

November 4, 2015

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

Attention: Ms. Cheryl Blundon
Director Corporate Services & Board Secretary

Dear Ms. Blundon:

**Re: The Board's Investigation and Hearing into Supply Issues and Power Outages
on the Island Interconnection System – Winter Readiness Planning Status Update**

Further to the Board's correspondence of October 8, 2015, please find enclosed the original plus 12 copies of Hydro's October 30, 2015 status update to its report filed with the Board on September 30, 2015 regarding 2015-16 Winter Readiness Planning.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO


Tracey L. Pennell
Legal Counsel

TLP/bs

cc: Gerard Hayes – Newfoundland Power
Paul Coxworthy – Stewart McKelvey Stirling Scales
Sheryl Nisenbaum – Praxair Canada Inc.
ecc: Roberta Frampton Benefiel – Grand Riverkeeper Labrador

Thomas Johnson – Consumer Advocate
Thomas O' Reilly – Cox & Palmer
Danny Dumaresque

*Investigation and Hearing into Supply Issues and Power Outages on the
Island Interconnected System*

**An Update to the Board of Commissioners of Public Utilities
Regarding 2015-16 Winter Readiness Planning
As Of October 30, 2015**

November 4, 2015



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1 **1.0 BACKGROUND AND INTRODUCTION**

2 This Report is in response to a request by the Board of Commissioners of Public Utilities (the
3 Board) in its letter dated October 8, 2015 that Newfoundland and Labrador Hydro (Hydro)
4 provide updates to its September 30, 2015 report regarding winter readiness planning for the
5 2015-16 winter season. That Report addressed the following items as requested by the Board
6 in its letter of September 11, 2015:

- 7 1. The status of Annual Work Plan (AWP) items for Hydro’s generating plants and
8 transmission and terminal stations, including the completion date; outstanding items
9 to complete; and any risks to completion or as a result of failure to complete;
- 10 2. A description and schedule for all outstanding 2015 capital projects for Hydro’s
11 generating plant and transmission and terminal stations, including progress on
12 completion status to date and expected completion date;
- 13 3. The identification of all equipment and plant testing to be carried out in advance of the
14 winter period, including progress on completion status to date;
- 15 4. The planned generation outage schedule for the period September to December 31,
16 2015, including an explanation for any planned outages extending beyond December
17 1, 2015;
- 18 5. An update of critical spares assessment and procurement;
- 19 6. The forecast loads and expected generation capacity and reserves (setting out the
20 basis for calculation) for the upcoming winter, as of December 1, 2015, and including
21 capacity assistance agreements in place or planned; and,
- 22 7. An identification of any risks that could impact the winter readiness of assets as of
23 December 1, 2015 and associated contingency plans.

- 1 The Board has further requested that this update include a description and status update on
- 2 the 2015 maintenance activities related to the new Combustion Turbine at Holyrood, as well
- 3 as the progress of the recently approved engine refurbishment project at the Hardwoods gas
- 4 turbine facility.

1 **2.0 ANNUAL WORK PLAN STATUS**

2 This Update produces a consolidated summary of actual AWP progress versus plan as of the
3 week ending October 31, 2015 for each of the following areas of operations:

4 1) Holyrood Thermal Generating Station

5 a. Units 1, 2 and 3

6 b. Balance of Plant

7 2) Gas Turbines

8 a. Hardwoods

9 b. Stephenville

10 3) Hydraulic Generation

11 a. Bay D’Espoir

12 b. Cat Arm

13 c. Hind’s Lake

14 d. Paradise River

15 e. Upper Salmon

16 f. Granite Canal

17 4) Transmission and Rural Operations

18 a. Transmission

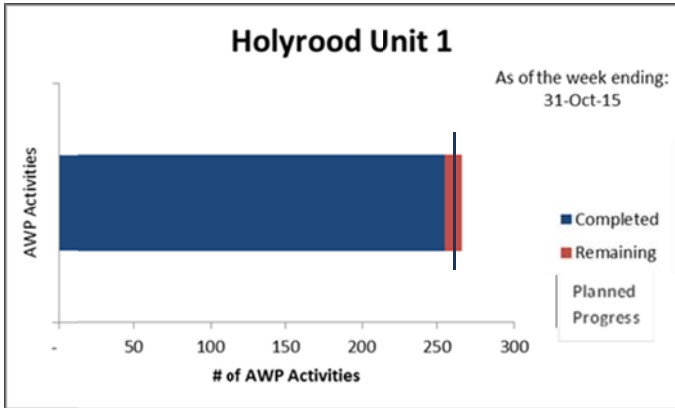
19 b. Terminal Stations

20 A text box to the right of each chart below indicates Hydro’s forecasted completion status as
21 of December 1, 2015 in relation to AWP winter readiness activities (Green/On Target, Yellow/
22 Caution, Recovery Required, Red/Target Will Not be Fully Met). Relevant highlights are also
23 provided.

24 **2.1 AWP Status: Holyrood Thermal Generating Station**

25 The status of AWP execution at Holyrood is summarized in the charts below. As noted, all
26 planned 2015 winter readiness work is expected to be complete by December 1, 2015.

