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December 12, 2022

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

Attention: Cheryl Blundon  
Director of Corporate Services and Board Secretary

**Re: Reliability and Resource Adequacy Study Review – 2022–2023 Winter Readiness Planning Report – Final Report**

Further to correspondence received from the Board of Commissioners of Public Utilities 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 2022–2023 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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# 2022–2023 Winter Readiness Planning Report

December 12, 2022

A report to the Board of Commissioners of Public Utilities



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## 1.0 Background and Introduction

The Board of Commissioners of Public Utilities (“Board”), in correspondence dated October 13, 2016,<sup>1</sup> directed Newfoundland and Labrador Hydro (“Hydro”) to provide an annual report detailing its winter readiness (“WR”) planning. This report, for the 2022–2023 winter season, addresses the following items as requested by the Board:

- The status of annual work plan<sup>[2]</sup> items, in the format previously provided to the Board, 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 [2022] 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 September 1 to December 31, [2022], including an explanation for any planned outages extending beyond December 1, [2022].
- An update of critical spares assessment and procurement.
- The forecast loads and expected generation capacity and reserves (setting out the basis for calculation) for the upcoming winter, as of December 1, [2022], and including capacity assistance agreements in place or planned.
- Identification of any risks that could impact the winter readiness of assets as of December 1, [2022] and associated contingency plans.<sup>3</sup>

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, 2022.<sup>4</sup>

## 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

<sup>1</sup> “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).

<sup>2</sup> Annual work plan (“AWP”).

<sup>3</sup> “Request to Hydro to file Winter Readiness Planning 2016-2017,” Board of Commissioners of Public Utilities, September 13, 2016.

<sup>4</sup> The data used to generate the status charts in Section 2.0 reflect a data cutoff date of December 1, 2022.

1 production and transmission of electricity. Hydro regularly measures the progress of its AWP execution,  
2 in comparison with the plan, and is able to track the AWP status down to the level of individual work  
3 plan items. The individual AWP for various assets are incorporated into an integrated AWP. While some  
4 AWP activities are planned for completion through December 2022, those tagged as WR activities are  
5 planned for completion by December 1, 2022.

6 This report provides a consolidated summary of operation and maintenance progress, both for the  
7 entire AWP (i.e., first chart in each set) and the WR tasks (i.e., second chart in each set), as of  
8 December 1, 2022, for each of the following areas of operations:

- 9     • Holyrood Thermal Generating Station (“Holyrood TGS”):
  - 10         ○ Units 1, 2, and 3; and
  - 11         ○ Balance of Plant, including black start diesels;
- 12     • Gas Turbines:
  - 13         ○ Holyrood;
  - 14         ○ Hardwoods;
  - 15         ○ Stephenville; and
  - 16         ○ Happy Valley;
- 17     • Hydraulic Generation:
  - 18         ○ Bay d’Espoir Hydroelectric Generating Facility (“Bay d’Espoir”);
  - 19         ○ Cat Arm Hydroelectric Generating Station (“Cat Arm”);
  - 20         ○ Hinds Lake Hydroelectric Generating Station (“Hinds Lake”);
  - 21         ○ Paradise River Hydroelectric Generating Station (“Paradise River”);
  - 22         ○ Upper Salmon Hydroelectric Generating Station (“Upper Salmon”); and
  - 23         ○ Granite Canal Hydroelectric Generating Station (“Granite Canal”);
- 24     • Transmission and Rural Operations for the Island Interconnected System and the Labrador  
25         Interconnected System:
  - 26         ○ Transmission; and

- 1           ○ Terminal stations; and
- 2           ● Network Services.

3 Each chart in Section 2.0 includes the completed and remaining operations and maintenance AWP and  
4 WR tasks, as well as an indication of the planned task completion target to date. A text box adjacent to  
5 each chart set indicates Hydro’s forecasted completion status as of December 1, 2022 in relation to AWP  
6 and WR activities (i.e., Green: On Target, Yellow: Caution – Recovery Required, Red: Target Will Not be  
7 Fully Met). Relevant highlights are also provided.

8 Refer to Section 3.0 and Appendix A for the status of capital projects that include additional WR tasks.

9 Hydro’s WR plan reflects the status of Hydro’s assets and does not include the Muskrat Falls Project  
10 Assets. Hydro’s WR preparations have focused on completing the necessary operations and  
11 maintenance work to ensure system readiness and availability without any additional capacity from the  
12 Muskrat Falls Project Assets. Hydro anticipates that, at a minimum, the Labrador-Island Link (“LIL”) is  
13 expected to be largely available for capacity up to 475 MW during the winter season. Hydro is closely  
14 monitoring the status of the Muskrat Falls Project commissioning and the associated schedule.

## 15 **2.1 COVID-19**

16 The 2022 AWP was established with consideration to the COVID-19 pandemic and lessons learned since  
17 its onset. Business Continuity Plans remain in place to ensure that work activities continue safely.  
18 Although there are limited impacts to work execution at this time, Hydro continues to monitor the  
19 situation in the context of resource availability, procurement activities, and execution of planned work.

## 20 **2.2 Thermal Generation**

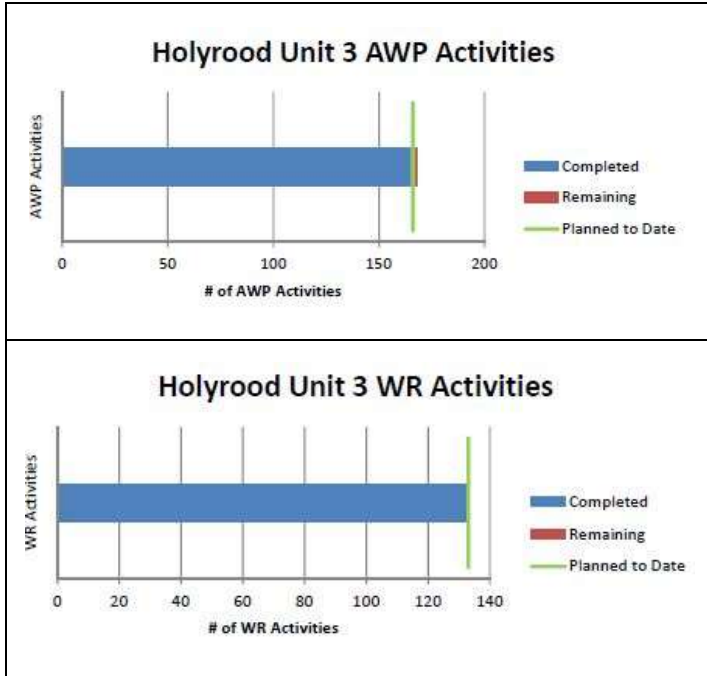
21 The status of AWP and WR execution at the Holyrood TGS is summarized in the following charts. Four  
22 WR activities were incomplete as of December 1, 2022. One of the outstanding activities related to  
23 Balance of Plant has since been completed. One outstanding WR activity is related to Unit 1 and will be  
24 completed during the upcoming outage to this unit. As discussed in Section 8.2.3, Unit 1 will not be  
25 available for generation for approximately two weeks in December to accommodate work on the T1  
26 transformer. The remaining two WR activities are related to Balance of Plant. One activity is planned for  
27 completion by December 12, 2022, following which the unit will return to full load capability. The  
28 remaining activity will be completed early January, 2023 due to item lead time. Remaining AWP items

- 1 are scheduled for completion by December 31, 2022. Please refer to Section 8.2 for more information
- 2 on Holyrood TGS’s operational risks and mitigations.

<p style="text-align: center;"><b>Holyrood Unit 1 AWP Activities</b></p>	<p><b>Holyrood TGS Unit 1</b></p> <p><b>Forecast Completion Status:</b></p> <p><b>Target not fully met by December 1</b></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>● Unit 1 overall AWP completion status is 98.7%;</li> <li>● Unit 1 planned WR status is 99.2% complete as of December 1, 2022;</li> <li>● Unit 1 generation will be unavailable from December 8–21, 2022 as discussed in Section 8.2.3;</li> <li>● The one remaining WR activity requires an outage, and therefore will be completed during this time; and</li> <li>● Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Holyrood Unit 1 WR Activities</b></p>	

<p style="text-align: center;"><b>Holyrood Unit 2 AWP Activities</b></p>	<p><b>Holyrood TGS Unit 2</b></p> <p><b>Forecast Completion Status:</b></p> <p><b>Target Achieved</b></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>● Unit 2 overall AWP completion status is 98.7%;</li> <li>● Unit 2 planned WR status is 100% complete for 2022; and</li> <li>● Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Holyrood Unit 2 WR Activities</b></p>	





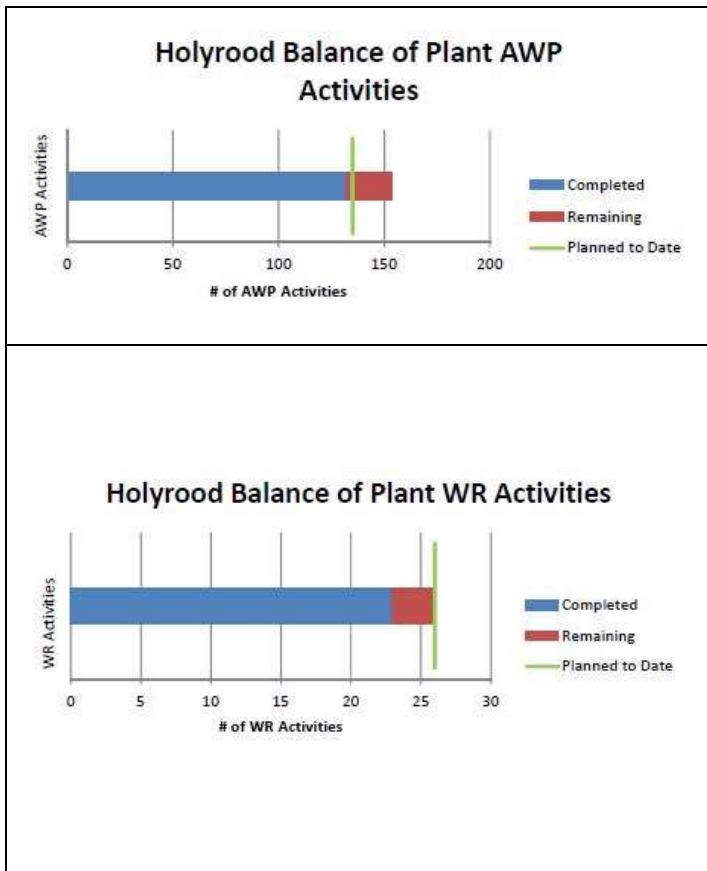
**Holyrood TGS Unit 3**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Unit 3 overall AWP completion status is 98.8%;
- Unit 3 planned WR status is 100% complete for 2022; and
- Remaining AWP activities are scheduled for completion by December 31, 2022.



**Holyrood Balance of Plant**

**Forecast Completion Status:**

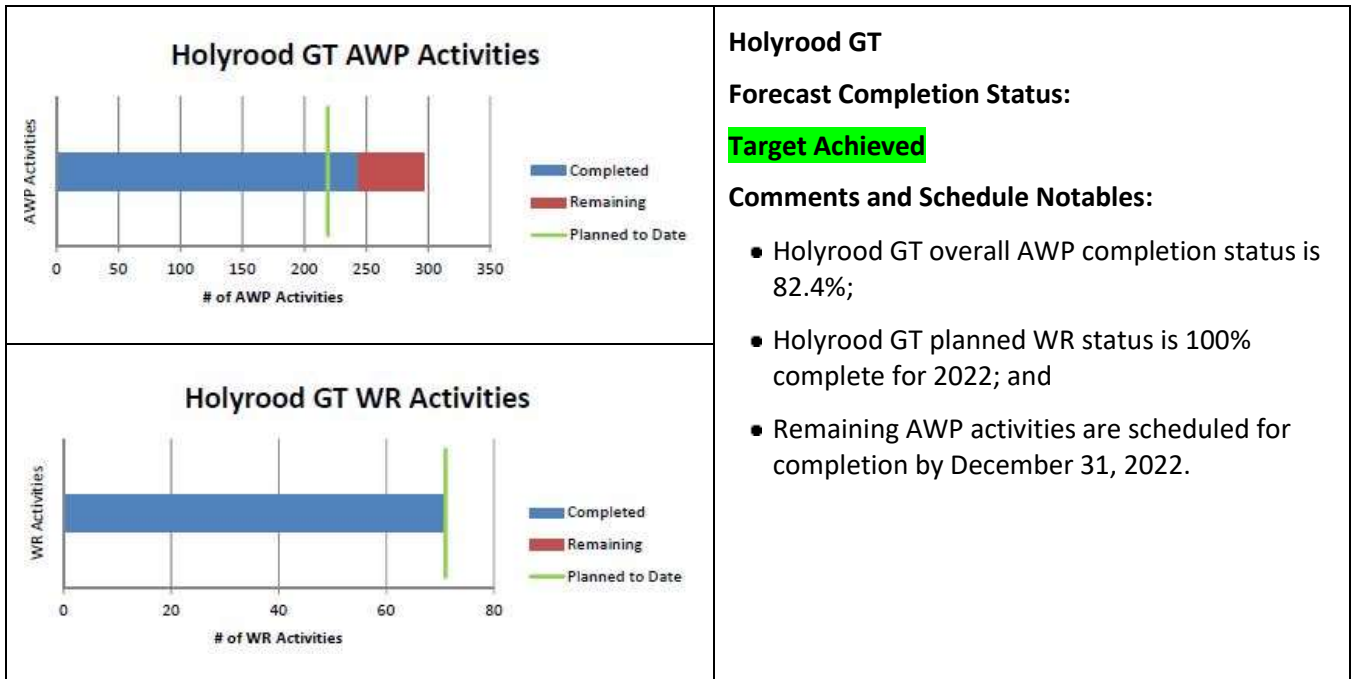
**Target not fully met by December 1**

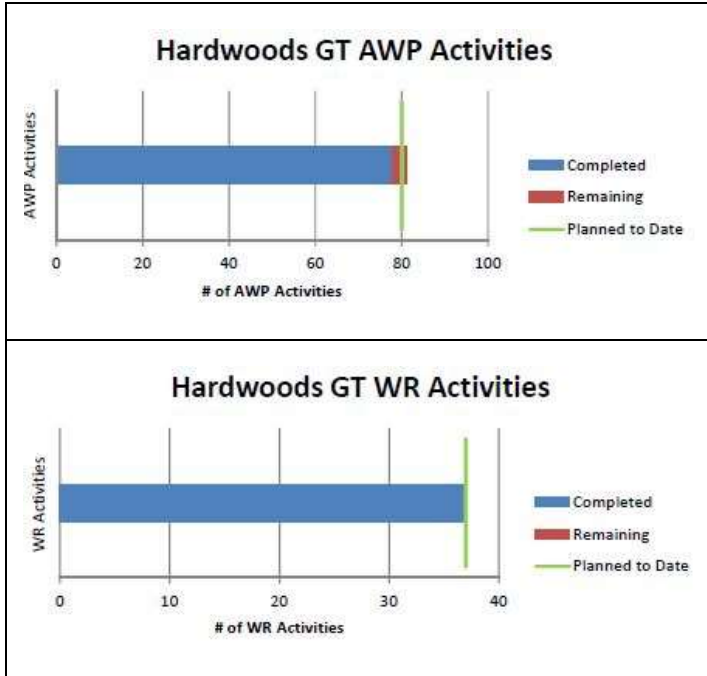
**Comments and Schedule Notables:**

- Balance of Plant overall AWP completion status is 85.7%;
- Balance of Plant planned WR status is 88.5% complete as of December 1, 2022;
- One outstanding WR activity was completed on December 2, 2022;
- One outstanding WR activity planned for completion on December 12, 2022 due to service contractor availability;
- The one remaining WR activity is expected to be completed in early January, 2023 due to item lead time. Mitigations have been put in place and this is considered to be low risk; and
- Remaining AWP activities are scheduled for completion by December 31, 2022.

1 **2.3 Gas Turbine Generation**

2 The status of AWP and WR execution at the Holyrood Gas Turbine (“Holyrood GT”), Hardwoods Gas  
 3 Turbine (“Hardwoods GT”), Stephenville Gas Turbine (“Stephenville GT”), and Happy Valley Gas Turbine  
 4 (“Happy Valley GT”) is summarized in the following charts. All planned WR activities were completed by  
 5 December 1, 2022 and remaining AWP items are scheduled for completion by December 31, 2022.  
 6 Please refer to Section 8.4 for more information on operational risks and mitigations related to Gas  
 7 Turbine Operations.





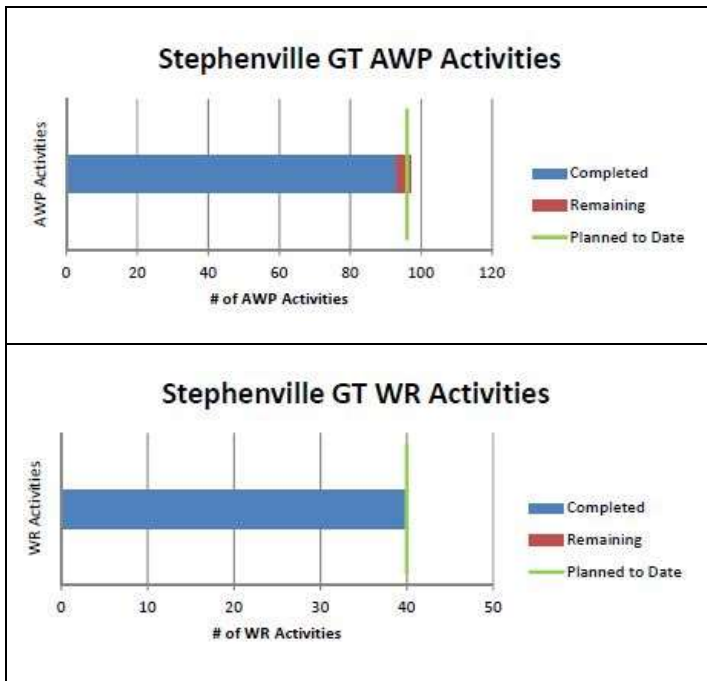
**Hardwoods GT**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Hardwoods GT overall AWP completion status is 96.3%;
- Hardwoods GT planned WR status is 100% complete for 2022; and
- Remaining AWP activities are scheduled for completion by December 31, 2022.



**Stephenville GT**

**Forecast Completion Status:**

**Target Achieved**

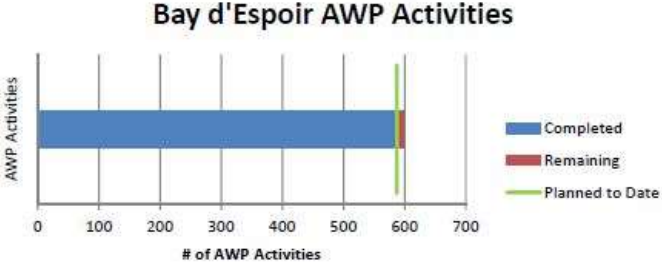
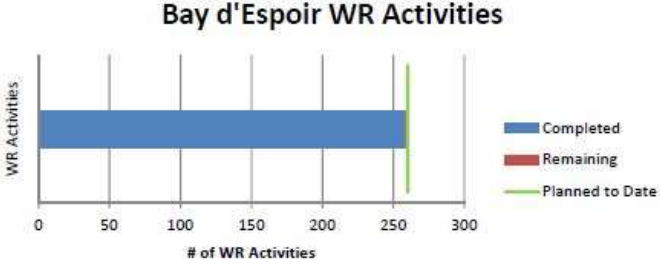
**Comments and Schedule Notables:**

- Stephenville GT overall AWP completion status is 95.9%;
- Stephenville GT planned WR status is 100% complete for 2022; and
- Remaining AWP activities are scheduled for completion by December 31, 2022.

