0600-4 DXP-L21GNEB-EFHC8321G1	In Stock	High	N/A	
FUSE, LOW VOLTAGE DC	In Stock	Low	N/A	
REPLACEMENT FUSE (LOW VOLTAGE DC PIM), BENTLY NEVADA: 1720045	In Stock	Low	N/A	
MODULE, DC POWER SUPPLY	In Stock	Medium	N/A	
HIGH VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:129486-01	In Stock	Medium	N/A	
MODULE, POWER SUPPLY	In Stock	Medium	N/A	
LOW VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:133292-01	In Stock	Medium	N/A	

Critical Spares Status
Holyrood – Gas Turbine



Recommended Component	Stock	Risk Score	Expected Delivery	Comments
MODULE, POWER INPUT	In Stock	Medium	N/A	
LOW VOLTAGE DC POWER INPUT MODULE (PIM), BENTLY NEVADA:133300-01				
MANUAL, POWER SUPPLY MODULE	In Stock	Medium	N/A	
POWER SUPPLY MODULE, MANUAL, BENTLY NEVADA:129767-01				
E-CELL 55A CURRENT TRANSDUCER, PHOENIX CONTACT:3062518	In Stock	Low	N/A	
E-CELL 32A CONTACTOR, GENERAL ELECTRIC:3060877	In Stock	Low	N/A	
PANEL HEATER 120V 60HZ 400W, PH40011	In Stock	Low	N/A	
SOLAR SPARK PLUG IGNITER, CENTAUR:903316C1	In Stock	Low	N/A	
SHAFT, FISHER	In Stock	Low	N/A	
SHAFT, FISHER:7000400800				
PUMP, CONVERTER CHARGING	In Stock	Low	N/A	
TORQUE CONVERTER CHARGING PUMP, KOENIG:X216228-J				
REPAIR KIT, SSS CLUTCH MINOR	In Stock	Medium	N/A	
REPAIR KIT, SSS CLUTCH MINOR				
KOENIG:SL17998MINKT				
VALVE, CHECK 3"	In Stock	Medium	N/A	
3MB60-6047-WR				
VALVE, SS POPPET CHECK	In Stock	Medium	N/A	
VALVE, SS POPPET CHECK VALVE, SWAGELOCK:SS-6C-1				
SS POPPET CHECK VALVE, SWAGELOCK:SS-6C-1				
VALVE, FUEL CHECK	In Stock	Low	N/A	
FUEL LINE CHECK VALVE, PARKER:10A-CBG8L-10-PF-SS, VOGT:SW9871T,				
VALVE, CHECK	In Stock	High	N/A	
CHECK VALVE, SUN HYDRAULICS:CXDA-XAN				
VALVE, SOLENOID	In Stock	Low	N/A	
SOLENOID VALVE, SUN HYDRAULICS:DIDA-MCN				
VALVE, FUEL BYPASS	In Stock	Low	N/A	
MANUFACTURER:FISHER, MODEL:1008 HANDWHEEL ACTUATOR W/LOCKING MECHANISM, SIZE 40, TRAVEL LENGTH:3/4", CAPABLE OF GIVING PRECISE MANUAL - THROTTLING CONTROL, TRAVEL INDICATOR MOUNTED ON ACTUATOR - YOKE FOR VISUAL VALVE				
PLUG POSITION	In Stock	High	N/A	
REPAIR KIT, BYPASS VALVE				
REPAIR KIT FOR FUEL START-UP BYPASS VALVE, MANUFACTURER:FISHER, MODEL:EZ, SIZE:1", TRIM:1/4" M-FORM, USED FOR THROTTLING ON-OFF CONTROL OF LIQUID OR GASES, SINGLE PORT, GLOBE-STYLE BODY FOR - QUICK CHANGE TRIM & POST GUIDED UNBALANCED VALVE PLUG				
VALVE, PUMP DISCHARGE	In Stock	High	N/A	
PUMP DISCHARGE PRESSURE REGULATING VALVE, MOOG/FISHER:ET-657-DVC-6200, SERIAL # F000642304, TYPE:ET CAV 111, SIZE 1-1/2, PORT SIZE:1-5/16, RATING:CL600/1500 PSI CWP, PLUG:SST, STEM:SST, BODY:STL, SEAT:SST				
VALVE, PRESSURE RELIEF	In Stock	Low	N/A	
HYDRAULIC FLUID PRESS RELIEF VALVE, REXROTH:R900341066				
PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900420276	In Stock	Low	N/A	
VALVE MANIFOLD PRESSURE RELIEF VALVE, REXROTH:R900423723	In Stock	Low	N/A	
MAIN PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900424147	In Stock	Low	N/A	
PRESSURE CONTROL VALVE, SUN HYDRAULICS:RDBA-LAN	In Stock	Low	N/A	
SOLENOID VALVE, TYCO:52-287-10-024	In Stock	Low	N/A	
AIR CONTROL SOLENOID VALVE, 24VDC MINI, INGERSOLL RAND 633658	In Stock	Low	N/A	
VALVE, STOP	In Stock	Low	N/A	
FISHER 3", 560lit:TH66 QS1600-4 DXP-L21GNB				
FILTER, WATER - CLARK RELIANCE 2500PW	In Stock	Low	N/A	
INST AIR DEW POINT ANALYZER, MICHELL INSTRUMENTS:EA-XP-TX-EX1-C1-D1-E2-F1-G1-H1	In Stock	Medium	N/A	
ACTUATOR, TYPE PNEUMATIC RACK & PINION, FLOWSERVE:20E395WZ24D	In Stock	Low	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
ATOMIZING AIR RECEIVER INLET VALVE, WORCESTER:5166TT150	In Stock	Low	N/A	
MODEL AD-1 AUTOMATIC DRAIN VALVE, TYCO:52-793-2-004	In Stock	Low	N/A	
MODEL ASV-1 AUTOMATIC - SHUT-OFF VALVE, TYCO:92-343-1-021	In Stock	Low	N/A	
COMBUSTOR SHELL DISCHARGE - TEMPERATURE THERMOCOUPLE DUPLEX TYPE K	In Stock	Medium	N/A	
COOLING AIR FILTER BLEED DRAIN VALVE, 1", WORCHESTER:B4446 XG SW	In Stock	Low	N/A	
COIL, OVERSPEED TRIP				
ELECTRONIC OVERSPEED TRIP, 9501W38	In Stock	High	N/A	
TORQUE CONVERTER MAGNETIC SPEED PICK-UP COIL, KOENIG:9501W14	In Stock	High	N/A	
1 SERIES NEEDLE VALVE, SWAGELOCK:B-1VM4-S4/SS-1VM4-S4	In Stock	Low	N/A	
FEMALE NEEDLE VALVE, MCMASTER CARR:4644K33, 3/8"NPT	In Stock	Low	N/A	
PARKER VALVE, MODEL# 6Z-PR4-BNT-SS	In Stock	Low	N/A	
GLOBE VALVE, STEEL, VOGT:SW9871T, LUBE OIL FILTER TOWER #1 VENT VALVE	In Stock	Low	N/A	
INDICATOR, SIGHT				
1-1/2", JACOBY:100-S(NF)	In Stock	Low	N/A	
PILLOT VALVE ASSEMBLY, CLIPPARD FV-SP W/M/PA-3P, CLIPPARD:LWT3732	In Stock	High	N/A	
FLOAT, SURESITE:88111	In Stock	Low	N/A	
HYD FLUID SUPPLY FILTER SELECTION VALVE, PALL:1319232	In Stock	Low	N/A	
THROTTLE VALVE, NFBC-1CN	In Stock	Low	N/A	
GASKET, FILTER HOUSING				
GASKET, CLARK RELIANCE:A10137455, NFS# 10117455	In Stock	Low	N/A	
O-RING, BUNA				
HEAD TO BOWL O-RING BUNA, PALL:UK19672	In Stock	Low	N/A	
O-RING, FISHER				
O-RING, FISHER:T1205106562	In Stock	Low	N/A	
BUSHING ASSY, FISHER POT				
POT/BUSHING ASSEMBLY, FISHER:27B6208X012	In Stock	Low	N/A	
FILL KIT, SF6				
ABB BREAKER SF6 FILL KIT, (HECS 80S), S/N 1HC211015861	In Stock	Low	N/A	
BELT, ECODYNE:1320-BLT-S-EHX19-90	In Stock	Medium	N/A	
COUPLING, PUMP/MOTOR				
JOHN CRANE:A045-3578-1270, 1-1/2" - 2-3/8", ROUGH BORE	In Stock	Low	N/A	
PUMP, GEAR				
DANFOSS:BERENDEN FLUID POWER SNP 2/11	In Stock	Medium	N/A	
COUPLING, PUMP-MOTOR				
COUPLING, REKNORD-OMEGA: REX ELASTOMER-ES-4(STANDARD ORANGE),PUMP-MOTOR	In Stock	Low	N/A	
COUPLING, PUMP-MOTOR				
COUPLING, REKNORD-OMEGA: ELASTOMER-ES-5 (STANDARD ORANGE) PUMP-MOTOR	In Stock	Low	N/A	
REPAIR KIT, INJ: PUMP				
CHEMICAL INJECTION PUMP REPAIR KIT, GRAINGER:K4PTC1	In Stock	Medium	N/A	
FILTER, FUEL CAT IR0749				
FOR USE ON STAGE I AND II, EMERGENCY DIESEL MANUAL PRIMING PUMPS, CATERPILLAR #1R-0749	In Stock	Medium	N/A	
ELEMENT 0180MA0003BN (3um), P/N 2059438, SPIN ON ELEMENT, MANUFACTURER:HYDAC	In Stock	Low	N/A	
FILTER, LIQUID FUEL				
CLARK RELIANCE 2200A3	In Stock	High	N/A	
FILTER, AIR (ELEMENT)				
INGERSOLL RAND 32012957	In Stock	Low	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
ELEMENT, PRE-FILTER				
PRE-FILTER ELEMENT .105 SCFM, INGERSOLL RAND 85565679	In Stock	Low	N/A	
FILTER, AIR				
GEN AIR FILTERS, COMPACT FILTER G4/F7 287 X 292 X 300, SIEMENS	In Stock	Medium	N/A	
FILTER, AIR				
GEN AIR FILTERS, COMPACT FILTER, G4/F7 592 X 292 X 300, SIEMENS	In Stock	Medium	N/A	
FILTER KIT, FUEL				
LOW PRESSURE FUEL FILTER REPLACEMENT KIT, CENTAUR:912555C3	In Stock	High	N/A	
KIT, OIL FILTER & O-RING				
LUBE OIL FILTER & O-RING KIT, CENTAUR:9161283C1	In Stock	Low	N/A	
FILTER, FUEL BOOST KIT - LOW PRESSURE, 912343C1	In Stock	Low	N/A	
FILTER, IGV ACTUATOR - MOOG:B64567-1V	In Stock	Medium	N/A	
FILTER, TMP-95 FINAL				
PNEUMAFIL:55253881, V-CELL STMPM16 STATIC BARRIER FILTER, 24"X24"X12", INJECTION MOULDED PLASTIC FRAME, 100%				
SYNTHETIC MEDIA, NEOPRENE SPONGE RUBBER GASKET - DOWN STEAM SIDE				
PRE-FILTER, Z-100	In Stock	Medium	N/A	
PNEUMAFIL:552709C1, PRE-FILTER PANEL, 24"X24"X4"73 (FT) SYNTHETIC MEDIA, PLASTIC FRAME FOR HIGHER PERFORMANCE AND LOWER PRESSURE DROP	In Stock	Medium	N/A	
PRE-FILTER, PARKER AIR DRYER				
PARKER AIR DRYER PRE-FILTER, PARKER FILTER CARTRIDGE# 6C10-050	In Stock	Low	N/A	
AFTER-FILTER, AIR DRYER				
AIR DRYER AFTER FILTER, PN 25-178-50C, PARKER FILTER CARTRIDGE # 10C10-050	In Stock	Low	N/A	
FILTER, PRESSURE				
PALL: ELEMENT HC9600FCP4H	In Stock	Medium	N/A	
ELEMENT, POST FILTER				
POST FILTER ELEMENT .105 SCFM, INGERSOLL RAND 85565661	In Stock	Medium	N/A	
TRANSMITTER, PRESSURE				
ROSEMOUNT:3051S2TG3A2A11A1AM5Q4	In Stock	Medium	N/A	
FILTER, LUBE OIL				
LUBE OIL FILTER, CLARKE RELIANCE:A2200A4, NFS:2200A4	In Stock	High	N/A	
SOFT PARTS KIT, CLARKE RELIANCE:A10400107, NFS:10400107	In Stock	Medium	N/A	
FILTER AUTOMATIC FLOW CONTROL, 4" FNPT, MODEL:ST-400-25, 240GPM, PENTAIR:LWT 3949	In Stock	Medium	N/A	
FILTER AUTOMATIC BACKWASH FLOW CONTROL, 4" FNPT, MODEL:ST-400-25, 245GPM, MODULAR PIPING SUPPLY INC: LWTS430	In Stock	Medium	N/A	
CARTRIDGE, DESICCANT				
PNEUMATIC PRODUCTS:3153517	In Stock	Low	N/A	
FILTER, OIL 275-2604				
OIL FILTER, CAT:275-2604	In Stock	Low	N/A	
FILTER, AIR 4P0710S				
AIR FILTER, CAT: 4P0710	In Stock	Low	N/A	
PRE-FILTER, AIR COOLING				
PRE-FILTER, AIR COOLING	In Stock	Low	N/A	
METER, FLOW				
ROSEMOUNT:30515FC1CS030N065-T33EA1A5Q4E6M5	In Stock	Medium	N/A	
LIQUID FUEL TEMPERATURE TRANSMITTER, ROSEMOUNT 644HAK6M5Q416	In Stock	Medium	N/A	
PUMP SUPPLY PRESSURE SWITCH, CCS 646GGZEM1	In Stock	Medium	N/A	
PUMP DISCHARGE PRESSURE TRANSMITTER, ROSEMOUNT 3051CG5A2A1A5S4C6M5Q4	In Stock	Medium	N/A	
PNEUMATICALLY ACTUATED THROTTLE VALVE, FISHER ET-677-DVC-6200	In Stock	Medium	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
PUMP DISCHARGE PRESSURE SWITCH, CCS 646GZEM5	In Stock	Medium	N/A	
METER, FLOW				
ROSEMOUNT:30515FC1CS030NXT33DAJA5DQ4E6M5	In Stock	Medium	N/A	
CONTROLLER, STEP LIFO				
8 STAGES, SCL4000-8	In Stock	Low	N/A	
LIMIT CONTROLLER (0-2502-F), SA100LKA3-MN-4*NN-D1/Y	In Stock	Low	N/A	
STEP CONTROLLER LIFO (4 STAGES), SCL4000-4	In Stock	Low	N/A	
INSTRUMENT AIR DRYER DIFFERENTIAL PRESSURE, DIFFERENTIAL PRESSURE TRANSMITTER,				
ROSEMOUNT:30515ZCD3A2A11A1AL1L2L4M5Q4	In Stock	Low	N/A	
DIFFERENTIAL PRESSURE SWITCH,JOHNSON CONTROLS:JCI P 233 A-10-AAC	In Stock	Low	N/A	
FUEL OIL INLINE HEATER SUPPLY FLOW SWITCH, MAGNETROL TD2-7D01-0G0 C/W TEA-A110-004, THERMAL DISPERSION FLOW SWITCH	In Stock	Low	N/A	
FUEL UNLOADING PUMPS OUTLET PRESSURE/GAUGE PRESSURE TRANSMITTER, ROSEMOUNT:30515ZTG3A2E11A1AB4K6M5Q4	In Stock	Low	N/A	
FUEL OIL TANK 1 LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVDAM1C1S3	In Stock	Medium	N/A	
FUEL OIL TANK HIGH LEVEL SWITCH, ULTRASONIC GAP LEVEL SWITCH, MAGNETROL:961-2DA0-030 C/W 9A1-A43A-018	In Stock	Medium	N/A	
FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE TRANSMITTER, ROSEMOUNT:644HAK6I6M4	In Stock	Medium	N/A	
FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE RTD, ROSEMOUNT:68 SERIES/0068D21C30A020T26	In Stock	Medium	N/A	
FUEL OIL DAY TANK LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64PNACAM1C1	In Stock	Medium	N/A	
FUEL OIL TANK HIGH LEVEL SWITCH, DISPLACER LEVEL SWITCH, MAGNETROL MODEL # A15-1E2B-HM3, SERIAL # 744243-01-001	In Stock	Medium	N/A	
SWITCH ASSEMBLY, LIMIT				
MICROSWITCH # LSA2B	In Stock	Low	N/A	
CABLE,SOLAR, IGNITER				
CENTAUR:919340C2	In Stock	Medium	N/A	
PICKUP, MAGNETIC				
CENTAUR:P/N 190430-1	In Stock	Medium	N/A	
SWITCH, OVERSPEED				
CENTAUR KIT P/N1071653-2600	In Stock	Medium	N/A	
INLET GUIDE VANE POSITION TRANSMITTER, FISHER:4200 SERIES (4200)	In Stock	Medium	N/A	
RAC FILTER DRAIN SOLENOID VALVE, PARKER:H2223N	In Stock	Low	N/A	
LUBE OIL FILTER DELTA HIGH PRESS SWITCH, MIDWEST:120-AA-09-0-CZ	In Stock	Medium	N/A	
LUBE OIL COOLER OUTLET TEMP GAUGE, ASHCROFT:600B-01-CEXSG	In Stock	Low	N/A	
BEARING LUBE OIL HEADER PRESS#1 LOW, PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J402-146-1521	In Stock	Medium	N/A	
BEARING LUBE OIL PRESSURE CONTROL VALVE, FISHER:ED-655	In Stock	Medium	N/A	
EMERGENCY LUBE OIL PUMP DISCHARGE - PRESSURE SWITCH, UNITED ELECTRIC CONTROLS - J400-146-1521	In Stock	Medium	N/A	
LUBE OIL RESERVOIR VACUUM - PRESSURE INDICATOR, ASHCROFT:45-118775S-04B	In Stock	Low	N/A	
LUBE OIL RESERVOIR TEMPERATURE SWITCH, HONEYWELL:T775A2009	In Stock	Low	N/A	
MAIN LUBE OIL PUMP #1 - DISCHARGE PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J402-164-1521	In Stock	Medium	N/A	
OVERSPEED TRIP SENSOR #1, ELECTRO CORP:3090A35	In Stock	High	N/A	
INLET AIR MANIFOLD PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J400K-455-1520	In Stock	Low	N/A	
DIFFERENTIAL PRESSURE SWITCH, PNEUMAFIL:552033-B1	In Stock	Medium	N/A	
INTAKE AIR STATIC FILTER DIFFERENTIAL- PRESSURE SWITCH, SOR:107AL-K12-PL-F1A	In Stock	Low	N/A	
INLET SCROLL TEMPERATURE TRANSMITTER #1, YOIKAGAWA:YTA320-EA2NN/FU1/D2/Z	In Stock	Low	N/A	
RTD: #1 PRIMARY SIGNAL				
INLET SCROLL RTD #1 PRIMARY SIGNAL, ROSEMOUNT:0078-N-25-N-00-A-060-T26-XA	In Stock	Low	N/A	
INSTRUMENT AIR SYSTEM PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: H122-184, MFG PN 0409-007	In Stock	Low	N/A	
INSTR.AIR COMPRESSOR RECEIVER - LOW PRESSURE ALARM SWITCH, UNITED ELECTRIC CONTROLS: H122-274	In Stock	Low	N/A	