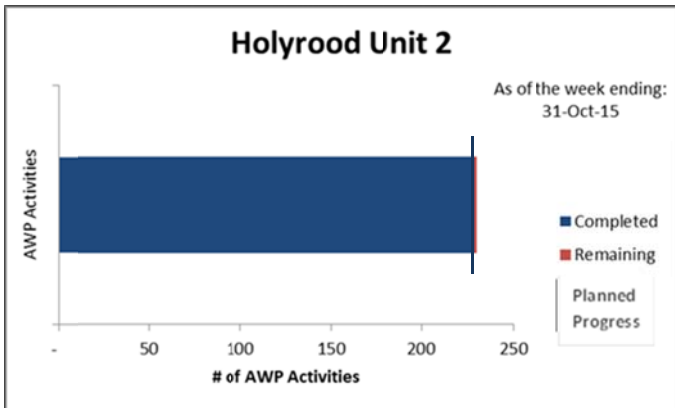
5 AWP execution on Unit 1 recovered significantly during the month of October. The outage on
 6 this unit was extended from October 27 to November 7 and while completion progress as of
 7 October 30 was a little behind plan, it is expected that all work will be completed within the
 8 current schedule and that the unit will be available as of the week of November 8.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule:

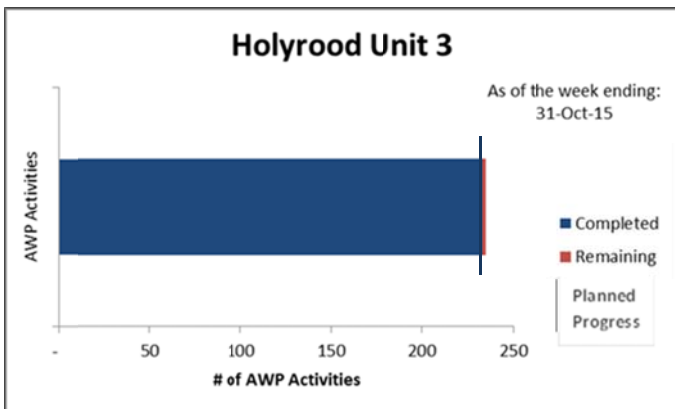
- Unit outage work has been completed
- Unit is presently transitioning through commissioning and start-up activities, scheduled for completion the week ending November 7.
- Overall program completion is 96% to date.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

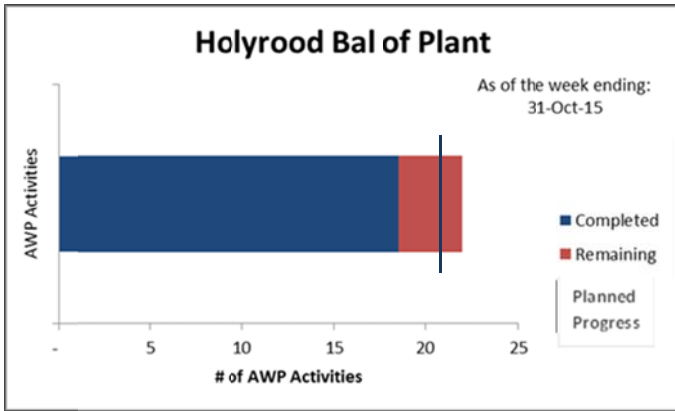
- Planned maintenance outage is complete.
- Overall program completion is 99% to date.
- Remaining items are related to online testing and are dependent on load availability from ECC



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Planned maintenance outage is complete
- Overall program completion is 99% to date.
- Remaining items are related to online testing and are dependent on load availability from ECC



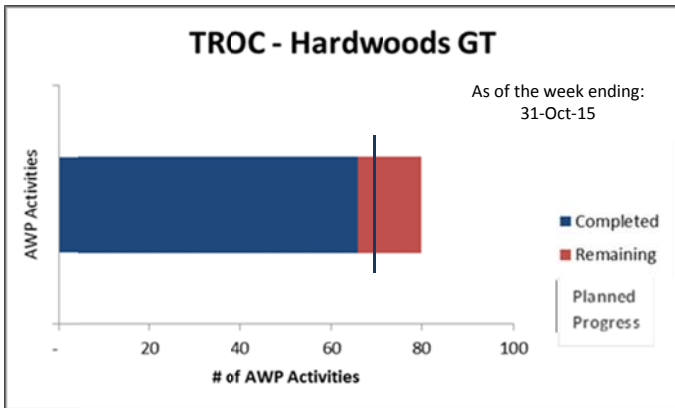
Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Overall program completion is 86% to date.
- Remaining items are related to online preventative maintenance and capital work activities.
- Planned work is on schedule for successful completion.

2.2 AWP Status: Gas Turbines

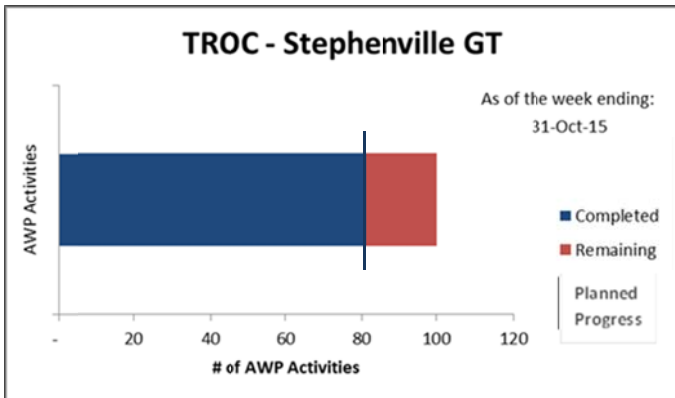
The current status of AWP execution at the Hardwoods and Stephenville gas turbines is summarized in the charts below. As noted, all planned 2015 work is expected to be complete by December 1, 2015.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables (e.g. ahead, behind, recovery plan):

- YTD progress relative to plan is 94%; 66 of 70 planned activities completed
- Remaining capital work is expected to be complete by November 30 (engine refurbishment)
- Expect all winter readiness activities to be completed by December 1



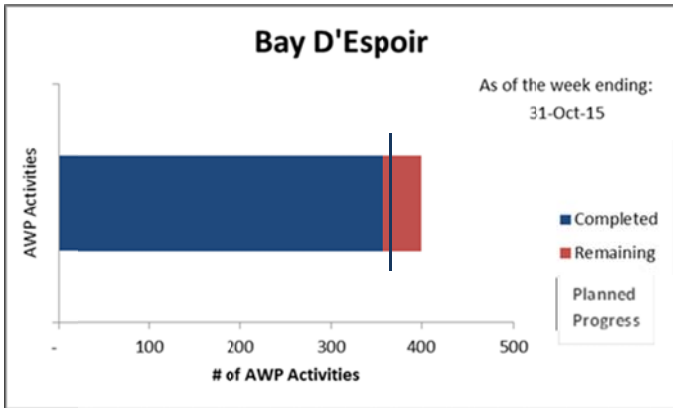
Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables (e.g. ahead, behind, recovery plan):