<h3 style="text-align: center;">Happy Valley GT AWP Activities</h3> <p>AWP Activities</p> <p># of AWP Activities</p> <ul style="list-style-type: none"> <li>Completed</li> <li>Remaining</li> <li>Planned to Date</li> </ul>	<h3>Happy Valley GT</h3> <p><b>Forecast Completion Status:</b>  <span style="background-color: #00FF00; padding: 2px;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>● Happy Valley GT overall AWP completion status is 93.8%;</li> <li>● Happy Valley GT planned WR status is 100% complete for 2022; and</li> <li>● Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<h3 style="text-align: center;">Happy Valley GT WR Activities</h3> <p>WR Activities</p> <p># of WR Activities</p> <ul style="list-style-type: none"> <li>Completed</li> <li>Remaining</li> <li>Planned to Date</li> </ul>	

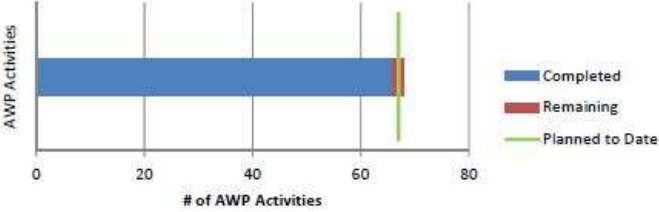
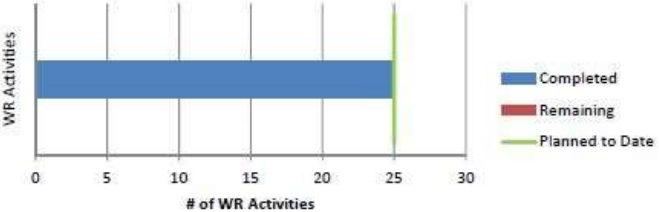
1 **2.4 Hydraulic Generation**

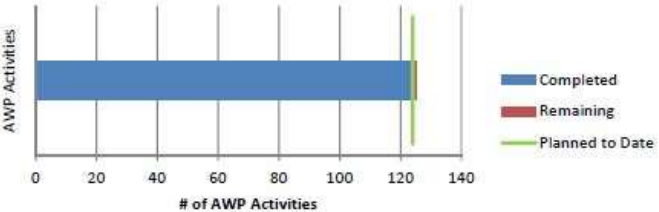
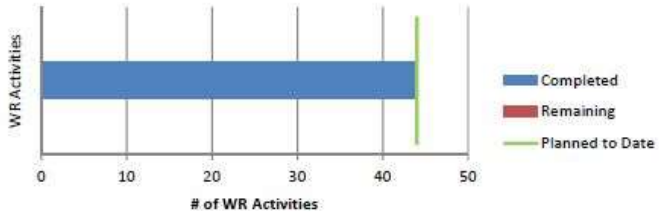
2 The status of AWP and WR execution at hydraulic generation facilities is summarized in the following  
 3 charts. Four WR activities were incomplete as of December 1, 2022. All of the outstanding activities have  
 4 since been completed. Remaining AWP items are scheduled for completion by December 31, 2022.  
 5 Please refer to Section 8.1 for more information on operational risks and mitigations related to Bay  
 6 d’Espoir.

 <p><b>Bay d'Espoir AWP Activities</b></p> <p>AWP Activities</p> <p># of AWP Activities</p> <p>Completed Remaining Planned to Date</p>	<p><b>Bay d’Espoir</b></p> <p><b>Forecast Completion Status:</b></p> <p><b>Target not fully met by December 1</b></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>● Bay d’Espoir overall AWP completion status is 98.0%;</li> <li>● Bay d’Espoir planned WR status is 99.2% complete as of December 1, 2022;</li> <li>● Unit 7 outage was completed on December 4, 2022;</li> <li>● The two remaining WR activities were completed during this outage, therefore Bay d’Espoir overall WR completion is 100% as of December 4, 2022; and</li> <li>● Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
 <p><b>Bay d'Espoir WR Activities</b></p> <p>WR Activities</p> <p># of WR Activities</p> <p>Completed Remaining Planned to Date</p>	

<p style="text-align: center;"><b>Cat Arm AWP Activities</b></p>	<p><b>Cat Arm</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: yellow;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>• Cat Arm overall AWP completion status is 98.1%;</li> <li>• Cat Arm planned WR status is 100% complete for 2022; and</li> <li>• Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Cat Arm WR Activities</b></p>	

<p style="text-align: center;"><b>Hinds Lake AWP Activities</b></p>	<p><b>Hinds Lake</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: yellow;">Target not fully met by December 1</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>• Hinds Lake overall AWP completion status is 94.9%;</li> <li>• Hinds Lake planned WR status is 95.4% complete as of December 1, 2022;</li> <li>• Hinds Lake outage was completed on December 6, 2022;</li> <li>• The two remaining WR activities were completed during this outage, therefore Hinds Lake overall WR completion is 100% as of December 6, 2022; and</li> <li>• Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Hinds Lake WR Activities</b></p>	

<p style="text-align: center;"><b>Paradise River AWP Activities</b></p> 	<p><b>Paradise River</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: #00FF00; padding: 2px;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>Paradise River overall AWP completion status is 97.1%;</li> <li>Paradise River planned WR status is 100% complete for 2022; and</li> <li>Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Paradise River WR Activities</b></p> 	

<p style="text-align: center;"><b>Upper Salmon AWP Activities</b></p> 	<p><b>Upper Salmon</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: #00FF00; padding: 2px;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>Upper Salmon overall AWP completion status is 99.2%;</li> <li>Upper Salmon planned WR status is 100% complete for 2022; and</li> <li>Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Upper Salmon WR Activities</b></p> 	

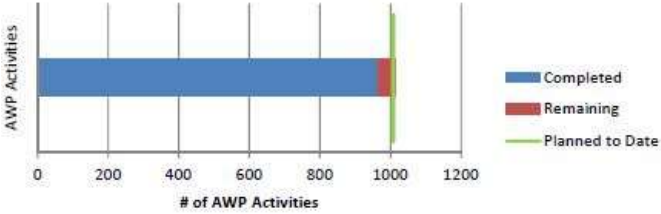
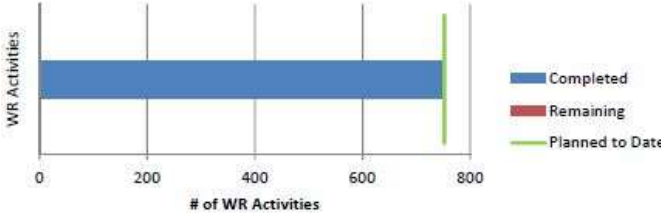
<p style="text-align: center;"><b>Granite Canal AWP Activities</b></p>	<p><b>Granite Canal</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: #90EE90;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>Granite Canal overall AWP completion status is 99.1%;</li> <li>Granite Canal planned WR status is 100% complete for 2022; and</li> <li>Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<p style="text-align: center;"><b>Granite Canal WR Activities</b></p>	

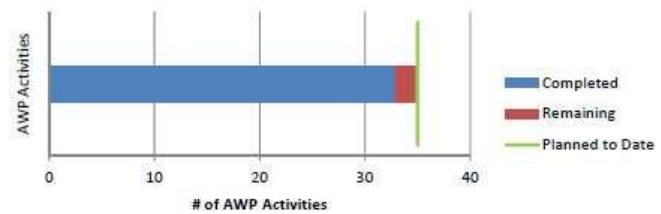
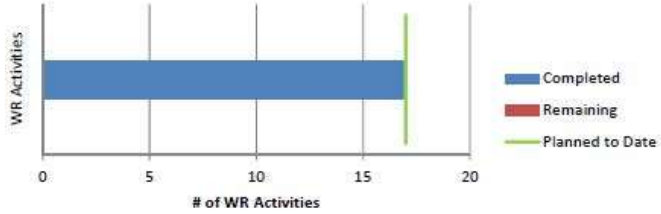
1 **2.5 Transmission and Terminal Stations**

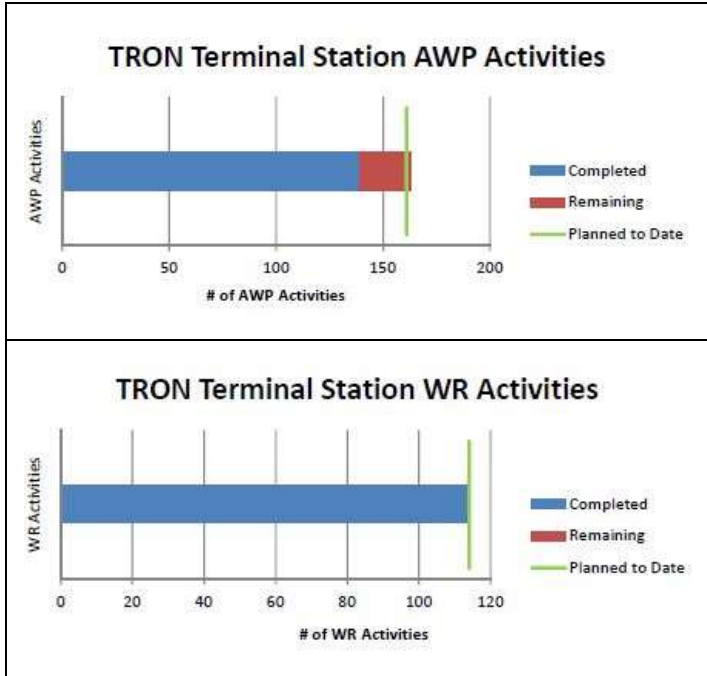
2 The status of AWP and WR execution for transmission line and terminal station facilities on both the  
 3 Island Interconnected System and the Labrador Interconnected System is summarized in the following  
 4 charts. All planned WR activities were completed by December 1, 2022 and remaining AWP items are  
 5 scheduled for completion by December 31, 2022.

<p style="text-align: center;"><b>TROWE Transmission AWP Activities</b></p>	<p><b>Transmission and Rural Operations West and East (“TROWE”) Transmission</b></p> <p><b>Forecast Completion Status:</b>  <span style="background-color: #90EE90;">Target Achieved</span></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>TROWE Transmission overall AWP completion status is 100% complete for 2022; and</li> <li>TROWE Transmission planned WR status is 100% complete for 2022.</li> </ul>
<p style="text-align: center;"><b>TROWE Transmission WR Activities</b></p>	



<h3>TROWE Terminal Station AWP Activities</h3>  <p>AWP Activities</p> <p># of AWP Activities</p> <p>Completed Remaining Planned to Date</p>	<h3>TROWE Terminal Stations</h3> <p><b>Forecast Completion Status:</b> <b>Target Achieved</b></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>• TROWE Terminal Stations overall AWP completion status is 95.7%;</li> <li>• TROWE Terminal Stations planned WR status is 100% complete for 2022; and</li> <li>• Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<h3>TROWE Terminal Station WR Activities</h3>  <p>WR Activities</p> <p># of WR Activities</p> <p>Completed Remaining Planned to Date</p>	

<h3>TRON Transmission AWP Activities</h3>  <p>AWP Activities</p> <p># of AWP Activities</p> <p>Completed Remaining Planned to Date</p>	<h3>Transmission and Rural Operations Northern (“TRON”) Transmission</h3> <p><b>Forecast Completion Status:</b> <b>Target Achieved</b></p> <p><b>Comments and Schedule Notables:</b></p> <ul style="list-style-type: none"> <li>• TRON Transmission overall AWP completion status is 94.3%;</li> <li>• TRON Transmission planned WR status is 100% complete for 2022; and</li> <li>• Remaining AWP activities are scheduled for completion by December 31, 2022.</li> </ul>
<h3>TRON Transmission WR Activities</h3>  <p>WR Activities</p> <p># of WR Activities</p> <p>Completed Remaining Planned to Date</p>	



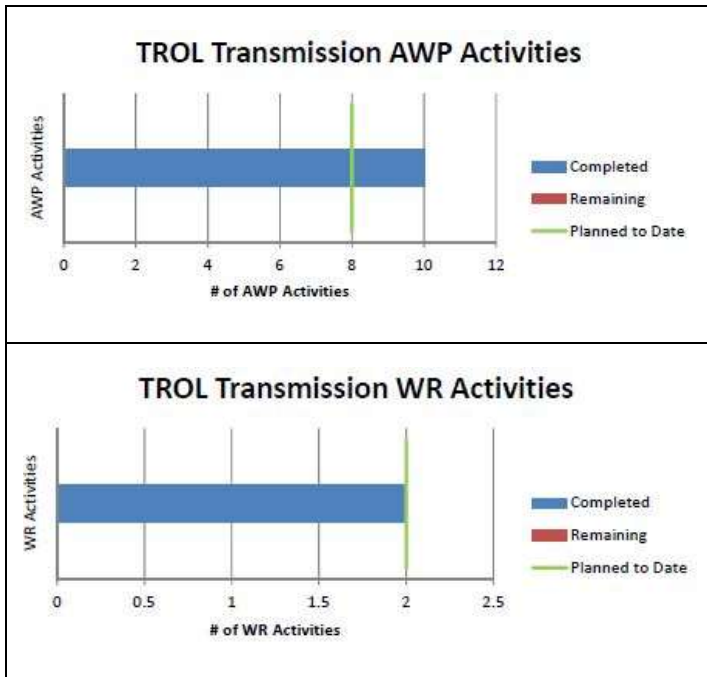
**TRON Terminal Station**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- TRON Terminal Stations overall AWP completion status is 85.3%;
- TRON Terminal Stations planned WR status is 100% complete for 2022; and
- Remaining AWP activities are scheduled for completion by December 31, 2022.



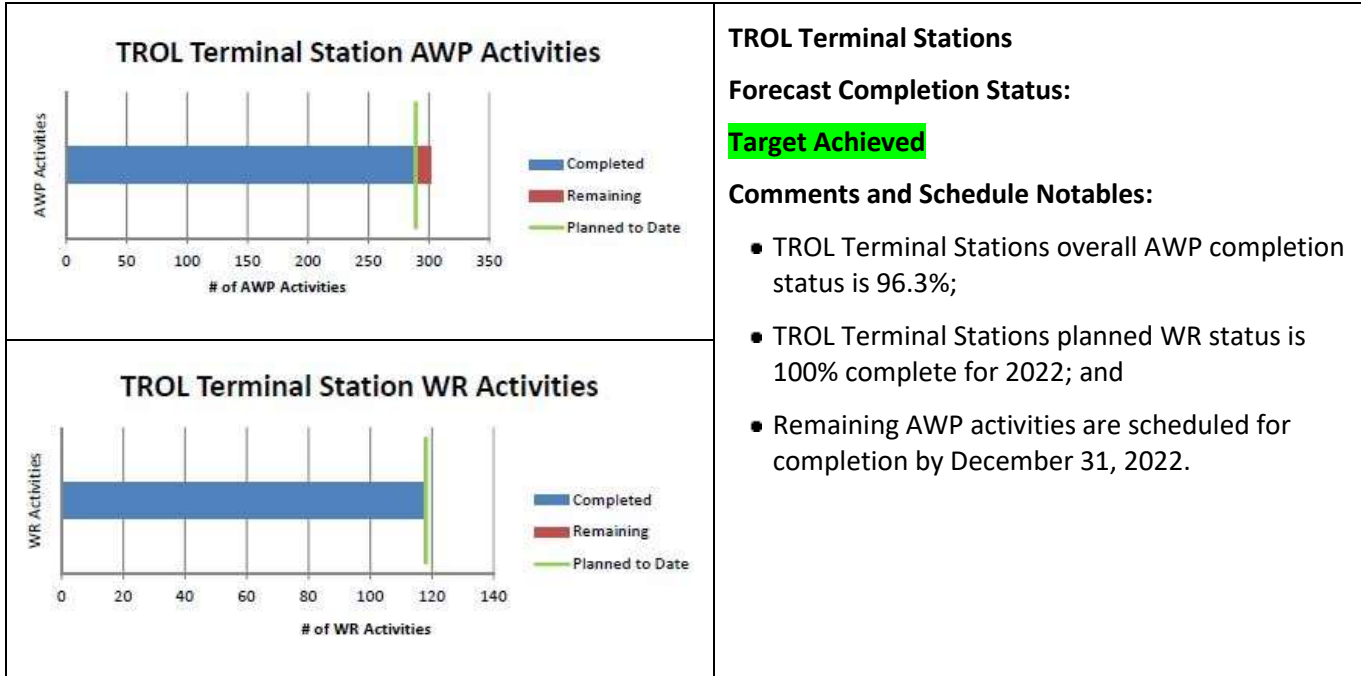
**Transmission and Rural Operations Labrador (“TROL”) Transmission**

**Forecast Completion Status:**

**Target Achieved**

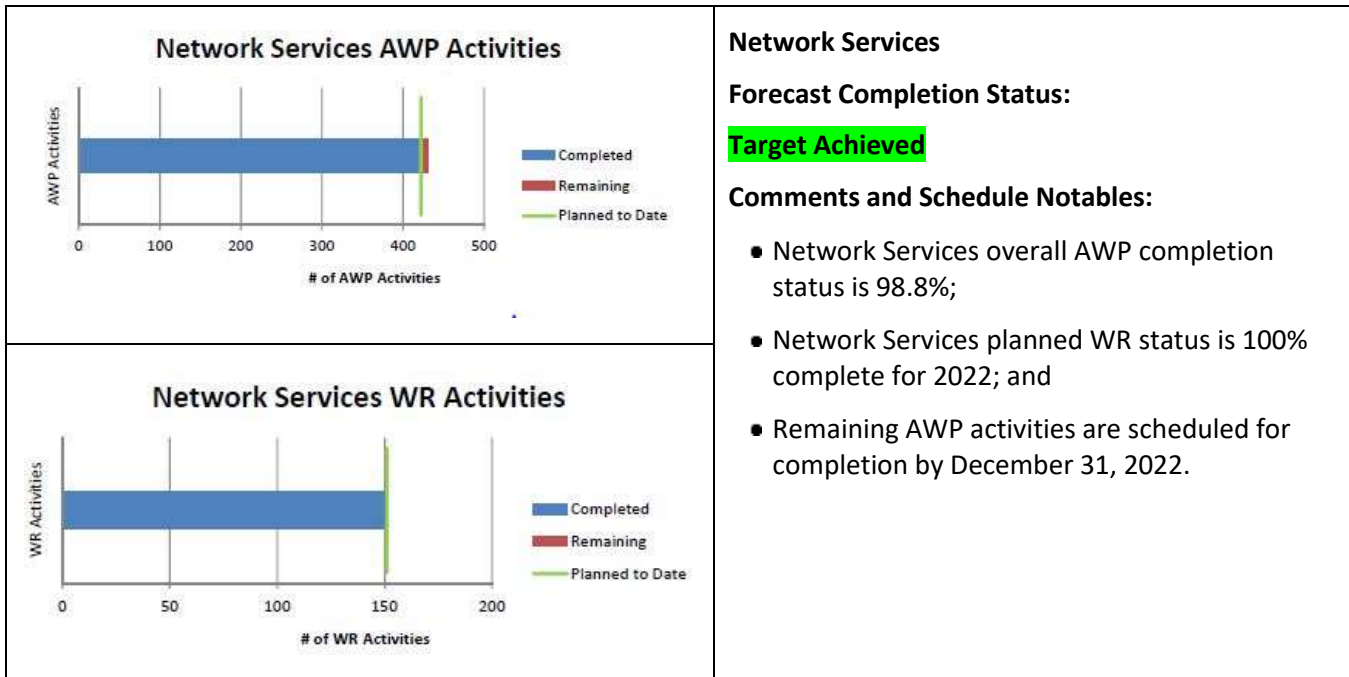
**Comments and Schedule Notables:**

- TROL Transmission overall AWP completion status is 100% complete for 2022; and
- TROL Transmission planned WR status is 100% complete for 2022.



1 **2.6 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, 2022 and remaining AWP items are scheduled  
 4 for completion by December 31, 2022.



### 3.0 Status of Winter Readiness for Capital Projects

The status of 2022 planned capital projects that include scope related to 2022–2023 WR for the Island Interconnected System and the Labrador Interconnected System is provided in Appendix A. Table 1 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, 2022	Completion after December 1, 2022	
Hydraulic Generation	3	0	3
Thermal Generation	4	0	4
Gas Turbine Generation	1	0	1
Terminal Stations	4	0	4
Transmission	0	0	0
<b>Total</b>	<b>12</b>	<b>0</b>	<b>12</b>

As of December 1, 2022, the WR scope for all 12 identified capital projects is complete.

## 4.0 Plant and Equipment Testing

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

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

### 4.1 Thermal Generation

WR testing of generating equipment in thermal generation is focused primarily around annual unit maintenance outages. Following these annual outages, units are run-up and synchronized and all systems are verified before the unit's operating status is determined and preparedness is confirmed. Unit load tests are performed at this time as well; however, all required load testing is not completed until later in the fall when system conditions allow. The WR testing protocol includes the testing of

1 appropriate Balance of Plant components, including the black start diesel generators.<sup>5</sup> The current  
2 status of equipment/plant testing for thermal generation is indicated in Appendix B.

3 Unit 1 was returned to service and was run up to 155 MW to complete online safety valve testing. The  
4 load was limited at that point by the Newfoundland and Labrador System Operator (“NLSO”) due to  
5 system demand limitations; however, there were no concerns identified that would limit the capability  
6 of the unit. On November 15, 2022, there was an in-service failure of the East Boiler Feed Pump motor.  
7 The motor was shipped to the local service provider and has been refurbished, with installation planned  
8 for completion by December 12, 2022. Without this pump available, Unit 1 is temporarily derated to 80  
9 MW, but will return to full load capability upon completion of this work. All start-up checks for Unit 1  
10 have been completed with 5 exceptions. The high pressure feed water heaters have not yet been put in  
11 service, and four items related to this equipment are still marked as “Start-Up” in Appendix B. These  
12 heaters are not required for reliable operation at full load. Hydro continues to work towards returning  
13 these heaters to service. One item related to the seal oil vacuum pump is also still marked as “Start-Up”  
14 in Appendix B. This pump has also not yet been placed in service, but is not required for reliable  
15 operation at full load.