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INST AIR SYSTEM ISOLATION SOLENOID VALVE, ASCO:HCL8316G66MB	In Stock	Low	N/A	
INSTR.AIR COMPRESSOR START STOP, PRESSURE SWITCH, HUBBELL INDUSTRIAL CONTROL: 69HA109779U	In Stock	Low	N/A	
INSTRUMENT AIR COMPRESSOR LOW - OIL LEVEL INDICATOR, INGERSOLL RAND:22102388	In Stock	Low	N/A	
GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:B1T-H04	In Stock	High	N/A	
GENERATOR TURBINE END BEARING - JACKING OIL FLOW SWITCH, MEISTER:DKM/A-1/10	In Stock	High	N/A	
HYD FLUID AIR BLEED VALVE, HYDAC:AEV6/5 00230023	In Stock	Low	N/A	
HYD FLUID PUMP #1 DISCHARGE - PRESSURE SWITCH, REXROTH:HED 3 OAX/63/12	In Stock	Low	N/A	
HYD FLUID RESERVOIR - LEVEL TRANSMITTER, GEMIXT-800	In Stock	Low	N/A	
HYD FLUID RESERVOIR LEVEL INDICATOR, REXROTH:CS3615-244910	In Stock	Low	N/A	
HYD FLUID HEADER SUPPLY - PRESSURE TRANSMITTER, ROSEMOUNT: 305.1TG4A2A21AM5Q4	In Stock	Low	N/A	
HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (OFF), UNITED ELECTRIC CONTROLS: C402-120-1070-M202.135/120F	In Stock	Low	N/A	
HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (ON), UNITED ELECTRIC CONTROLS: C402-120-1070-M202.135/120F	In Stock	Low	N/A	
HYD FLUID RESERVOIR HEATER - TEMPERATURE SWITCH, UNITED ELECTRIC CONTROLS: C402-120-1070-M202.73/86F	In Stock	Low	N/A	
HYD FLUID SUPPLY FILTER - DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ097H	In Stock	Low	N/A	
HYD FLUID RESERVOIR THERMOCOUPLE, OMEGA:NB1-CASS-14U-12" DUAL	In Stock	Low	N/A	
CHLORINE INJECTION FLOW SWITCH, DWYER INSTRUMENTS:FS2	In Stock	Low	N/A	
DOUBLE ACTING PNEUMATIC ACTUATOR, KEYSTONE MORIN, TYCO:MRP 004	In Stock	Low	N/A	
0-500 PRESSURE TRANSMITTER - RO SKID, AUTOMATION DIRECT:PTD25-20-0500H	In Stock	Medium	N/A	
PRESSURE TRANSMITTER, AUTOMATION DIRECT:PTD25-20-0100H, 0-100 PSI - VARIOUS SKIDS	In Stock	Medium	N/A	
ANALOG INPUT CARD FOR PLC, VARIOUS SKIDS, AUTOMATION DIRECT:FO-04AS1	In Stock	Medium	N/A	
VALVE, BALL				
1.5", STAINLESS STEEL, MCMASTER CARR: 45995K84	In Stock	Low	N/A	
PRESSURE SWITCH, BARKSDALE:XIT-4100-25	In Stock	Medium	N/A	
PRESSURE SWITCH, DRUCKSCHALTER: DI TM80 SS	In Stock	Medium	N/A	
LEVEL SWITCH MODULES, SURESITE: 87480	In Stock	Medium	N/A	
ELECTRICAL PACKAGE LOUVER ACTUATOR, ML4115B1008	In Stock	Low	N/A	
MECHANICAL PACKAGE - VENTILATION THERMOSTAT, T631C1012	In Stock	Low	N/A	
E-CELL STACK FITTINGS KIT, GENERAL ELECTRIC:30I9638	In Stock	Low	N/A	
SINGLE POLE RELAYS - VARIOUS SKIDS, AUTOMATION DIRECT:781-1C-120A	In Stock	Low	N/A	
IGV ACT HYD FLUID FILTER- DIFF PRESS HIGH SWITCH, MOOG:G4444-2	In Stock	Medium	N/A	
MULTIFUNCTION MONITOR - ORP OR CONDUCTIVITY, RYAN HERCO:5924-562	In Stock	Low	N/A	
24VDC POWER SUPPLY, AUTOMATION DIRECT:PSB24-060D	In Stock	Low	N/A	
ORP SENSOR, RYAN HERCO:5909-751, RAW WATER PUMP - VARIOUS SKIDS	In Stock	Medium	N/A	
CONDUCTIVITY SENSOR - RO, RYAN HERCO:5926-200	In Stock	Medium	N/A	
MANIFOLD, PRESSURE TRANSMITTER				
ROSEMOUNT 0305RC22B11	In Stock	Low	N/A	
ATOMIZING AIR HEADER PRESSURE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT:305.1S2TG3A2A11A1AM5Q4	In Stock	Low	N/A	
BLUE MOISTURE INDICATOR, INGERSOLL RAND 705001-5P	In Stock	Low	N/A	
THERMOMETER, RESISTANCE				
SIEMENS:WQ 0233 2XPT100, INSTALLATION LENGTH 250MM, HAN 8D	In Stock	Low	N/A	
THERMOCOUPLE, SHELL				
SIEMENS:MQ 0206-PVDF8 3XTCK(K), INSTALLATION LENGTH 375MM, HAN 8D	In Stock	High	N/A	
FUEL OIL UNLOADING FLOW LIQUID TURBINE FLOWMETER, HOFFER FLOW CONTROLS: HO SERIES/6X6-75-1250-CB-1M/XE2-F1CS-EXP	In Stock	Medium	N/A	
HYDRAULIC FLUID PUMP #1 - DISCHARGE PRESSURE INDICATOR, REXROTH:2-1/2/1500PUA31-10A-4 JIC	In Stock	Low	N/A	
HYDRAULIC FLUID CONDITIONING LOOP - FILTER DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ090H	In Stock	Low	N/A	



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RAW WATER FLOW MAGNETIC FLOWMETER, ROSEMOUNT:8705TSA060C1W0N0G1	In Stock	Low	N/A	
RAW WATER STORAGE TANK LEVEL RADAR - LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVCAM1C1S3	In Stock	Low	N/A	
RAW WATER PUMP 1 & 2, DISCHARGE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT: 3051S21G2A2A11A1AB4M5Q4	In Stock	Low	N/A	
REGULATOR, SIGNAL PRESSURE	In Stock	Low	N/A	
STAGE 2 TEMPERATURE CONTROL VALVE - AIR SIGNAL PRESSURE REGULATOR, FISHER:67CF-1663-38656	In Stock	Medium	N/A	
LP COMPRESSOR BLEED VALVE SOLENOID, ASCO:JKC8316G034V	In Stock	High	N/A	
COMPRESSOR BLADE PATH THERMOCOUPLE, DUPLEX TYPE K	In Stock	Low	N/A	
STARTING PACKAGE TORQUE CONVERTER PRESSURE GAUGE, KOENIG:BAC-160-25	In Stock	Low	N/A	
CAPSUHELIC GAUGE 0-6" W.C., PNEUMAFIL:551646-B1	In Stock	Low	N/A	
INTAKE AIR STATIC FINAL-FILTER - DIFFERENTIAL PRESSURE INDICATOR, DWYER INSTRUMENTS:4006	In Stock	Low	N/A	
INTAKE AIR STATIC PRE-FILTER - DIFFERENTIAL PRESSURE INDICATOR, DWYER INSTRUMENTS:4002	In Stock	Low	N/A	
CAPSUHELIC GAUGE 0-2" W.C., PNEUMAFIL:551646-B6	In Stock	Low	N/A	
PRESSURE TRANSMITTER 0-300 PSI 4-20MA, ROSEMOUNT:3051TA3A2B21AES	In Stock	Medium	N/A	
PRESSURE REGULATOR - AIR SUPPLY FROM INST AIR COMPRESSOR, FISHER:F564-29	In Stock	Medium	N/A	
INSTR. AIR COMPRESSOR PRESSURE GAUGE, AIR CENTERS OF FLORIDA:5ZP76	In Stock	Low	N/A	
PRESSURE GAUGE - FOR INSTR AIR COMPRESSOR, ASHCROFT:45-13772204b, RANGE:0-200 PSI	In Stock	Low	N/A	
PRESSURE REGULATING GAUGE - AIR SUPPLY FROM INSTR AIR COMPRESSOR, FAIRCHILD:4066AT	In Stock	Low	N/A	
PRESSURE GAUGE 0-160PSI, LIQUID FILLED BACK MOUNT, STAINLESS STEEL, AUTOMATION DIRECT:G25-SL160-4LB	In Stock	Low	N/A	
PRESSURE GAUGE 0-100PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4LS	In Stock	Low	N/A	
PRESSURE GAUGE 0-100PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4CS	In Stock	Low	N/A	
PRESSURE GAUGE 0-500PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11142N-GF	In Stock	Low	N/A	
PRESSURE GAUGE 0-500 PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11122N-GF	In Stock	Low	N/A	
TRANSMITTER, DEW POINT -100F	In Stock	Medium	N/A	
-40F AND -100F, INGERSOLL RAND P/N 23182603	In Stock	Low	N/A	
TRUCK UPLOADING GROUND VERIFICATION MONITOR, 8030-120 GROUND VERIFICATION MONITOR, CIVACON	In Stock	Low	N/A	
MOTOR, FLAP ACTUATOR	In Stock	Low	N/A	
JOHNSON CONTROLS, JCI M9132-GGA-1	In Stock	Medium	N/A	
BRUSH, CARBON MOTOR	In Stock	Medium	N/A	
1 SET = 2 PIECES, ABB: GPFX052143P0098	In Stock	Medium	N/A	
GENERATOR JACKING OIL - SOLENOID VALVE, SUN HYDRAULICS:DIDA-MCN	In Stock	High	N/A	
MOTOR, 10 HP DC TURNING GEAR	In Stock	Medium	N/A	
KOENIG: D66711A	In Stock	Low	N/A	
MOTOR, BALDOR	In Stock	Medium	N/A	
BALDOR:VEM3770T NEMA	In Stock	Low	N/A	
TURNING GEAR MOTOR BRUSH SET, 419904-51AC	In Stock	Medium	N/A	
COUPLING, PUMP/MOTOR	In Stock	Low	N/A	
SIZE 1040T20, FLEXIBLE GRID TYPE, VERTICAL ORIENTATION, MANUFACTURER:FALK	In Stock	Medium	N/A	
RELAY, DPDT 120VAC	In Stock	Medium	N/A	
RCR8002.120AC	In Stock	Low	N/A	
RELAY, TPDT 120VAC	In Stock	Medium	N/A	
RCP1103.120AC	In Stock	Medium	N/A	
CUT-OUT, AUTO	In Stock	Low	N/A	
AUTO CUT-OUT, CHROMOLOX:168-053169-105	In Stock	Low	N/A	
FUSE, AGC 1A 250V	In Stock	Low	N/A	
AGC 1	In Stock	Low	N/A	
FUSE, AGC 3A 250V	In Stock	Low	N/A	



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FUSE, POWER CLASS J 45A				
A4J45	In Stock	Low	N/A	
FUSE, PRIMARY 20A				
ATQR20	In Stock	Low	N/A	
FUSE, SECONDARY 8A				
ATQR8	In Stock	Low	N/A	
CONTACTOR, 50A 120VAC				
42CF35AF	In Stock	Low	N/A	
FUSE, PANEL HEATER 4.5A				
PANEL HEATER FUSE 4.5A; ATQR4.5	In Stock	Low	N/A	
FUSE, AC 25A				
ATQR25	In Stock	Low	N/A	
FUSE, SIEMENS PG				
SIEMENS PG 840C208F01	In Stock	Low	N/A	
FUSE, 15-0A				
BUSSMAN:LP-CC-15.0	In Stock	Low	N/A	
FUSE, 5.0A				
BUSSMAN:LP-CC-5.0	In Stock	Low	N/A	
FUSE, 1.0A				
BUSSMAN:LP-CC-1	In Stock	Low	N/A	
FUSE, 2.0A 300 VDC				
BUSSMAN:LP-CC-2	In Stock	Low	N/A	
FUSE, 3.0A				
BUSSMAN:LP-CC-3.0	In Stock	Low	N/A	
FUSE, 12A				
FUSE 12A, SIEMENS:S00232012	In Stock	Low	N/A	
FUSE, 2AMP				
FUSE 2 AMP, GMC-2-A, BUSSMAN:GMC-2-A	In Stock	Low	N/A	
FUSE, 3AMP GMC-R				
FUSE 3AMP, BUSSMAN:GMC-3-R	In Stock	Low	N/A	
FUSE, 3A E-CELL				
E-CELL FUSE 3A, BUSSMAN:3060756	In Stock	Low	N/A	
FUSE, 25A E-CELL				
E-CELL FUSE 25A, BUSSMANN:1154697	In Stock	Low	N/A	
FUSE, 2A E-CELL				
E-CELL FUSE 2A, BUSSMANN:3060755	In Stock	Low	N/A	
FUSE, 6A GMC-6A				
6AMP, GMC-6A, BUSSMANN:LWT7345	In Stock	Low	N/A	
FUSE, 1.25A GMC-1.25A				
FUSE 1.25 AMP, GMC-1.25-A, BUSSMANN:LWT9119	In Stock	Low	N/A	
FUSE, 8A E-CELL				
E-CELL FUSE 8A, MERSEN ELECTRIC POWER:3060752	In Stock	Low	N/A	
REPLACEMENT FUSE FOR AC PIMS; BENTLY NEVADA:1720025	In Stock	Low	N/A	
CONTACT BLK INC, SIEMENS:52BAK	In Stock	Low	N/A	
PILOT LIGHT ASSEMBLY AMBER 120VAC, A13200-05	In Stock	Low	N/A	
MODULE, TMR I/O				
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS)(4 X PROX/ACCEL)	In Stock	High	N/A	