- YTD progress relative to plan is 100%; 81 of 81 planned activities completed
- Planned capital work is expected to be complete by November 13
- Expect all winter readiness activities to be completed by December 1

2 **2.3 AWP Status: Hydraulic Units**

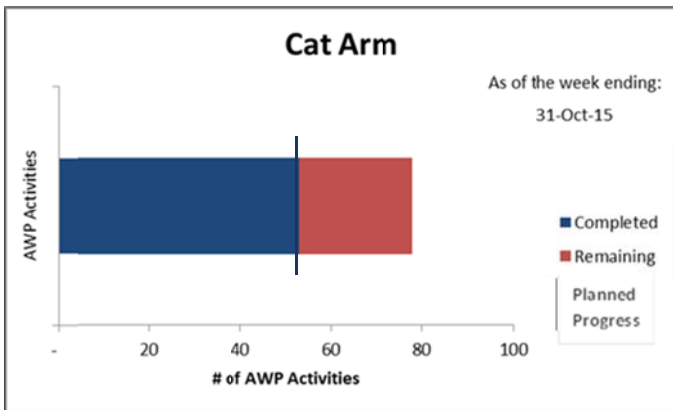
5 The current status of AWP execution at Bay d’Espoir (BDE) and other hydraulic generation
 6 facilities is summarized in the charts below. As noted, it is expected that all planned 2015 will
 7 be completed by December 1, 2015.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

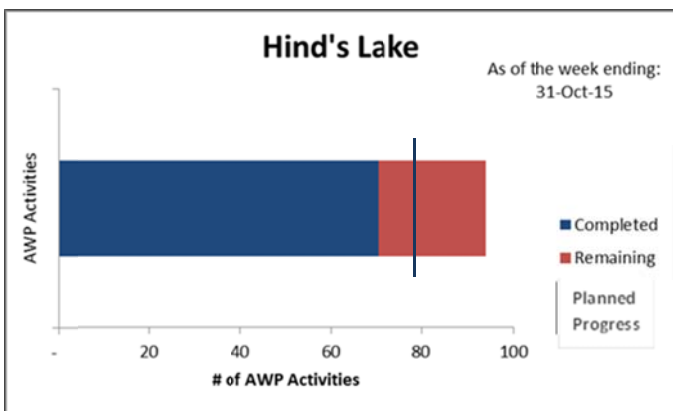
- All planned unit outage maintenance has been completed; the Unit 4 outage was extended by a week to accommodate breaker replacements by TRO
- Overall program completion status, including work in progress, is 89%
- Remaining work is on schedule for successful completion by Nov. 15th.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

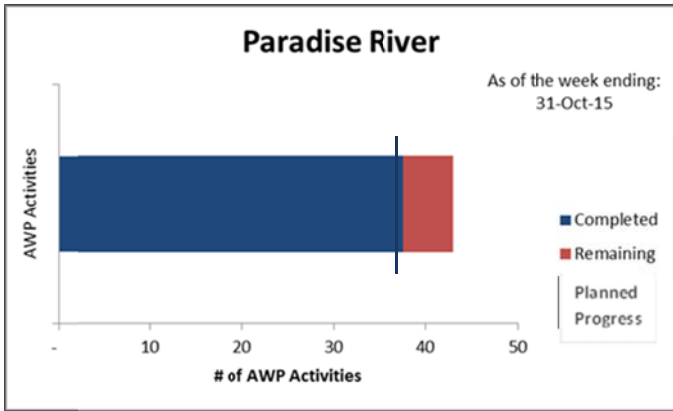
- Unit 1 outage in progress and scheduled for completion Nov. 13th
- Unit 2 Exciter and station service breaker replacements are complete
- Overall program completion status, including work in progress, is 68%
- Remaining work is on schedule for successful completion by Nov. 15th.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

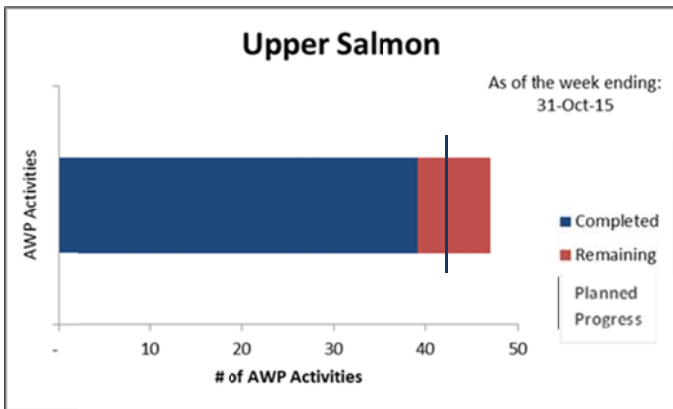
- Unit outage was completed Nov. 1st
- Overall program completion status, including work in progress, is 74%
- Remaining work is on schedule for successful completion by Nov. 15th.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

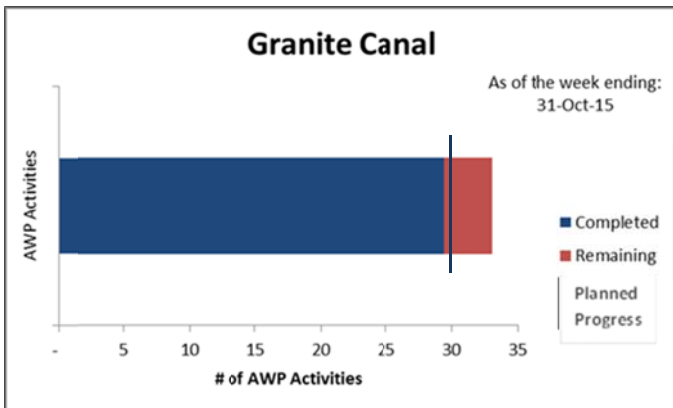
- Unit outage and runner repairs are complete
- Overall program completion status, including work in progress, is 88%
- Remaining work is on schedule for successful completion by Nov. 15th.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Unit outage is complete
- Overall program completion status, including work in progress, is 83%
- Remaining work is on schedule for successful completion by Nov. 15th.