16 Unit 2 was returned to service for the winter operating season on October 30, 2022. The unit is available  
17 for full load of 170 MW following the completion of online safety valve testing during the first week of  
18 November, and a test of the T2 transformer at 170 MW to confirm this capability. All start-up checks for  
19 Unit 2 have been completed with two exceptions; the seal oil vacuum pump and fuel oil accumulator  
20 have not yet been put back in service. These items are not required for reliable operation at full load.  
21 The parts required to put the fuel oil accumulator back in service have arrived at site, but an outage is  
22 required to complete this work. This work will be completed if the unit is required to come offline for  
23 another reason.

24 Unit 3 was returned to service in generation mode on November 22, 2022. The unit is now considered  
25 fully available for full load operation; safety valve testing has been completed and the unit has been run  
26 up. All start-up checks for Unit 3 have been completed with one exception; the high pressure feed water  
27 heater has not yet been returned to service. This heater is not required for reliable operation at full  
28 load. Hydro is working towards returning this heater to service.

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<sup>5</sup> 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.

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 2.3. Black start testing has been  
9 successful for all gas turbines.

10 Operational testing of all gas turbines has been carried out throughout the year as planned and all WR  
11 capital upgrades and refurbishments have been completed by December 1, 2022.

12 **4.3 Hydraulic Generation**

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

18 The status of equipment and plant testing for hydraulic generation is indicated in Appendix C.<sup>6</sup> The  
19 planned inspection and testing for the Hinds Lake unit was completed on December 6, 2022 following a  
20 delay due to LIL testing. All other inspection and testing of hydraulic generating facilities have been  
21 completed by December 1, 2022.

22 **4.4 Transmission and Terminal Stations**

23 **4.4.1 Transmission**

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

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<sup>6</sup> For 2022, minor updates were made to the checklist to address some duplication and non-applicable items. There are no changes to the scope of planned testing.

1 Report.”<sup>7</sup> The report includes criteria for wood pole and steel structure line management programs,  
2 helicopter patrols, ground patrols, infrared inspections, wood pole treatment, and right-of-way  
3 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 Terminal Station Renewal Program  
8 (2023–2024) proposal, filed as part of Hydro’s 2023 Capital Budget Application.<sup>8</sup>

#### 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 2.5. All WR activities were completed  
20 by December 1, 2022.

### 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 2.6.  
24 All WR activities were completed by December 1, 2022.

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<sup>7</sup> “Transmission System and Terminal Station Asset Management Execution Report,” Newfoundland and Labrador Hydro, April 25, 2022.

<sup>8</sup> “2023 Capital Budget Application,” Newfoundland and Labrador Hydro, July 13, 2022, vol. II, sch. 6, prog. 3, att. 1.

## 5.0 Generation Outage Schedule

As reflected in Section 2.0, generating unit annual maintenance programs are substantially complete across the fleet. Since Hydro’s last WR report, annual maintenance programs have been completed for Bay d’Espoir Unit 4 and the Happy Valley GT. As well, Unit 2 at the Holyrood TGS is no longer derated.

Unit 1 at the Holyrood TGS has been derated to 80 MW since November 15 due to a ground fault on the East Boiler Feed Pump motor. These repairs are planned for completion by December 12.

Unit 3 at the Holyrood TGS has now been converted from synchronous condenser mode to generation mode. The unit has been derated to 120 MW since November 22 due to the requirement for boiler safety valve testing. The Unit was expected to return to full capacity by November 30, 2022 once all required testing has been completed; however, was derated to 140 MW after the testing to conduct repairs on the heavy oil gun scanner. The Unit was further derated to 100 MW on December 2, 2022 for the same issue; however, was returned to full capacity on the same day.

As discussed in Section 8.2.3, Hydro has requested an outage for Unit 1 at the Holyrood TGS, from December 8 to 21, 2022 in order to replace the oil in transformer T1. To date, the LIL has not been included in Hydro’s Island reserve calculations as it is still undergoing commissioning; however, when available, the LIL is used to help support the system, as is the plan during the planned outage on Unit 1 in December.

The approved Master Generation Outage Schedule for September 1 to December 31, 2022 is provided as Appendix D.

## 6.0 Critical Spares

### 6.1 Overview

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



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

5 A full update on the status of Hydro's critical spares, as of December 1, 2022, for the 2022–2023 winter  
6 season is provided in this report. This update includes a detailed listing of critical spares requirements  
7 for each area of generation operations and the status of each item.

## 8 **6.2 2022–2023 Winter Season**

9 Hydro's critical spares status leading into the 2022–2023 winter season is strong. For thermal  
10 generation, gas turbines, and hydraulic generation, 2,521 critical spares have been identified by Hydro's  
11 three generation operations areas. Of this total, 2,517 items are in stock (>99.8%), 3 items are in the  
12 procurement process, and 1 item is out for refurbishment.

### 13 **6.2.1 Thermal Generation**

14 As summarized in Table 2, there are three critical spare stock items currently not in stock. Two of the  
15 outstanding items are expected to be delivered by December 15, 2022, and do not present an  
16 appreciable risk to reliable operation of the units. The remaining item is being refurbished at a local  
17 maintenance facility, with an expected return before the end of December 2022.<sup>9</sup> This item is a spare  
18 boiler feed pump motor, which covers two operating pump motors. While in-service failure of one of  
19 these motors is unlikely, this would result in derating of the affected unit to approximately 50% load  
20 until the spare refurbishment can be completed and installed. Hydro continues to track the status of the  
21 outstanding critical spare stock items and will provide an update to the Board in January 2023.

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

24 **1) In Stock:** Part is in inventory;

---

<sup>9</sup> The refurbishment of this item was not included in Hydro's last WR report. The refurbishment requirement was not discovered until the item was required for use following the in-service failure of the East Boiler Feed Pump motor on November 15, 2022.

- 1       **2) Non-Stock:** Part is critical but it is not necessary to keep it in stock (e.g., because the part is
- 2               readily available locally);<sup>10</sup> and
- 3       **3) On Order:** Part is required to be in stock but is not.

**Table 2: Critical Spares for Thermal Generation**

Status	Quantity
In Stock	755
On Order	3
Not Yet On Order	0
<b>Total</b>	<b>758</b>

**6.2.2 Gas Turbines**

Table 3 summarizes the status of spare parts for the Hardwoods GT, Stephenville GT, Holyrood GT, and Happy Valley GT and Appendix F contains detailed lists for each gas turbine. In total, this list contains 546 critical items, all of which were in stock by December 1, 2022.

**Table 3: Critical Spares for Gas Turbine Generation**

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

Hydro has utilized a number of its spare parts to address deficiencies found during the 2022 maintenance season. These items have been identified and the spare components have been replenished.

<sup>10</sup> 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 6.2.3 Hydraulic Generation

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

**Table 4: Critical Spares for Hydraulic Generation**

<b>Status</b>	<b>Quantity</b>
In Stock	1,216
On Order	1
Not Yet On Order	0
<b>Total</b>	<b>1,217</b>

4 The Upper Salmon T2 spare transformer remains outstanding but does not present a risk to winter  
5 readiness.<sup>11</sup> This spare transformer was delivered to Upper Salmon in August 2021 from a factory in  
6 Turkey. Onsite acceptance testing revealed an internal grounding issue and the unit was not accepted by  
7 Hydro. Attempts to resolve the issue on site were unsuccessful and the unit was shipped to an offsite,  
8 manufacturer-affiliated repair facility in the United States of America in October 2021.

9 Further detailed inspections, testing, and unit disassembly (extending well into 2022), revealed  
10 additional significant and unexplained damage to the unit, most likely due to an impact event that  
11 occurred during shipping from the factory. Because of these observations, Hydro requires that the unit  
12 undergo more rigorous testing prior to acceptance, some of which can only be completed at the original  
13 equipment manufacturer (“OEM”) factory in Turkey. Since Hydro’s last WR report, the transformer was  
14 successfully shipped to Turkey. Hydro continues to work with the vendor to ensure completion of  
15 repairs and testing by the end of 2022, and anticipates the return of the unit to Upper Salmon during  
16 the second quarter of 2023.

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<sup>11</sup> 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.

## 7.0 Near-Term Reliability and Resource Adequacy

This section discusses the near-term reliability and resource adequacy of the Newfoundland and Labrador Interconnected System for the upcoming winter period. It provides a summary of the analysis presented in Hydro’s November 2022 “Near-Term Reliability Report” (“November 2022 Near-Term Report”).<sup>12</sup>

The reliability indices in the November 2022 Near-Term Report include both annual and monthly Loss of Load Hours (“LOLH”), Expected Unserved Energy (“EUE”), and Normalized EUE (“NEUE”)<sup>13</sup> for the period of January 1 to May 31, 2023. The analysis considers the different types of generating units (i.e., thermal, hydro, and wind) in Hydro’s fleet, firm capacity contractual sales and purchases, transmission constraints, peak load, load variations, load forecast uncertainty, and demand side management programs. A detailed discussion of the modelling approach used can be found in Hydro’s November 2022 Near-Term Report.

### 7.1 Assumptions

#### 7.1.1 Asset Performance

Hydro updates its assumptions for forced outage rates for all generation assets on an annual basis.<sup>14</sup>

Table 5 presents the forced outage rates used in this analysis. **Table 5: Forced Outage Rates for Hydro-Owned Assets**

Asset	Reliability Metric
Hydraulic Units	DAFOR <sup>15</sup> = 2.3%
Holyrood Thermal Units – Base Assumption	DAUFOP <sup>16</sup> = 20%
Holyrood Thermal Units – Sensitivity Assumptions	DAUFOP = 34%
Holyrood GT	DAUFOP = 4.9%
Happy Valley GT	DAUFOP = 6.7%
Stephenville GT	DAUFOP = 30%
Hardwoods GT	DAUFOP = 30%
Diesels	DAUFOP = 7.9%

<sup>12</sup> “Near-Term Reliability Report,” Newfoundland and Labrador Hydro, November 15, 2022.

<sup>13</sup> Normalized EUE provides a measure relative to the size of the assessment area. It is defined as:  $[(\text{Expected Unserved Energy})/(\text{Net Energy for Load})] \times 1,000,000$  with the measure of per unit parts per million.

<sup>14</sup> Forced outage rates are updated consistent with the forced outage rate methodology presented in the “Reliability and Resource Adequacy Study – 2022 Update,” Newfoundland and Labrador Hydro, October 3, 2022.

<sup>15</sup> Derated Adjusted Forced Outage Rate (“DAFOR”).

<sup>16</sup> Derated Adjusted Utilization Forced Outage Probability (“DAUFOP”).

1 For units not owned by Hydro, the forced outage rates used in Hydro’s modelling are determined using  
 2 industry averages.<sup>17</sup> Forced outage rates used in this analysis are presented in Table 6.

**Table 6: Forced Outage Rates for Third-Party-Owned Assets**

<b>Asset</b>	<b>Reliability Metric</b>
Hydraulic Units	DAFOR = 2.3%
Gas Turbines <sup>18</sup>	DAUFOP = 5.3%
Corner Brook Co-Generation	DAUFOP = 20.1%

3 **7.1.2 Labrador-Island Link Assumptions**

4 In previous near-term filings, once modelled as in service, the LIL’s availability was modelled with a  
 5 declining monopole forced outage rate (i.e., improving performance) to capture any testing activities  
 6 and potential operational unknowns during the first years of operation.<sup>19</sup> As noted in the 2022 Update,<sup>20</sup>  
 7 the bipole forced outage rate is a key driver for system reliability, and absent any long-term operational  
 8 experience with the LIL post-commissioning, Hydro recognizes that the previously-anticipated bipole  
 9 forced outage rate of 0.0114% is no longer appropriate. The monopole forced outage rate is not a driver  
 10 for LIL reliability, given the design capability for each pole to be loaded to 1.5 times its rated capacity on  
 11 a continuous basis (675 MW).

12 Until the LIL is fully commissioned with multiple years of operational experience to better inform the  
 13 selection of a bipole forced outage rate, the LIL capacity and bipole forced outage rate will be addressed  
 14 with a range of upper and lower limits. As LIL performance statistics become available in the coming  
 15 years, the forced outage rate range can be narrowed in future filings. A similar approach was taken with  
 16 the LIL capacities. As the LIL is not yet fully commissioned to its rated 900 MW capacity but has currently  
 17 been successfully tested up to 475 MW, a range of capacities was also considered. As has been observed  
 18 in prior near-term reliability reports, results of Hydro’s analysis indicate that reliable operation of the LIL

<sup>17</sup> As provided in Electricity Canada’s Generation Equipment Reliability System and North American Electric Reliability Corporation’s (“NERC”) Generation Availability Data System.

<sup>18</sup> Gas Turbines that are known to be reaching end-of-life (i.e. Newfoundland Power’s Greenhill and Wesleyville Gas Turbines) are modelled using a DAUFOP of 30%.

<sup>19</sup> In 2021, the monopole forced outage rate was assumed to be 10% for each pole and was maintained through 2022. The forced outage rate assumption decreased to 5.0% in 2023, 2.5% in 2024, and 1.0% per pole in 2025. It is assumed that the LIL would reach its design criteria monopole forced outage rate of 0.556% per pole in 2026.

<sup>20</sup> Refer to “Reliability and Resource Adequacy Study – 2022 Update,” Newfoundland and Labrador Hydro, October 3, 2022, vol. I, sec. 4.2.1.

1 is shown to provide system reliability benefits even at low power transfer levels. It is expected power  
2 transfer over the LIL will occur throughout the 2022–2023 winter operating season.

3 For the purpose of this analysis, the LIL is assumed to be available at a reduced capacity of 475 MW  
4 through 2023 with a 10% bipole forced outage rate, and at 675 MW with a 5% bipole forced outage rate  
5 thereafter, supported by the full availability of the Muskrat Falls generating units. Consistent with the  
6 2022 Update, bipole forced outage rate sensitivities are included as additional scenarios in the analysis.  
7 This ensures a prudent approach with respect to asset availability during the early years of in-service.

8 Delivery of the Nova Scotia Block<sup>21</sup> commenced in August 2021, with the first physical delivery occurring  
9 on August 17, 2021. Delivery of Supplemental Energy<sup>22</sup> commenced in November 2021, with the first  
10 physical delivery occurring on November 1, 2021 and ceasing on April 1, 2022. As per the Energy and  
11 Capacity Agreement, in instances where the LIL is fully unavailable, Hydro is not obligated to deliver the  
12 Nova Scotia Block or Supplemental Energy.

### 13 **7.1.3 Availability of Capacity Assistance Agreements**

14 Capacity assistance refers to curtailable loads and customer generation available to the utility under  
15 contract to provide capacity on an as-needed basis. Hydro currently has an agreement with Corner  
16 Brook Pulp and Paper Limited (“CBPP”) for capacity assistance. The current agreement expires on  
17 April 30, 2023, ensuring the availability to increase system reliability should the LIL be unavailable in the  
18 2022–2023 winter operating season.

## 19 **7.2 System Energy Capability**

20 Hydro maintains minimum storage limits to ensure that it is capable of reliably meeting customer energy  
21 requirements. In the current system, these limits represent the point at which generation at the  
22 Holyrood TGS would be required to be maximized to ensure Hydro could continue to meet customer  
23 requirements in consideration of the historical dry sequence. The limits do not consider the availability  
24 of imports over the Maritime Link, though imports can provide an additional opportunity to supplement  
25 energy in storage and economically reduce the amount of thermal generation required to maintain  
26 sufficient energy in storage. The 2022 limits were developed in consideration of the event that the LIL is

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<sup>21</sup> Pursuant to the Energy and Capacity Agreement between Nalcor Energy and Emera Inc., the Nova Scotia Block is a firm annual commitment of 980 GWh supplied from the Muskrat Falls Hydroelectric Generating Facility on peak.

<sup>22</sup> Supplemental Energy is an amount of energy delivered to Emera Inc. in equal annual amounts over each of the first five years of operation of the Muskrat Falls Hydroelectric Generating Facility during the months of January to March and November to December during off-peak hours.

- 1 unable to deliver energy to the Island Interconnected System for three months during winter 2023.<sup>23, 24</sup>
- 2 Regular assessments of storage at a reservoir-level basis are also completed to ensure that each
- 3 hydraulic generating unit remains capable of producing at full rated output through the winter period.
  
- 4 At this time, Hydro does not foresee using production from standby generation to support reservoir
- 5 levels. Regular assessments of storage at a reservoir-level basis are also completed to ensure that each
- 6 hydraulic generating unit remains capable of producing at full rated output through the winter period.
  
- 7 As of the end of November 30, 2022 the total system energy in storage was 2,062 GWh, 653 GWh above the
- 8 established minimum storage limit of 1,409 GWh. Chart 1 plots the 2021 and 2022 storage levels, minimum
- 9 and maximum operating level storage, and the 20-year average aggregate storage for comparison.

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<sup>23</sup> The three winter months are January to March 2023, inclusive.

<sup>24</sup> The 2022 analysis assumed that only one unit at the Holyrood TGS would be online at full capability while the LIL is delivering energy to the Island and that the other two units would be available but not online until the hypothetical three-month LIL outage, starting in January 2023. The methodology was updated in this way to acknowledge the financial benefits of supporting Island system storage with energy from the Muskrat Falls Hydroelectric Generating Facility instead of the thermal energy from the Holyrood TGS. The two Holyrood TGS units that are available but not online are viewed as a reliability measure for a LIL outage event but not as a preferred source of energy while the LIL is available.

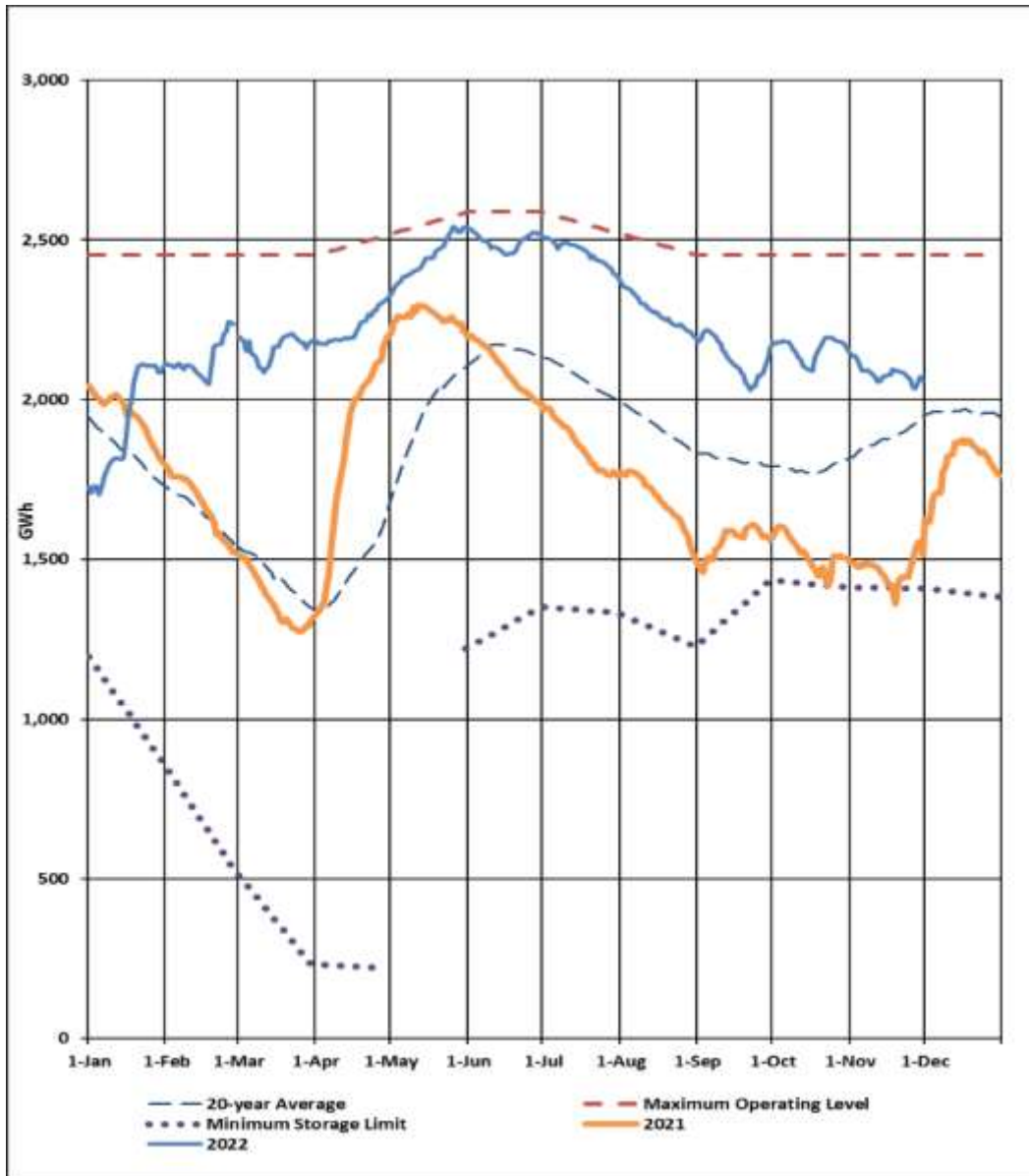


Chart 1: Total System Energy Storage for November 30, 2022

1 **7.3 Load Forecast**

2 Customer load requirements in this analysis are consistent with those used in Hydro’s November 2022  
 3 Near-Term Reliability Report.<sup>25</sup> The customer load requirement component of Hydro’s near-term load  
 4 forecast was developed using forecasted load requirements provided by Hydro’s Industrial customers as  
 5 well as Hydro’s load forecast for Newfoundland Power Inc. (“Newfoundland Power”) and its rural service  
 6 territories. Hydro relied on these inputs to determine a forecast of customer energy and coincident

<sup>25</sup> “Reliability and Resource Adequacy Study 2022 Update – Volume II: Near-Term Reliability Report – November Report,” Newfoundland and Labrador Hydro, November 15, 2022.