Critical Spares Status
Holyrood – Gas Turbine



Recommended Component	Stock	Risk Score	Expected Delivery	Comments
MODULE TMR I/O				
PROX/SEISMIC TMR I/O WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:126632-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O				
PROX/VELOM I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:140471-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O				
PROX/VELOM I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:140482-01	In Stock	High	N/A	
MODULE, SHAFT ABSOLUTE				
SHAFT ABSOLUTE I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:138708-01	In Stock	High	N/A	
PROX/SEISMIC I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:128240-01	In Stock	High	N/A	
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS) (4 X VELOMITER), BENTLY NEVADA:135489-03	In Stock	High	N/A	
SHAFT ABSOLUTE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:138700-01	In Stock	High	N/A	
PROX/SEISMIC I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:128229-01	In Stock	High	N/A	
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS), (2 X PROX/ACCEL + 2 X VELOMITER), BENTLY NEVADA:135489-02	In Stock	High	N/A	
DISCRETE INTERNAL BARRIERS I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:136703-01	In Stock	High	N/A	
3500/42M PROXIMITOR/SEISMIC MONITOR, BENTLY NEVADA:140734-02	In Stock	High	N/A	
DISCRETE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:133434-01	In Stock	High	N/A	
3500 BUFFERED SIGNAL OUTPUT MODULE, BENTLY NEVADA:147364-01	In Stock	High	N/A	
DISCRETE I/O MODULE WITH - INTERNAL TERMINATIONS, BENTLY NEVADA:133422-01	In Stock	High	N/A	
115VAC PILOT LAMP - VARIOUS SKIDS, RADWELL INTERNATIONAL:D5N130	In Stock	Low	N/A	
3500/50 MODULE, BENTLY NEVADA:133388-02	In Stock	High	N/A	
WEATHER STATION DRY BULB TEMP A, VAISALA: HMT3301A0B101CGAB200B01CABAA1	In Stock	Low	N/A	
R-DIODE				
SIEMENS PG:840C411F04	In Stock	Medium	N/A	
F-DIODE				
SIEMENS PG:840C411F03	In Stock	Medium	N/A	
CAPACITOR ASSEMBLY, RC				
SIEMENS PG:153C684	In Stock	Medium	N/A	
DESICCANT, 4-8 GRADE D				
INGERSOLL RAND 50# BAG	In Stock	Low	N/A	
ELECTRICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-160	In Stock	Low	N/A	
MECHANICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-225	In Stock	Low	N/A	
SMOKE DETECTOR, NOTIFIER:FSI-851	In Stock	Low	N/A	
TURBINE ENCLOSURE THERMAL DETECTOR, KIDDE-FENWAL:27121-325	In Stock	Medium	N/A	
E-CELL SOLENOID VALVE, EMERSON:3022390	In Stock	Low	N/A	
STAGE #3 DISC CAVITY TEMPERATURE - CONTROL VALVE, 3", FISHER:A41-1032425A5	In Stock	High	N/A	
LO BEARING PRESSURE REGULATING VALVE, FISHER:44 ACTUATOR 4 BODY 655ED	In Stock	Medium	N/A	
INLET SHUTTLE VALVE, SURESITE:4010031	In Stock	Low	N/A	
TRANSMITTER, GROUND FAULT				
SIEMENS PG:153C691G02	In Stock	Medium	N/A	
BEARING LUBE OIL SUPPLY TEMPERATURE - THERMOCOUPLE, PYCO:02-3174 W/16-0049 (TYPE K)	In Stock	Medium	N/A	
TURBINE GENERATOR SPEED PICK UP, BRAUN:ASS08T165C0.5	In Stock	High	N/A	
GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:81T-H32	In Stock	Medium	N/A	
HYD FLUID CONDITIONING LOOP - PRESSURE INDICATOR, 2-1/2", REXROTH:400PUA31-10A-4 JIC	In Stock	Low	N/A	
HYD FLUID RESERVOIR LOW LEVEL SWITCH, REXROTH:500PUA31-05 2 SW	In Stock	Low	N/A	
SPEED CONTROL, BRONZE, NUMATICS AIMN, EMERSON:LWT21254	In Stock	Low	N/A	
ORP PREAMPLIFIER, RYAN HERCO:5905-273	In Stock	Medium	N/A	



Critical Spares Status
Holyrood – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
THERMOCOUPLE,DISC CAVITY LPG INDUSTRIES INC. P/N: 2335C32-001 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE,DISC CAVITY DISC CAVITY THERMOCOUPLE LPG INDUSTRIES INC. P/N: 2335C32-004 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE,DISC CAVITY DISC CAVITY THERMOCOUPLE LPG INDUSTRIES INC. P/N: 2335C32-003 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
TWO LAYER CONTACT BRUSH, SIEMENS:EMT 513-005, 20X8X32 EG5U/AG20 POLISHING LOOP PRESSURE RELIEF VALVE, REXROTH:R00347261	In Stock	Medium	N/A	
HP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/4SPDT	In Stock	Low	N/A	
LP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/6SPDT	In Stock	Medium	N/A	
TORQUE CONVERTER SPEED PICK UP, ELECTRO CORP:725883	In Stock	Medium	N/A	
SWITCH, STAGER 48-03	In Stock	Low	N/A	
STAGER (110V) SERIES 48-03 -W/HOMING SWITCH, OSMONICS: 48-03	In Stock	Low	N/A	
VALVE, ACTUATOR	In Stock	Low	N/A	
ACTUATOR, VALWORX:561055A, ELECT FOR RO INLET VALVE & RINSE VALVE - RO SKID	In Stock	Low	N/A	
SENSOR, VIBRATION	In Stock	High	N/A	
GENERATOR TURBINE END VIBRATION X, BENTLY NEVADA: 3300 SERIES	In Stock	High	N/A	
TURBINE EXHAUST END VIBRATION X	In Stock	High	N/A	
RELATIVE SENSOR, BENTLY NEVADA: 3500 SERIES	In Stock	Medium	N/A	
ANLZR:COND,8619,24V,4-20MA,;BUR	In Stock	Medium	N/A	
WATERTECH SERVICES: 3059496	In Stock	Medium	N/A	
E-CELL INLINE FLOW SENSOR, BURKERT: 3059466	In Stock	Medium	N/A	
E-CELL PRESSURE SWITCH, AUTOMATION DIRECT:3039305	In Stock	Medium	N/A	
PLC-GE, QP+, 7" COLOR, 24VDC.	In Stock	Medium	N/A	
WATERTECH SERVICES: 3134672	In Stock	Medium	N/A	
SENSOR-FLOW, BUR, INLINE, SE30	In Stock	Medium	N/A	
WATERTECH SERVICES: 3059466	In Stock	Medium	N/A	
E-CELL FLOW SENSOR 8020 SHORT, BURKERT:3033067	In Stock	Low	N/A	
METER, 30-199.9 MV	In Stock	Low	N/A	
E-CELL 30-199.9 MV METER, GENERAL ELECTRIC: 3038073	In Stock	Medium	N/A	
TRANSMITTER, PRESSURE	In Stock	Medium	N/A	
E-CELL PRESSURE TRANSMITTER, BURKERT:3059497	In Stock	High	N/A	
COMBUSTOR SHELL PRESS TRANSMITTER,	In Stock	Low	N/A	
SIEMENS:7MF4233-1HA10-1AC1-Z+B21+Y01+Y15	In Stock	Low	N/A	
BEARING OIL PRESSURE TRANSMITTER,	In Stock	Medium	N/A	
SIEMENS: 7MF4033-1CA10-1AC7-Z+B21+A02+Y01+Y21+Y15+Y16	In Stock	Medium	N/A	
THERMOCOUPLE, TEMPERATURE	In Stock	Medium	N/A	
STARTING PACKAGE MOTOR STATOR - TEMPERATURE THERMOCOUPLE, S102629PD-120T305Z96	In Stock	Medium	N/A	
THERMOCOUPLE, TEMPERATURE	In Stock	Medium	N/A	
STARTING PACKAGE MOTOR FORWARD - BEARING TEMPERATURE T/C, S16820PD-300Z96	In Stock	Medium	N/A	

Critical Spares Status
Holyrood – Gas Turbine



Recommended Component	Stock	Risk Score	Expected Delivery	Comments
SWITCH, AUXILIARY	In Stock	Low	N/A	
AUX SWITCH, SIEMENS:A01LD64				
OIL, COMPRESSOR	In Stock	Medium	N/A	
ALL SEASON SELECT OIL, INGERSOLL RAND 38436721				
KIT, E-CELL CLAMP SET: 3033064	In Stock	Low	N/A	
PLC-AB, ANLG, 4-20, MA, 4IN, 1762-IF4: 1227751	In Stock	Medium	N/A	
SENSOR, CONDUCTIVITY				
SENSOR-COND,PVDF,0.01CEL,BUR,8220: 3059495	In Stock	Medium	N/A	
TERMINAL-FUSE,1P TYPE CG,AB: 1235396	In Stock	Low	N/A	
TERMINAL-FUSE,LED,10-57VAC/VDC,1492-H5: 1152328	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,6A,BUS: 3054531	In Stock	Low	N/A	
FUSE-BLOCK,600V,100A,MODULAR,BUS: 3020468	In Stock	Low	N/A	
FUSE-FAST,700V,80A,BUS: 3010595	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,3.5A,LP-CC,BUS: 3126308	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,2A,BUS: 3060753	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,4A,LP-CC-4,BUS: 3060754	In Stock	Low	N/A	
FUSE-FAST,250V,CERAMIC,1A,BUS: 3055154	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,1A,BUS: 3029658	In Stock	Low	N/A	
FUSE-BLOCK,690V,MIDGET,MERSEN,USM1: 3146420	In Stock	Low	N/A	
PLC-GE,QP+,7" COLOR,24VDC,IC755CSW07CDA: 3134672	In Stock	Medium	N/A	
PLC-AB,DIGITAL,24VDC,8 IN,1762-IQ8: 1224240	In Stock	Medium	N/A	
PLC-AB,20D/12D/4A/4AO,1766-L32BXBA: 3060729	In Stock	Medium	N/A	
XFMR-CONTROL				
XFMR-CNTRL,230/575,115-50/60,500VA,SQ-D: 3060802	In Stock	Medium	N/A	
POWER SUPPLY, 24VDC				
POWER-SUP,PHOENIX,TRIO,24VDC,5A: 3037802	In Stock	Low	N/A	
SWITCH, PUSH BUTTON				
SWITCH-P,B,IEC,INC,MAN,BLK,800FP: 3007466	In Stock	Low	N/A	
SWITCH-PUSH PULL,24VDC,IEC,MUSHRM,IL,RED: 3006380	In Stock	Low	N/A	
RELAY,3PDT,24VDC,10A,700-HA33224: 1152099	In Stock	Medium	N/A	
RELAY,SPDT,24VDC,10A,FINDER,40.31: 3040656	In Stock	Medium	N/A	
E-CELL EDI STACKS, MK3X	In Stock	Medium	N/A	
SEAL MECHANICAL FOR FORWARDING PUMPS: 98511844				
SEAL MECHANICAL FOR RO PUMP: 9644664	In Stock	Low	N/A	
FLOW SENSOR TURBINE W/ CABLE - VARIOUS SKIDS: CW237	In Stock	Low	N/A	
BLUEWHITE CHEMICAL INJECTION PUMP: A1N00F-4T	In Stock	Low	N/A	
SOFT STARTER FOR RO: TLQATS222D24756U	In Stock	Low	N/A	
PLC, PREPROGRAMMED- RO SKID				
PREPROGRAMMED PLC - RO SKID: DO-06DR-RO	In Stock	Medium	N/A	
SWITCH, 3-POSITION, 22MM				
3-POSITION SWITCH 22MM: GCX3320-22	In Stock	Low	N/A	
ACTUATOR ELECT FOR RO INLET VA				
WATERTECH SERVICES: V561055A	In Stock	Low	N/A	
SWITCH, 2-POSITION, 22MM				
2-POSITION SWITCH 22MM: GCX3300	In Stock	Low	N/A	
COLOR TOUCHSCREEN INTERFACE, 6"				
PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE				
PERMEATE PUMP SKID: W5EA9-PERM	In Stock	Medium	N/A	



Critical Spares Status
Holyrood – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
PLC, PREPROGRAMMED - PERMATE SKID				
PREPROGRAMMED PLC - PERMEATE PUMP SKID: DO-06DR-D-PERM	In Stock	Medium	N/A	
PLC, PREPROGRAMMED - RAW WATER SKID				
PREPROGRAMMED PLC - RAW WATER PUMP SKID: DO-06DR-RW	In Stock	Medium	N/A	
COLOR TOUCHSCREEN INTERFACE, 6"				
PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE	In Stock	Medium	N/A	
RAW WATER PUMP SKID: WSEA9-RW				
COLOR TOUCHSCREEN INTERFACE, 8"				
PREPROGRAMMED 8" COLOR TOUCHSCREEN OPERATOR INTERFACE	In Stock	Medium	N/A	
REVERSE OSMOSIS SKID: WSEA9-8RO				
COLOR TOUCHSCREEN INTERFACE, 10"				
PREPROGRAMMED 10" COLOR TOUCHSCREEN OPERATOR INTERFACE	In Stock	Medium	N/A	
REVERSE OSMOSIS SKID: WSEA9-10 RO				
ORP PREAMPLIFIER				
WATERTECH SERVICES: 5909-273	In Stock	Low	N/A	
CONDUCTIVITY MODULE FOR MULTIFUNCTION MONITOR - RO: 5908.494	In Stock	Low	N/A	
Exhaust Thermocouples	In Stock	High	N/A	



Critical Spares Status
Happy Valley – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
Pressure Switch Pressure Switch (PDSH-601; Sheet 1 - Left-Centre), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch High (PSH-620; Sheet 3 - Left), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch High (PSH-621; Sheet 3 - Centre-Left), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch High (PSH-623; Sheet 3 - Top-Left), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch High (PSH-624; Sheet 3 - Top-Left), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch Low (PSL-604; Sheet 2 - Left), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch Low (PSL-609; Sheet 2 - Centre), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch Low (PSL-613; Sheet 3 - Top-Centre), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch Low (PSL-617; Sheet 3 - Low-Centre), Lubrication System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch (E42-PS1; AB4), Glycol Cooling System	In Stock	Medium	N/A	
Pressure Switch Pressure Switch (E42-PS2; AB5.6), Glycol Cooling System	In Stock	Medium	N/A	
THERMOCOUPLE;P&W 1081998 THERMOCOUPLE, IMMERSION FOR PRATT & WHITNEY FT8 GAS TURBINE P&W #1081998	In Stock	Medium	N/A	
Fuel Filter Fuel Fwd. Skid Fuel Filter (E31-F1; E6)	In Stock	High	N/A	
Lube oil filter Lube Oil Skid Fuel Filter (E31-F4; EF4)	In Stock	High	N/A	
DC Fuel pump (E31-P1; E7)	In Stock	High	N/A	
AC Fuel Pump (E31-P3; C7)	In Stock	High	N/A	
Pressure Differential Switch (E31-PDS1; F6) Fuel System	In Stock	Medium	N/A	
Pressure Switch (E31-PS1; D7) Fuel system	In Stock	Medium	N/A	
Pressure Switch (E31-PS2; D7) Fuel system	In Stock	Medium	N/A	
Pressure Switch Low (E31-PSL4; F4), Fuel System	In Stock	Medium	N/A	
Pressure Shutdown Low (E31-PSLL1; F4), Fuel System	In Stock	Medium	N/A	
Solenoid Valve (E31-SV1; E2), Fuel System	In Stock	High	N/A	
Solenoid Valve (E31-SV2; E2), Fuel System	In Stock	High	N/A	
Solenoid Valve (E31-SV3; D2), Fuel System	In Stock	Low	N/A	
Solenoid Valve (E31-SV4; E2), Fuel System	In Stock	Low	N/A	
Solenoid Valve (E31-SV6; D8), Fuel System	In Stock	Low	N/A	
Filter (F-601; Sheet 1 - Centre-Left), Lubrication System	In Stock	High	N/A	
AC Motor (M-601; Sheet 2 - Left), Lubrication System	In Stock	High	N/A	
DC Motor (M-602; Sheet 2 - Low-Left), Lubrication System	In Stock	High	N/A	
Pump (MOP-601; Sheet 2 - Left), Lubrication System	In Stock	High	N/A	
Pressure Regulator Valve (PDCV-601; Sheet 2 - Low-Right), Lubrication System P&W No. CT113037	In Stock	Low	N/A	
Pressure Safety Valve (PSV-601; Sheet 1 - Right), Lubrication System P&W No. CT112530	In Stock	Low	N/A	
Temperature Control Valve (TCV-601; Sheet 1 - Right), Lubrication System	In Stock	Medium	N/A	
Level Switch (LSL-601 & LSIL-601; Sheet 1 - Centre-Right), Lubrication System P&W No. CT110085	In Stock	Low	N/A	



Critical Spares Status
Happy Valley – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
Temperature RTD (TE-601; Sheet 1 - Centre), Lubrication System P&W No. CT112558	In Stock	Low	N/A	
AC Fan Motor (E42-FM1; C7), Glycol Cooling System	In Stock	Low	N/A	
Pump (E42-P1; B5), Glycol Cooling System	In Stock	High	N/A	
AC Pump Motor (E42-PM1; B5), Glycol Cooling System	In Stock	High	N/A	
Pressure Relief Valve (E42-PRV1; AB3.4), Glycol Cooling System	In Stock	Low	N/A	
Self-Actuating Control Valve (E42-TCV1; B6), Glycol Cooling System	In Stock	High	N/A	
Fan Vibration Switch (E42-VSH1; C7.8), Glycol Cooling System	In Stock	Medium	N/A	
Fan Vibration Switch (E42-VSH2; BC7.8), Glycol Cooling System	In Stock	Medium	N/A	
Pneumatic Actuator (E50-PA 1; Sheet 2 - D6), Air Supply System	In Stock	Medium	N/A	
Solenoid Valve (E50-SV1; Sheet 1 - A6), Air Supply System	In Stock	Low	N/A	
Solenoid Valve (E50-SV2; Sheet 1 - C5.6), Air Supply System	In Stock	Low	N/A	
Solenoid Valve (E50-SV3; Sheet 1 - C5.6), Air Supply System	In Stock	Low	N/A	
Solenoid Valve (E50-SV4; Sheet 1 - C3.4), Air Supply System	In Stock	Low	N/A	
Solenoid Valves (E50-SV5 through E50-SV 35; Sheet 2 - B8), Air Supply System	In Stock	Low	N/A	
Solenoid Valve (E50-SV 36; Sheet 2 - C5.6), Air Supply System	In Stock	Low	N/A	
Solenoid Valve (E50-SV 37; Sheet 2 - AB5), Air Supply System	In Stock	Low	N/A	
Limit Switch (E50-V 31; Sheet 2 - BC6.7), Air Supply System	In Stock	Low	N/A	
Limit Switch (E50-V 32; Sheet 2 - B6.7), Air Supply System	In Stock	Low	N/A	
Limit Switch (E50-V 33; Sheet 2 - B6.7), Air Supply System	In Stock	Low	N/A	
Limit Switch (E50-V 34; Sheet 2 - B6.7), Air Supply System	In Stock	Low	N/A	