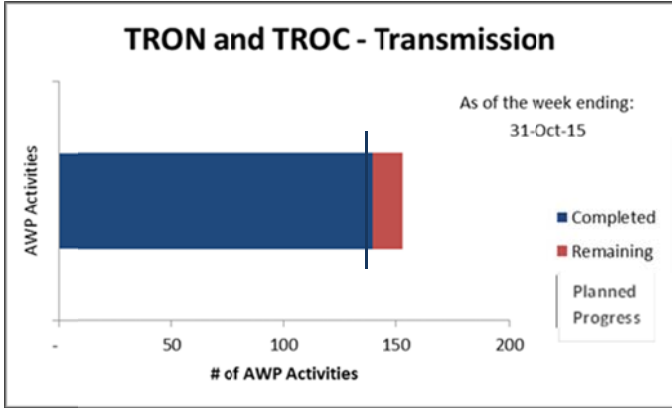
Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Unit outage is complete
- Overall program completion status, including work in progress, is 88%
- Remaining work is on schedule for successful completion by Nov. 15th.

2.4 AWP Status: Transmission and Terminal Stations

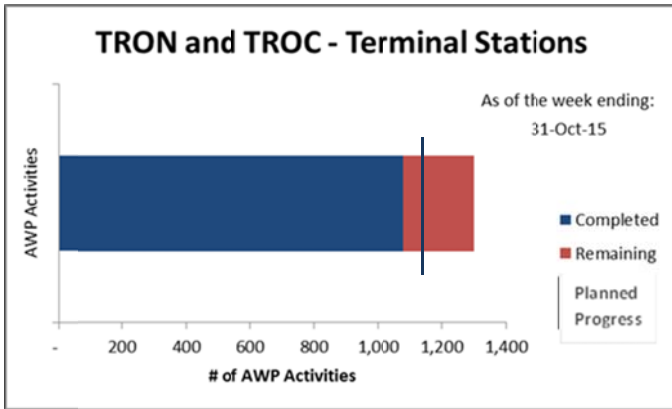
The current status of AWP execution in Transmission and Rural Operations (TRO) for both transmission equipment and terminal station facilities on the IIS is summarized in the charts below. As noted, it is expected that all planned 2015 will be completed by December 1, 2015.



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Overall completion status relative to plan is 101%; 137 of 139 planned activities are complete
- Continue to execute Wood Pole Line Management program
- Expect all planned activities to be completed by December 1



Forecast Completion Status (R/Y/G): Green

Comments and Schedule Notables:

- Overall completion status relative to plan is 94%; 1082 of 1154 planned activities are complete
- Battery discharge testing, distribution recloser PMs, and relay meter maintenance behind schedule, crews to be redeployed to focus on completion
- Expect all planned activities to be completed by December 1

1 3.0 STATUS OF WINTER READINESS CAPITAL PROJECTS

2 Appendix A of this Report identifies the 2015 capital projects which include scope related to
 3 2015-16 winter readiness. Table 3.1 below summarizes the current status of the winter
 4 readiness components of these projects by asset category.

TABLE 3.1			
2015 Projects Related to Winter Readiness			
Asset Category	Complete	Outstanding	Total
Thermal Generation	13	2	15
Hydraulic Generation	6	1	7
Gas Turbines		2	2
Transmission		1	1
Terminal Stations	9	6	15
Distribution	4	2	6
Various (Critical Spares)		1	1
			47

5 One of the projects included in this group is a supplemental project which was approved in
 6 September, 2015 relating to the replacement of two excitation transformers at Holyrood.
 7 These transformers have been ordered, delivery is expected in January, 2016, and they will be
 8 available on site during the winter period in the unlikely event of an in-service failure prior to
 9 planned replacement. The timing of installation will depend on the availability of a Holyrood
 10 generating unit outage window. Installation will therefore be planned following the winter
 11 peak demand period.

12 The completion of outstanding projects in accordance with the schedule indicated in Appendix
 13 A is contingent on several factors which have the potential to change completion dates. For
 14 example, if any of the projects which are dependent on generator or line outages encounters
 15 a delay this could have a knock-on effect on the completion of other projects which are also
 16 generator or line outage dependent. Such issues are not anticipated at the present time, but

1 in the meantime all such potential risks have been identified, and associated
2 contingency/mitigation plans have been developed, consistent with Hydro's project execution
3 processes and standards.

4 **3.1 Engine Refurbishment – Hardwoods Combustion Turbine**

5 A fire at the Hardwoods gas turbine facility on May 1, 2015 resulted in damage which has
6 necessitated an overhaul of the End B turbine. This work was initiated immediately upon
7 receipt of the Board's approval of this project on October 1, 2015, and currently the engine is
8 being refurbished at the contractor's repair facility. The engine performance test is scheduled
9 for the week of November 16, and the engine is scheduled to arrive at the Hardwoods site for
10 installation during the week of November 23. The current return to service date is November
11 30, 2015.