1 demand for the Island Interconnected System, the Labrador Interconnected System, and the  
2 Newfoundland and Labrador Interconnected System.

3 Changes in forecast load requirements since the filing of the Reliability and Resource Adequacy Study  
4 May 2022 Near-Term Reliability Report (“May 2022 Near-Term Report”)<sup>26</sup> include a minor change in  
5 forecast Island Interconnected System power and energy requirements across the medium term.  
6 Forecast Island Interconnected System peak demand requirement changes in the short term are  
7 approximately 0.8% higher than previously forecast and 3.3% higher through the medium term, with  
8 forecast energy requirements slightly higher (1.3%) through the medium term. Forecast power and  
9 energy requirements for the Island Interconnected System are higher than previously forecast primarily,  
10 as a result of an increase in the expectation of power requirements at Memorial University of  
11 Newfoundland and Vale Canada Limited (“Vale”).

12 Hydro’s near-term Labrador Interconnected System load forecast continues to reflect the unresolved  
13 power supply constraints to the western Labrador system. It is anticipated these constraints will be  
14 addressed through the ongoing implementation of the *Network Additions Policy*.<sup>27</sup>

15 Labrador Interconnected System forecast demand requirement is increased in 2023 compared to the  
16 May 2022 Near-Term Report, reflecting the assumption that Hydro will continue to serve an existing  
17 customer following the expiry of their contract in 2022, provided the work related to the Network  
18 Additions Policy is still ongoing.<sup>28,29</sup> Forecast demand requirements are also slightly higher (1.3%)  
19 through the medium term with energy requirements lower (1.3%) compared to the May 2022 Near-  
20 Term Report. Forecast energy requirements are lower as a result of a change in industrial requirements.

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<sup>26</sup> “Reliability and Resource Adequacy Study 2022 Update – Volume II: Near-Term Reliability Report – May Report,” Newfoundland and Labrador Hydro, May 16, 2022.

<sup>27</sup> Newfoundland and Labrador Hydro (2020). *Network Additions Policy – Labrador Interconnected System*, <<https://nlhydro.com/wp-content/uploads/2021/03/Network-Additions-Policy.pdf>>

<sup>28</sup> The existing customer’s contract is for temporary service for a data center operation.

<sup>29</sup> Following the conclusion of work on the Network Additions Policy, it is expected that new contracts with firm and or non-firm customers will be established.

**Table 7: 2023 Island Interconnected System Load Forecast**

	<b>MW</b>
Utility Requirements	1,487
Industrial Customers	161
<b>IIS<sup>30</sup> Customer Coincident Demand</b>	<b>1,648</b>
IIS Transmission Losses and Station Service Requirements	99
<b>Total IIS Requirements (P50)</b>	<b>1,747</b>
P90 Demand Adjustment	60
<b>Total IIS Requirements (P90)</b>	<b>1,807</b>

**Table 8: 2023 Labrador Interconnected System Load Forecast**

	<b>MW</b>
Utility Requirements	146
Industrial Customers	308
<b>LIS<sup>31</sup> Customer Coincident Demand</b>	<b>454</b>
LIS Transmission Losses and Station Service Requirements	29
<b>Total LIS Requirements</b>	<b>483</b>

**Table 9: 2023 Newfoundland and Labrador Interconnected System Load Forecast**

	<b>MW</b>
NLIS <sup>32</sup> Customer Coincident Demand	2,074
NLIS Transmission Losses and Station Service Requirements	127
<b>Total NLIS Requirements</b>	<b>2,201</b>
IIS P90 Demand Adjustment	60
<b>Total NLIS Requirements (including IIS P90 Demand Adjustment)</b>	<b>2,261</b>

## 1 7.4 Scenarios Considered and Results

- 2 The following subsections provide a description of the nine scenarios considered for winter 2023, and
- 3 the anticipated system reliability in each case (i.e., LOLH, EUE, and NEUE results).

<sup>30</sup> Island Interconnected System (“IIS”).

<sup>31</sup> Labrador Interconnected System (“LIS”).

<sup>32</sup> Newfoundland and Labrador Interconnected System (“NLIS”).

### 1 7.4.1 Scenarios

2 Nine scenarios were analyzed to assess system reliability under a range of potential system conditions.

- 3     • **Scenario 1:** Assumes that the LIL will be available at 475 MW with a 10% bipole forced outage  
4         rate until January 2024 and at 675 MW in January 2024 with a 5% bipole forced outage rate  
5         thereafter. This case assumes a DAUFOP of 20% for the Holyrood TGS as well as the retirement  
6         of Stephenville GT on March 31, 2024.
- 7     • **Scenario 2:** Varies from Scenario 1 by increasing the Holyrood TGS forced outage rate to the  
8         2021 actual of 34%.
  - 9         ○ **Scenario 2A:** Varies from Scenario 2 by including 50 MW of imports during peak hours  
10             during the 2023 winter season.
- 11    • **Scenario 3:** Varies from Scenario 1 by maintaining a 10% bipole forced outage rate through the  
12         study period.
- 13    • **Scenario 4:** Varies from Scenario 1 by decreasing the bipole forced outage rate to 1% in January  
14         2024 for the remainder of the study period.
- 15    • **Scenario 5:** Varies from Scenario 1 by assuming that the LIL is not available through the study  
16         period (2023–2027). The operation of Stephenville GT is extended through the study period at  
17         baseline forced outage rate as the operation of Holyrood TGS and Hardwoods GT are already  
18         assumed available through the study period.
- 19    • **Scenario 6:** Varies from Scenario 5 by increasing the Holyrood TGS DAFOR to the 2021 actual  
20         DAFOR of 34%.
- 21    • **Scenario 7:** Varies from Scenario 5 by including 50 MW of imports during peak hours during the  
22         winter season.
- 23    • **Scenario 8:** Varies from Scenario 5 by including 100 MW of imports during peak hours during the  
24         winter season.
- 25    • **Scenario 9:** Varies from Scenario 5 by including 150 MW of imports during peak hours during the  
26         winter season.

27 For all scenarios, it is assumed that the contract for capacity assistance with Vale is renewed for each  
28 winter season in the study period, the rationale being that if Hydro was in a loss of load situation in the  
29 possible event of a LIL bipole outage, these existing units could provide capacity assistance.

1 For CBPP Capacity Assistance, the existing agreement is in place until spring 2023. In all scenarios it is  
 2 assumed that the CBPP Capacity Assistance remains in place throughout the study period, beyond the  
 3 expiry of the current contract. Since the winter of 2014–2015, CBPP has been willing to enter into  
 4 mutually beneficial capacity assistance arrangements with Hydro. It is assumed that similar  
 5 arrangements will continue.

6 **7.4.2 Expected Unserved Energy and Loss of Load Hours Analysis**

7 **Annual Assessment Results**

8 Table 10, Table 11, and Table 12 provide the annual LOLH, EUE, and NEUE results, respectively. The basis  
 9 for comparison of results is Hydro’s existing LOLH criteria of not more than 2.8 hours per year. The LIL  
 10 reliability remains a key factor in the ability to economically achieve proposed planning criteria. Given  
 11 the level of uncertainty that remains, Hydro continues to recommend migrating to its proposed criteria  
 12 of 0.1 LOLE when the Muskrat Falls Project has been fully commissioned and thermal generation at the  
 13 Holyrood TGS, the Hardwoods GT, and the Stephenville GT has been retired. However, Hydro is  
 14 committed to reassessing this recommendation as part of the 2023 Reliability and Resource Adequacy  
 15 Study as Hydro continues to gather information while working with stakeholders.

**Table 10: LOLH Results from January to May 2023<sup>33,34</sup>**

Scenario	LOLH (hours)
Scenario 1: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR <sup>35</sup> = 5%, Holyrood TGS DAUFOP = 20%	0.80
Scenario 2: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 34%	2.50
Scenario 2A: Addition of 50 MW imports in 2023 only	1.50
Scenario 3: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 10%, Holyrood TGS DAUFOP = 20%	0.80
Scenario 4: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 1%, Holyrood TGS DAUFOP = 20%	0.80
Scenario 5: No LIL, Holyrood TGS DAUFOP = 20%	8.3
Scenario 6: No LIL, Holyrood TGS DAUFOP = 34%	25.3
Scenario 7: No LIL, Holyrood TGS DAUFOP = 20%, 50 MW imports	4.50
Scenario 8: No LIL, Holyrood TGS DAUFOP = 20%, 100 MW imports	2.40
Scenario 9: No LIL, Holyrood TGS DAUFOP = 20%, 150 MW imports	1.30

<sup>33</sup> Scenarios 3 and 4 are identical to Scenario 1 in 2023. Therefore, the results are the same.

<sup>34</sup> All scenarios assume the continuation of Hardwoods GT and Stephenville GT.

<sup>35</sup> Forced Outage Rate (“FOR”).

**Table 11: EUE Results from January to May 2023<sup>36</sup>**

Scenario	EUE (MWh)
Scenario 1: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 20%	49
Scenario 2: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 34%	176
Scenario 2A: Addition of 50 MW imports in 2023 only	96
Scenario 3: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 10%, Holyrood TGS DAUFOP = 20%	49
Scenario 4: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 1%, Holyrood TGS DAUFOP = 20%	52
Scenario 5: No LIL, Holyrood TGS DAUFOP = 20%	540
Scenario 6: No LIL, Holyrood TGS DAUFOP = 34%	1,793
Scenario 7: No LIL, Holyrood TGS DAUFOP = 20%, 50 MW imports	275
Scenario 8: No LIL, Holyrood TGS DAUFOP = 20%, 100 MW imports	139
Scenario 9: No LIL, Holyrood TGS DAUFOP = 20%, 150 MW imports	69

**Table 12: NEUE Results for 2023<sup>37,38</sup>**

Scenario	NEUE (ppm)
Scenario 1: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 20%	5
Scenario 2: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 34%	19
Scenario 2A: Addition of 50 MW imports in 2023 only	10
Scenario 3: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 10%, Holyrood TGS DAUFOP = 20%	5
Scenario 4: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 1%, Holyrood TGS DAUFOP = 20%	6
Scenario 5: No LIL, Holyrood TGS DAUFOP = 20%	57
Scenario 6: No LIL, Holyrood TGS DAUFOP = 34%	192
Scenario 7: No LIL, Holyrood TGS DAUFOP = 20%, 50 MW imports	29
Scenario 8: No LIL, Holyrood TGS DAUFOP = 20%, 100 MW imports	15
Scenario 9: No LIL, Holyrood TGS DAUFOP = 20%, 150 MW imports	7

- 1 The results of Scenarios 1 to 4 indicate that the availability of the LIL at partial capability, under various
- 2 LIL bipole forced outage rate, and backed up by the Holyrood TGS, Hardwoods GT, and Stephenville GT
- 3 mitigates the risk of lost load and unserved energy in the near term in almost all years, with the
- 4 exception of the year 2023 in Scenario 2. The results of Scenario 2 indicate that there is a risk to system

<sup>36</sup> All scenarios assume the continuation of Hardwoods GT and Stephenville GT.

<sup>37</sup> NEUE, given here in parts per million (ppm), represents lost load as a fraction of total system load. NERC recommends system operators consider NEUE a reliability metric; however, a single target threshold has not been set. Different jurisdictions use targets ranging from 10 to 30 ppm.

<sup>38</sup> All scenarios assume the continuation of Hardwoods GT and Stephenville GT.

1 reliability in 2023 only at the higher Holyrood TGS DAFOR value observed in 2021, combined with the  
2 increased LIL forced outage rate assumptions in 2023. Scenario 2A indicates that imports of 50 MW on-  
3 peak during the 2023 winter period mitigate this risk. However, there is no guarantee that an import  
4 contract would be available for this time period. As such, it can be observed that there is an increased  
5 risk of generation shortfall until the LIL is reliably in service, with the amount of risk highly dependent on  
6 the LIL bipole forced outage rate and the availability of the Holyrood TGS. These results support  
7 continued, measured investment to maintain Holyrood TGS and Hardwoods GT as a reliable generation  
8 stations in the near term.

9 Scenario 5 indicates that if the LIL is fully unavailable during the winter operating season, there is a  
10 material risk to system reliability in the near term, despite the continuation of Holyrood TGS,  
11 Hardwoods GT, and Stephenville GT. This is a shift from what was reported in the May 2022 Near-Term  
12 Report, and therefore the October Winter Readiness report, due to a decrease in what is accounted for  
13 as Newfoundland Power’s firm hydro capacity, a material increase in the forced outage rate used for  
14 Newfoundland Power’s retiring thermal assets, and the projected load is slightly higher in the 2022 load  
15 forecast. With that said, progress has been made with integrating the Muskrat Falls assets to the Island  
16 Interconnected System, with the LIL currently tested and operated to 475 MW. It is expected that the LIL  
17 will be available in some capacity through the winter period.

18 The results of Scenario 6 demonstrate that if the LIL becomes unavailable through the study period  
19 concurrent with a high degree of unavailability at the Holyrood TGS, there is a considerable amount of  
20 system risk present. As both Scenarios 5 and 6 assess the extreme cases for both the LIL reliability and  
21 Holyrood TGS reliability, they are not likely to occur.

22 Finally, as demonstrated in Scenarios 7 through 9, imports over the Maritime Link could be used to  
23 reduce the risk of generation shortfall in the event of the absence of the LIL through the study period.

## 24 **Monthly Assessment Results**

25 Table 13 and Table 14 provide monthly analyses of LOLH and EUE, respectively. The monthly analyses  
26 provide additional detail that assists in examining the complexity of the changing power system that  
27 would not necessarily be apparent from an analysis of the annual results only. Completing monthly  
28 analyses allows for easier identification of changes in system behaviour. For example, if a system had a  
29 change in forecast peak demand with no resultant change in annual LOLH or EUE, the monthly analysis  
30 would indicate where differences in LOLH and EUE were anticipated, allowing for better understanding

1 of the drivers of the annual results. This type of analysis is used by NERC-regulated utilities to  
 2 complement long-term reliability assessments.

3 In Scenarios 1 to 4, the availability of the LIL at partial capability, backed up by the Holyrood TGS,  
 4 Hardwoods GT, and Stephenville GT, largely mitigates the risk of lost load and unserved energy. As  
 5 expected, the results of Scenarios 2 and 3 indicate that both LOLH and EUE grow as the unavailability of  
 6 the Holyrood TGS and/or LIL increases.

7 The results of Scenarios 5 to 6 indicate that if the LIL is fully unavailable during the winter operating  
 8 season, both LOLH and EUE grow as the unavailability of Holyrood TGS increases.

9 Finally, as seen in Scenarios 7 and 8, the import of firm energy over the Maritime Link produces an  
 10 improvement in system reliability, a firm energy import of 100 MW during on-peak hours from January  
 11 through March would be necessary to mitigate the risk in the immediate term.

**Table 13: Monthly LOLH for January to May 2023 (Hours)<sup>39,40,41</sup>**

Scenario	Jan	Feb	Mar	Apr	May
Scenario 1: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 20%	0.5	0.2	0.1	0.0	0.0
Scenario 2: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 34%	1.5	0.7	0.3	0.0	0.0
Scenario 2A: Addition of 50 MW imports in 2023 only	0.9	0.4	0.2	0.0	0.0
Scenario 3: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 10%, Holyrood TGS DAUFOP = 20%	0.5	0.2	0.1	0.0	0.0
Scenario 4: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 1%, Holyrood TGS DAUFOP = 20%	0.5	0.2	0.1	0.0	0.0
Scenario 5: No LIL, Holyrood TGS DAUFOP = 20%	5.3	2.1	0.9	0.0	0.0
Scenario 6: No LIL, Holyrood TGS DAUFOP = 34%	14.6	7.0	3.4	0.2	0.1
Scenario 7: No LIL, Holyrood TGS DAUFOP = 20%, 50 MW imports	3.0	1.1	0.4	0.0	0.0
Scenario 8: No LIL, Holyrood TGS DAUFOP = 20%, 100 MW imports	1.7	0.5	0.2	0.0	0.0
Scenario 9: No LIL, Holyrood TGS DAUFOP = 20%, 150 MW imports	0.9	0.3	0.1	0.0	0.0

<sup>39</sup> Numbers may not add due to rounding.

<sup>40</sup> Scenarios 3 and 4 are identical to scenario 1 in 2023. Therefore, the results are the same.

<sup>41</sup> All scenarios assume the continuation of Hardwoods GT and Stephenville GT.

**Table 14: Monthly EUE for January to May 2023 (MWh)<sup>42,43</sup>**

Scenario	Jan	Feb	Mar	Apr	May
Scenario 1: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 20%	34	12	3	0	0
Scenario 2: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 5%, Holyrood TGS DAUFOP = 34%	111	46	19	0	0
Scenario 2A: Addition of 50 MW imports in 2023 only	61	24	10	1	0
Scenario 3: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 10%, Holyrood TGS DAUFOP = 20%	31	12	6	0	0
Scenario 4: LIL at 475 MW to January 2024, increasing to 675 MW, LIL bipole FOR = 1%, Holyrood TGS DAUFOP = 20%	36	11	5	0	0
Scenario 5: No LIL, Holyrood TGS DAUFOP = 20%	365	120	52	2	1
Scenario 6: No LIL, Holyrood TGS DAUFOP = 34%	1,117	469	197	7	3
Scenario 7: No LIL, Holyrood TGS DAUFOP = 20%, 50 MW imports	192	60	21	1	1
Scenario 8: No LIL, Holyrood TGS DAUFOP = 20%, 100 MW imports	101	27	9	1	1
Scenario 9: No LIL, Holyrood TGS DAUFOP = 20%, 150 MW imports	49	12	5	2	1

## 1 8.0 Risk and Risk Mitigation

2 Hydro’s readiness planning for the 2022–2023 winter season is nearing completion. All generating units  
 3 are planned to be available for December 12, 2022; however, a subsequent outage for Holyrood TGS  
 4 Unit 1 in December will be required as discussed below. Potential system risks and associated mitigation  
 5 plans are provided in the sections that follow.

### 6 8.1 Bay d’Espoir Operations

7 Bay d’Espoir generation is fully available as of December 6, 2022. Three risks to winter readiness and/or  
 8 reliable operations are updated in Sections 8.1.1 to 8.1.3.

#### 9 8.1.1 Upper Salmon Rotor Key Cracking and Rotor Rim Guidance Block Defects

10 In 2021, Hydro completed replacement of all rotor rim guidance blocks on the Upper Salmon unit  
 11 following the discovery of cracking through the completion non-destructive testing (“NDT”) during the  
 12 2021 annual maintenance outage, as previously reported.

13 Since that time, in consultation with the OEM, Hydro has continued to complete regularly scheduled  
 14 NDT inspections throughout 2022. Inspections completed in February, May, July, and October 2022  
 15 revealed no material concerns on the rim guidance blocks installed in 2021; however, cracks and fretting

<sup>42</sup> Numbers may not add due to rounding.

<sup>43</sup> All scenarios assume the continuation of Hardwoods GT and Stephenville GT.



1 corrosion<sup>44</sup> were found on rim keys similar in nature to what has been observed in recent years. The  
2 most recent inspection was completed on November 29, 2022, which again revealed cracks on rim keys,  
3 as found during previous inspections. In addition, two small cracks were discovered which had  
4 propagated into the heat affected zone of the rim guidance blocks. All cracks were repaired and the unit  
5 was returned to service, with the next 1,000 hour inspection anticipated for early 2023.

6 Although Hydro has mitigated risk of failure to the extent possible in the near term, there is residual risk  
7 that a failure could occur. To ensure long-term reliability, Hydro is proceeding with the work outlined in  
8 the approved supplemental capital budget application<sup>45</sup> and will undertake the required life extension  
9 activities in 2023.

### 10 **8.1.2 Bay d’Espoir Penstocks**

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

14 Penstock 1 was inspected in April 2022 and during the inspection, two weld indications were discovered  
15 in previously repaired areas of the penstock. These indications were similar in condition to those  
16 previously discovered. Weld refurbishment was completed and the penstock was returned to service.

17 The inspection of Penstock 3 was completed in May 2022 and did not reveal any major defects or areas  
18 of concern for the upcoming WR period.

19 The inspection of Penstock 2 was completed in October 2022 and did not reveal any major defects or  
20 areas of concern for the upcoming WR period.

21 Hydro has used the information obtained through the inspection and refurbishment process to inform  
22 its long-term plan for the penstocks. Hydro filed the details of its long-term plan for the penstocks in a  
23 supplemental capital application to the Board on December 7, 2022.<sup>46</sup>

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<sup>44</sup> Refers to the wear observed between contact surfaces. In the case of Upper Salmon, this phenomenon occurs between the surfaces of the rotor rim guidance blocks and the rotor rim keys.