Appendix G

Critical Spares Status Listing for Hydraulic Generation





Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
BDE - ACCUMULATOR TANK Level switch	In Stock		N/A	N/A
BDE - ACCUMULATOR TANK Pressure switch	In Stock		N/A	N/A
BDE - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
BDE - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
BDE - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
BDE - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
BDE - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
BDE - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
BDE - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
BDE - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
BDE - BDE - PUMP,OIL IMO A3DB-275	In Stock		N/A	N/A
BDE - BEARING KIT,IR 32127474	In Stock		N/A	N/A
BDE - BEARING KIT,IR 32127474	In Stock		N/A	N/A
BDE - BELT,V IR 95100160	In Stock		N/A	N/A
BDE - BELT,V IR 95100160	In Stock		N/A	N/A
BDE - BELT,V IR 95100558	In Stock		N/A	N/A
BDE - BELT,V IR 95100558	In Stock		N/A	N/A
BDE - BOARD ASSY,IRD 24144	In Stock		N/A	N/A
BDE - BOARD ASSY,IRD 24144	In Stock		N/A	N/A
BDE - C/T 50/51	In Stock		N/A	N/A
BDE - CABLE,SERIES 925 RESOLVER	In Stock		N/A	N/A
BDE - CABLE,SERIES 925 RESOLVER	In Stock		N/A	N/A
BDE - CARD,IRD 31649	In Stock		N/A	N/A
BDE - CARD,IRD 31649	In Stock		N/A	N/A
BDE - CARD,PRINTED CIRCUIT	In Stock		N/A	N/A
BDE - CARD,PRINTED CIRCUIT	In Stock		N/A	N/A
BDE - COIL,AB CC236	In Stock		N/A	N/A
BDE - COIL,AB CC236	In Stock		N/A	N/A
BDE - COIL,SULL 250018-971	In Stock		N/A	N/A
BDE - CONTACT,CONTACTOR-TYPE DG-1	In Stock		N/A	N/A
BDE - CONTACT,CONTACTOR-TYPE DG-1	In Stock		N/A	N/A
BDE - CREEP DETECTOR ASSY,129 VCD	In Stock		N/A	N/A
BDE - CREEP DETECTOR ASSY,129 VCD	In Stock		N/A	N/A
BDE - DISCONNECT SWITCH 29-1 - Complete Unit	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE200130R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205011R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205012R0001	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205014R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300661R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300686R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300690R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300698R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300766R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE305043R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE305069R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE30598R1	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - CARD,ABB HIEE401481R0001	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - COIL,ABB HIER464920P1	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - Field Flashing Resistor	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - Field Flashing Resistor	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - MAINBOARD,ABB HIER465176R22	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - RESISTOR,FIELD DISCHARGE	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - SHUNT,ABB UXAB269330R909	In Stock		N/A	N/A
BDE - EXCITATION CONTROLS - VARIATOR,ABB 3ACD5245A003	In Stock		N/A	N/A
BDE - Exciter POWER ELECTRONICS - BRIDGE,ABB S00772	In Stock		N/A	N/A
BDE - Exciter POWER ELECTRONICS - FAN ASSY,ABB 500773	In Stock		N/A	N/A
BDE - Exciter POWER ELECTRONICS - FUSE,ABB 6,6URD32TTF0800	In Stock		N/A	N/A
BDE - Exciter POWER ELECTRONICS - Pulse Transformers	In Stock		N/A	N/A
BDE - Exciter POWER ELECTRONICS - THYRISTOR,ABB 5STP27F1200	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - ARC-CHUTE,ABB UXAB269399R012	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - BREAKER,ABB HIER466757P2331 (entire unit)	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT,ABB UXAB239299R0003	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT,ABB UXAB239260R002	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT,ABB UXAB269399R032	In Stock		N/A	N/A
BDE - FIELD BREAKER Q02 - PANEL EE - SHUNT,ABB UXAB269350R909	In Stock		N/A	N/A
BDE - FILTER,AIR (ELEMENT ONLY)	In Stock		N/A	N/A
BDE - FILTER,COOLANT (ELEMENT ONLY)	In Stock		N/A	N/A
BDE - GAS,INERGEN (350F3)	In Stock		N/A	N/A
BDE - GAS,INERGEN (425F3)	In Stock		N/A	N/A
BDE - GASKET KIT,IR X14531747	In Stock		N/A	N/A
BDE - GASKET SET,IR 30423339	In Stock		N/A	N/A
BDE - GASKET SET,IR 30423339	In Stock		N/A	N/A



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BDE - GASKET,FLEXMASTER 250007-559	In Stock		N/A	N/A
BDE - GASKET,SULL 040517	In Stock		N/A	N/A
BDE - GATE HOIST - BAY D'ESPOIR - ST - Remote I/O Adapter	In Stock		N/A	N/A
BDE - GENERATOR - CREEP DETECTOR ASSY,129 VCD	In Stock		N/A	N/A
BDE - GENERATOR - PLATES,BRAKE (24 PER SET)	In Stock		N/A	N/A
BDE - GENERATOR - SWITCH, WOODWARD 8935-139	In Stock		N/A	N/A
BDE - Generator SLIPRING/BRUSH RIGGING - Brush Holders	In Stock		N/A	N/A
BDE - Generator SLIPRING/BRUSH RIGGING - Carbon Brushes	In Stock		N/A	N/A
BDE - Generator SLIPRING/BRUSH RIGGING - Slip Ring	In Stock		N/A	N/A
BDE - GOVERNOR - BEARING,DASHPOT LINK	In Stock		N/A	N/A
BDE - GOVERNOR - BRACKET, WOODWARD 11002-57	In Stock		N/A	N/A
BDE - GOVERNOR - BRACKET, WOODWARD 91588	In Stock		N/A	N/A
BDE - GOVERNOR - BUSHING, DASHPOT - LARGE	In Stock		N/A	N/A
BDE - GOVERNOR - BUSHING, DASHPOT - SMALL	In Stock		N/A	N/A
BDE - GOVERNOR - BUSHING,PILOT VALVE	In Stock		N/A	N/A
BDE - GOVERNOR - BUSHING, SNAP ACTION	In Stock		N/A	N/A
BDE - GOVERNOR - BUSHING, WW 11002-65	In Stock		N/A	N/A
BDE - GOVERNOR - CABLE,AIRCRAFT 1/4 187083	In Stock		N/A	N/A
BDE - GOVERNOR - CLIP, WW 11002-16	In Stock		N/A	N/A
BDE - GOVERNOR - COIL,DASHPOT	In Stock		N/A	N/A
BDE - GOVERNOR - COIL,PARTIAL SHUTDOWN RESET	In Stock		N/A	N/A
BDE - GOVERNOR - COIL,SHUTDOWN SOLENOID	In Stock		N/A	N/A
BDE - GOVERNOR - COIL,SHUTDOWN SOLENOID 65SD	In Stock		N/A	N/A
BDE - GOVERNOR - COIL, WW 202132	In Stock		N/A	N/A
BDE - GOVERNOR - CONTACT, CONTACTOR-TYPE DG-	In Stock		N/A	N/A
BDE - GOVERNOR - DASHPOT, WW 161314	In Stock		N/A	N/A
BDE - GOVERNOR - DIODE, WW 202891	In Stock		N/A	N/A
BDE - GOVERNOR - DISC, RELIEF VALVE	In Stock		N/A	N/A
BDE - GOVERNOR - DISC, UNLOADER	In Stock		N/A	N/A
BDE - GOVERNOR - FILTER, HYD 932633Q	In Stock		N/A	N/A
BDE - GOVERNOR - GASKET KIT, WOODWARD 8926-137	In Stock		N/A	N/A
BDE - GOVERNOR - GASKET, WOODWARD 1327-816	In Stock		N/A	N/A
BDE - GOVERNOR - GASKET, WOODWARD 206317	In Stock		N/A	N/A
BDE - GOVERNOR - LEVER, CONNECTING LOWER	In Stock		N/A	N/A
BDE - GOVERNOR - LEVER, LOWER FLOATING	In Stock		N/A	N/A
BDE - GOVERNOR - LEVER, UPPER FLOATING	In Stock		N/A	N/A
BDE - GOVERNOR - LINK, WOODWARD 070346	In Stock		N/A	N/A



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BDE - GOVERNOR - LOCKWASHER,BEARING	In Stock		N/A	N/A
BDE - GOVERNOR - MOTOR ASSY,C/W SHAFT & GEAR	In Stock		N/A	N/A
BDE - GOVERNOR - MOTOR ASSY,GATE LIMIT	In Stock		N/A	N/A
BDE - GOVERNOR - MOTOR, VIBRATING OIL	In Stock		N/A	N/A
BDE - GOVERNOR - MOTOR,GOVERNOR SPEED 28 VOLT	In Stock		N/A	N/A
BDE - GOVERNOR - MOTOR,SYNCHRONIZING	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,BALLARM	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,DASHPOT	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,LOWER DRIVE	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,PIVOT	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,WOODWARD 1.1002-71	In Stock		N/A	N/A
BDE - GOVERNOR - PIN,WOODWARD 1.1002-75	In Stock		N/A	N/A
BDE - GOVERNOR - PLUNGER,SNAP ACTION	In Stock		N/A	N/A
BDE - GOVERNOR - POTENTIOMETER,12500H 0.24A	In Stock		N/A	N/A
BDE - GOVERNOR - PUMP,OIL IMO A3DB-275	In Stock		N/A	N/A
BDE - GOVERNOR - RETAINER,SWITCH	In Stock		N/A	N/A
BDE - GOVERNOR - RING,SNAP (PILOT SERVO PLUG)	In Stock		N/A	N/A
BDE - GOVERNOR - ROTOR,BALL HEAD MOTOR	In Stock		N/A	N/A
BDE - GOVERNOR - SOLENOID,125 V DC	In Stock		N/A	N/A
BDE - GOVERNOR - SOLENOID,125VDC 211E	In Stock		N/A	N/A
BDE - GOVERNOR - SPRING,PILOT VALVE LINK	In Stock		N/A	N/A
BDE - GOVERNOR - SPRING,RELIEF	In Stock		N/A	N/A
BDE - GOVERNOR - SPRING,UNLOADER	In Stock		N/A	N/A
BDE - GOVERNOR - STATOR,BALL HEAD MOTOR	In Stock		N/A	N/A
BDE - GOVERNOR - SWITCH,PRESS OIL ALARM	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BALLARM,SPEED SWITCH	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BEARING,PMG P/N Z995205	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BEARING,SPEED SIGNAL	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BEARING,WW 111006	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BEARING,WW 1800125	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BUSHING,URETHANE LOWER D	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - BUSHING,URETHANE UPPER D	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - PIN,BALLARM	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - PIN,DOWEL - SPEED SWITCH	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - PIN,ROCKER ARM	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - PIN,TAPERED	In Stock		N/A	N/A



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BDE - GOVERNOR SPEED GENERATOR - PLATE,MOUNTING - MERCURY	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - RING,ROTOR	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - SPRING,SPEED SWITCH	In Stock		N/A	N/A
BDE - GOVERNOR SPEED GENERATOR - STATOR,P.M.G.	In Stock		N/A	N/A
BDE - GUIDE BEARING SEGMENTS - bearing segments,	In Stock		N/A	N/A
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING,UPPER HEAD COVER P003	In Stock		N/A	N/A
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING,UPPER WICKET	In Stock		N/A	N/A
BDE - Heat Sink Exciter	In Stock		N/A	N/A
BDE - INTAKE GATE - BACKPLANE,6 SLOT MODICON	In Stock		N/A	N/A
BDE - INTAKE STRUCTURE NO. 1 - TRANSMITTER,PRESS 0-6MH20	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - CT 50/51	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - Surge Capacitor	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - Surge Capacitor	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - XFMR,CT 1000:	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - XFMR,CT 13.8KV	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - XFMR,CT 30332313	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - XFMR,CT 800:5	In Stock		N/A	N/A
BDE - ISOLATED PHASE BUS - XFMR,PT 14400KV	In Stock		N/A	N/A
BDE - METER, TEMP DIGITAL	In Stock		N/A	N/A
BDE - METER, TEMP DIGITAL	In Stock		N/A	N/A
BDE - MODULE,ANALOG QUANTUM	In Stock		N/A	N/A
BDE - MODULE,ANALOG QUANTUM	In Stock		N/A	N/A
BDE - MODULE,ANALOG QUANTUM	In Stock		N/A	N/A
BDE - MODULE,ANALOG QUANTUM	In Stock		N/A	N/A
BDE - MODULE,CPU MODICON	In Stock		N/A	N/A
BDE - MODULE,CPU MODICON	In Stock		N/A	N/A
BDE - MODULE,CPU MODICON	In Stock		N/A	N/A
BDE - MODULE,CPU MODICON	In Stock		N/A	N/A
BDE - MODULE,DISCRETE IN	In Stock		N/A	N/A
BDE - MODULE,DISCRETE IN	In Stock		N/A	N/A
BDE - MODULE,DISCRETE IN	In Stock		N/A	N/A
BDE - MODULE,DISCRETE IN	In Stock		N/A	N/A
BDE - MODULE,DISCRETE OUT	In Stock		N/A	N/A
BDE - MODULE,DISCRETE OUT	In Stock		N/A	N/A
BDE - MODULE,DISCRETE OUT	In Stock		N/A	N/A
BDE - MODULE,DISCRETE OUT	In Stock		N/A	N/A
BDE - MODULE,ETHERNET QUANTUM	In Stock		N/A	N/A



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BDE - MODULE,ETHERNET QUANTUM	In Stock		N/A	N/A
BDE - MODULE,ETHERNET QUANTUM	In Stock		N/A	N/A
BDE - MODULE,ETHERNET QUANTUM	In Stock		N/A	N/A
BDE - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - MODULE,HOT STANDBY	In Stock		N/A	N/A
BDE - MODULE,HOT STANDBY	In Stock		N/A	N/A
BDE - MODULE,HOT STANDBY	In Stock		N/A	N/A
BDE - MODULE,HOT STANDBY	In Stock		N/A	N/A
BDE - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - MODULE,RACK FILLER	In Stock		N/A	N/A
BDE - MODULE,RACK FILLER	In Stock		N/A	N/A
BDE - MODULE,RACK FILLER	In Stock		N/A	N/A
BDE - MODULE,RACK FILLER	In Stock		N/A	N/A
BDE - MODULE,RELAY OUT	In Stock		N/A	N/A
BDE - MODULE,RELAY OUT	In Stock		N/A	N/A
BDE - MODULE,RELAY OUT	In Stock		N/A	N/A
BDE - MODULE,RELAY OUT	In Stock		N/A	N/A
BDE - MONITOR,15" TOUCHSCREEN	In Stock		N/A	N/A
BDE - MONITOR,15" TOUCHSCREEN	In Stock		N/A	N/A
BDE - MOTOR,ELECT 15HP 575V	In Stock		N/A	N/A
BDE - MOTOR,ELECT 15HP 575V	In Stock		N/A	N/A
BDE - MOTOR,SYNCHRONIZING	In Stock		N/A	N/A
BDE - MOTOR,SYNCHRONIZING	In Stock		N/A	N/A
BDE - NEUTRAL GROUND TRANSFORMER	In Stock		N/A	N/A
BDE - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - PANEL STATION SERVICE - PH #2 - ACB	In Stock		N/A	N/A
BDE - PEN ARM MOVEMENT ASSY,RECORDR	In Stock		N/A	N/A



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BDE - PEN ARM MOVEMENT ASSY,RECORDR	In Stock		N/A	N/A
BDE - PENSTOCK NO. 1 - TRANSMITTER, PRESS 0-375	In Stock		N/A	N/A
BDE - PENSTOCK NO. 2 - TRANSMITTER, PRESS 0-375	In Stock		N/A	N/A
BDE - PENSTOCK NO. 3 - TRANSMITTER, PRESS 0-375	In Stock		N/A	N/A
BDE - PENSTOCK NO. 4 - TRANSMITTER, PRESS 0-375	In Stock		N/A	N/A
BDE - PICK-UP,MAGNETIC 5430-929	In Stock		N/A	N/A
BDE - PICK-UP,MAGNETIC 5430-929	In Stock		N/A	N/A
BDE - PICK-UP, NON-CONTACT	In Stock		N/A	N/A
BDE - PICK-UP, NON-CONTACT	In Stock		N/A	N/A
BDE - PICK-UP,SPEED SENSING	In Stock		N/A	N/A
BDE - PICK-UP,SPEED SENSING	In Stock		N/A	N/A
BDE - piston D/S	In Stock		N/A	N/A
BDE - piston U/S	In Stock		N/A	N/A
BDE - PISTON,PIN ASSY PE#32054504	In Stock		N/A	N/A
BDE - PISTON,PIN ASSY PE#32054538	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30215222	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30215222	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30215438	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30215438	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30292460	In Stock		N/A	N/A
BDE - PISTON/PIN ASSY,IR 30292460	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,ANALOG QUANTUM	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,CPU MODICON	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,DISCRETE IN	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,DISCRETE OUT	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,ETHERNET QUANTUM	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,GPS QUANTUM	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,HOT STANDBY	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,INTERFACE PLC	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,RACK FILLER	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - MODULE,RELAY OUT	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,125 VDC	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,24 VDC	In Stock		N/A	N/A