1 **4.0 PLANT AND EQUIPMENT TESTING**

2 **4.1 Thermal Generation**

3 Winter readiness testing of generating equipment in Thermal generation is focused primarily
4 around annual unit maintenance outages. Following annual outages, units are run up,
5 synchronized, and all systems are verified before operating status is determined and
6 preparedness is confirmed. Unit load tests are performed at this time as well.

7 The winter readiness testing protocol includes the testing of appropriate Balance of Plant
8 components as well.

9 The current status of equipment/plant testing for Thermal Generation is indicated in Appendix
10 B of this Report. Consistent with the generation outage schedule shown in Appendix D, it is
11 expected that all winter readiness testing will be completed by December 1, 2015.

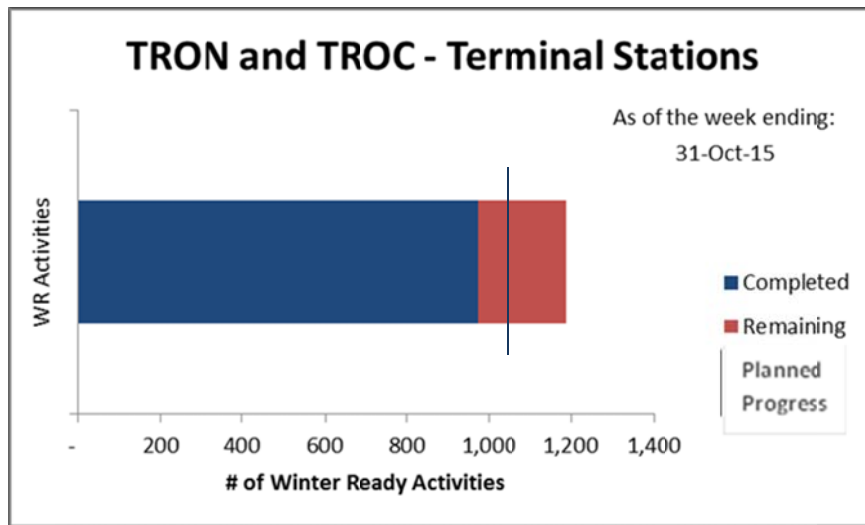
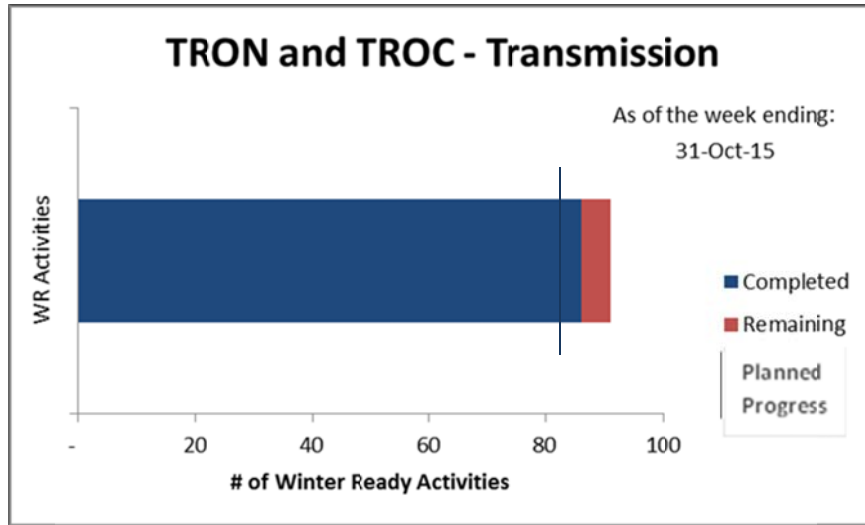
12 **4.2 Hydraulic Generation**

13 Winter readiness testing of generating equipment and balance of plant in Hydraulic
14 Generation is completed using the same process as for Thermal Generation as described in
15 section 4.1 above.

16 The current status of equipment/plant testing for Hydraulic Generation is indicated in
17 Appendix C of this Report. Consistent with the generation outage schedule shown in
18 Appendix D, it is expected that all winter readiness testing will be completed by December 1,
19 2015.

20 **4.3 Transmission and Terminal Stations**

21 AWP charts which include winter readiness activities only are shown below to indicate the
22 year-to-date status of winter readiness equipment testing in Transmission and Terminal
23 Station operations. The Transmission chart confirms that progress to date is slightly ahead of
24 plan, and it is expected that all activities will be completed by December 1. The Terminal
25 Stations chart indicates that year-to-date completion status is somewhat behind schedule,
26 however it is expected that all activities will be completed by December 1.



2 **4.4 Gas Turbines**

11 As of October 30, 2015 the completion status at Hardwoods on winter readiness AWP
 12 activities was 85% of plan (17 of 20 activities completed). The completion status at
 13 Stephenville was 103% of plan (30 of 29 activities completed). Completion status to date is a
 14 little behind plan, and while there has been recovery of the planned activities in Stephenville,
 15 completion status is a little behind at Hardwoods. However, it is expected that these will be
 16 completed in the next two weeks and, as indicated in Section 2.2, it is expected that all work
 17 related to winter readiness testing will be completed by December 1, 2015. Black start testing
 18 has been completed for the Holyrood CT and is scheduled to be completed for the Hardwoods
 19 and Stephenville CTs by December 1.

1 **4.4.1 2015 Maintenance Program – New Combustion Turbine at Holyrood**

2 Hydro's 2015 maintenance program for the Holyrood CT was not included in its 2015 AWP for
3 the reasons indicated in its September 30, 2015 Winter Readiness Planning Report. However,
4 as noted in that Report, the required maintenance activities in 2015 were identified, and work
5 is being executed in accordance with this plan. It is still Hydro's expectation that all winter
6 readiness work will be completed by December 1.

7 Under its Technical Service Agreement with the CT vendor, ProEnergy maintains a full-time,
8 on-site presence in support of Hydro's operation and maintenance of this new asset.