<sup>45</sup> “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.

<sup>46</sup> “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.

1 Hydro has continued to take proactive measures to reduce downtime should another penstock leak  
2 occur. In order to minimize response time in the event of a penstock rupture, Hydro has maintained its  
3 inventory of pre-rolled steel plate, consulted with third-party contractors to confirm priority availability  
4 of local welding resources, and will ensure heavy equipment availability and readiness to avoid potential  
5 transportation issues during winter months when the access roads can be snow covered and icy.  
6 Modifications remain in place to the Automatic Generator Control application in Hydro’s Energy  
7 Management System, designed to limit the amount of rough zone operation, as well as the more  
8 prescriptive operating regime for Units 1 and 2. Under this operating regime, once dispatched, Units 1  
9 and 2 are limited to a minimum loading of 50 MW and are not cycled or shut down as part of normal  
10 system operations.

11 Although Hydro has mitigated risk of failure to the extent possible, there is residual risk that a failure  
12 could occur before further life extension work is completed. Hydro has estimated a 13- to 23-day repair  
13 timeline, depending on circumstances, should a new failure occur.

### 14 **8.1.3 Bay d’Espoir Terminal Station Circuit Breaker Failures**

15 Since October 2018, Hydro has experienced four failures of 230 kV General Electric (“GE”) dead tank  
16 circuit breakers at the Bay d’Espoir Terminal Station.<sup>47</sup> Hydro has developed plans to minimize outage  
17 duration in the event of another failure by ensuring the availability of a spare breaker and spare breaker  
18 phases. In the event of a failure, the associated outage duration to complete repairs is estimated to be  
19 two to three days. Hydro has also implemented new generator operating instructions supplemented  
20 with additional breaker protection to reduce the risk of failure.

21 Hydro has developed a plan for replacement of the five GE generator breakers installed at Bay d’Espoir.  
22 Hydro included the replacement of three of the Bay d’Espoir Terminal Station unit circuit breakers in its  
23 Replace Circuit Breaker (2022–2023) project,<sup>48</sup> with one originally planned for installation in 2022 and  
24 two in 2023. The remaining two breaker replacements will be proposed in a future application.

25 Three replacement circuit breakers were ordered in 2022 as planned; however, the vendor was not able  
26 to deliver the circuit breaker for Unit 3 in time for the planned maintenance outage of the unit in

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<sup>47</sup> “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.

<sup>48</sup> “2022 Capital Budget Application,” Newfoundland and Labrador Hydro, rev. September 17, 2021 (originally filed August 2, 2021), vol. II, sch. 8, tab 18.

1 October 2022. The breaker poles were received in November 2022, but the delivery of the remaining  
2 components of the breaker has been revised to February 2023 due to supply chain issues. The  
3 installation of the Unit 3 circuit breaker has carried over for execution in 2023. Subject to unit outage  
4 availability, Hydro now plans to install three breakers in 2023 and the final two replacements remain  
5 planned for 2024.

6 While the 2022 circuit breaker replacement has carried over to 2023, there is no change to the risk of  
7 failure. Hydro’s mitigation plan remains in place to ensure a limited impact to the system should a  
8 failure occur.

## 9 **8.2 Holyrood Thermal Generating Station Operations**

10 All generating units at the Holyrood TGS are planned to be available for full load capability by  
11 December 12, 2022; however, a subsequent outage will be required for Unit 1 from December 8 to 21,  
12 2022 as discussed below. Five items influencing WR and/or reliable operations are identified in the  
13 following sections, two of which have been added since the last report.

### 14 **8.2.1 Variable Frequency Drives**

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

### 23 **8.2.2 Unit 2 Capability – T2 Power Transformer**

24 After the failure of T2 power transformer on November 12, 2021, Unit 2 was returned to service with a  
25 revised capability of 150 MW as a result of the rating of the utilized spare transformer.

26 With a cooling pump upgrade on T2 completed in October 2022, and testing completed on the  
27 transformer at high output on December 1, 2022, Unit 2 has been increased to a 170 MW rating for the  
28 coming winter season.

1 **8.2.3 Holyrood TGS Unit 1 Availability - T1 Oil Replacement**

2 As a result of the Holyrood Transformer T2 ("HRDT2") failure in November 2021, and the fact that  
3 HRDT2 had corrosive sulphur present in the oil, Hydro completed further review in 2022 of the corrosive  
4 sulphur risk in other transformers, known to contain corrosive sulphur, with assistance from Doble  
5 Engineering and Hitachi Energy. The following transformers were included in this review: Hinds Lake T1  
6 ("HLKT1"), Hinds Lake T2 ("HLKT2"), Grand Falls T2 ("GFT2"), Cat Arm T1 Spare ("CATT1S"), and Holyrood  
7 T1 ("HRDT1").

8 As of October 31, 2022, the pre-winter risk mitigation required for the above noted transformers has  
9 been completed with the exception of HRDT1. The mitigation planned for HRDT1 is to drain, flush,  
10 dispose of oil, replace with new oil, and passivate.<sup>49</sup> Hydro is finalizing a plan to replace the oil in HRDT1  
11 in December 2022. While Hydro has since awarded this work, earlier attempts to award and complete  
12 execution prior to December 1, 2022 were not successful due to contractor availability. To  
13 accommodate this work on HRD T1, Unit 1 generation will be unavailable from December 8–21, 2022.  
14 Hydro continues to track remaining activities related to this work and will provide an update to the  
15 Board in January 2023.

16 **8.2.4 Holyrood TGS Unit 1 Derating - East Boiler Feed Pump Motor Replacement**

17 On November 15, 2022, Holyrood Operations attempted to return the East Boiler Feed Pump to service  
18 following a unit trip caused by a system event that occurred the previous day. Upon attempts to restart  
19 the pump, the motor failed during the start sequence, leaving the pump unavailable for service. As a  
20 result of having one of two boiler feed pumps not available, the unit is derated to 80 MW until work to  
21 replace the east boiler feed pump motor is completed. The refurbished motor was received on  
22 December 7, 2022. Hydro is working with the motor service provider for Holyrood TGS to return this  
23 pump to service as quickly as possible, with Unit 1 expected to be available for full load capability by  
24 December 12.

25 A spare boiler feed pump motor, which covers two operating pump motors, has been sent for  
26 refurbishment at a local maintenance facility, with an expected return before the end of December  
27 2022. While in-service failure of one of these motors is unlikely, this would result in derating of the  
28 affected unit to approximately 50% load until the spare refurbishment can be completed and installed.

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<sup>49</sup> The addition of a transformer oil treatment designed to protect copper from corrosive sulphur.

1 Hydro continues to track remaining activities related to this work and will provide an update to the  
2 Board in January 2023.

### 3 **8.2.5 Holyrood TGS T7 Transformer Replacement**

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

7 For the past two years, delays in interconnecting Happy Valley Terminal Station to Muskrat Falls did not  
8 allow Churchill Falls T31 to be moved to Holyrood. As a result, Hydro worked with Newfoundland Power  
9 to develop operating procedures to ensure the reliable operation of the 138 kV network on the Avalon  
10 Peninsula. These same operating instructions will remain in place into 2023.

### 11 **8.3 Generator Step-Up Transformer Spares**

12 In July 2022, Hydro experienced a failure of the generator step-up transformer T5 in Bay d’Espoir.  
13 Following the T5 failure, Hydro’s spare transformer (previously located in Upper Salmon) was relocated  
14 to Bay d’Espoir and placed in service and Unit 5 was returned to service.

15 In November 2021, Hydro experienced a failure of the generator step-up transformer T2 at the  
16 Holyrood TGS. Hydro installed a spare transformer located at the Holyrood TGS. Refurbishment of the  
17 original T2 transformer was determined not to be economically feasible at that time.

18 The Upper Salmon spare transformer is a 100 MVA transformer and served as a spare for the generating  
19 step-up transformers for Bay d’Espoir Units 1–6, Granite Canal, and Upper Salmon, as well as a derated  
20 spare for Bay d’Espoir Unit 7. Modifications were previously underway to enable the use of this  
21 transformer as a spare for Units 1, 2, and 3 at the Holyrood TGS; however, with the spare transformer  
22 relocated and placed in service in Bay d’Espoir, Hydro does not currently have a spare generator step-up  
23 transformer for the aforementioned Holyrood TGS units.

24 Hydro is working with the OEM to refurbish the failed original T5 transformer. It is expected the original  
25 T5 transformer refurbishment will be completed in December 2022; however, modification of bus duct  
26 adaptor kits is required to enable the utilization of the original T5 as a spare<sup>50</sup> for Bay d’Espoir T4, Bay

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<sup>50</sup> Refurbishment of T5 to replenish Hydro’s Capital Spare inventory is ongoing within Hydro’s Terminal Station In-Service Failure program. The estimated cost to refurbish T5 and modify the bus duct adapter kits is approximately \$2.5 million.

1 d’Espoir T7 (derated to 50 MVA due to rough zone on Bay d’Espoir Unit 7) and Granite Canal. No bus  
2 duct adaptor kits are required for Bay d’Espoir T1, T2, T3, T5 and T6. Hydro is continuing to work with  
3 the manufacturer to finalize a plan to have the bus duct kits modified for use for Bay d’Espoir T4, Bay  
4 d’Espoir T7 and Granite Canal, in the case they are required to be utilized with the original T5 spare.

5 Due to a mismatch of the generator terminal voltages, the original T5 is not suitable as a spare  
6 transformer for the Holyrood TGS units. Hydro is evaluating the options for a Holyrood TGS spare  
7 generator step-up transformer. This review will also consider the generator step-up transformer spare  
8 requirements elsewhere on the Island due to the use of the Holyrood Spare transformer in January  
9 2022, due to the failure of Holyrood T2, and the use of the only hydraulic generator step-up transformer  
10 after the failure of Bay d’Espoir T5 in July 2022. Should Hydro determine through its review that  
11 procurement of a spare transformer for Holyrood is required to ensure reliable service, Hydro will make  
12 a further application for capital expenditure with the Board, the timing of which remains to be  
13 determined.<sup>51</sup>

14 Hydro continues to track remaining activities related to this work and will provide an update to the  
15 Board in January 2023.

## 16 **8.4 Gas Turbine Operations**

17 As of December 1, 2022, all gas turbines are fully available. One risk to winter readiness and/or reliable  
18 operations is updated in Section 8.1.1.

### 19 **8.4.1 Stephenville Gas Turbine – Alternator Cooling System**

20 The alternator at the Stephenville GT is liquid cooled using a 50/50 mixture of water and glycol. This  
21 coolant is pumped through the cooling system, allowing heat to be exchanged to the ambient air  
22 outside the generator enclosure. On September 27, 2022, one of the glycol pumps experienced a  
23 bearing failure, resulting in internal damage to the pump, damage to the glycol piping, and the loss of  
24 coolant from the system.

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<sup>51</sup> Preliminary information indicates that a spare generator step-up transformer would have a lead time of two years or more. Hydro is also considering the option of removing the in-service “Upper Salmon transformer” from the Bay d’Espoir T5 slot and returning the refurbished T5 transformer to its original position during the summer of 2023 to enable the continued utilization of the “Upper Salmon transformer” as a spare.

1 Hydro does not stock a complete spare glycol pump, as the cooling system design includes a redundant  
2 pump to allow the unit to remain in service should a pump failure occur. Hydro stocks a spare parts kit;  
3 however, the existing spare parts kit does not include some of the pump components that were  
4 damaged during the pump bearing failure. The components required to repair the pump were delivered  
5 during the first week of November 2022. However, upon starting the repairs, it was discovered that  
6 additional components were required. These components were received late November 2022. Repair  
7 and installation of the pump is expected to be completed by mid-December 2022. Hydro continues to  
8 track remaining activities related to this work and will provide an update to the Board in January 2023.

9 To mitigate the risk of an issue with the remaining glycol pump, Hydro completed a detailed inspection  
10 of the pump and the cooling system prior to returning the unit to service on October 16, 2022. The  
11 pump was found to be in good condition for continued use. Hydro also completely flushed the glycol  
12 piping to ensure the system was free of debris that could damage a pump while in operation.

## 13 **9.0 Conclusion**

14 Hydro is confident in its ability to serve its customers during the 2022–2023 winter season. The results  
15 of Hydro's review of the year-to-date planned completion status of its AWP for both the Labrador  
16 Interconnected System and Island Interconnected System indicate that Hydro is well positioned for  
17 winter.

18 Primary generation sources are planned to be fully available by December 12, 2022; however, Holyrood  
19 TGS Unit 1 will remain offline from December 8 to 21, 2022 to facilitate work on Transformer T1. Bay  
20 d'Espoir Unit 7 returned to service on December 4, 2022. The Hinds Lake unit returned to service on  
21 December 6, 2022. Hydro can use deliveries over the LIL and seek imports to the degree required,  
22 should forecast loads indicate a potential for impact to customers associated with the extended outage  
23 of this unit.

24 Outstanding WR activities remain for Holyrood TGS Unit 1 and Balance of Plant. The outstanding WR  
25 activity for Holyrood TGS Unit 1 will be completed during the upcoming outage to this unit. One  
26 remaining WR activity for Holyrood TGS Balance of Plant was completed on December 2, 2022, while the  
27 others are planned for completion in early January 2023 and December 12, 2022, following which the  
28 unit will return to full load capability. Outstanding WR activities for Bay d'Espoir Unit 7 and the Hinds  
29 Lake unit were completed by December 6, 2022 following the completion of WR outages for these units.

- 1 All planned WR activities for gas turbine generation, transmission and terminal stations, and network
- 2 services are complete. All twelve capital projects with WR scope were completed by December 1, 2022.
- 3 Hydro continues to track remaining work activities and will provide an update to the Board in January
- 4 2023.



# Appendix A

## Status of Capital Projects Related to Winter Readiness





Status of Winter Readiness Scope in 2022 Capital Projects on the  
Island and Labrador Interconnected Systems

Asset Category	Project Title	Expected Completion of Winter Readiness Scope (December 1, 2022 Update)
Hydraulic Generation	Bay d'Espoir – Refurbish Unit 6 Generator Stator <sup>1</sup>	Complete
Hydraulic Generation	Bay d'Espoir – Overhaul Unit 4 Turbine and Generator <sup>2</sup>	Complete
Hydraulic Generation	Hinds Lake – Replace Battery Banks and Chargers	Complete
Thermal Generation	Holyrood – Upgrade Uninterruptible Power Supply 3 and 4	Complete
Thermal Generation	Holyrood – Overhaul Major Pumps	Complete
Thermal Generation	Holyrood – Boiler Condition Assessment and Miscellaneous Upgrades	Complete
Thermal Generation	Holyrood – Turbine Valve Overhaul Unit 3	Complete
Gas Turbine Generation	Gas Turbines – Purchase Capital Spares	Complete
Terminal Stations	Holyrood – Replace Transformer T2	Complete
Terminal Stations	Various Terminals Stations – Replace Instrument Transformers <sup>3</sup>	Complete
Terminal Stations	Various Terminal Stations – Upgrade Circuit Breakers	Complete
Terminal Stations	Muskrat Falls to Happy Valley Interconnection	Complete

<sup>1</sup> This project is part of the Hydraulic Generation Refurbishment and Modernization Project (2021–2022).

<sup>2</sup> This project is part of the Hydraulic Generation Refurbishment and Modernization Project (2022–2023).

<sup>3</sup> This project is part of the Terminal Station Refurbishment and Modernization Project (2021–2022).

# Appendix B

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





**Holyrood Thermal Generating Station  
Winter Readiness Testing**

2-Dec-22

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.	Y	Y	Y	N/A
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	Y	Y	N/A
Safety Valves Testing as Required (Post Start-Up)	Y	Y	Y	N/A
Boiler Operational Offline High/Low Drum Level Trip Tests	Y	Y	Y	N/A
Hydrogen ("H <sub>2</sub> ") Emergency Venting Valving	Y	Y	Y	N/A
Breaker and Disconnect Operation Verified by Operations Department and Whitbourne Crew	Y	Y	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	Y
All Portable Air Compressors Available	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	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	S/U
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**

2-Dec-22

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	Y	N/A
Analytical Rack Sample Cooler Filters Cleaned/Replaced as Required	Y	Y	Y	N/A
Analytical Rack Sample Coolers Cooling Water In Service	Y	Y	Y	N/A
Two Sample Cooling Water Pumps Availability	N/A	N/A	N/A	Y

Clarifier				
Clarifier Recirculator, Variable Frequency Drive ("VFD") Motor, VFD Controller	N/A	N/A	N/A	Y
Clarifier Recirculator Scraper	N/A	N/A	N/A	Y
Clarifier Badger Meter and Clearwell Instrumentation	N/A	N/A	N/A	Y

Sand Filters				
Sand Filters (Nos. 1, 2 and 3) Resin Integrity	N/A	N/A	N/A	Y
Sand Filters (Nos. 1, 2 and 3) Valve Operation (Normal and Backwashing, etc.)	N/A	N/A	N/A	Y
Two Clearwell Pumps Available	N/A	N/A	N/A	Y

Deminerlization System				
Cation and Anion Trains (A, B and C) Resin Integrity	N/A	N/A	N/A	Y
Adequate Supply of Chemicals (Caustic Soda, Sulphuric Acid, 1172, 1179, Polymer, etc.)	N/A	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Transfer Pumps, Valves, Lines, etc.	N/A	N/A	N/A	Y
Sulphuric Acid and Caustic Soda Regeneration Sets, Pumps, Valves, Lines, etc.	N/A	N/A	N/A	Y
Caustic Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	N/A	Y
Brine Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	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

2-Dec-22

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	Y	N/A
CW Pump Motors Oil Normal Operating Level	Y	Y	N/A
CW Pumps Operational	Y	Y	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	Y	N/A
Condenser Backwashed	Y	Y	N/A
General Service ("GS") Coolers Backwashed, Cleaned, etc.	Y	Y	N/A
Turbine/Generator ("TG") Coolers Backwashed, Cleaned, etc.	Y	Y	N/A
Vacuum Pump Coolers Backwashed, Cleaned, etc.	Y	Y	N/A

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

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

2-Dec-22

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

2-Dec-22

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

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

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

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

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

2-Dec-22

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

	Status of Test			Balance of Plant
	Unit 1	Unit 2	Unit 3	
<b>Condensate Polishers</b>				
Resin Integrity Verified	Y	Y	Y	N/A
Two Polishers Rinsed and Available	Y	Y	Y	N/A
Valve Operation (Normal and Regenerating, etc.)	Y	Y	Y	N/A
Regeneration System Skids Available (Valving, Pumps, Plowers, Tanks, etc.)	Y	Y	Y	N/A
Condensate Polisher Bypass Control Valve Operational	Y	Y	Y	N/A

<b>LP Heaters</b>				
	Unit 1	Unit 2	Unit 3	Balance of Plant
Low Load Recirculation Control Valve Operation	Y	Y	Y	N/A

<b>Deaerator</b>				
	Unit 1	Unit 2	Unit 3	Balance of Plant
Deaerator Normal Operating Level	Y	Y	Y	N/A
Deaerator Steam Coil Operational	Y	Y	Y	N/A
Deaerator Pegging Steam Operational	Y	Y	Y	N/A
Deaerator Low Level Trip Test	Y	Y	Y	N/A

<b>Miscellaneous</b>				
	Unit 1	Unit 2	Unit 3	Balance of Plant
Condenser Flash Tank Control Valve Operation/Position	Y	Y	Y	N/A
Turbine LP Exhaust Hood Spray Motorized Valve Operation	Y	Y	Y	N/A
Start-Up Desuperheater Steam and Water Valving Operational (Units 1 and 2)	Y	Y	N/A	N/A
LP Heater Bled Steam Check Valves Operational	Y	Y	Y	N/A

<b>Bled Steam and Heater Drains System</b>				
	Unit 1	Unit 2	Unit 3	Balance of Plant
LP and HP Instrumentation and Control Operational	Y	Y	Y	N/A
LP and HP Heater Level Control Operational	S/U	Y	Y	N/A
LP Heater Condensate Drains Pumps Operational	S/U	Y	Y	N/A
#4 HP Heater Condensate Drains Pump Operational	S/U	Y	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

2-Dec-22

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	Y	Y	N/A

Forced Draft ("FD") Fans and Air Dampers	Unit 1	Unit 2	Unit 3	Balance of Plant
Two FD Fans Available	Y	Y	Y	N/A
Bearing Oil Normal Operating Level	Y	Y	Y	N/A
Cooling Water on to Fans	Y	Y	Y	N/A
Stroke Variable Inlet Vanes	Y	Y	Y	N/A
Stroke Discharge Dampers	Y	Y	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	Y	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	Y	Y	N/A
Rotary Air Heaters Bearing Oil (Top and Bottom) Normal Operating Level	Y	Y	Y	N/A
Rotary Air Heaters Bearing Cooling Water On	Y	Y	Y	N/A
Rotary Air Heaters Electric Motor Drives Operational	Y	Y	Y	N/A
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open	Y	Y	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	Y	Y	N/A
Rotary Air Heaters Steam Supply Control Valves Operational (*Note: Two Steam Supplies on Units 1 and 2)	Y	Y	Y	N/A
Rotary Air Heaters Sootblowers Operational	Y	Y	Y	N/A