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BDE - PLC,Modul Quantum- Modicon - REMOTE I/O HEAD,MODICON	In Stock		N/A	N/A
BDE - POTENTIOMETER,12500H 0.24A	In Stock		N/A	N/A
BDE - POTENTIOMETER,12500H 0.24A	In Stock		N/A	N/A
BDE - POTENTIOMETER,12500H 0.24A	In Stock		N/A	N/A
BDE - POTENTIOMETER,12500H 0.24A	In Stock		N/A	N/A
BDE - POTENTIOMETER,1K OH .244 A	In Stock		N/A	N/A
BDE - POTENTIOMETER,1K OH .244 A	In Stock		N/A	N/A
BDE - POTENTIOMETER,25W 50 OHMS	In Stock		N/A	N/A
BDE - POTENTIOMETER,25W 50 OHMS	In Stock		N/A	N/A
BDE - POTENTIOMETER,SPEED	In Stock		N/A	N/A
BDE - POTENTIOMETER,SPEED	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,125VDC 8A	In Stock		N/A	N/A
BDE - POWER SUPPLY,24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24 VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,24VDC	In Stock		N/A	N/A
BDE - POWER SUPPLY,300W	In Stock		N/A	N/A
BDE - POWER SUPPLY,300W	In Stock		N/A	N/A



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BDE - POWER SUPPLY, 48VDC 240W	In Stock		N/A	N/A
BDE - POWER SUPPLY, 48VDC 240W	In Stock		N/A	N/A
BDE - POWER SUPPLY, IRD PCB 29128	In Stock		N/A	N/A
BDE - POWER SUPPLY, IRD PCB 29128	In Stock		N/A	N/A
BDE - PROBE SYSTEM, CAPACITANCE	In Stock		N/A	N/A
BDE - PROBE SYSTEM, CAPACITANCE	In Stock		N/A	N/A
BDE - PROBE, CAPACITANCE	In Stock		N/A	N/A
BDE - PROBE, CAPACITANCE	In Stock		N/A	N/A
BDE - PROCESSOR, MICRO-CENTRAL	In Stock		N/A	N/A
BDE - PROCESSOR, MICRO-CENTRAL	In Stock		N/A	N/A
BDE - PROCESSOR, PLC	In Stock		N/A	N/A
BDE - PROCESSOR, PLC	In Stock		N/A	N/A
BDE - PROCESSOR, PROG C/W 1772-MJ	In Stock		N/A	N/A
BDE - PROCESSOR, PROG C/W 1772-MJ	In Stock		N/A	N/A
BDE - PROTRACTOR, ANSUL 423958	In Stock		N/A	N/A
BDE - PUMP, OIL IMO A3DB-275	In Stock		N/A	N/A
BDE - RECTIFYING TRANSFORMER - Full Unit	In Stock		N/A	N/A
BDE - RECTIFYING TRANSFORMER - Insulating Fluid	In Stock		N/A	N/A
BDE - REGULATOR KIT, SULL 250019-453	In Stock		N/A	N/A
BDE - RELAY, ADJUSTABLE AC V SENSOR	In Stock		N/A	N/A
BDE - RELAY, ADJUSTABLE AC V SENSOR	In Stock		N/A	N/A
BDE - RELAY, GROUND VOLTAGE	In Stock		N/A	N/A
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock		N/A	N/A
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock		N/A	N/A
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock		N/A	N/A
BDE - RELAY, LEVEL CONTROL #1001	In Stock		N/A	N/A
BDE - RELAY, OVERCURRENT 1600A 3POLE	In Stock		N/A	N/A
BDE - RELAY, UNDERVOLTAGE 125VAC	In Stock		N/A	N/A
BDE - REMOTE I/O HEAD, MODICON	In Stock		N/A	N/A
BDE - REMOTE I/O HEAD, MODICON	In Stock		N/A	N/A
BDE - REMOTE I/O HEAD, MODICON	In Stock		N/A	N/A
BDE - REMOTE I/O HEAD, MODICON	In Stock		N/A	N/A
BDE - RING SET, JR 32194144	In Stock		N/A	N/A
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock		N/A	N/A
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock		N/A	N/A
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock		N/A	N/A
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
BDE - ROTOR POLES - Pole	In Stock		N/A	N/A
BDE - ROTOR SHAFT - Rotating Ring	In Stock		N/A	N/A
BDE - RUNNER - UNIT 1 - BOLT,SHAFT TO RUNNER	In Stock		N/A	N/A
BDE - seal movable	In Stock		N/A	N/A
BDE - seal stationary	In Stock		N/A	N/A
BDE - seal stationary	In Stock		N/A	N/A
BDE - SENSOR,CABLE REEL LINEAR	In Stock		N/A	N/A
BDE - SHAFT,SERVOMOTOR 4140	In Stock		N/A	N/A
BDE - SHAFT,SERVOMOTOR 4140	In Stock		N/A	N/A
BDE - SHAFT,SERVOMOTOR 4140	In Stock		N/A	N/A
BDE - SHAFT,SERVOMOTOR 4140	In Stock		N/A	N/A
BDE - SPILLWAY #1-SALMON RIVE - Lift gearboxes/nuts	In Stock		N/A	N/A
BDE - STATION SERVICE - BDE PH1 - ACB	In Stock		N/A	N/A
BDE - STATION SERVICE - BDE PH1 - Trip Unit - Breker control device	In Stock		N/A	N/A
BDE - stationary ring	In Stock		N/A	N/A
BDE - STATOR ASSEMBLY - BAR,COPPER 1/2"x2"x10'	In Stock		N/A	N/A
BDE - STATOR ASSEMBLY - BAR,ROTOR CONNECTION	In Stock		N/A	N/A
BDE - STATOR ASSEMBLY - BAR,ROTOR CONNECTION	In Stock		N/A	N/A
BDE - STATOR ASSEMBLY - BAR,STATOR	In Stock		N/A	N/A
BDE - STATOR ASSEMBLY - BAR,STATOR	In Stock		N/A	N/A
BDE - STATOR WINDINGS - UNIT 1 - CONNECTOR,STATOR CU	In Stock		N/A	N/A
BDE - STATOR WINDINGS - UNIT 1 to 4 - Coils	In Stock		N/A	N/A
BDE - SURFACE AIR COOLERS - SAC Unit	In Stock		N/A	N/A
BDE - SURFACE AIR COOLERS - Tubes	In Stock		N/A	N/A
BDE - THRUST BEARING SEGMENTS - bearing segments,	In Stock		N/A	N/A
BDE - THRUST/GUIDE BEARING ASSEMBLY - Oil	In Stock		N/A	N/A
BDE - THRUST/GUIDE BEARING ASSEMBLY - Springs	In Stock		N/A	N/A
BDE - THRUST/GUIDE BEARING ASSEMBLY - TRANSMITTER,DIFF	In Stock		N/A	N/A
BDE - THRUST/GUIDE BEARING COOLERS - Cooler	In Stock		N/A	N/A
BDE - TURBINE - Turbine Carbon Seal (Units 1 to 4)	In Stock		N/A	N/A
BDE - TURBINE - Turbine Carobn Seal (Units 5 & 6)	In Stock		N/A	N/A
BDE - TURBINE GUIDE BEARING - Bearing	In Stock		N/A	N/A
BDE - TURBINE GUIDE BEARING - oil cooler	In Stock		N/A	N/A
BDE - Unit 5/6 Rotor Pole	In Stock		N/A	N/A
BDE - Unit 7 Control Board - BOARD,CONTROL	In Stock		N/A	N/A
BDE - Unit 7 DRAFT TUBE-TURBINE - Water Level Probe	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - BOARD,DIGITAL I/O	In Stock		N/A	N/A



Critical Spares Stock Status

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BDE - UNIT 7 EXCITER - BOARD, /O ANALOG	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - BOARD, MEASURING ABB	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - BOARD, POWER SYSTEM STABI	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - CAPACITOR, 20 MF +-10% 150 V	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - COMPONENT, INTEG CCT	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - CONTACT, ISOLATING	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - INTEG CCT	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - MODULE, ABB DCS500B200361	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - PANEL, CONTROL	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - POWER SUPPLY, ABB 3BHE013940R00	In Stock		N/A	N/A
BDE - UNIT 7 EXCITER - RELAY, GROUND VOLTAGE	In Stock		N/A	N/A
BDE - Unit 7 GENERATOR COOLING WATER SYSTEM - TRANSMITTER, DIFF	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - ARC CHUTE, ABB UXAB289199215	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - BREAKER, ABB EZNE1600MS4-B1	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - Charging Motor	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - COIL, SHUNT CLOSING	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - COIL, SHUNT OPENING	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - CONTACT, ABB UXAB239Z60R0	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - Main Fixed Contacts	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - Main Moving Contacts	In Stock		N/A	N/A
BDE - Unit 7 Generator Field Breaker - MOTOR, CHARGING	In Stock		N/A	N/A
BDE - Unit 7 GENERATOR GUIDE BEARING - segments	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - FILTER, HYD 932633Q	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, BALLARM	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, DASHPOT	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, LOWER DRIVE	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, PIVOT	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, ROCKER ARM	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, WOODWARD 11002-71	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PIN, WOODWARD 11002-75	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PLUNGER, SNAP ACTION	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - POTENTIOMETER, 12500H 0.24A	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - PUMP, OIL IMO A3DB-275	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - RETAINER, SWITCH	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - RING, SNAP (PILOT SERVO PLUG)	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - ROTOR, BALL HEAD MOTOR	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - SENSOR, LOAD GOVERNOR	In Stock		N/A	N/A



Critical Spares Stock Status

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BDE - UNIT 7 GOVERNOR - SOLENOID,125 V DC	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - SOLENOID,125VDC 211E	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - SPRING,PILOT VALVE LINK	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - SPRING,SPEED SWITCH	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - STATOR,BALL HEAD MOTOR	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - STATOR,PERMANENT MAGNET	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - SWITCH,PRESS OIL ALARM	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - Unloader/Relief Valve	In Stock		N/A	N/A
BDE - UNIT 7 GOVERNOR - Unloader/Relief Valve	In Stock		N/A	N/A
BDE - Unit 7 HEADCOVER ASSEMBLY - BOTTOM RING P001 bushing	In Stock		N/A	N/A
BDE - Unit 7 HEADCOVER ASSEMBLY - BUSHING,LOWER HEAD COVER P001	In Stock		N/A	N/A
BDE - Unit 7 HEADCOVER ASSEMBLY - PACKING,V-TYPE 3/8 EASY	In Stock		N/A	N/A
BDE - UNIT 7 HYDRAULIC GENERATOR - coolers	In Stock		N/A	N/A
BDE - UNIT 7 NEUTRAL GROUND RESISTOR	In Stock		N/A	N/A
BDE - Unit 7 NEUTRAL GROUND TRANSFORMER - transformer	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - BUSHING,LINK PIN	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - CAP,SHEARPIN	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - LEVER,WICKET GATE	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - Linkage	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - PIN,ECCENTRIC P005	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - PIN,LINK P006	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - PIN,ROD SHEARPIN	In Stock		N/A	N/A
BDE - Unit 7 OPERATING RING - PIN,UPPER DRIVE	In Stock		N/A	N/A
BDE - Unit 7 PMG - BALLARM,SPEED SWITCH	In Stock		N/A	N/A
BDE - Unit 7 PMG - BEARING,PMG P/N Z995205	In Stock		N/A	N/A
BDE - Unit 7 PMG - BEARING,SPEED SIGNAL	In Stock		N/A	N/A
BDE - Unit 7 PMG - BEARING,WW 111006	In Stock		N/A	N/A
BDE - Unit 7 PMG - BEARING,WW 1800125	In Stock		N/A	N/A
BDE - Unit 7 PMG - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock		N/A	N/A
BDE - Unit 7 PMG - BUSHING,URETHANE LOWER D	In Stock		N/A	N/A
BDE - Unit 7 PMG - BUSHING,URETHANE UPPER D	In Stock		N/A	N/A
BDE - Unit 7 PMG - PIN,BALLARM	In Stock		N/A	N/A
BDE - Unit 7 PMG - PIN,DOWEL - SPEED SWITCH	In Stock		N/A	N/A
BDE - Unit 7 PMG - PIN,ROCKER ARM	In Stock		N/A	N/A
BDE - Unit 7 PMG - PIN,TAPERED	In Stock		N/A	N/A
BDE - Unit 7 PMG - PLATE,MOUNTING - MERCURY	In Stock		N/A	N/A
BDE - Unit 7 PMG - RING,ROTOR	In Stock		N/A	N/A



Critical Spares Stock Status

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BDE - Unit 7 PMG - SPRING,SPEED SWITCH	In Stock		N/A	N/A
BDE - Unit 7 PMG - STATOR,P.M.G.	In Stock		N/A	N/A
BDE - Unit 7 RECTIFYING TRANSFORMER	In Stock		N/A	N/A
BDE - Unit 7 ROTOR - Pole	In Stock		N/A	N/A
BDE - Unit 7 ROTOR ASSEMBLY - POLE	In Stock		N/A	N/A
BDE - Unit 7 RUNNER - TURBINE - CARBON SEAL	In Stock		N/A	N/A
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,SERVOMOTOR	In Stock		N/A	N/A
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,V-TYPE 9"X8"ID	In Stock		N/A	N/A
BDE - Unit 7 SERVOMOTOR # 1 - Piston Ring	In Stock		N/A	N/A
BDE - UNIT 7 Slip Ring	In Stock		N/A	N/A
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Brushes	In Stock		N/A	N/A
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Collector rings	In Stock		N/A	N/A
BDE - Unit 7 Spare Pole	In Stock		N/A	N/A
BDE - Unit 7 STATOR WINDINGS - Stator Bars	In Stock		N/A	N/A
BDE - Unit 7 STATOR WINDINGS - Wedges	In Stock		N/A	N/A
BDE - Unit 7 SURFACE AIR COOLERS - Tubes	In Stock		N/A	N/A
BDE - Unit 7 THRUST BEARING - Rotating Ring	In Stock		N/A	N/A
BDE - Unit 7 THRUST BEARING - Thrust Pads	In Stock		N/A	N/A
BDE - Unit 7 THRUST/GUIDE BEARING COOLERS - Coolers	In Stock		N/A	N/A
BDE - UNIT 7 TURBINE - Carbon Seal	In Stock		N/A	N/A
BDE - UNIT 7 TURBINE - turbine bearing	In Stock		N/A	N/A
BDE - UNIT 7 TURBINE - wicket gate	In Stock		N/A	N/A
BDE - Unit 7 TURBINE GUIDE BEARING - bearing	In Stock		N/A	N/A
BDE - Unit 7 VIBRATION MONITORING - PICK-UP,NON-CONTACT	In Stock		N/A	N/A
BDE - Unit 7 VIBRATION MONITORING - PICK-UP,SPEED SENSING	In Stock		N/A	N/A
BDE - Unit 7 VIBRATION MONITORING - POWER SUPPLY,IRD PCB 29128	In Stock		N/A	N/A
BDE - Unit 7 WICKET GATES - GATE, WICKET	In Stock		N/A	N/A
BDE - VALVE,1" THERMAL TRIP	In Stock		N/A	N/A
BDE - VALVE,CONT.1/2 4-WAY SS	In Stock		N/A	N/A
BDE - VALVE,CONT.1/2 4-WAY SS	In Stock		N/A	N/A
BDE - VALVE,CONT.1/2"4-WAY SS	In Stock		N/A	N/A
BDE - VALVE,CONT.1/2"4-WAY SS	In Stock		N/A	N/A
BDE - VALVE,CONTROL 1" SS	In Stock		N/A	N/A
BDE - VALVE,CONTROL 1" SS	In Stock		N/A	N/A
BDE - VALVE,CONTROL 2" SS	In Stock		N/A	N/A
BDE - VALVE,CONTROL 2" SS	In Stock		N/A	N/A