9 ProEnergy staff are present and provide oversight at all times when the CT is in operation;
10 they provide guidance and technical support in identifying priority winter readiness
11 maintenance; and they participate in the preparation of Hydro's PM and CM work lists.

12 Currently, 67 of 106 planned maintenance activities have been completed. Of this overall
13 total, 87 items are winter readiness related, and 58 of these have been completed as of
14 October 30. Many of these activities are routine preventative maintenance inspections,
15 supplemented by non-critical corrective maintenance work that has been identified since
16 initial commissioning and start-up. Further details can be provided to the Board regarding
17 both categories of work if required. In the meantime, an Annual Work Plan (AWP) for the
18 Holyrood CT which is documented and tracked in the same manner as for all other AWP's will
19 be developed and in place for 2016.

1 **5.0 GENERATION OUTAGE SCHEDULE**

2 Hydro's 2015 Master Generation Outage Schedule for the period September 1 to December
3 31, 2015 was presented in its September 30, 2015 Winter Readiness Planning report to the
4 Board. This Schedule has been updated to reflect only those unit outages that were
5 completed in October or which are planned for completion in November, and it attached to
6 this Report as Appendix D. This Schedule does not currently contemplate any planned
7 generation outages beyond the week of November 22, 2015 and it is expected that all
8 generation assets will be fully available as of December 1, 2015.

9 Variations from the Outage Schedule submitted as of September 30 are as follows:

10 Unit 1, Holyrood: Outage extended from October 27 to the week ending November 7.

11 See Section 2.1.

12 Unit 2, Bay d'Espoir: Outage extended from the week ending October 3 to the week
13 ending October 10. This unit is back in service.

14 Unit 4, Bay d'Espoir: Outage extended from the week ending November 7 to the week
15 ending November 14. See Section 2.3.

16 Hardwoods GT: Outage on End B extended from the week ending November 21 to the
17 week ending November 28. See Section 3.1.

18 Stephenville GT: Outage extended from the week ending October 17 to the week ending
19 November 14. See Section 2.2.

20 NLH Diesels: The forced outage at Hawke's Bay was addressed earlier than originally
21 expected.

1 **6.0 CRITICAL SPARES**

2 Hydro's critical spares status leading into the 2015-16 winter season is very strong. Hydro's
3 "in-stock" status as of October 30, 2015 was 95.4%, compared with 93.5% at September 30,
4 2015. A further 12 spares are on order, many of which are expected to be in stock by the end
5 of November. Hydro continues to expect its in-stock status as of December 1 to meet or
6 exceed 96%.

7 Twenty-eight (28) spares are identified as capital spares. Thirteen (13) of these are on order
8 as part of Hydro's approved 2015 capital plan and are expected to be in stock by the end of
9 2015, which includes all seven capital spares identified for the Hardwoods and Stephenville
10 gas turbines. Procurement plans for the remaining capital spares are incorporated into
11 Hydro's capital plans for 2016 and later years.

12 Appendices E, F, and G of this Report indicate the current status of the critical spares program
13 at the Holyrood Thermal Generating Station; the Hardwoods and Stephenville gas turbines;
14 and Hydraulic Generation respectively.

1 7.0 FORECASTED LOADS, CAPACITY AND RESERVES

2 Table 7.1 below has been updated to reflect Hydro's most recent forecasts for the 2015-16
3 winter season. The forecasts indicated in Hydro's September 30, 2015 report are also
4 included for comparison.

5 The updated forecasts indicate lower peak loads and higher reserves than those contained in
6 Hydro's September 30, 2015 Winter Readiness Planning report. This is largely the result of
7 revised demand forecast information received from Newfoundland Power and Vale. Hydro's
8 forecasts continue to assume that the Holyrood black start diesels will be available in their
9 current 10 MW configuration as of December 1, 2015.¹

TABLE 7.1 Forecasts of Peak Load, Capacity and Reserves – 2015-16					
		Sept 30 Report		October 30 Update	
A	IIS Peak Load – P50	1,758 MW		1,736 MW	
B	IIS Peak Load – P90	1,815 MW		1,793 MW	
C	Capacity at Peak	2,008 MW		2,008 MW	
D	Add: Voltage Reduction (+20 MW)	2,028 MW		2,028 MW	
E	Add: Capacity Assistance (+93 MW)	2,121 MW		2,121 MW	
	Reserves (E-B)	306 MW	16.9%	328 MW	18.3%

¹ Hydro is currently preparing an application for the purchase and reconfiguration of the black start diesels at Holyrood. Hydro anticipates submission of this application in November.

1 **8.0 RISKS AND RISK MITIGATION**

2 Hydro's readiness planning for the 2015-16 winter season continues to be on track and will
3 position the company to be fully ready in terms of generation and transmission availability by
4 December 1, 2015.

5 Potential risks to the schedule for completing 2015 capital program winter readiness scopes
6 include projects delays related to the need for outage extensions; the unavailability of
7 resources for final commissioning; weather; or other factors. Hydro's update on the status of
8 2015 capital projects related to winter readiness (see Appendix A) notes where in-service or
9 completion dates have changed since its September 30, 2015 Winter Readiness Planning
10 Report. However, with one exception, outstanding capital projects are expected to be
11 complete by December 1, 2015.

12 The last project on the capital project list, which relates to the purchase of critical spares for
13 generating stations, will not be fully complete by December 1 as originally expected.
14 However, with only three exceptions, all remaining capital spares within the scope of this
15 project are expected to be in stock by the end of December. The two spares in Hydraulic
16 Generation with expected delivery dates in February and April, 2016 respectively are
17 discussed in both Appendix A and Appendix G, and in both cases inspections have verified that
18 the existing equipment is winter ready. The spare high voltage bushings for Unit 3 in Holyrood
19 require a longer lead time, and mitigation actions in the unlikely event of an in-service failure
20 are discussed in Appendix A.