Boiler Sootblowing System	Unit 1	Unit 2	Unit 3	Balance of Plant
Sootblower Control Panel Operational	Y	Y	Y	N/A
Sootblowers Steam Supply Control Valve Operational	Y	Y	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	Y	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

2-Dec-22

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

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

Fuel Oil Delivery System, Auxiliary Steam and Fuel Oil Piping System	Unit 1	Unit 2	Unit 3	Balance of Plant
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	N/A
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

2-Dec-22

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

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

	Unit 1	Unit 2	Unit 3	Balance of Plant
<b>Fuel Oil Supply Control, Trip, Long and Short Recirculation Valves</b>				
Fuel Oil Supply Control Valve Operational	Y	Y	Y	N/A
Fuel Oil Trip Valve Operational	Y	Y	Y	N/A
Fuel Oil Long Recirculation Valve Operational (Units 1 and 2)	Y	Y	N/A	N/A
Fuel Oil Short Recirculation Valve Operational (Units 1 and 2)	Y	Y	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
<b>Burners</b>				
All Burners Cleaned, Securely in Place with Associated Lines Securely Fastened	Y	Y	Y	N/A
All Burners Checked for Operation During Unit Start-Up (e.g. Advancing/Retracting, Valve Operation, Lighting, etc.)	Y	Y	Y	N/A
All Burner Tilts Checked for Operation (Units 1 and 2)	Y	Y	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

2-Dec-22

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

Fuel Additive System			
Adequate Supply Available	Y	Y	N/A
Pumps Available	Y	Y	N/A
Tanks, Agitators, etc. Available	N/A	N/A	N/A

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

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

2-Dec-22

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

TG System	Unit 1	Unit 2	Unit 3	Balance of Plant
<b>Hydraulic System Units 1 and 2</b>				
Hydraulic System Accumulators Operational	Y	Y	N/A	N/A
Hydraulic System Storage Tank Normal Operating Level and Checked for Moisture Content	Y	Y	N/A	N/A
Hydraulic System Storage Tank Air Purging of Moisture in Place	Y	Y	N/A	N/A
Hydraulic Set Primary, Secondary Filter Indications Ok	Y	Y	N/A	N/A
Two Hydraulic Fluid Pumps Availability	Y	Y	N/A	N/A
Hydraulic Pump Auto-Start Testing	Y	Y	N/A	N/A
Two Hydraulic Fluid Pump Coolers Availability	Y	Y	N/A	N/A

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

2-Dec-22

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

	Unit 1	Unit 2	Unit 3	Balance of Plant
<b>Lubricating System</b>				
Lube Oil Tank Normal Operating Level and Checked for Moisture Content	Y	Y	Y	N/A
Portable Centrifuge Operational	N/A	N/A	N/A	N/A
Lube Oil Tank Vapor Extractor Operation	Y	Y	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	Y	N/A	N/A
Direct Current ("DC") Pump Testing and Starting from UCB (Units 1 and 2)	Y	Y	N/A	N/A
Verify Discharge Pressure of Each AC Lube Oil Pumps (Locally and UCB) (Units 1 and 2)	Y	Y	N/A	N/A
Verify Discharge Pressure of DC Lube Oil Pump (Locally and UCB) (Units 1 and 2)	Y	Y	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

<b>Barring/Turning Gear</b>				
Turning Gear Operation Verified	Y	Y	Y	N/A
Perform Trip Test of Turning Gear	Y	Y	Y	N/A

<b>Miscellaneous</b>				
Steam Seal Regulator Operational	Y	Y	Y	N/A
Operational Online/Offline Overspeed Trip Tests	Y	Y	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

2-Dec-22

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

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

2-Dec-22

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

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

2-Dec-22

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

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

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	N/A
All Alternate Sources of Station Service Tested and Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓

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

<b>Service Air and Instrument Air Systems Compressors</b>											
All Stationary Air Compressors Available	N/A	N/A	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	N/A	N/A	✓	✓	✓
Air Compressor Sequencing Capability Available	N/A	N/A	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	N/A	N/A	✓	✓	✓
Low Pressure Compressor Available	N/A	N/A	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	N/A	N/A	✓	✓	✓

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

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

<b>Generator</b>											
Generator Exciter Operation Checked Offline and Online	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Generator Exciter Available	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Brush Condition Verified	✓	✓	✓	✓	✓	✓	✓	✓	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									
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								
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2

Emergency Diesel Generators	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2
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	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2
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	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Balance of Plant Powerhouse 1	Balance of Plant Powerhouse 2
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	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant	Unit 1	Balance of Plant

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	✓	N/A	✓	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	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Service Air and Instrument Air Systems Compressors**

All Stationary Air Compressors Available	N/A	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	✓	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	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Emergency Cooling Water Available Penstock Supply	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	✓
Cooling Water System Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TG Pumps Available and Tested for Auto/Manual Start	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Shaft Seal System Available	N/A	N/A	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Rotary Strainer Inspected and Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**TG Governor System**

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

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

Generator											
Generator Exciter Operation Checked Offline and Online	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Generator Exciter Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Brush Condition Verified	✓	✓	N/A	6-Dec	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	N/A
Gate Operation	N/A	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	✓	N/A	✓	N/A	✓
Trashrack System	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Gate Operation	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A

Spillway/Bypass											
Water Elevation	N/A	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	N/A
Gate Operation	N/A	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	N/A
Emergency Lift Operation and Tested	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

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 48 V System (Network Services)									
48 V Battery Banks Checked									
N/A	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	✓	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
Alternate Alternating Current Sources Available									
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
Transfer Alternate Source									
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
Communications Rooms									
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

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

# Appendix D

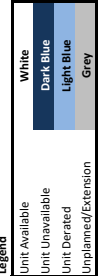
## Master Generation Outage Schedule



2022 Generation Outage Schedule <sup>1</sup>

Unit	Month Week Starting MW	September		October		November		December		Scheduled Annual Maintenance Outages										
		4	11	18	25	2	9	16	23		30	6	13	20	27	4	11	18	25	
Hollyrood Unit 1 <sup>2,3</sup>	170.0																			June 5–September 24; December 8–21 July 31–October 29
Hollyrood Unit 2	170.0																			
Hollyrood Unit 3 <sup>4</sup>	150.0																			
Bay d'Espoir Unit 1	76.5																			
Bay d'Espoir Unit 2	76.5																			
Bay d'Espoir Unit 3	76.5																			October 5–30 October 9–November 4
Bay d'Espoir Unit 4	76.5																			
Bay d'Espoir Unit 5	76.5																			May 8–September 11
Bay d'Espoir Unit 6	76.5																			
Bay d'Espoir Unit 7	154.4																			
Upper Salmon	84.0																			
Granite Canal	40.0																			
Hinds Lake	75.0																			August 22–September 11
Cat Arm Unit 1	67.0																			September 11–October 7
Cat Arm Unit 2	67.0																			September 11–October 3
Paradise River	8.0																			
Hardwoods Gas Turbine	50.0																			October 16–29
Stephenville Gas Turbine	50.0																			October 11–14
Hollyrood Gas Turbine	123.5																			September 18–24
Star Lake	18.0																			October 23–November 11
Exploits	63.0																			
CBPP <sup>5</sup> CoGen	8.0																			
NLH Diesels <sup>6</sup>	24.7																			
Newfoundland Power <sup>7</sup>	119.3																			
CBPP 60 Hz	99.1																			
Available Island Capacity	2,000.0	1,495.9	1,503.7	1,380.2	1,543.8	1,522.2	1,524.8	1,534.5	1,596.4	1,892.9	1,969.4	1,897.3	1,867.3	1,867.3	1,830.0	1,830.0	1,830.0	1,830.0	2,000.0	
Forecasted Gross Island Peak Load		916.7	941.8	966.9	971.7	1,010.9	1,050.1	1,089.3	1,165.0	1,236.1	1,299.2	1,362.4	1,423.2	1,677.2	1,677.2	1,677.2	1,677.2	1,677.2	1,677.2	
Total Island Reserves <sup>8</sup>		579.2	561.9	413.2	572.1	511.3	474.7	445.2	431.4	656.8	770.2	634.9	544.1	290.1	252.8	252.8	252.8	252.8	422.8	
Largest Operating Unit		154.4	154.4	154.4	154.4	154.4	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	
Island N-1 Reserves <sup>9</sup>		424.8	407.5	258.8	417.7	356.9	304.7	275.2	261.4	486.8	600.2	464.9	374.1	120.1	82.8	82.8	82.8	82.8	252.8	
Happy Valley Gas Turbine	25																			September 19–22; October 30–November 3; November 8–10

<sup>1</sup> Preventive maintenance items that require short duration outages are not reflected. They are planned in conjunction with system operation for an appropriate time.  
<sup>2</sup> Hollyrood Unit 1 has been derated to 80 MW since November 15, due to a ground fault on the East Boiler Feed Pump motor. Unit is expected to return to full capacity by December 9, once repairs to the motor have been completed.  
<sup>3</sup> Hollyrood Unit 1 outage is required from December 8–21 in order to replace the oil in Transformer T1.  
<sup>4</sup> Hollyrood Unit 3 has been derated to 120 MW since November 22, due to requirement for boiler safety valve testing. The Unit was expected to return to full capacity by November 30, once all required testing has been completed. The Unit remained derated to 140 MW after the testing to conduct repairs on the heavy oil gun scanner. The Unit was further derated to 100 MW on December 2 for the same issue and was returned to full capacity on the same day.  
<sup>5</sup> Corner Brook Pump and Paper Limited ("CBPP").  
<sup>6</sup> 24.7 MW includes Hawkes Bay (5 MW), Hollyrood Diesels (10 MW), and St. Anthony (9.7 MW).  
<sup>7</sup> 119.3 MW includes Newfoundland Power Hydro (77.8 MW) and Newfoundland Power standby (41.5 MW).  
<sup>8</sup> November and December Total Island Reserves include CBPP Capacity Assistance (80 MW) and System Voltage Reduction (20 MW).  
<sup>9</sup> To date, the Labrador-Island Link ("LIL") has not been included in Island reserve calculations as it is still being commissioned. However, when available, the LIL is used to support the system.



# 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	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	Motorized Valves	Actuator		ACTUATOR,PNEU 1-BSW-5-LT	In Stock	
Hydrogen Generation and Storage	Tubing	Tubing	1/2 " Valve		SOLENOID,VALVE ASCO 8316	In Stock	
Powerhouse and Switchyard Single Line	229V DC System	Charger	Control Unit		TUBING,SS 1" O.D.X.083.316	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2205C		CONTROL UNIT,BATTERY CHG 129V	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2206C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3205C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3206C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2203C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2207C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2202C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Cation Valve - KV2208C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3207C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3203C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Anion Valve - KV3208C		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4003B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4004A		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4005B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4006B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4007B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4008B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4009B		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4010A		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - KV4011A		VALVE,JTT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Deminerlization System	Instrumentation/Controls	Mixed Bed Valve - PCV4071		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	Non-Stock is OK since there are non critical uses for this TX which can be "borrowed)	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,WELD/MULLER	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		FLANGE,AIR & VACUUM 6 FLG	In Stock	
Generator	Exciter	Exciter	See Parts List #U1&2 - 1 from Service Contractor		HYDROGEN SEAL RINGS,GE	In Stock	
Generator	Exciter	Exciter	ArcNet Coupler		CARD,ABB UNS0672	In Stock	
Generator	Exciter	Exciter	Conduction Monitor		CARD,ABB UNS0673	In Stock	
Generator	Exciter	Exciter	Crowbar		CARD,ABB UNS0017AVAR1	In Stock	
Generator	Exciter	Exciter	Digital ArcNet		CARD,ABB UPC090	In Stock	
Generator	Exciter	Exciter	Binary Input		CARD,ABB UJC092	In Stock	
Generator	Exciter	Exciter	Output Relay		CARD,ABB ARCO93	In Stock	
Generator	Exciter	Exciter	Measuring Card		CARD,ABB UNCA672	In Stock	
Generator	Exciter	Exciter	Measuring Card		CARD,ABB UNCA673	In Stock	
Generator	Exciter	Exciter	I/O Connection		CARD,ABB UNCA674	In Stock	
Generator	Exciter	Exciter	Converter		CARD,ABB UNS3670	In Stock	
Generator	Exciter	Exciter	Snubber Bridge		SNUBBER,ABB UNS4681V12	In Stock	
Generator	Exciter	Exciter	Control		CARD,ABB HIEE300900R0001	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		
Generator	Exciter	Controls	Power Supply		CARD,ABB KUC321	In Stock		
Generator	Exciter	Controls	Pulse Gen		CARD,ABB GDB021	In Stock		
Generator	Exciter	Controls	Combined I/O		CARD,ABB UAC326	In Stock		
Generator	Exciter	Controls	Control Panel		CARD,ABB AFC094	In Stock		
Generator	Exciter	Controls	Breaker		BREAKER,FIELD ABB F3/SE	In Stock		
Generator	Exciter	Controls	Transformer	On Site	N/A	Non-Stock		
Generator	Stator	PT Cubicle	Primary Contact for Generator P.T.		CONTACT ASSY,PT	In Stock		
Generator	Seal Oil System	Regulator	1.5" Regulating Valve		SEAL OIL REG KIT, RK	In Stock		
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1" Valve		VALVE FISH F.O. TRIP	In Stock		
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Ignition Transformer		XFMR,FOSSIL 5870-542F	In Stock		
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Sunspot		BASE,AMPLIFIER & TERMINAL	In Stock		
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Valve Assembly / Oil Igniter		IGNITER,ASSEMBLY ALSTOM	In Stock		
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)	L.P. Heater Controls (Water Induction Protection)	Level Transmitter		TRANSMITTER, LEVEL	In Stock		
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)	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)	L.P. Heater Controls (Water Induction Protection)	Relays		RELAY,PLUG-IN 12 PIN AC	In Stock		
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)	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)	L.P. Heater Controls (Water Induction Protection)	Conductivity Probe		PROBE,GUIDED WAVE RADAR 26"	In Stock		
L.P. Feedwater System	Deaerator System	Level Control	Level Switch		SWITCH,LEVEL MOBREY	In Stock		
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter		TRANSMITTER,LEVEL	In Stock		
L.P. Feedwater System	Deaerator System	Level Control	Relay		RELAY,PLUG-IN 12 PIN AC	In Stock		
L.P. Feedwater System	Ammonia System	NRV Valves	Bulk Chemical		AMMONIUM HYDROXIDE,20% TOTE	In Stock		
L.P. Feedwater System	Deaerator System	NRV Valves	12"-150# Gasket Kit		GASKET,S&K 7450397V0010	In Stock		
L.P. Feedwater System	Deaerator System	NRV Valves	O-Rings		O-RING,S&K 7550144V0090	In Stock		
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 24"	In Stock		
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 16"	In Stock		
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 12"	On Order		
L.P. Feedwater System	Deaerator System	NRV Valves - #J&2 LP Heaters	Seal washers		SEAL,S&K 75G0181V0020	In Stock		
L.P. Feedwater System	L.P. Heaters	NRV Valves	Gasket		GASKET,S&K 6750064V0010	In Stock		
L.P. Feedwater System	L.P. Heaters	NRV Valves	O-Rings		O-RING,S&K 7550144V0100	In Stock		
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		#REF!	In Stock		
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		PACKING,S&K 100V0040	On Order		
L.P. Feedwater System	L.P. Heaters	NRV Valves	Seal washers		SEAL,S&K 75G0181V0050	In Stock		
L.P. Feedwater System	Polisher Bypass Valve		Valve	Non-Stock is OK since there are full rebuild items identified and stocked	VALVE,FISH 5080326PTBNN	Non-Stock		
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT,BALL 3	In Stock		
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT,WORCH D-38	In Stock		
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT,BALL 2	In Stock		



Critical Spares - Thermal Generation

Inventory Status

In Stock  
Non-Stock  
On Order

Explanation

Stock quantity of '1' or more in warehouse inventory.  
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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	Notes	Defined Spare	Inventory Description	Inventory Status	
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT, WORCH C-38	In Stock	
Main Steam & Reheat Steam; Turbine Drains	Vacuum Trip Device		Pressure Transmitter - Unit 1		TRANSMITTER, PRESS- 30.0"	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - cable assemblies		CABLE ASSY,SERVO G.E.	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Intercept Control Valve Servos		VALVE,SERVO 50.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Main Control Valve Servos		VALVE,SERVO 50.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 6 gal. Intercept Control Valve Servos (scram)		VALVE,SERVO 9.0-11.0 GPM	In Stock	
Turbine Generator System Stage 1	Governor	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	Governor	Linear Variable Differential Transducer for Intercept Control Valve & Main Control Valve		TRANSDUCER,GE	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Linear Variable Differential Transducers for 1 per Main Stop Valve		TRANSDUCER,GE	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Cable		CABLE SET,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Valve		VALVE,FLUID POWER PILOT	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Sensor		SENSOR,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Coil		COIL,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Go Switch - Limit Switches		SWITCH,LIMIT GO LEVER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Valve Set		CABLE SET,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Sensor		SENSOR,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	Coil		COIL,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Governor	O-Ring Kit		O-RING KIT,FLUID POWER	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	RES,500HM,5%,40 WATT		RESISTOR,500HM	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	DIODE MOD,1.200V,45A,SKKD46/12		DIODE,MOD 1200V	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	RELAY		RELAY,12HGA11J52	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	CPF MKS CONTROL POME		CONTROL,MKS POWER	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	TERMINATOR,93 OHMS		TERMINATOR,93 OHMS	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	RESISTOR		RESISTOR,3.23A2354P1	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	RESISTOR		RESISTOR,3.23A2354P2	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	RES 100 OHM 5% 40W		RESISTOR,100 OHM	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	CAP-METALIZED-MYLAR		CAP,METALIZED-MYLAR	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, C-Core Terminal Board		TERMINAL BOARD,MKV C-CORE	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	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
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, P-Core Terminal Board	DS200QTBA61A is superseded by DS200QTBAG3A	TERMINAL BOARD,MKV P-CORE	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	TERM. BOARD (R-S-T)		TERMINAL BOARD,(R-S-T)	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	Main Control Card	New no longer available, reman only	BOARD,GE DS200SDCCG4A	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, LAN Comm Interface Card		BOARD,GE DS200SLCC 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	MKV,e, Analog I/O Terminal Board		TERMINAL BOARD,ANALOG I/O	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,e, 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, reman 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, reman 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 DS200TCDG1B	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, DC INPUT PWR SUPPLY	New no longer available, reman only, Has age sensitive components,	BOARD,GE DS200TCCPG1A	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Analog I/O Card		BOARD,GE DS200TCDAG1B	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, (RST) Extended Analog I/O Card	New no longer available, reman only	CARD,EXTENDED MKV (RST)	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, BOARD-(RST) OVERFLOW	New no longer available, reman only	BOARD,GE DS200TCCCG1B	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, reman only	BOARD,GE DS200TCTSG1A	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MODULE,AC TO DC	DS200DACA61 has been superseded by DS200DACA62	MODULE,AC TO DC	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	(Commissioning Kit) Fuses, Resistors, Diodes, Relays			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.0-150 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 2RV/H3DX1-813	In Stock
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Sleeve		SLEEVE, RAND 175B135NX1B-204	In Stock
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Key		KEY,IMPELLER IR 11A9C37	In Stock



Critical Spares - Thermal Generation

Inventory Status

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Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
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		SWTCH,PRESS 0-150 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
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 RPACCKX0011	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 2N130902202	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
Units 1 & 2 Air & Flue Gas	Furnace Pressure 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 S-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	Drive System	Motor		MOTOR,HEATER 1/3HP (XL GEAR)	In Stock
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Sleeve		SLEEVE,RELIANCE 41.1629-6A	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 RPACCKX0012	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 RPACCKX0012	In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock  
Non-Stock  
On Order

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Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
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 1U8350X0022	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 2N126902202	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation 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		GASKET,FUEL OIL HEATER	In Stock
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Tube Bundles	Annual Inspection plus online Check. To be ordered as required.	HEATER,FUEL OIL STAGE 1	Non-Stock
Units 1 & 2 Fuel Oil System	Burners	Oil Valve	Oil, Steam & Scavange Valves - All		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 4283570X012	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 rebuild.	ELEMENT ASSY,VOLUTE/ROTATING	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Bushing		BUSHING,BJ 216507LG	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Shaft Driven Oil Pump		PUMP,BJ DWG C1F-238	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Ring		RING,BJ 612987-EH	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Ring		RING,BJ 634599-BG	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Shoe		SHOE ASSY,BJ 631163-KD	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E &	Cover		COVER,BJ 308952-SA	In Stock