Critical Spares Stock Status

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BDE - VALVE,CONTROL 2" SS	In Stock		N/A	N/A
BDE - VALVE,CONTROL 2" SS	In Stock		N/A	N/A
BDE - WICKET GATES AND LINKAGES - PACKING,V TYPE 2-EASY	In Stock		N/A	N/A
BDE - WICKET GATES AND LINKAGES - PIN,ECCENTRIC	In Stock		N/A	N/A
BDE - WICKET GATES AND LINKAGES - RING,PISTON SERVO MOTOR 18"OD	In Stock		N/A	N/A
BDE - WICKET GATES AND LINKAGES - Shear Pins	In Stock		N/A	N/A
CAT - ACCUMULATOR TANK - Air Admission Valve	In Stock		N/A	N/A
CAT - ACCUMULATOR TANK - COIL AUTO AIR CHARGING SOLIND	In Stock		N/A	N/A
CAT - ARC-CHUTE ABB #15DA045697R1	In Stock		N/A	N/A
CAT - ARC-CHUTE STATION SERVICE, 3 PHASE, 600V	In Stock		N/A	N/A
CAT - BEARING KIT,IR 321.27516	In Stock		N/A	N/A
CAT - BEARING, GUIDE	In Stock		N/A	N/A
CAT - BEARING,BOWL - INTERMEDIATE	In Stock		N/A	N/A
CAT - BEARING,BOWL - TOP	In Stock		N/A	N/A
CAT - BEARING,BRIER HYD33A66	In Stock		N/A	N/A
CAT - BEARING,LINESHAFT	In Stock		N/A	N/A
CAT - BEARING,STUFFING BOX	In Stock		N/A	N/A
CAT - BEARING,SUCTION CASE	In Stock		N/A	N/A
CAT - BELT, V IR 95100558	In Stock		N/A	N/A
CAT - BOARD, CONTROL	In Stock		N/A	N/A
CAT - BOARD, DIGITAL I/O	In Stock		N/A	N/A
CAT - BOARD, I/O ANALOG	In Stock		N/A	N/A
CAT - BOARD, MEASURING ABB	In Stock		N/A	N/A
CAT - BOARD, POWER SYSTEM STABI	In Stock		N/A	N/A
CAT - BRAKING JET ASSEMBLY - Control Valve	In Stock		N/A	N/A
CAT - BREAKER, EXCITER ABB	In Stock		N/A	N/A
CAT - BREAKERS BY BROWN BOVERI, 600V - spare field breaker in used spare exciter	In Stock		N/A	N/A
CAT - Cartridge, Oil Separator	In Stock		N/A	N/A
CAT - COIL, CONTACTOR 130 V 84D418	In Stock		N/A	N/A
CAT - COIL, SHUNT CLOSING	In Stock		N/A	N/A
CAT - COIL, SHUNT OPENING	In Stock		N/A	N/A
CAT - COLLAR,SAND	In Stock		N/A	N/A
CAT - CONTACT, NORMAL LONG 700C	In Stock		N/A	N/A
CAT - CONTACT, NORMAL SHORT 700	In Stock		N/A	N/A
CAT - CONTACT, OVERLAP LONG 700	In Stock		N/A	N/A
CAT - CONTACT, OVERLAP SHORT 70	In Stock		N/A	N/A
CAT - CONTACT,J SOLATING	In Stock		N/A	N/A



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CAT - CONTROLLER, PLC DL05	In Stock		N/A	N/A
CAT - Electronic Governor - BUSHING CABLE PROP VLV,	In Stock		N/A	N/A
CAT - Electronic Governor - CONNECTOR,MLDT ROD BALL	In Stock		N/A	N/A
CAT - Electronic Governor - CONVERTER,SERIAL/ETHERNET	In Stock		N/A	N/A
CAT - Electronic Governor - Deflector proportional	In Stock		N/A	N/A
CAT - Electronic Governor - Guide Ball Slide	In Stock		N/A	N/A
CAT - Electronic Governor - HOLDER,CIRCUIT BREAKER	In Stock		N/A	N/A
CAT - Electronic Governor - INTERFACE,ETHERNET VERSA	In Stock		N/A	N/A
CAT - Electronic Governor - LVDT deflector	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,GE AMPLIFIER	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,GE PT INTERFACE	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,PLUG-IN DIODE	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,VERSAMAX 16 PT	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,VERSAMAX 32 PT	In Stock		N/A	N/A
CAT - Electronic Governor - MODULE,VERSAMAX 4 AO	In Stock		N/A	N/A
CAT - Electronic Governor - PC, Atlas 2	In Stock		N/A	N/A
CAT - Electronic Governor - PC,ATLAS VX WORKS	In Stock		N/A	N/A
CAT - Electronic Governor - Pos:Xducer	In Stock		N/A	N/A
CAT - Electronic Governor - POs:Xducer	In Stock		N/A	N/A
CAT - Electronic Governor - PROBE,SPEED ZVPU	In Stock		N/A	N/A
CAT - Electronic Governor - RELAY,14 PIN PLUG 24VDC	In Stock		N/A	N/A
CAT - Electronic Governor - Rod vdeflector	In Stock		N/A	N/A
CAT - Electronic Governor - VERSAMAX powersupply	In Stock		N/A	N/A
CAT - Element, Air Filter	In Stock		N/A	N/A
CAT - ELEMENT,AFTER FILTER	In Stock		N/A	N/A
CAT - ELEMENT,AIR FILTER	In Stock		N/A	N/A
CAT - ELEMENT,PRE FILTER	In Stock		N/A	N/A
CAT - EXCITATION TRF	In Stock		N/A	N/A
CAT - Exciter # 1 - BOARD POWER SYSTEM STABI,	In Stock		N/A	N/A
CAT - Exciter # 1 - DIGITAL I/O BOARD,	In Stock		N/A	N/A
CAT - Exciter # 1 - Arc Chute	In Stock		N/A	N/A
CAT - Exciter # 1 - BOARD MEASURING,	In Stock		N/A	N/A
CAT - Exciter # 1 - Breaker	In Stock		N/A	N/A
CAT - Exciter # 1 - COIL,SHUNT CLOSING	In Stock		N/A	N/A
CAT - Exciter # 1 - COIL,SHUNT OPENING	In Stock		N/A	N/A
CAT - Exciter # 1 - CONTACT,ISOLATING	In Stock		N/A	N/A
CAT - Exciter # 1 - Control Board	In Stock		N/A	N/A