21 In its September 30, 2015 Report, Hydro noted that a fire at the Hardwoods gas turbine
22 facility on May 1, 2015 resulted in damage which has necessitated an overhaul of the End B
23 turbine. An update on the work that has been initiated to repair this unit is provided in
24 Section 3.1. As noted there, Hydro expects this unit to be re-installed and available by
25 December 1.

26 In Section 4.4.1 Hydro notes its expectation that all planned winter readiness work on the new
27 Holyrood CT will be completed by December 1. A number of the outstanding maintenance

1 activities will require a relatively short outage window in order to complete the required
2 work, and while this outage plan is not contemplated in the updated master generation
3 outage schedule shown in Appendix D, Hydro feels at this time that its outage requirements
4 will be accommodated. A further update will be provided to the Board in the next winter
5 readiness update due on November 18, 2015.

APPENDIX A

Status of 2015 Capital Projects Related to Winter Readiness
As of October 30, 2015

2015-16 Winter Readiness Planning Report

Asset Category	Project Title	Expected In Service Date (for 2015 Winter Readiness Scope)	Expected In Service Date (for 2015 Winter Readiness Scope)
		September 30 Update	October 31 Update
Distribution	Upgrade Distribution System - Hampden	Complete	Complete
Distribution	Upgrade Distribution Systems - Various Sites (2015/2016)	20-Oct-15	15-Nov-15 Note 6
Distribution	Upgrade L1 Distribution System - Plum Point	Complete	Complete
Distribution	Upgrade Distribution System - Main Brook	14-Oct-15	Complete
Distribution	Upgrade Distribution System - Daniels Harbour	26-Nov-15	15-Nov-15
Distribution	Relocate Voltage Regulator - Hawkes Bay	Complete	Complete
Gas Turbine	Upgrade Gas Turbine Plant Life Extension - Stephenville	16-Oct-15	13-Nov-15 Note 4
Gas Turbine	Gas Turbine Engine Refurbishment - Hardwoods		30-Nov-15 Note 7
Hydraulic	Overhaul Turbine/Generator Units - Paradise River	Complete	Complete
Hydraulic	Overhaul Turbine/Generator Units - Bay d'Espoir	Complete	Complete
Hydraulic	Replace Station Service Breakers - Cat Arm	Complete	Complete
Hydraulic	Replace ABB Exciter Unit 2 - Cat Arm	Complete	Complete
Hydraulic	Excitation Transformers Replacement - Bay D'Espoir	7-Nov-15 - Note 1	15-Nov-15 - Note 1A
Hydraulic	Replace Generator Bearing Coolers - Bay D'Espoir	24-Oct-15	Complete
Hydraulic	Replace 125VDC Battery Bank - Paradise River (Hydraulic)	15-Oct-15	Complete
Terminals	Upgrade Power Transformers - Various Sites	8-Nov-15	01-Dec-15 Note 3
Terminals	Replace Pumps on Mobile Transformer P235 - Bishop's Falls	Complete	Complete
Terminals	230kV Transformer Capacity - Oxen Pond	19-Nov-15	19-Nov-15
Terminals	Upgrade Circuit Breakers - Various Sites (2014-2015)	13-Nov-15	13-Nov-15
Terminals	Replace Disconnect Switches - Various Sites (2014-2015)	Complete	Complete
Terminals	Replace Optimho Relays on TL203 - Western Avalon to Sunnyside	Complete	Complete
Terminals	Transformer T1 Replacement - Sunnyside	Complete	Complete
Terminals	Upgrade Circuit Breakers - Various Sites (2015-2016)	27-Nov-15	15-Nov-15 Note 12
Terminals	Replace Disconnect Switches - Various Sites (2015-2016)	27-Oct-15	Complete
Terminals	Replace Instrument Transformers - Various Sites	9-Oct-15	Complete
Terminals	Replace Insulators - Various Sites	24-Oct-15	18-Nov-15 Note 8
Terminals	Replace Surge Arrestors - Various Sites	20-Oct-15	13-Nov-15 Note 9
Terminals	Upgrade Transformer Differential Protection - Grandy Brook	Complete	Complete
Terminals	Upgrade Control Wiring Phase 1 to Terminal Station 1 - Bay d'Espoir	7-Oct-15	Complete
Terminals	Replace Valve - Breaker B12L42 - Holyrood	Complete	Complete
Thermal	Purchase of Critical Spares - Holyrood	Complete	Complete
Thermal	Overhaul Extraction Pumps - Unit 3 South - Holyrood	Complete	Complete
Thermal	Overhaul Extraction Pumps - Unit 1 North - Holyrood	31-Oct-15	13-Nov-15 Note 10
Thermal	Overhaul Turbine Valves Unit 1 - Holyrood	31-Oct-15	Complete
Thermal	Overhaul Boiler Feed Pump East Unit 1 - Holyrood	31-Oct-15	Complete
Thermal	Replace Economizer Inlet Valves - Holyrood	Complete	Complete
Thermal	Install Cold-Reheat Condensate Drains and High Pressure	Complete	Complete
Thermal	Replace Unit 1 Air Compressor - Holyrood	Complete	Complete
Thermal	Replace DC Distribution Panels and Breakers - Holyrood (2015)	Complete	Complete
Thermal	Install Variable Frequency Drives on Forced Draft Fans - Holyrood	5-Oct-15	Complete
Thermal	Upgrade Vibration Monitoring System - Holyrood	Complete	Complete
Thermal	Replace DC Distribution Panels and Breakers - Holyrood (2014)	30-Oct-15	Complete
Thermal	Upgrade Quarry Brook Dam Equipment - Holyrood	Complete	Complete
Thermal	Replace Excitation Transformers - Holyrood	31-Jan-16 - Note 2	31-Jan-16
Diesel Generation	Replace Fuel Tanks - St. Anthony		Complete Note 11
Transmission	Perform Wood Pole Line Management Program - Various Sites	9-Oct-15	13-Nov-15 Note 5
Various	Purchase Critical Spares - Generating Stations	30-Nov-15	Note 13