Critical Spares - Thermal Generation

Inventory Status

In Stock  
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Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
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, sin# 1026366788, frame MGP500B, 3000HP, 4160Vac, 60Hz	On Order	
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	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	RING,FISH 10A4217X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts stocked Ref	RING,FISH 10A4219X012	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts stocked Ref	RING,FISH 22B9344X012	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	In Stock	
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	In Stock	
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	In Stock	
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,GRAFOL 1IDX1-1/2OD	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 3524-508	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	Motorized Bypass Valves	Belt		BELT ASSY,HOP 44511-001	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 4	8" - 150# Gasket Kit		GASKET,S&K 7450397V0010	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 5	8" - 300# Gasket Kit		GASKET,S&K 7450397V0010	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 6	8" - 600# Gasket Kit		GASKET,S&K 7450397V0010	In Stock	



Critical Spares - Thermal Generation

Inventory Status

In Stock  
Non-Stock  
On Order

Explanation

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Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
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"110H 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 PowerPositioner (Hagan) In Stock		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 Flowserve for bearing spec.	BEARING,JOURNAL MP 215878E	Non-Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		IMPELLER,MAT PLA 27881-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
Powerhouse and Switchyard Single Line	258V DC System	Cable	Cable		O-RING,MAT PLA 775D	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - speed probes		CABLE,BATTERY 1/0	In Stock
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 1	Switch		PROBE,SPEED PICKUP	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Positioner		SWITCH,PRESS 0-150 PSI	In Stock
Condenser Air Extraction System	Mechanical Vacuum Pumps	Motor	Motor		POSITIONER,FISH DVG6200	In Stock
Generator	Stator	PT Cubicle	Potential Transformer (PT)		MOTOR,ELECT 50HP 575V	In Stock
Turbine Generator System Stage 1	Governor	Stand Off Insulators	Stand Off Insulator		TRANSFORMER,GE 765X	In Stock
Generator	Stator	Governor	Truck V-Fast Cables		BUSHING,HIGH VOLTAGE GE	In Stock
Units 1 & 2 Air & Flue Gas	F.D. Fans	Stator and Brush Rigging	Brush		CABLE SET,FLUID POWER	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	400A DC Breaker		BREAKER,DC KDZ400F 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,CIGENTEC 81-116	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-114-1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-111-1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107-2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107-2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107-2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107-2A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 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	Charger	Individual replacement components stocked	CHARGER,BATTERY 250VDC	Non-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		
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 8501XUDO	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,PROWASS 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		VALVE,AIR & VACUUM 6 FLG	In Stock	
Generator	Stator	Stator and Brush Rigging	Brush		BRUSH,GENERATOR U3	In Stock	
Generator	Synchronous Condenser	Thrust Bearing	Bearing Pad		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	Thermocouple		THERMOCOUPLE,U3 SYNC COND	In Stock	
Generator	Seal Oil System	Seals	Bellows		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-C588L405G1	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1-1/2" Valve		VALVE KIT,JAMES RKB5MT	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Ignitor Control Box	Light Oil / Air Supply Solenoid Valve		SOLENOID,ASCO 8342C1	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		XFMR,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 - Scanner		SCANNER,FOSSIL 9100-1000	In Stock	



Critical Spares - Thermal Generation

**Inventory Status**

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Non-Stock  
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Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Ignitor Light Oil and Air Supply		Igniter Control Box	Snap Action Switch		MICROSWITCH,16CX12-D01	In Stock
Ignitor Light Oil and Air Supply		Igniter 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)		Level Transmitter LP Heater #1		TRANSMITTER,LEVEL	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water)		Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water)		Solenoid		SOLENOID,ASCO 8300.125 VDC	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water)		Relay		RELAY,OMRON MM4XP-DC125	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water)		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	In Stock
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
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	L.P. Heaters	NRV Valves - #2 LP Heater	20" Dia		GASKET,COVER HIT	In Stock
L.P. Feedwater System	L.P. 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



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		
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		Bellovs		BELLOW ASSY,HIT L1000-1	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger	400A DC Breaker		BREAKER,DC KDZ400F-400A	In Stock	
Powerhouse and Switchyard Single Line	258V DC System		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	Oil Seal		OIL SEAL,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bushing		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	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,HITACHI LOAD LIMIT	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		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	Electrical Trip Test Device	Packing		PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Piston		PISTON RING,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	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	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	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		BEARING,PLANE HIT ITEM 35	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing		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	





Critical Spares - Thermal Generation

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Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
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		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	Lockring		LOCKRING,10P-061-226-208	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Lockring		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	Crosshead		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	2" Valve	Pressure Transmitter - Unit 3		TRANSMITTER,PRESS 0-200	In Stock
Turbine Generator System Stage 2	Steam Seal Regulator	Steam Seal Regulator	Bushing		BUSHING,FISH 1E845714012	In Stock
Turbine Generator System Stage 2	Steam Seal Regulator	Steam Seal Regulator	Diaphragm		DIAPHRAGM,FISH 2E859602202	In Stock
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Actuator	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 RPACCKX0011	In Stock
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Positioner	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



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 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 LU508039102	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	
Turbine Generator System Stage 2	Steam Seal Regulator		Plug		PLUG, FISH 27A3953X012	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Series 8500 size 95 w/ 95" @ 100% width wheel	Thrust Plate		THRUST PLATE KIT, DODGE 132221	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Drive Motor	Formed Coils		COIL, WINDING U3 FD FAN	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 RPACXK0002	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 WR67AFR011	In Stock	
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	



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 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 RPACX00012	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 2U22373272	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 RPACX0002	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 RPACX0002	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		CAGE,FISH 2U227633272	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Bushing		ACTUATOR KIT,FISH R667X000402	In Stock
Unit 3 Fuel Oil System		Fuel Oil Pumps	Diaphragm		BUSHING,FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Main Fuel Oil Recirculation Valve	1" Welded Flange Valve w/		PUMP MAIN FUEL OIL KRAL	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Recirculation Valves 3/4"	Welded Valve w/ Actuator		VALVE ASSY,JAMES 1052 1"	In Stock
Unit 3 Fuel Oil System		Oil Valve	1/2" Ball Valve		VALVE KIT,JAMES RK85MT	In Stock
Unit 3 Fuel Oil System		Steam Valve	Gasket		GASKET SET,FISH RGASKETX312	In Stock
Unit 3 Fuel Oil System		Steam Valve	Packing		PACKING KIT,FISH RPACX00012	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 RPACX00012	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	Boiler Feed Pumps	Rotating Assembly		CASE ASSY,BWL (INNER)	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Shoe Assembly		SHOE ASSY,KI-00166-A-3740	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Throttle bushing (2 req'd)		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



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
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-101204JG	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	2350HP Motor, 4160Vac	Motor stored off site via service contract	SCIM, sin# 1026842642, frame MGP450D, 2350HP, 4160Vac, 60Hz	Non-Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	6" - FHT 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 - 26A52990X52 - Seat Ring		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 - 42B83570X012 - Cage, Eq%		CAGE,FISH 42B83570X012	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 - 1J872906332 - Upper Wiper		WIPER,FISH 1J872906332	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1J873435072 - Packing Box Ring		RING,FISH 1J873435072	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 2R6376X00	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 Induction Protection)	All HP Heaters	Conductivity Probe		PROBE,CONDUCTIVITY	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	H.P. Heater Controls (Water Induction Protection)	Aquarian Alarm Module		PROBE,AQUARIAN	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	H.P. Heater Controls (Water Induction Protection)	Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	H.P. Heater Controls (Water Induction Protection)	Relay		RELAY,OMRON MM4XP-DC125	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	H.P. Heater Controls (Water Induction Protection)	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



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
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
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	
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 10A415X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Gasket		GASKET,FISH 10A415X012	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"110H SE	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 011509398-206-0000	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	Linear		LINEAR,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 (SB81)	Aux Transformer ATC - SB83	Power Center C SAB12 (C1)	Feeder to MCC E1 - breaker C4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SB81)	Aux Transformer ATC - SB83	Power Center C SAB12 (C1)	Feeder to MCC C12 - breaker C7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SB81)	Aux Transformer ATC - SB83	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 spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	



Critical Spares - Thermal Generation

**Inventory Status**

In Stock  
Non-Stock  
On Order

**Explanation**

Stock quantity of '1' or more in warehouse inventory.  
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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
	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	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 spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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 (SSB1)	Aux Transformer ATC - SSB3	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	



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		
Station Board SB12 (SSB1)			SSB-3 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	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
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	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
Station Board SB12 (SSB1)			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 (SSB1)			SSB-4 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB12 (SSB1)			SSB-4 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Station Board SB12 (SSB1)			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 (SSB1)			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



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	
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 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 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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	





Critical Spares - Thermal Generation

**Inventory Status**

In Stock  
Non-Stock  
On Order

**Explanation**

Stock quantity of '1' or more in warehouse inventory.  
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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	
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		TB3 relays	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)			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	

**Inventory Status**

In Stock  
Non-Stock  
On Order

**Explanation**

Stock quantity of '1' or more in warehouse inventory.  
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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	
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	
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	RELAY,AUXILIARY RXMA-2	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMA-1	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMS-1	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA	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 SEL 551C	In Stock	
Unit Board UB1 (UB1-2)			UB1-3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	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 SEL 551C	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	



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'.

System	Asset			Critical Spare			Inventory Status
	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
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	
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	



Critical Spares - Thermal Generation

**Inventory Status**

In Stock  
Non-Stock  
On Order

**Explanation**

Stock quantity of '1' or more in warehouse inventory.  
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NOTE: Items may be listed as critical for multiple components, resulting in multiple "On Order" Status'.

System	Sub-System	Asset	Asset			Inventory Status
			Defined Spare	Notes	Inventory Description	
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	
Unit Board UB2 (UB2-1)		UB2-1 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMA-2	In Stock	
Unit Board UB2 (UB2-1)		UB2-1 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMA-1	In Stock	
Unit Board UB2 (UB2-1)		UB2-1 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMS-1	In Stock	
Unit Board UB2 (UB2-1)		UB2-1 relays	Shares spare with CGE HFA	RELAY,AUXILIARY RXMH-2	In Stock	
Unit Board UB2 (UB2-1)		UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB2 (UB2-1)		UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT 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.	BREAKER,EATON 4160V 2000A	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	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-4	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-5	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-6	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-7	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-8	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-9	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)		UB2-10	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

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		
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 ICAS3 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 ICAS3 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 ICAS3 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UT3 relays	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICAS3 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICAS3 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 ICAS3 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C		In Stock
Unit Board UB3 (UT3)			Feeder to Unit Board - breaker UT3 Station Board - breaker SSB-1.	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-VR-250-1200A	BREAKER,EATON 4160V 1200A		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	Sub-System	Asset	Asset			Inventory Status
			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)			BFW3	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 (SSB1)	Aux Transformer ATC - S5B3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	S5B-3 Relay	Replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock
Station Board SB12 (SSB1)			Relays	Replaced by SEL701	RELAY,PROTECTION SEL701	In Stock
Station Board SB12 (SSB1)			Feeder to Station Board - breaker S5B-1 & Relays	Direct replacement breaker 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock
Station Board SB12 (SSB1)			S5B-1 Relay	Replaced by ABB SYN5201-0271	SYNCHROFACT,SYN5201	In Stock
Station Board SB12 (SSB1)			S5B-1 Relay	Replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock
Station Board SB12 (SSB1)			S5B-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMA-2	In Stock
Station Board SB12 (SSB1)			S5B-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMA-1	In Stock
Station Board SB12 (SSB1)			S5B-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMS-1	In Stock
Station Board SB12 (SSB1)			S5B-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



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	
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	
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 (UT3)			BFE3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			BFW3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			FD3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			FDW3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CEN3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CE3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CWE3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CWW3 relay	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			Relays	n/a	RELAY, PROTECTION SEL701	In Stock	
Unit Aux Transformer (UAT3)		Aux Board UAB3 (UAB3)	Feeder to Power Centre - breaker	Purchasing re-build kit/critical	BREAKER, EATON 600V	In Stock	
Aux Transformer ATC - SSB3		Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	C1	spares kit for AK-1-50 frame breaker		In Stock	
Aux Transformer ATC - SSB3		Power Center C SAB12 (C1)	Feeder to MCC C1 - breaker C2	Purchasing re-build kit/critical spares kit for AK-2-25 frame breaker	BREAKER, EATON 600V	In Stock	
Station Board SB34 (ST34)			Feeder to transformer SAT34 - breaker SAT34 & relays	Direct replacement breaker 5HK-VR-250-1200A	BREAKER, EATON 4160V 1200A	In Stock	
Station Board SB34 (ST34)		Station Aux Board (SAB34)	Feeder to Station Board - breaker SAB34	Purchasing re-build kit/critical spares kit for 65H frame breaker	BREAKER, SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)		Station Aux Board (SAB34)	Feeder to Station Board - breaker ATB12	Purchasing re-build kit/critical spares kit for 50H-2 frame	BREAKER, SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)		Station Aux Board (SAB34)	WAM34	Purchasing re-build kit/critical spares kit for 50H-3 frame	BREAKER, SCHNEIDER 600V	In Stock	
Unit Board UB1 (UB1-2)		Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with all other P&B Golds devices.	RELAY, RETRO. PBSJ3E5N11	In Stock	
Unit Board UB1 (UB1-2)		Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with CGE IAC51 and IAC53 devices - replaced by SEL-551C	RELAY, OVERCURRENT SEL 551C	In Stock	
Unit Board UB2 (UB2-1)		Power Center B UAB2 (B1)	Relays	Shares spare with all other P&B Golds devices.	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 Transducer, 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 Pickup (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:AFP-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,				
24V Blown Fuse Indicators, 5 Terminals per Input, Analog	On Hand - Under Parts	Medium	N/A	
Interface Module	Management Agreement			
IFM, analog, 8 channel - Feed-Through 8 Channel Analog IFM,	On Hand - Under Parts	Medium	N/A	
3 Terminals per Input, Analog Interface Module	Management Agreement			
IFM, digital, 40 point - 40-Point Isolated Fusible Digital IFM,	On Hand - Under Parts	Medium	N/A	
5 x 20mm Fuse Clips, 24V AC/DC Blown Fuse Indicators,	Management Agreement			
4 Terminals per Input, Digital Interface Module	On Hand - Under Parts	Medium	N/A	
Module, relay expander - Relay Expander Module,	Management Agreement			
24V DC, 16 Relays with Fusing	On Hand - Under Parts	Medium	N/A	
10 Slot ControlLogix Chassis	Management Agreement	Medium	N/A	
4 Slot ControlLogix Chassis	On Hand - Under Parts	Medium	N/A	
ControlNet Interface Module (100 connections)	Management Agreement	Medium	N/A	
ControlNet Redundant Interface Module (100 connections)	On Hand - Under Parts	Medium	N/A	
ControlNet Redundant Bridge Module (40-48 connections)	Management Agreement	Medium	N/A	
EtherNet 10-100M Interface Module	On Hand - Under Parts	Medium	N/A	
(supports 128 TCP/IP connections)	Management Agreement			
EtherNet 10-100M Interface Module	On Hand - Under Parts	Medium	N/A	
(supports 64 TCP/IP connections)	Management Agreement			
10-30 VDC Isolated Input 16 Pts (36 Pin)	On Hand - Under Parts	Medium	N/A	
10-30 VDC Individually Isolated Input 16 Pts (36 Pin)	Management Agreement	Medium	N/A	
Analog Input - Current/Voltage 16 Pts (36 Pin)	On Hand - Under Parts	Medium	N/A	
Controller, controlLogix 5570, 2MB	Management Agreement	Medium	N/A	
ControlLogix 5570 Controller with 2 MB Memory,	On Hand - Under Parts	High	N/A	
USB Port, 4 Character Alpha/Numeric Display.	Management Agreement			
Controller, ControlLogix 5570, 4MB	On Hand - Under Parts	High	N/A	
ControlLogix 5570 Controller with 4 MB Memory, USB Port, 4 Character Alpha/Numeric Display.	Management Agreement			
10-31 VDC Output 32 Pts (36 Pin)	On Hand - Under Parts	Medium	N/A	
10-31 VDC Output 32 Pts (36 Pin)	Management Agreement	Medium	N/A	
Analog Output - Current/Voltage 8 Pts (20 Pin)	On Hand - Under Parts	Medium	N/A	
	Management Agreement			

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
ControlLogix, 85-265 VAC Power Supply (10 Amp @ 5V)	On Hand - Under Parts	Medium	N/A	
ControlLogix, 85-265 VAC Power Supply (13 Amp @ 5V)	Management Agreement In Stock	Medium	N/A	
Redundancy Module	In Stock	Medium	N/A	
ControlLogix Position and Time Services	In Stock	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	In Stock	Medium	N/A	
PowerFlex Architecture Class DeviceNet Communication Adapter	On Hand - Under Parts Management Agreement	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	On Hand - Under Parts Management Agreement	Medium	N/A	

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PowerFlex Architecture Class Remote Enhanced HIM, IP66 (NEMA 4X/12) Indoor Use Only. Includes 1202-C30 cable.	On Hand - Under Parts Management Agreement	Medium	N/A	
PanelView Plus Display keypad/Touch, 15-inch TFT Display, Color, No Options	On Hand - Under Parts Management Agreement	Medium	N/A	
PanelView Plus Display Touch Screen, 12.1-inch TFT Display, None, High Bright	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlNet Scheduled and Unscheduled Communication Module for Marine Certified PanelView Plus 700-1500 and PanelView Plus CE	On Hand - Under Parts Management Agreement	Low	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 Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 1.0-5.0A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 3-15A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 5-25A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 3	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 18-90A, NEMA 3	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 0.4-2.0A, NEMA 00	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 60-302A, NEMA 5	On Hand - Under Parts Management Agreement	Medium	N/A	
ProSoft Technology DNP 3.0 Ethernet Server Communication Module	On Hand - Under Parts Management Agreement	Low	N/A	
ProSoft Technology Modbus Master/Slave Enhanced Communication Module	On Hand - Under Parts Management Agreement	Low	N/A	
PURGE SOLENOID REPAIR KIT, SURESITE:3153515	In Stock	Low	N/A	
BARKSDALE HEATER CONTROL TEMPERATURE SWITCH, MODEL # T1X-S154-A, STAINLESS STEEL	In Stock	Low	N/A	
WAS MARKED AS IN STOCK JDE=0	In Stock	Low	N/A	
VALVE, SHUTDOWN PURGE	In Stock	High	N/A	
1", OS0065-4 DXP-L2IGNEB JBHC8327G041-125VDC	In Stock	High	N/A	
VALVE, CONTINUOUS PURGE	In Stock	High	N/A	
3", OS0600-4 DXP-L2IGNEB EFHC8321 G1	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	
MODULE, POWER INPUT	In Stock	Medium	N/A	
LOW VOLTAGE DC POWER INPUT MODULE (PIM), BENTLY NEVADA:133300-01	In Stock	Medium	N/A	
MANUAL, POWER SUPPLY MODULE	In Stock	Medium	N/A	
POWER SUPPLY MODULE, MANUAL, BENTLY NEVADA:129767-01	In Stock	Medium	N/A	
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	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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	In Stock	Low	N/A	
PUMP, CONVERTER CHARGING	In Stock	Low	N/A	
TORQUE CONVERTER CHARGING PUMP, KOENIG:X216228-J	In Stock	Low	N/A	
REPAIR KIT, SSS CLUTCH MINOR	In Stock	Medium	N/A	
KOENIG:SL17998MNMKT	In Stock	Medium	N/A	
VALVE, CHECK 3"	In Stock	Low	N/A	
3MB60-6047-WR	In Stock	Low	N/A	
VALVE, SS POPPET CHECK	In Stock	Low	N/A	
SS POPPET CHECK VALVE, SWAGELOCK:SS-6C-1	In Stock	High	N/A	
VALVE, FUEL CHECK	In Stock	Low	N/A	
FUEL LINE CHECK VALVE, PARKER:10A-CBG8L-10-PF-SS, VOGT:SW9871T,	In Stock	Low	N/A	
VALVE, CHECK	In Stock	Low	N/A	
CHECK VALVE, SUN HYDRAULICS:CXDA-XAN	In Stock	Low	N/A	
VALVE, SOLENOID	In Stock	Low	N/A	
SOLENOID VALVE, SUN HYDRAULICS:DILDA-MCN	In Stock	High	N/A	
VALVE, FUEL BYPASS	In Stock	High	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	In Stock	High	N/A	
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	In Stock	Low	N/A	
VALVE, PUMP DISCHARGE	In Stock	Low	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:SS, STEM:SS, BODY:STL, SEAT:SS	In Stock	Low	N/A	
VALVE, PRESSURE RELIEF	In Stock	Low	N/A	
HYDRAULIC FLUID PRESS RELIEF VALVE, REXROTH:R900341066	In Stock	Low	N/A	
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", 560iit-TH66 OS1600-4 DXP-L21GNEB	In Stock	Medium	N/A	
FILTER, WATER - CLARK RELIANCE Z500PW	In Stock	Low	N/A	
INST AIR DEW POINT ANALYZER, MICHELL INSTRUMENTS:EA-XP-TX-EX1-C1-D1-E2-F1-G1-H1	In Stock	Low	N/A	
ACTUATOR, TYPE PNEUMATIC RACK & PINION, FLOWSERVE:20E395WZ24D	In Stock	Low	N/A	
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 DUPEX 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	In Stock	High	N/A	
ELECTRONIC OVERSPEED TRIP, 9501W38	In Stock	High	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
TORQUE CONVERTER MAGNETIC SPEED PICK-UP COIL, KOENIG:9501W14	In Stock	High	N/A	
1 SERIE 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	
PILOT VALVE ASSEMBLY, CLIPPARD FV-SP W/MPA-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	In Stock	Low	N/A	
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, REXNORD-OMEGA: REX ELASTOMER-ES-4(STANDARD ORANGE),PUMP-MOTOR	In Stock	Low	N/A	
COUPLING, PUMP-MOTOR				
COUPLING, REXNORD-OMEGA: ELASTOMER-ES-5 (STANDARD ORANGE) PUMP-MOTOR	In Stock	Low	N/A	
REPAIR KIT, INI, PUMP				
CHEMICAL INJECTION PUMP REPAIR KIT, GRAINGER:K4PTC1	In Stock	Medium	N/A	
FILTER, FUEL CAT.1R0749				
FOR USE ON STAGE I AND II, EMERGENCY DIESEL MANUAL PRIMING PUMPS, CATERPILLAR #1R-0749	In Stock	Medium	N/A	
ELEMENT 0180MA0003BN (3µm), P/N 20559438, 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	
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	