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CAT - Exciter # 1 - I/O ANALOG BOARD CONTROL,	In Stock		N/A	N/A
CAT - Exciter # 1 - MODULE,THYRISTOR BRIDGE	In Stock		N/A	N/A
CAT - Exciter # 1 - MOTOR,CHARGING	In Stock		N/A	N/A
CAT - Exciter # 1 - PANEL,CONTROL	In Stock		N/A	N/A
CAT - Exciter # 1 - SUPPLY,110-220 VOLT	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Analog Input Transducer	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB 1WX 174-2,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB HIER319619R2,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB KX9170A V1,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN 2010B-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0016A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0025A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0026A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0027A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0031A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN004A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0079A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0083A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0089A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0091A-P,CARD ABB UN0093A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0503A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0510C-9,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0516A,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0900B-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN0901B-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN1001C-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN1004A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UN1024C-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UNC001D-E,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD ABB UNS0026A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD BBC UN0077AP,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD,BBC UN2001F-P	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD\ ABB UN0014B-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CARD\ ABB UN1004A-P,	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - COIL,125 VOLT 60HZ	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - COIL,SHUNT CLOSING	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - CONTROL BOARD,	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
CAT - EXCITER NO. 2 - Field Voltage Transducer	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Fuse 600Amp	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Shunt Voltage Transducer	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Thyristor	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Transformer	In Stock		N/A	N/A
CAT - EXCITER NO. 2 - Unitrol Card	In Stock		N/A	N/A
CAT - Filter, Mat	In Stock		N/A	N/A
CAT - Filter, Oil	In Stock		N/A	N/A
CAT - FILTER,AIR INTAKE - 101T	In Stock		N/A	N/A
CAT - FILTER,ELEMENT 10 MICRON	In Stock		N/A	N/A
CAT - FLOAT - 2315	In Stock		N/A	N/A
CAT - GASKET SET, IR 30423339	In Stock	Item #68001594	N/A	N/A
CAT - GENERATOR - Brake ring	In Stock	Item #58608396	N/A	N/A
CAT - GENERATOR - Brake Solenoid	In Stock	Item #65300060	N/A	N/A
CAT - GENERATOR - Brake valve	In Stock	Item #68001592	N/A	N/A
CAT - GENERATOR - INSLTR,SLIP RING	In Stock	Item #68001591	N/A	N/A
CAT - GENERATOR - MODULE,TYP 1CD 108 M 2-02 vibro-meter	In Stock	Item #60101058	N/A	N/A
CAT - GENERATOR - OVERCURRENT relay	In Stock		N/A	N/A
CAT - GENERATOR - RELAY,TIME DELAY .6 - 1.0	In Stock	Item #58800486	N/A	N/A
CAT - GENERATOR - rotating ring	In Stock	Item #68001626	N/A	N/A
CAT - Generator Bearing - Cooler	In Stock		N/A	N/A
CAT - Governor - JOINT,UNIVERSAL SSG #1787058	In Stock		N/A	N/A
CAT - Governor Control System - CABLE DEFLECTOR FDBK AMP	In Stock		N/A	N/A
CAT - Governor Control System - CABLE FEEDBACK 20'	In Stock		N/A	N/A
CAT - Governor Control System - CABLE FEEDBACK 200'	In Stock		N/A	N/A
CAT - Governor Control System - CABLE FEEDBACK 50'	In Stock		N/A	N/A
CAT - Governor Control System - CABLE PROPORTIONAL VLV	In Stock		N/A	N/A
CAT - Governor Control System - CABLE,NEEDLE FDBK AMP,	In Stock		N/A	N/A
CAT - Governor Control System - CABLE90 DEG.5' ZVPU,	In Stock		N/A	N/A
CAT - Governor Control System - Power Supply	In Stock		N/A	N/A
CAT - Governor Control System - Power Supply 24V	In Stock		N/A	N/A
CAT - Governor Hydraulics - Cooler	In Stock		N/A	N/A
CAT - Governor Hydraulics - Deflector valve	In Stock		N/A	N/A
CAT - Governor Hydraulics - DEFLECTOR,SERVOMOTOR	In Stock		N/A	N/A
CAT - Governor Hydraulics - ELEMENT,FILTER SM 10	In Stock		N/A	N/A
CAT - Governor Hydraulics - ELEMENT,FILTER SM 25	In Stock		N/A	N/A
CAT - Governor Hydraulics - OIL,TURBINE 46 (205L)	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
CAT - Governor Hydraulics - Piston seal 725X8 X3/8	In Stock		N/A	N/A
CAT - Governor Hydraulics - Piston seal 9X8X1/2	In Stock		N/A	N/A
CAT - Governor Hydraulics - PLUG,C/V 010168-390-163	In Stock		N/A	N/A
CAT - Governor Hydraulics - PLUG,C/V 021002-281-208	In Stock		N/A	N/A
CAT - Governor Hydraulics - PLUG,ESCHER WYSS	In Stock		N/A	N/A
CAT - Governor Hydraulics - Pressure Switch	In Stock		N/A	N/A
CAT - Governor Hydraulics - Seal	In Stock		N/A	N/A
CAT - Governor Pumps - INSERT,CURVED JAW SPIDER	In Stock		N/A	N/A
CAT - Governor Pumps - Pump	In Stock		N/A	N/A
CAT - Guide Bearing Segments - Bearing	In Stock		N/A	N/A
CAT - Isolated Phase Bus - PT fuse	In Stock		N/A	N/A
CAT - Lightning Arrestor - Surge Suppressor	In Stock		N/A	N/A
CAT - MODULE, THYRISTOR BRIDGE	In Stock		N/A	N/A
CAT - MODULE, THYRISTOR BRIDGE	In Stock		N/A	N/A
CAT - MOTOR, CHARGING	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Amplifier/proportional	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - BUSHING NOZZLE 374527007/P001	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT 20,	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT,	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Casing guide D/S	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Casing guide U/S	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CHAIN,DBS FCS-A1-15	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - CONTROL DEVICE,NEEDLE	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Needle seat	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Seal	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - seal piston ring	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Shuttle Valve	In Stock		N/A	N/A
CAT - NEEDLE VALVE ASS (6) - Tip	In Stock		N/A	N/A
CAT - Oil, Cooling Compressor	In Stock		N/A	N/A
CAT - Oil,TURBINE 46 (205L)	In Stock		N/A	N/A
CAT - OPERATOR,WORM GEAR 8"	In Stock		N/A	N/A
CAT - O-RING, NOZZLE M868 X 4	In Stock		N/A	N/A
CAT - PANEL, CONTROL	In Stock		N/A	N/A
CAT - PISTON/PIN ASSY, IR 30215222	In Stock		N/A	N/A
CAT - PISTON/PIN ASSY, IR 30215438	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
CAT - PISTON/PIN ASSY, IR 30292460	In Stock		N/A	N/A
CAT - POTENTIAL TRANSFORMER	In Stock		N/A	N/A
CAT - POWER SUPPLY, 110-220 VOLT	In Stock		N/A	N/A
CAT - POWER TUNNEL (ROCKCUT) - Seal, Adit Door	In Stock		N/A	N/A
CAT - RECTIFIER, BRIDGE 250JB6L-8338	In Stock		N/A	N/A
CAT - RECTIFIER, BRIDGE 35MB60A-8419	In Stock		N/A	N/A
CAT - RECTIFIER, BRIDGE 35MB60A-8421	In Stock		N/A	N/A
CAT - RELAY, ASEA RXSF1, RK271 0	In Stock		N/A	N/A
CAT - RING SET, IR 32194144	In Stock		N/A	N/A
CAT - RING SET, IR 32194276	In Stock		N/A	N/A
CAT - RING SET, IR 37138146	In Stock		N/A	N/A
CAT - RING/GASKET KIT, IR 32133969	In Stock		N/A	N/A
CAT - Rotating Ring	In Stock		N/A	N/A
CAT - Rotating Ring	In Stock		N/A	N/A
CAT - Rotating Ring	In Stock		N/A	N/A
CAT - ROTOR - GENERATOR - Pole	In Stock		N/A	N/A
CAT - Rotor Poles - Entire Pole	In Stock		N/A	N/A
CAT - SEAL, OIL IR 32204562	In Stock		N/A	N/A
CAT - SEAL, SPHERICAL VALVE	In Stock		N/A	N/A
CAT - SEAL, SPHERICAL VALVE	In Stock		N/A	N/A
CAT - SEAL, SPHERICAL VALVE	In Stock		N/A	N/A
CAT - Slipring/brush Riggering Assembly - Brush Holder	In Stock		N/A	N/A
CAT - Slipring/brush Riggering Assembly - Brushes	In Stock		N/A	N/A
CAT - Slipring/brush Riggering Assembly - Insulator	In Stock		N/A	N/A
CAT - Slipring/brush Riggering Assembly - Ring, Collector Assembly	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Arc Chute	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - COIL,CLOSING 129 V DC	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Contact 1600Amp	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Contact Moving Arc	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Contat Stationary Arc	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - CT 400-800	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - CT 800-1600	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Main Drawout Contact	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Trip Coil	In Stock		N/A	N/A
CAT - STATION SERVICE SYSTEM - Undervoltage Coil	In Stock		N/A	N/A
CAT - Stator Assembly - BAR STATOR BOTTOM,	In Stock		N/A	N/A
CAT - Stator Assembly - BAR STATOR TOP,	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
CAT - Stator Assembly - CAP STATOR WINDING END,	In Stock		N/A	N/A
CAT - Stator Assembly - Connector	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR ASM 105	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR ASM 107	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR ASM 108	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR ASM 109	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - Stator Assembly - Slider	In Stock		N/A	N/A
CAT - Stator Assembly - Slider	In Stock		N/A	N/A
CAT - Stator Assembly - Slider	In Stock		N/A	N/A
CAT - Stator Assembly - Wedge	In Stock		N/A	N/A
CAT - Stator Assembly - Wedge	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR ASM 105	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR ASM 107	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR ASM 108	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR ASM 109	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock		N/A	N/A
CAT - SURFACE AIR COOLERS - Surface Air Cooler	In Stock		N/A	N/A
CAT - SWITCH,DIFFERENTIAL PRES	In Stock		N/A	N/A
CAT - TEXT DISPLAY,AIR DRYER	In Stock		N/A	N/A
CAT - THRUST BEARING - thrust pads	In Stock		N/A	N/A
CAT - Thrust Bearing Segements - Segments	In Stock		N/A	N/A
CAT - Thrust Pads	In Stock		N/A	N/A
CAT - THYRISTOR, ABB CS411-20	In Stock		N/A	N/A
CAT - Turbine - Runner	In Stock		N/A	N/A
CAT - Turbine Guide Bearing - Bearing	In Stock		N/A	N/A
CAT - VALVE ASSEMBLY 35 GA	In Stock		N/A	N/A
CAT - VALVE ASSEMBLY 55 GA	In Stock		N/A	N/A
CAT - VALVE/GASKET KIT, IR 32133951	In Stock		N/A	N/A
Cat- minimal pressure Valve	In Stock		N/A	N/A
Cat- Turbine Bearing Cooler	In Stock		N/A	N/A
EBBE - GEAR,HANDWHEEL	In Stock		N/A	N/A
EBBE - GEAR,HELICAL SET	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
EBBE - GEAR,WORM 16:1 RATIO	In Stock		N/A	N/A
EBBE - LINK,DECLUTCH	In Stock		N/A	N/A
EBBE - PIN,FORK PIVOT	In Stock		N/A	N/A
GCL - Bar, Stator Bottom	In Stock		N/A	N/A
GCL - Bar, Stator Top	In Stock		N/A	N/A
GCL - Base, Smoke Detector	In Stock		N/A	N/A
GCL - Bearing, Guide GE	In Stock		N/A	N/A
GCL - Bearing, Pivoted Guide	In Stock		N/A	N/A
GCL - Bearing, Pivoted Guide GE	In Stock		N/A	N/A
GCL - Bearing, Thrust	In Stock		N/A	N/A
GCL - Bearing, Thrust	In Stock		N/A	N/A
GCL - Bell, Fire Alarm 10"	In Stock		N/A	N/A
GCL - BELT SET, V (4 PC)	In Stock		N/A	N/A
GCL - BELT SET, V (4 PC)	In Stock		N/A	N/A
GCL - BELT SET, V (4 PC)	In Stock		N/A	N/A
GCL - Breaker, Volt Autom	In Stock		N/A	N/A
GCL - Breaker, Volt Automatic	In Stock		N/A	N/A
GCL - Brush, Carb Metric	In Stock		N/A	N/A
GCL - Bushing, Bottom Shaft	In Stock		N/A	N/A
GCL - Bushing, HV ABB TO25W0412AT	In Stock		N/A	N/A
GCL - Bushing, Packing Gland	In Stock		N/A	N/A
GCL - Card Measuring SDCS-Pin51	In Stock		N/A	N/A
GCL - Card, Analog I/O	In Stock		N/A	N/A
GCL - Card, Digital I/O ABB	In Stock		N/A	N/A
GCL - Card, EXT I/O ABB	In Stock		N/A	N/A
GCL - CMU	In Stock		N/A	N/A
GCL - Contactor, AE LINE 125VDC	In Stock		N/A	N/A
GCL - Control Board, SDCS-CON-2	In Stock		N/A	N/A
GCL - Detector, heat 135F	In Stock		N/A	N/A
GCL - Detector, Heat 281B-PL	In Stock		N/A	N/A
GCL - Detector, Smoke EC30DU-3	In Stock		N/A	N/A
GCL - Device, Surge Suppression	In Stock		N/A	N/A
GCL - ETH Card	In Stock		N/A	N/A
GCL - Excitation Transformer	In Stock		N/A	N/A
GCL - Fan, Cooling 27" ABB	In Stock		N/A	N/A
GCL - FILTER, AIR CARTRIDGE	In Stock		N/A	N/A
GCL - FILTER, AIR CARTRIDGE	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - FILTER, AIR CARTRIDGE	In Stock		N/A	N/A
GCL - FILTER, ELEMENT	In Stock		N/A	N/A
GCL - FILTER, ELEMENT	In Stock		N/A	N/A
GCL - FILTER, ELEMENT	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, INLINE	In Stock		N/A	N/A
GCL - FILTER, MAT	In Stock		N/A	N/A
GCL - FILTER, MAT	In Stock		N/A	N/A
GCL - FILTER, MAT	In Stock		N/A	N/A
GCL - FILTER, OIL KAESER	In Stock		N/A	N/A
GCL - FILTER, OIL KAESER	In Stock		N/A	N/A
GCL - FILTER, OIL KAESER	In Stock		N/A	N/A
GCL - Fuse,1250A 690V 170M6166	In Stock		N/A	N/A
GCL - Gas, Inergen (350F3)	In Stock		N/A	N/A
GCL - Gas, inergen (425F3)	In Stock		N/A	N/A
GCL - Generator - Bottom Stator Bars (18)	In Stock		N/A	N/A
GCL - Generator - Converter, RTD Temperature	In Stock		N/A	N/A
GCL - Generator - Converter, RTD Universal	In Stock		N/A	N/A
GCL - Generator - Creep Detector ASSY, 129 V	In Stock		N/A	N/A
GCL - Generator - Device, Surge Suppression	In Stock		N/A	N/A
GCL - Generator - Fuse, TEMP Limiter	In Stock		N/A	N/A
GCL - Generator - Fuse, Voltage XFMR	In Stock		N/A	N/A
GCL - Generator - Guide Bearing, GE	In Stock		N/A	N/A
GCL - Generator - Jumper Pole ASM #2	In Stock		N/A	N/A
GCL - Generator - Jumper Pole ASM #3	In Stock		N/A	N/A
GCL - Generator - Jumper Pole ASM #4	In Stock		N/A	N/A
GCL - Generator - Jumper, Pole ASM #1	In Stock		N/A	N/A
GCL - Generator - Level, Indicator Magnetic	In Stock		N/A	N/A
GCL - Generator - Oil, Turbine 46 (205L)	In Stock		N/A	N/A
GCL - Generator - Packing, V-Type GE	In Stock		N/A	N/A
GCL - Generator - Pin, Taper 25MM x 90MM	In Stock		N/A	N/A
GCL - Generator - Plate, Brake GE	In Stock		N/A	N/A
GCL - Generator - Plate, Locating Pivoted	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - Generator - Pole, Wound GE	In Stock		N/A	N/A
GCL - Generator - Probe, 741 GE	In Stock		N/A	N/A
GCL - Generator - RTD, 12.5" -50-550 DEG	In Stock		N/A	N/A
GCL - Generator - RTD, 17" -50-550 DEG C	In Stock		N/A	N/A
GCL - Generator - Top Stator Bars (36)	In Stock		N/A	N/A
GCL - Governor Control System - POWER SUPPLY,18-32VDC	In Stock		N/A	N/A
GCL - Governor Control System - Pressure Switch	In Stock		N/A	N/A
GCL - Governor Control System - TRANSMITTER,PRESS 0-2000	In Stock		N/A	N/A
GCL - Governor Control System - TRANSMITTER,TEMP 4-20 MA	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Filter, Element NS-7	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Joint, Shaft Parker	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Pump, Vane Vick	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Seal, Polypak "U" Cup	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Valve, Check 1 6000 psi	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Valve, Proportional	In Stock		N/A	N/A
GCL - Governor Hydraulic System - Valve, Relief	In Stock		N/A	N/A
GCL - Holder, Brush Metric	In Stock		N/A	N/A
GCL - Inflatable Seal	In Stock		N/A	N/A
GCL - Jumper, Pole ASM #1	In Stock		N/A	N/A
GCL - Jumper, Pole ASM #2	In Stock		N/A	N/A
GCL - Jumper, Pole ASM #3	In Stock		N/A	N/A
GCL - Jumper, Pole ASM #4	In Stock		N/A	N/A
GCL - Key, Pole Driven	In Stock		N/A	N/A
GCL - Key, Pole Stationary	In Stock		N/A	N/A
GCL - Locating Plate, Pivoted	In Stock		N/A	N/A
GCL - LVDT	In Stock		N/A	N/A
GCL - Measuring Board ABB	In Stock		N/A	N/A
GCL - Media converter	In Stock		N/A	N/A
GCL - MLDT	In Stock		N/A	N/A
GCL - Module, Control Relay	In Stock		N/A	N/A
GCL - Module, Serial processor	In Stock		N/A	N/A
GCL - Nut, Hex M30X3.5-6H	In Stock		N/A	N/A
GCL - Oil, Turbine 46 (205L)	In Stock		N/A	N/A
GCL - Operating Ring - BUSHING,GE 226043126X015	In Stock		N/A	N/A
GCL - Operating Ring - Washer, Ring Seal	In Stock		N/A	N/A
GCL - Panel, Service UNS 0874A-P	In Stock		N/A	N/A
GCL - PIN,TAPER 25MM X 90MM	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - Pole, Wound GE	In Stock		N/A	N/A
GCL - POTENTIAL TRANSFORMER	In Stock		N/A	N/A
GCL - Power Supply	In Stock		N/A	N/A
GCL - Power Supply, SDCS-POWL	In Stock		N/A	N/A
GCL - PowerSupply, UNS0868A-P	In Stock		N/A	N/A
GCL - Probe, 741 GE	In Stock		N/A	N/A
GCL - Pump, Vane Vick	In Stock		N/A	N/A
GCL - Relay, Low Voltage	In Stock		N/A	N/A
GCL - Relay, Overload	In Stock		N/A	N/A
GCL - Relay, Overload 0.32-1.0A	In Stock		N/A	N/A
GCL - Relay, Overload 1.6-5.0A	In Stock		N/A	N/A
GCL - Relay, Overload 3.7-12A	In Stock		N/A	N/A
GCL - RELAY,11 PIN 24V	In Stock		N/A	N/A
GCL - RELAY,110-125V	In Stock		N/A	N/A
GCL - RELAY,110-125V ABB	In Stock		N/A	N/A
GCL - RELAY,110-125VDC	In Stock		N/A	N/A
GCL - RELAY,120V 10A DPDT	In Stock		N/A	N/A
GCL - RELAY,14 PIN 110/120 VAC	In Stock		N/A	N/A
GCL - RELAY,8 PIN 110/120VAC(S)	In Stock		N/A	N/A
GCL - RELAY,8 PIN 120V AC/DC	In Stock		N/A	N/A
GCL - RELAY,8 PIN DPDT	In Stock		N/A	N/A
GCL - RELAY,ANTI-PUMP	In Stock		N/A	N/A
GCL - RELAY,AUX 48VDC	In Stock		N/A	N/A
GCL - RELAY,BREAKER FAIL	In Stock		N/A	N/A
GCL - RELAY,BUSHHOLZ 250V 2AMP	In Stock		N/A	N/A
GCL - RELAY,CONTROL 120V 60HZ	In Stock		N/A	N/A
GCL - RELAY,CONTROL 120V 60HZ	In Stock		N/A	N/A
GCL - RELAY,CONTROL 120V 60HZ	In Stock		N/A	N/A
GCL - RELAY,CONTROL 125VDC	In Stock		N/A	N/A
GCL - RELAY,CONTROL 24VDC	In Stock		N/A	N/A
GCL - RELAY,FAST TRIPPING 125V	In Stock		N/A	N/A
GCL - RELAY,INTERPOSING	In Stock		N/A	N/A
GCL - RELAY,LOCKOUT 125V	In Stock		N/A	N/A
GCL - RELAY,LOCKOUT 125V	In Stock		N/A	N/A
GCL - RELAY,OVERCURRENT	In Stock		N/A	N/A
GCL - RELAY,OVERLOAD	In Stock		N/A	N/A
GCL - RELAY,OVERLOAD CH C306DN3B	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - RELAY,PLUG-IN 14 PIN	In Stock		N/A	N/A
GCL - RELAY,PLUG-IN 14 PIN DC	In Stock		N/A	N/A
GCL - RELAY,PUSHBUTTON 110V	In Stock		N/A	N/A
GCL - RELAY,PUSHBUTTON 125V	In Stock		N/A	N/A
GCL - RELAY,RESIDUAL	In Stock		N/A	N/A
GCL - RELAY,THERMISTOR 110V	In Stock		N/A	N/A
GCL - RELAY,TIME 24-230V AC/DC	In Stock		N/A	N/A
GCL - RELAY,TIME TYPE SGDM-1	In Stock		N/A	N/A
GCL - RELAY,TRIP CIRCUIT	In Stock		N/A	N/A
GCL - RELAY,VOLTAGE UNBALANCE	In Stock		N/A	N/A
GCL - Ring Assembly, Collector	In Stock		N/A	N/A
GCL - Ring Assy, Collector	In Stock		N/A	N/A
GCL - Ring, Rotating GE	In Stock		N/A	N/A
GCL - Ring, Sealing C/W Spring	In Stock		N/A	N/A
GCL - RTD, 12.5" -50-550 Deg	In Stock		N/A	N/A
GCL - RTD, 12.5" -50-550 Deg	In Stock		N/A	N/A
GCL - RTD, 17" -50-550 Deg C	In Stock		N/A	N/A
GCL - RTD, 17" -50-550 Deg C	In Stock		N/A	N/A
GCL - Runner - Seal, 770mm x 730mm x 25mm	In Stock		N/A	N/A
GCL - SCREW,CAP M30X3.5-6GX130MM	In Stock		N/A	N/A
GCL - Seal, Top Guide Bearing	In Stock		N/A	N/A
GCL - Servomotor - Rod, Seal H092-730	In Stock		N/A	N/A
GCL - Servomotor - Rod, Seal H254-918	In Stock		N/A	N/A
GCL - Servomotor Assembly - Ring, Piston GE	In Stock		N/A	N/A
GCL - Shim, GE 007	In Stock		N/A	N/A
GCL - Shim, GE 008	In Stock		N/A	N/A
GCL - Shoe, brake GE 6201B6815L005	In Stock		N/A	N/A
GCL - Sleeve, Shaft	In Stock		N/A	N/A
GCL - SOCKET,RELAY 14 PIN 5A	In Stock		N/A	N/A
GCL - SOCKET,RELAY 8 PIN 7A	In Stock		N/A	N/A
GCL - Speed Signal Generator - Pickup, Zero Velocity	In Stock		N/A	N/A
GCL - Spring Assy, Thrust	In Stock		N/A	N/A
GCL - Spring, GE	In Stock		N/A	N/A
GCL - Spring, GE	In Stock		N/A	N/A
GCL - Stick, Joint Horz	In Stock		N/A	N/A
GCL - Stick, Joint Vert	In Stock		N/A	N/A
GCL - Surface Air Coolers - Cooler, Surface Air	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - Switch, 20-160 ABB 104-324-46	In Stock		N/A	N/A
GCL - Switch, Press 200 PSI 15A	In Stock		N/A	N/A
GCL - Switch, Press Actuated	In Stock		N/A	N/A
GCL - Switch, Press Gran 20W	In Stock		N/A	N/A
GCL - Synchronizer	In Stock		N/A	N/A
GCL - Thermometer, ADJ 0-55	In Stock		N/A	N/A
GCL - THRISTOR, 5STP18F1800 V11	In Stock		N/A	N/A
GCL - Thrust/Guide Bearing Coolers - Coil, Cooling GE	In Stock		N/A	N/A
GCL - Transducer, Balluff Track	In Stock		N/A	N/A
GCL - TRANSMITTER, FRAZIL ICE	In Stock		N/A	N/A
GCL - Transmitter, PFM	In Stock		N/A	N/A
GCL - Transmitter, Temp 4-20 MA	In Stock		N/A	N/A
GCL - TRANSMITTER, WATER LEVEL	In Stock		N/A	N/A
GCL - Turbine Assembly - Packing Ring, Segment	In Stock		N/A	N/A
GCL - Turbine Assembly - Pad, Stop GE	In Stock		N/A	N/A
GCL - Turbine Assembly - Ring, Rotating GE	In Stock		N/A	N/A
GCL - Turbine Assembly - Ring, Sealing C/W Spring	In Stock		N/A	N/A
GCL - Turbine Assembly - Ring, Wear	In Stock		N/A	N/A
GCL - Turbine Assembly - Seal, Inflatable	In Stock		N/A	N/A
GCL - Turbine Assembly - Transmitter, Diff Pressure	In Stock		N/A	N/A
GCL - Turbine Assembly - Transmitter, Pressure 0-90 PSIG	In Stock		N/A	N/A
GCL - Turbine Assembly - Transmitter, Pressure -STO55	In Stock		N/A	N/A
GCL - Turbine Assembly - Transmitter, Pressure GE	In Stock		N/A	N/A
GCL - Turbine Assembly - Valve, Check Wafer 12"D	In Stock		N/A	N/A
GCL - VALVE, CHECK PRESSURE	In Stock		N/A	N/A
GCL - VALVE, CHECK PRESSURE	In Stock		N/A	N/A
GCL - VALVE, CHECK PRESSURE	In Stock		N/A	N/A
GCL - Valve, Purge GE	In Stock		N/A	N/A
GCL - VALVE,INLET MAIN KIT	In Stock		N/A	N/A
GCL - VALVE,INLET MAIN KIT	In Stock		N/A	N/A
GCL - VALVE,INLET MAIN KIT	In Stock		N/A	N/A
GCL - VALVE,PURGE GE	In Stock		N/A	N/A
GCL - Washer, Brake Plate	In Stock		N/A	N/A
GCL - Washer, GE 105000100	In Stock		N/A	N/A
GCL - Wicket Gates - Bushing, GE 226043126X015	In Stock		N/A	N/A
GCL - Wicket Gates - Gate, Wicket GE	In Stock		N/A	N/A
GCL - Wicket Gates - Level, Gate GE	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
GCL - Wicket Gates - Lever, Shear GE	In Stock		N/A	N/A
GCL - Wicket Gates - Liner, Gate Operating	In Stock		N/A	N/A
GCL - Wicket Gates - Link, GE	In Stock		N/A	N/A
GCL - Wicket Gates - Pin, Eccentric	In Stock		N/A	N/A
GCL - Wicket Gates - Pin, Shear GE	In Stock		N/A	N/A
GCL - Wicket Gates - Pin, Taper GE	In Stock		N/A	N/A
GCL - Wicket Gates - Plate, Retaining GE	In Stock		N/A	N/A
GCL - Wicket Gates - Plate, Top GE	In Stock		N/A	N/A
GCL - Wicket Gates - Shim, Laminium	In Stock		N/A	N/A
GCL - Wicket Gates - Sleeve, BRS 210mm	In Stock		N/A	N/A
GCL - Wicket Gates - Spacer	In Stock		N/A	N/A
GCL - XFMR, CT 15 kV	In Stock		N/A	N/A
HLK - Accumulator tank Sollaroid Valve	In Stock		N/A	N/A
HLK - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
HLK - Ampmeter	In Stock		N/A	N/A
HLK - AUTO AIR CHARGING SOLND.	In Stock		N/A	N/A
HLK - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
HLK - BEARING KIT,	In Stock		N/A	N/A
HLK - BOARD,FIRING ES	In Stock		N/A	N/A
HLK - BREAKER,100 AMP 600 VOLT	In Stock		N/A	N/A
HLK - BREAKER,150A 600V	In Stock		N/A	N/A
HLK - BREAKER,225A 600V 3P	In Stock		N/A	N/A
HLK - BREAKER,600 VOLT 3 PHASE	In Stock		N/A	N/A
HLK - BRIDGE,THYRISTOR EG	In Stock		N/A	N/A
HLK - Card battery charger	In Stock		N/A	N/A
HLK - Card battery charger	In Stock		N/A	N/A
HLK - Card battery charger	In Stock		N/A	N/A
HLK - Card battery charger	In Stock		N/A	N/A
HLK - Card gate pulse	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Anti-pump relay	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Charging motor	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Motor brush kit	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Primary disconnect	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Shunt trip coil	In Stock		N/A	N/A
HLK - CIRCUIT BREAKER - Spring release coil	In Stock		N/A	N/A
HLK - COIL-AUTO AIR CHARGING SOLND.	In Stock		N/A	N/A
HLK - CONTACT,AUX GE	In Stock		N/A	N/A