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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
KIT, OIL FILTER & O-RING	In Stock	Low	N/A	
LUBE OIL FILTER & O-RING KIT, CENTAUR:9161283C1	In Stock	Low	N/A	
FILTER, FUEL BOOST KIT - LOW PRESSURE, 912343C1	In Stock	Medium	N/A	
FILTER, IGV ACTUATOR - MOOG:864567-1V				
FILTER, TMP-95 FINAL				
PNEUMAFIL:55253881, V-CELL STMPM16 STATIC BARRIER FILTER, 24"X24"X12", INJECTION MOLDED PLASTIC FRAME, 100% SYNTHETIC MEDIA, NEOPRENE SPONGE RUBBER GASKET - DOWN STEAM SIDE	In Stock	Medium	N/A	
PRE-FILTER, Z-100				
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	In Stock	Low	N/A	
PRE-FILTER, AIR COOLING	In Stock	Low	N/A	
METER, FLOW				
ROSEMOUNT:30515FC1CS030N065-T33EA1A5Q4E6M5	In Stock	Medium	N/A	
LIQUID FUEL TEMPERATURE TRANSMITTER, ROSEMOUNT 644HAK6M5Q4I6	In Stock	Medium	N/A	
PUMP SUPPLY PRESSURE SWITCH, CCS 646GZEM1	In Stock	Medium	N/A	
PUMP DISCHARGE PRESSURE TRANSMITTER, ROSEMOUNT 3051CG5A22A1A55B4C6M5Q4	In Stock	Medium	N/A	
PNEUMATICALLY ACTUATED THROTTLE VALVE, FISHER ET-677-DVC-6200	In Stock	Medium	N/A	
PUMP DISCHARGE PRESSURE SWITCH, CCS 646GZEM5	In Stock	Medium	N/A	
METER, FLOW				
ROSEMOUNT:30515FC1CS030NXT33DA1A5DQ4E6M5	In Stock	Medium	N/A	
CONTROLLER, STEP LIFO				
8 STAGES, SCL4000-8	In Stock	Low	N/A	
LIMIT CONTROLLER (0-2502-F), SA100KA3-MIN-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:3051S2CD3A2A11A1L1L2L4M5Q4	In Stock	Low	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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:305152TG3A2E11A1B4K6M5Q4	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:644HAK616M4	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	In Stock	Low	N/A	
MICROSWITCH # LSA2B	In Stock	Low	N/A	
CABLE SOLAR, IGNITER	In Stock	Medium	N/A	
CENTAUUR:919340C2	In Stock	Medium	N/A	
PICKUP, MAGNETIC	In Stock	Medium	N/A	
CENTAUUR:P/N 190430-1	In Stock	Medium	N/A	
SWITCH, OVERSPEED	In Stock	Medium	N/A	
CENTAUUR 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:6008-01-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-048	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-P1-F1A	In Stock	Low	N/A	
INLET SCROLL TEMPERATURE TRANSMITTER #1, YOKAGAWA:YTA320-EA2NN/FU1/D2/Z	In Stock	Low	N/A	
RTD, #1 PRIMARY SIGNAL	In Stock	Low	N/A	
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	
INST AIR SYSTEM ISOLATION SOLENOID VALVE, ASCO:HCL8316G66MB	In Stock	Low	N/A	
INST. 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:BIT-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 OAEX/63/12	In Stock	Low	N/A	
HYD FLUID RESERVOIR - LEVEL TRANSMITTER, GEMS:XT-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: 3051TG4A2A21AM5Q4	In Stock	Low	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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:FD-04A51	In Stock	Medium	N/A	
VALVE, BALL				
1.5", STAINLESS STEEL, MCMASTER CARR: 45995K84	In Stock	Low	N/A	
PRESSURE SWITCH, BARKSDALE:X1T-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, T631 C1012	In Stock	Low	N/A	
E-CELL STACK FITTINGS KIT, GENERAL ELECTRIC:3019638	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:3051S2TG3A2A11A1AM5Q4	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 3 XTC(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-/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	
RAW WATER FLOW MAGNETIC FLOWMETER, ROSEMOUNT:8705TA060C1W0N0G1	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: 3051S2TG2A2A11A1B4M5Q4	In Stock	Low	N/A	
REGULATOR, SIGNAL PRESSURE				
STAGE 2 TEMPERATURE CONTROL VALVE - AIR SIGNAL PRESSURE REGULATOR, FISHER:67CF-1663-38656	In Stock	Low	N/A	
LP COMPRESSOR BLEED VALVE SOLENOID, ASCO:KCB316G034V	In Stock	Medium	N/A	
COMPRESSOR BLADE PATH THERMOCOUPLE, DUPLEX TYPE K	In Stock	High	N/A	
STARTING PACKAGE TORQUE CONVERTER PRESSURE GAUGE, KOENIG:BAC-160-25	In Stock	Low	N/A	
CAPSULELIC GUAGE 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	



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INTAKE AIR STATIC PRE-FILTER - DIFFERENTIAL	In Stock	Low	N/A	
PRESSURE INDICATOR, DWYER INSTRUMENTS:4002	In Stock	Low	N/A	
CAPSULE GAUGE 0-2" W.C., PNEUMAFIL:S51646-B6	In Stock	Medium	N/A	
PRESSURE TRANSMITTER 0-300 PSI 4-20MA, ROSEMOUNT:3051TA3A2B2IAES	In Stock	Medium	N/A	
PRESSURE REGULATOR - AIR SUPPLY FROM INST AIR COMPRESSOR, FISHER:FS64-29	In Stock	Medium	N/A	
INSTR. AIR COMPRESSOR PRESSURE GAUGE, AIR CENTERS OF FLORIDA:5ZP76	In Stock	Medium	N/A	
PRESSURE GAUGE - FOR INSTR AIR COMPRESSOR, ASHCROFT:45-13772D04b, 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	Low	N/A	
-40F AND -100F, INGERSOLL RAND P/N 23182603	In Stock	Medium	N/A	
TRUCK UPLOADING GROUND VERIFICATION MONITOR, 8030-120 GROUND VERIFICATION MONITOR, CIVAICON	In Stock	Low	N/A	
MOTOR, FLAP ACTUATOR	In Stock	Low	N/A	
JOHNSON CONTROLS, JCI M9132-GGA-1	In Stock	Low	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:DLDA-MCN	In Stock	Medium	N/A	
MOTOR, 10 HP DC TURNING GEAR	In Stock	High	N/A	
KOENIG: DG6711A	In Stock	High	N/A	
MOTOR, BALDOR	In Stock	Medium	N/A	
BALDOR:VEM3770T-NEMA	In Stock	Medium	N/A	
TURNING GEAR MOTOR BRUSH SET, 419904-51AC	In Stock	Low	N/A	
COUPLING, PUMP/MOTOR	In Stock	Low	N/A	
SIZE 1040T20, FLEXIBLE GRID TYPE, VERTICAL ORIENTATION, MANUFACTURER:FALK	In Stock	Low	N/A	
RELAY, DPDT 120VAC	In Stock	Medium	N/A	
RCR8002 120AC	In Stock	Medium	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:168-05-3169-1 05	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	
FUSE, POWER CLASS J45A	In Stock	Low	N/A	
A4J45	In Stock	Low	N/A	
FUSE, PRIMARY 20A	In Stock	Low	N/A	
ATOR20	In Stock	Low	N/A	
FUSE, SECONDARY 8A	In Stock	Low	N/A	
ATOR8	In Stock	Low	N/A	
CONTACTOR, 50A 120VAC	In Stock	Low	N/A	
42CF35AF	In Stock	Low	N/A	
FUSE, PANEL HEATER 4.5A	In Stock	Low	N/A	
PANEL HEATER FUSE 4.5A, ATOR4.5	In Stock	Low	N/A	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
FUSE, AC 25A	In Stock	Low	N/A	
ATQR25	In Stock	Low	N/A	
FUSE, SIEMENS PG	In Stock	Low	N/A	
SIEMENS PG 840C208F01	In Stock	Low	N/A	
FUSE, 15.0A	In Stock	Low	N/A	
BUSSMAN:LP-CC-15-0	In Stock	Low	N/A	
FUSE, 5.0A	In Stock	Low	N/A	
BUSSMAN:LP-CC-5-0	In Stock	Low	N/A	
FUSE, 1.0A	In Stock	Low	N/A	
BUSSMAN:LP-CC-1	In Stock	Low	N/A	
FUSE, 2.0A 300 VDC	In Stock	Low	N/A	
BUSSMAN:LP-CC-2	In Stock	Low	N/A	
FUSE, 3.0A	In Stock	Low	N/A	
BUSSMAN:LP-CC-3-0	In Stock	Low	N/A	
FUSE, 12A	In Stock	Low	N/A	
FUSE 12A, SIEMENS:S00232012	In Stock	Low	N/A	
FUSE, 2AMP	In Stock	Low	N/A	
FUSE 2 AMP, GMC-2-A, BUSSMAN:GMC-2-A	In Stock	Low	N/A	
FUSE, 3AMP GMC-R	In Stock	Low	N/A	
FUSE 3AMP, BUSSMAN:GMC-3-R	In Stock	Low	N/A	
FUSE, 3A E-CELL	In Stock	Low	N/A	
E-CELL FUSE 3A, BUSSMAN:3060756	In Stock	Low	N/A	
FUSE, 25A E-CELL	In Stock	Low	N/A	
E-CELL FUSE 25A, BUSSMANN:1154697	In Stock	Low	N/A	
FUSE, 2A E-CELL	In Stock	Low	N/A	
E-CELL FUSE 2A, BUSSMANN:3060755	In Stock	Low	N/A	
FUSE, 6A GMC-6A	In Stock	Low	N/A	
6AMP, GMC-6A, BUSSMANN:LWT7345	In Stock	Low	N/A	
FUSE, 1.25A GMC-1.25A	In Stock	Low	N/A	
FUSE 1.25 AMP, GMC-1.25-A, BUSSMANN:LWT9119	In Stock	Low	N/A	
FUSE, 8A E-CELL	In Stock	Low	N/A	
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 1NC, SIEMENS:52BAK	In Stock	Low	N/A	
PILOT LIGHT ASSEMBLY AMBER 120VAC, A13200-05	In Stock	Low	N/A	
MODULE, TMR I/O	In Stock	High	N/A	
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS)(4 X PROX/ACCEL)	In Stock	High	N/A	
MODULE, TMR I/O	In Stock	High	N/A	
PROX/SEISMIC TMR I/O WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:126632-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O	In Stock	High	N/A	
PROX/VELOM I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:140471-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O	In Stock	High	N/A	
PROX/VELOM I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:140482-01	In Stock	High	N/A	
MODULE, SHAFT ABSOLUTE	In Stock	High	N/A	
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	

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Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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 - (INTERNAL TERMINATIONS), BENTLY NEVADA:136703-01	In Stock	High	N/A	
3500/42M PROXIMATOR/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:DSN130	In Stock	Low	N/A	
3500/50 MODULE, BENTLY NEVADA:13388-02	In Stock	High	N/A	
WEATHER STATION DRY BULB TEMP A, VAISALA: HMT3301A08101CGAB200801CABAA1	In Stock	Low	N/A	
R-DIODE	In Stock	Medium	N/A	
SIEMENS PG:840C411F04	In Stock	Medium	N/A	
F-DIODE	In Stock	Medium	N/A	
SIEMENS PG:840C411F03	In Stock	Medium	N/A	
CAPACITOR ASSEMBLY, RC	In Stock	Medium	N/A	
SIEMENS PG:153C684	In Stock	Medium	N/A	
DESICCANT, 4-8 GRADE D	In Stock	Low	N/A	
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:A41-1032425AS	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	In Stock	Medium	N/A	
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:A5508165CO5	In Stock	High	N/A	
GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:BLT-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 A1MN, EMERSON:LWT21254	In Stock	Low	N/A	
ORP PREAMPLIFIER, RYAN HERCO:5905-273	In Stock	Medium	N/A	
THERMOCOUPLE, DISC CAVITY	In Stock	Medium	N/A	
LPG INDUSTRIES INC. P/N: 2335C32-001 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE, DISC CAVITY	In Stock	Medium	N/A	
DISC CAVITY THERMOCOUPLE	In Stock	Medium	N/A	
LPG INDUSTRIES INC. P/N: 2335C32-004 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE, DISC CAVITY	In Stock	Medium	N/A	
DISC CAVITY THERMOCOUPLE	In Stock	Medium	N/A	
LPG INDUSTRIES INC. P/N: 2335C32-003 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	

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TWO LAYER CONTACT BRUSH, SIEMENS:EMT 513-005, 20X8X32 EG5UJ/AG20	In Stock	Medium	N/A	
POLISHING LOOP PRESSURE RELIEF VALVE, REXROTH:RRR00347261	In Stock	Low	N/A	
HP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/4SPDT	In Stock	Medium	N/A	
LP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/6SPDT	In Stock	Medium	N/A	
TORQUE CONVERTER SPEED PICK UP, ELECTRO CORP:725833	In Stock	Medium	N/A	
SWITCH, STAGER 48-03				
STAGER (110V) SERIES 48-03 - W/HOMING SWITCH, OSMONICS: 48-03	In Stock	Low	N/A	
VALVE, ACTUATOR				
ACTUATOR, VALWORX:561055A, ELECT FOR RO INLET VALVE & RINSE VALVE -RO SKID	In Stock	Low	N/A	
SENSOR, VIBRATION				
GENERATOR TURBINE END VIBRATION X, BENTLY NEVADA: 3300 SERIES	In Stock	High	N/A	
TURBINE EXHAUST END VIBRATION X				
RELATIVE SENSOR, BENTLY NEVADA: 3500 SERIES	In Stock	High	N/A	
ANLZR;COND.8619,24V,4-20MA,BUR				
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,				
WATERTech SERVICES: 3134672	In Stock	Medium	N/A	
SENSOR-FLOW, BUR, INLINE, SE30				
WATERTech SERVICES: 3059466	In Stock	Medium	N/A	
E-CELL FLOW SENSOR 8020 SHORT, BURKERT:3033067	In Stock	Medium	N/A	
METER, 30-199.9 MV				
E-CELL 30-199.9 MV METER, GENERAL ELECTRIC: 3038073	In Stock	Low	N/A	
TRANSMITTER, PRESSURE				
E-CELL PRESSURE TRANSMITTER, BURKERT:3059497	In Stock	Medium	N/A	
COMBUSTOR SHELL PRESS TRANSMITTER,				
SIEMENS:7MF4233-1HA10-IAC1-Z+B21+Y01+Y15	In Stock	High	N/A	
BEARING OIL PRESSURE TRANSMITTER,				
SIEMENS: 7MF4033-1CA10-1AC7-Z+B21+A02+Y01+Y21+Y15+Y16	In Stock	Low	N/A	
THERMOCOUPLE, TEMPERATURE				
STARTING PACKAGE MOTOR STATOR - TEMPERATURE THERMOCOUPLE, \$102629PD-120T305296	In Stock	Medium	N/A	
THERMOCOUPLE, TEMPERATURE				
STARTING PACKAGE MOTOR FORWARD - BEARING TEMPERATURE T/C, \$16820PD-300Z96	In Stock	Medium	N/A	
SWITCH, AUXILIARY				
AUX SWITCH, SIEMENS:A011LD64	In Stock	Low	N/A	
OIL, COMPRESSOR				
ALL-SEASON SELECT OIL, INGERSOLL RAND 38436721	In Stock	Medium	N/A	
KIT, E-CELL CLAMP SET: 3033064	In Stock	Low	N/A	
PLC-AB, ANLG, 4-20, MA, 4IN, 1762-1F4: 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 CC,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	

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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-OP4-7" COLOR, 24VDC, ICT/55CSW07CDA: 3134672	In Stock	Medium	N/A	
PLC-AB-DIGITAL, 24VDC, 8 IN, I762-IQ8: 1224240	In Stock	Medium	N/A	
PLC-AB, 200I/12DO/4AI/4AO, 1766-1328XBA: 3060729	In Stock	Medium	N/A	
XFMR-CONTROL				
XFMR-CNTRL, 230/575, 1.15-50/60, 500VA, 5Q-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, JEC, 1NC, MAN, BLK, 800FP: 3007466	In Stock	Low	N/A	
SWITCH-PUSH PULL, 24VDC, JEC, MUSHRM, ILRED: 3006380	In Stock	Low	N/A	
RELAY, 3PDT, 24VDC, 10A, 700-HA33Z24: 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	In Stock	Low	N/A	
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: TLQATS2222D4756U	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	In Stock	Medium	N/A	
PERMEATE PUMP SKID: W5EA9-PERM				
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: W5EA9-RW				
COLOR TOUCHSCREEN INTERFACE, 8"				
PREPROGRAMMED 8" COLOR TOUCHSCREEN OPERATOR INTERFACE	In Stock	Medium	N/A	
REVERSE OSMOSIS SKID: W5EA9-8RO				
COLOR TOUCHSCREEN INTERFACE, 10"				
PREPROGRAMMED 10" COLOR TOUCHSCREEN OPERATOR INTERFACE	In Stock	Medium	N/A	
REVERSE OSMOSIS SKID: W5EA9-10 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	





Critical Spares Status  
 Holyrood – Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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	



**Critical Spares Status  
Happy Valley – Gas Turbine**

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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	High	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 & LSL-601; Sheet 1 - Centre-Right ), Lubrication System P&W No. CT110085	In Stock	Low	N/A	
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	



**Critical Spares Status  
 Happy Valley – Gas Turbine**

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
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 December 2022	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 December 2022	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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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





Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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



Critical Spares Stock Status

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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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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,IR 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 December 2022	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



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BDE - UNIT 7 EXCITER - BOARD, I/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 DCSS00B200361	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





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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

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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 SOLND	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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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



Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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 December 2022	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
HUK - Accumulator tank Solland Valve	In Stock		N/A	N/A
HUK - ADAPTER,REMOTE I/O	In Stock		N/A	N/A
HUK - Ampmeter	In Stock		N/A	N/A
HUK - AUTO AIR CHARGING SOLND.	In Stock		N/A	N/A
HUK - BACKPLANE,10 SLOT MODICON	In Stock		N/A	N/A
HUK - BEARING KIT,	In Stock		N/A	N/A
HUK - BOARD,FIRING ES	In Stock		N/A	N/A
HUK - BREAKER,100 AMP 600 VOLT	In Stock		N/A	N/A
HUK - BREAKER,150A 600V	In Stock		N/A	N/A
HUK - BREAKER,225A 600V 3P	In Stock		N/A	N/A
HUK - BREAKER,600 VOLT 3 PHASE	In Stock		N/A	N/A
HUK - BRIDGE,THYRISTOR EG	In Stock		N/A	N/A
HUK - Card battery charger	In Stock		N/A	N/A
HUK - Card battery charger	In Stock		N/A	N/A
HUK - Card battery charger	In Stock		N/A	N/A
HUK - Card battery charger	In Stock		N/A	N/A
HUK - Card gate pulse	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Anti-pump relay	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Charging motor	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Motor brush kit	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Primary disconnect	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Shunt trip coil	In Stock		N/A	N/A
HUK - CIRCUIT BREAKER - Spring release coil	In Stock		N/A	N/A
HUK - COIL-AUTO AIR CHARGING SOLND.	In Stock		N/A	N/A
HUK - CONTACT,AUX GE	In Stock		N/A	N/A





Critical Spares Stock Status

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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

Critical Spare Component	Stock Status	Comments	Status Update December 2022	Expected Delivery Date
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

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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 - SERVOMOTOR #1 - servomotor repair kit	In Stock		N/A	N/A
HLK - SERVOMOTOR 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

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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



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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

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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, 22' LENGTH	In Stock		N/A	N/A
USL - SEAL, C/W 2 CORNERS	In Stock		N/A	N/A
USL - SEAL, 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
USL - Transformer T2	On Order	Unit has been shipped to Turkey. To be repaired and tested by end of 2022, and returned to USL by Q2 2023.	N/A	Apr-23