Critical Spares Stock Status

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HLK - CONTACTOR,FURNAS	In Stock		N/A	N/A
HLK - Creep detector	In Stock		N/A	N/A
HLK - EXCITATION - Bridge (entire module)	In Stock		N/A	N/A
HLK - EXCITER FIELD BREAKER - Entire unit	In Stock		N/A	N/A
HLK - GASKET KIT, COMPAIR 45244	In Stock		N/A	N/A
HLK - GASKET KIT, COMPAIR 79452	In Stock		N/A	N/A
HLK - GENERATOR - brake shoes	In Stock		N/A	N/A
HLK - GENERATOR - Generator air valve	In Stock		N/A	N/A
HLK - GENERATOR - SOLENOID,GENERATOR AIR VALVE,	In Stock		N/A	N/A
HLK - GENERATOR CIRCUIT BREAKER	In Stock		N/A	N/A
HLK - GOVERNOR ACCUMULATOR TANK - Air admission solenoid	In Stock		N/A	N/A
HLK - GOVERNOR ACCUMULATOR TANK - Solenoid valve	In Stock		N/A	N/A
HLK - GOVERNOR ACCUMULATOR TANK - SWITCH PRESS OIL ALARM,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL RESET SOLENOID ,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL OIL PUMP UNLOADER SOLND ,,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL PARTIAL SHUTDOWN RESET ,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL SHUTDOWN SOLENOID 655D ,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - COILDASHPOT,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - filter	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - GATE LIMIT,ROD,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - PUMP UNLOADER,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - UNLOADER PISTON,	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447- 634,motor	In Stock		N/A	N/A
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447-640,MOTOR	In Stock		N/A	N/A
HLK - GOVERNOR SPEED GENERATOR - gear drive	In Stock		N/A	N/A
HLK - GOVERNOR SPEED GENERATOR - GEAR,WOODWARD 1447-640	In Stock		N/A	N/A
HLK - GOVERNOR SPEED GENERATOR - Speed switch bracket	In Stock		N/A	N/A
HLK - GUIDE BEARING SEGMENTS (SET) - BEARING,SEGMENT	In Stock		N/A	N/A
HLK - HD-1N - HINDS LAKE INTAKE - TRANSMITTER,PRESS 0-375	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - BUSHING 60X75 MM,	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - BUSHING GATE STEM - UPPER,	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - BUSHING GATE STEM - LOWER,	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - Bushing upper	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - SEAL TURBINE,	In Stock		N/A	N/A
HLK - HEADCOVER-ASSEMBLY - SEALWICKET GATE,	In Stock		N/A	N/A
HLK - IMPELLER,DEWATERING PUMP	In Stock		N/A	N/A
HLK - IN FRAZIL ICE SYS - INTAKE - TRANSMITTER,TEMPERATURE	In Stock		N/A	N/A



Critical Spares Stock Status

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HLK - INSERT, COMPAIR 38275	In Stock		N/A	N/A
HLK - INTAKE HEADGATE AND HOIST EQUIP - Pressure druk	In Stock		N/A	N/A
HLK - ISOLATED PHASE BUS - PT fuse	In Stock		N/A	N/A
HLK - MECHANICAL GOVERNOR CONTROLS - Motor limit	In Stock		N/A	N/A
HLK - MECHANICAL GOVERNOR CONTROLS - Motor speeder	In Stock		N/A	N/A
HLK - MECHANICAL GOVERNOR CONTROLS - Unloader timing valve	In Stock		N/A	N/A
HLK - METER, FLOW BARTON	In Stock		N/A	N/A
HLK - MODULE, ANALOG QUANTUM	In Stock		N/A	N/A
HLK - MODULE, CPU MODICON	In Stock		N/A	N/A
HLK - MODULE, DISCRETE IN	In Stock		N/A	N/A
HLK - MODULE, DISCRETE OUT	In Stock		N/A	N/A
HLK - MODULE, ETHERNET QUANTUM	In Stock		N/A	N/A
HLK - MODULE, GPS QUANTUM	In Stock		N/A	N/A
HLK - MODULE, HOT STANDBY	In Stock		N/A	N/A
HLK - MODULE, INTERFACE PLC	In Stock		N/A	N/A
HLK - MODULE, RACK FILLER	In Stock		N/A	N/A
HLK - MODULE, RELAY OUT	In Stock		N/A	N/A
HLK - OPERATING RING - Bearing pads	In Stock		N/A	N/A
HLK - PANEL, CONTROL SCP/CCP	In Stock		N/A	N/A
HLK - PANEL, VOLTAGE ADJUSTER	In Stock		N/A	N/A
HLK - PLATE, TERMINAL 3 POLE	In Stock		N/A	N/A
HLK - PLATE, TERMINAL 6 POLE	In Stock		N/A	N/A
HLK - PMG Speed Switch Bracket	In Stock		N/A	N/A
HLK - POWER DISTRIBUTOR, ASSY	In Stock		N/A	N/A
HLK - POWER SUPPLY, 125-24 VDC	In Stock		N/A	N/A
HLK - POWER SUPPLY, 125 VDC	In Stock		N/A	N/A
HLK - POWER SUPPLY, 125VDC 8A	In Stock		N/A	N/A
HLK - POWER SUPPLY, 24 VDC	In Stock		N/A	N/A
HLK - POWER SUPPLY, CP-C-24/10.	In Stock		N/A	N/A
HLK - RECTIFYING TRANSFORMER	In Stock		N/A	N/A
HLK - RELAY, CONTROL 120V 60HZ	In Stock		N/A	N/A
HLK - RELAY, CONTROL 48V	In Stock		N/A	N/A
HLK - RELAY, CONTROL AB 500F-A0D92	In Stock		N/A	N/A
HLK - REMOTE I/O HEAD, MODICON	In Stock		N/A	N/A
HLK - RING SET ASSY, COMPAIR 48	In Stock		N/A	N/A
HLK - RING SET, COMPAIR 45237	In Stock		N/A	N/A
HLK - RING SET, WORTH P04643-10	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
HLK - RING/GASKET KIT,IR 32133944	In Stock		N/A	N/A
HLK - Rotor - Pole	In Stock		N/A	N/A
HLK - Rotor Assembly - HLK Generator - Rotor pole	In Stock		N/A	N/A
HLK - SEAL, COMPAIR 13254	In Stock		N/A	N/A
HLK - SEAT/SEAL KIT, VALVE 1-1/	In Stock		N/A	N/A
HLK - SERVO MOTOR #1 - servomotor repair kit	In Stock		N/A	N/A
HLK - SERVO MOTOR ASSEMBLY - shear pins	In Stock		N/A	N/A
HLK - Slip ring	In Stock		N/A	N/A
HLK - Slipring /Brush Rigging - Brush holder	In Stock		N/A	N/A
HLK - Slipring /Brush Rigging - Carbon brush	In Stock		N/A	N/A
HLK - SOLENOID,GENERATOR AIR VALVE	In Stock		N/A	N/A
HLK - STATION SERVICE SWITCHGEAR - Breaker (EATON)	In Stock		N/A	N/A
HLK - STATOR ASSEMBLY - Stator bars	In Stock		N/A	N/A
HLK - STATOR ASSEMBLY - Stator connection caps	In Stock		N/A	N/A
HLK - STATOR WINDINGS - UNIT 1 - robel bars	In Stock		N/A	N/A
HLK - STN SERVICE TRANSFORMER (SST-1)	In Stock		N/A	N/A
HLK - SURFACE AIR COOLERS	In Stock		N/A	N/A
HLK - SWITCH,LIMIT AB 802T-ATP	In Stock		N/A	N/A
HLK - SWITCH,LIMIT AB 802T-DTP	In Stock		N/A	N/A
HLK - SWITCH,MERCROID TYPE C-4	In Stock		N/A	N/A
HLK - SWITCH,PRESS OIL ALARM	In Stock		N/A	N/A
HLK - THRUST BEARING SEGMENTS (SET) - Thrust Bearing Segments	In Stock		N/A	N/A
HLK - THRUST PIN ASSY,IR 32218406	In Stock		N/A	N/A
HLK - Thrust/Guide Bearing Coolers	In Stock		N/A	N/A
HLK - Thrust/Guide Bearing Coolers - Hi pressure lift pump	In Stock		N/A	N/A
HLK - TURBINE - BEARING SEGMENT TURBINE,	In Stock		N/A	N/A
HLK - TURBINE - Carbon seal,	In Stock		N/A	N/A
HLK - TURBINE - Dowel	In Stock		N/A	N/A
HLK - TURBINE - Eccentric pin	In Stock		N/A	N/A
HLK - TURBINE - Friction hub	In Stock		N/A	N/A
HLK - TURBINE - Friction hub	In Stock		N/A	N/A
HLK - TURBINE - Link pin	In Stock		N/A	N/A
HLK - TURBINE - link thick	In Stock		N/A	N/A
HLK - TURBINE - link thin	In Stock		N/A	N/A
HLK - TURBINE - Packing box	In Stock		N/A	N/A
HLK - TURBINE - PLATE BEARING,	In Stock		N/A	N/A
HLK - TURBINE - SEAL TURBINE,	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
HLK - TURBINE - Wicket gate lever	In Stock		N/A	N/A
HLK - TURBINE - wicket gate seal	In Stock		N/A	N/A
HLK - TURBINE GUIDE BEARING - BEARING, Segment TURBINE	In Stock		N/A	N/A
HLK - UPPER GUIDE BEARING COOLER	In Stock		N/A	N/A
HLK - UPPER GUIDE BEARING SEGMENTS - Upper Guide Bearing Segments	In Stock		N/A	N/A
HLK - VALVE & SPRING SET,45245	In Stock		N/A	N/A
HLK - VALVE ASSEMBLY 55 GA	In Stock		N/A	N/A
HLK - VALVE ASSY, COMPAIR 47935	In Stock		N/A	N/A
HLK - VALVE ASSY, COMPAIR 47936	In Stock		N/A	N/A
HLK - VALVE ASSY, COMPAIR 48141	In Stock		N/A	N/A
HLK - VALVE ASSY, COMPAIR 50681	In Stock		N/A	N/A
HLK - VALVE,SOL 4-WAY SKINNER	In Stock		N/A	N/A
HLK - VALVE/GASKET KIT,IR 32133936	In Stock		N/A	N/A
HLK - VOLTAGE ADJUSTER	In Stock		N/A	N/A
HLK - WICKET GATES - wicket gate	In Stock		N/A	N/A
HLK - XFMR,PT 600 VOLT 3 PHASE	In Stock		N/A	N/A
HLK - Turbine Bearing Cooler	In Stock		N/A	N/A
PRV - Bearing, Lower Guide	In Stock		N/A	N/A
PRV - Bearing, Upper Guide	In Stock		N/A	N/A
PRV - Bearing, Upper Thrust	In Stock		N/A	N/A
PRV - BLOCK POWERTRAC,115VAC/1	In Stock		N/A	N/A
PRV - Circuit Breaker	In Stock		N/A	N/A
PRV - COIL,GE 22-115-045-01	In Stock		N/A	N/A
PRV - CONTACTOR,FIELD FLASHING	In Stock		N/A	N/A
PRV - DIODE,GE 4001A1158JA	In Stock		N/A	N/A
PRV - DIODE,GE 4001A1158JB	In Stock		N/A	N/A
PRV - DIODE,GE 6RT44UV698-8841	In Stock		N/A	N/A
PRV - MAGNETROL,D-B10-1GBA-ABM	In Stock		N/A	N/A
PRV - METER,FLOW OMEGA FL-6318B	In Stock		N/A	N/A
PRV - METER,FLOW WATER 1000#	In Stock		N/A	N/A
PRV - MOTOR,GOVERNOR PUMP	In Stock		N/A	N/A
PRV - Pad, Guide Bearing	In Stock		N/A	N/A
PRV - PLC CPU Module	In Stock		N/A	N/A
PRV - PLC Ethernet Module	In Stock		N/A	N/A
PRV - PLC Power Supply	In Stock		N/A	N/A
PRV - PUMP,PH PVP1630-R212	In Stock		N/A	N/A
PRV - TACHOMETER,TAK PAK 3	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
PRV - TURBINE BEARING COOLER TURBINE	In Stock		N/A	N/A
USL - BEARING, BOWL - Drainage	In Stock		N/A	N/A
USL - BEARING, BOWL - Unwatering	In Stock		N/A	N/A
USL - BEARING, BIG END COMP #E02128	In Stock		N/A	N/A
USL - BEARING, BIG END COMP #E02128	In Stock		N/A	N/A
USL - BEARING, COMP AIR E05519	In Stock		N/A	N/A
USL - BEARING, COMP AIR E05519	In Stock		N/A	N/A
USL - BEARING, MAIN D/E	In Stock		N/A	N/A
USL - BEARING, MAIN D/E	In Stock		N/A	N/A
USL - BEARING, MAIN O/E	In Stock		N/A	N/A
USL - BEARING, MAIN O/E	In Stock		N/A	N/A
USL - BEARING, PACKING CONTAINER	In Stock		N/A	N/A
USL - BELT, DRIVE COMP AIR 3VX850	In Stock		N/A	N/A
USL - BELT, DRIVE COMP AIR 3VX850	In Stock		N/A	N/A
USL - BELT, V 3V950	In Stock		N/A	N/A
USL - BELT, V 3V950	In Stock		N/A	N/A
USL - BRIDGE, THYRISTOR EG	In Stock		N/A	N/A
USL - BUSHING, IMPELLER TAPERLOCK	In Stock		N/A	N/A
USL - BUSHING, IMPELLER TAPERLOCK	In Stock		N/A	N/A
USL - BUSHING, SIDE ROLLER	In Stock		N/A	N/A
USL - BUSHING, SMALL END COM#E02130	In Stock		N/A	N/A
USL - BUSHING, SMALL END COM#E02130	In Stock		N/A	N/A
USL - BUSHING, WHEEL	In Stock		N/A	N/A
USL - COIL, SULL 250018-971	In Stock		N/A	N/A
USL - CROWBAR, ES	In Stock		N/A	N/A
USL - FILTER, COOLANT (ELEMENT ONLY)	In Stock		N/A	N/A
USL - GASKET KIT, IR X1453T47	In Stock		N/A	N/A
USL - GASKET, COMP AIR E05516	In Stock		N/A	N/A
USL - GASKET, COMP AIR E05516	In Stock		N/A	N/A
USL - GASKET, COMP AIR J201671	In Stock		N/A	N/A
USL - GASKET, COMP AIR J201671	In Stock		N/A	N/A
USL - GASKET, FLEXMASTER 250007-559	In Stock		N/A	N/A
USL - GASKET, SULL 040517	In Stock		N/A	N/A
USL - GOVERNOR PUMP	In Stock		N/A	N/A
USL - GOVERNOR PUMP	In Stock		N/A	N/A
USL - HEATER, GAIN 3.2 KW 575 V	In Stock		N/A	N/A
USL - HEATER, GATE (DUCT BLOWE	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
USL - HEATER,SHEAVE BLOCK 1366 W	In Stock		N/A	N/A
USL - JOINT KIT,COMPAIR 98504/1172	In Stock		N/A	N/A
USL - JOINT KIT,COMPAIR 98504/1172	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202284	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202284	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202285	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202285	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202285-100	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202285-100	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202286	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202286	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202287	In Stock		N/A	N/A
USL - JOINT,COMPAIR C202287	In Stock		N/A	N/A
USL - POWER DISTRIBUTOR, ASSY	In Stock		N/A	N/A
USL - REGULATOR KIT,SULL 250019-453	In Stock		N/A	N/A
USL - RING KIT,COMPAIR 98477/1131	In Stock		N/A	N/A
USL - RING KIT,COMPAIR 98477/1131	In Stock		N/A	N/A
USL - RING,PISTON 1ST STAGE	In Stock		N/A	N/A
USL - RING,PISTON 1ST STAGE	In Stock		N/A	N/A
USL - ROTOR RIM DRIVE KEYS	In Stock		N/A	N/A
USL - SEAL,FLAT 22' LENGTH	In Stock		N/A	N/A
USL - SEAL,J 22' LENGTH	In Stock		N/A	N/A
USL - SEAL,J C/W 2 CORNERS	In Stock		N/A	N/A
USL - SEAL,J C/W 4 CORNERS	In Stock		N/A	N/A
USL - SWITCH,OIL LEVEL	In Stock		N/A	N/A
USL - SWITCH,OIL LEVEL	In Stock		N/A	N/A
USL - TRANSMITTER,PRESS 0-2.5MH2O	In Stock		N/A	N/A
USL - VALVE,REED 1ST STAGE	In Stock		N/A	N/A
USL - VALVE,REED 1ST STAGE	In Stock		N/A	N/A
USL - VALVE,REED 2ND STAGE	In Stock		N/A	N/A
USL - VALVE,REED 2ND STAGE	In Stock		N/A	N/A
USL - VARISTOR,EXCITER	In Stock		N/A	N/A



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update November 2023	Expected Delivery Date
USL - Transformer T2	On Order	Unit was shipped to Turkey in 2022 to be repaired and tested. The anticipated return date to USL was Q2 2023; however, the transformer remains at the factory in Turkey due to unsuccessful Factory Acceptance Testing.	N/A	Q1 2024