2015-16 Winter Readiness Planning Report

Notes

- 1 The transformers for 5 of the 7 units at Bay d'Espoir are in service. The remaining two transformers are on site and scheduled to be installed during planned outages.
- 1A The transformers for 6 of the 7 units at Bay d'Espoir are in service. The remaining transformer has been installed and will be commissioned at the end of the Bay d'Espoir Unit 4 planned outage, as the generating unit is brought on line.
- 2 This is a supplemental project approved in September. The excitation transformers have been ordered and expected delivery is January 2016.
- 3 This project includes condition assessment and refurbishment work for a number of transformers. A portion of that work has been rescheduled into November 2015. All transformers are anticipated to be winter ready.
- 4 During removal of the clutch as part of project scope it was discovered that the bearings were in need of repair. The original equipment manufacturer recommended that the bearing liners be replaced. Fabrication of the new bearing liners led to a 3 week delay in the project. The new bearing liners have been received and installation is in progress.
- 5 The winter readiness scope in this project is substantially complete. The scope included the replacement of 50 wood poles, of which 47 are complete. Three pole replacements on TL222 were rescheduled to coincide with an outage in Springdale to replace a breaker.
- 6 This project includes distribution upgrades at three locations in 2015. Two are complete. Completion at the third location has been delayed due to materials issues with new insulators. These issues have been cleared and the new scheduled completion date is Nov 15.
- 7 This is a supplemental project approved in October. The engine is currently at the repair facility. Refurbishment is in progress and on schedule for return to site, installation and release for service on November 30.
- 8 This project includes the replacement of 54 insulators in 2015, of which 39 are complete. The remaining 15 insulators will be installed in Holyrood Terminal Station. This work has been rescheduled to November per the revised Master Outage Schedule.
- 9 This project includes the replacement of 6 surge arrestors in 2015, of which 5 are complete. The remaining surge arrestors will be installed during a Nov 9-13 outage.
- 10 Following disassembly and inspection of the pump, unanticipated extensive damage was found on the third stage impeller. Hydro shipped one of the stocked spares on hand at Holyrood's warehouse to the repair facility in Ontario. The discovery of the damage as well as the shipment time of the replacement impeller added approximately 10 days to the schedule. The pump has been reassembled and is on route to Holyrood.
- 11 This is a supplemental project under \$50k, approved in October, and now in service.
- 12 This project includes five breaker replacements in 2015, of which four are complete (Hardwoods B1LO1, Bay d'Espoir B1T2, Sunnyside B1LO2, and Sunnyside B1T1). The final breaker to be installed in 2015 is Bay d'Espoir B2T4, scheduled during an outage in November.
- 13 This is a supplemental project approved in late July 2015 for the procurement of spares for 12 critical components. Most of the components have been received or are expected to be received in November and December 2015. Some of the components have longer lead times, with delivery expected in 2016. Details are reported in the critical spares reports and are summarized as follows:
- (1) A spare steam seal regulator dump control valve cage for Holyrood has been ordered with expected delivery in November 2015.
 - (2) The high voltage bushings for Holyrood Units 1 and 2 have been received. The high voltage bushings for Unit 3 have a longer lead time and will not be available until late 2016. As a risk mitigation, Hydro is investigating the viability of reverse engineering the existing bushings during the next Unit 3 outage.
 - (3) A spare set of generator bearing coolers for Cat Arm has been ordered with expected delivery in December 2015. This is replacing an existing, used spare set of coolers. The existing spare coolers have been re-gasketed and could be used as an emergency replacement, in the unlikely event of failure prior to receipt of the new spare coolers.
 - (4) The existing spare turbine bearing for Hinds Lake is being refurbished with expected delivery in December 2015. Bearing vibration and temperature data has been reviewed and meets acceptance criteria for reliable operation. The in-service turbine bearing is winter ready.
 - (5) The existing spare turbine bearing for Bay d'Espoir Unit 7 is being refurbished with expected delivery in February 2016. Bearing vibration and temperature data has been reviewed and meets acceptance criteria for reliable operation. The in-service turbine bearing is winter ready.
- (6) A spare deflector servomotor for Cat Arm has been ordered with expected delivery in April 2016. This is replacing an existing, used spare servomotor which is no longer in reliable condition. The existing in-service servomotors have been inspected and confirmed to be winter ready. Weekly visual inspections for leakage will continue through the winter operating period, and seal kits are available for any necessary repairs.
 - (7) Spare combustion chambers for Hardwoods and Stephenville Gas Turbines are being refurbished with expected delivery in December 2015.
 - (8) Spare high pressure fuel pump assemblies for Hardwoods and Stephenville Gas Turbines have been ordered with expected delivery in December 2015.
 - (9) Spare low pressure fuel pump assemblies for Hardwoods and Stephenville Gas Turbines have been ordered with expected delivery in December 2015.
 - (10) A spare alternator bearing for Hardwoods Gas Turbines has been ordered with expected delivery in December 2015.
 - (11) A spare alternator bearing for Stephenville Gas Turbines has been ordered with expected delivery in December 2015.
 - (12) A spare alternator bearing for Happy Valley Gas Turbines has been ordered with expected delivery in December 2015.

APPENDIX B

Status of Winter Readiness Testing of Plant and Equipment
Holyrood Thermal Generating Station
As of October 30, 2015



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Plant:

Following Annual outages, Unit is run up, Synchronized and all Systems verified before Operating Status determined, as per ECC, prior to coming Winter Operating Season to ensure preparedness. A Unit Load Test is performed at this time.	S/U	✓	✓	N/A
Black Start Test of the black start systems is performed prior to the Winter Operating Season.	N/A	N/A	N/A	✓
Perform Megger testing of 600 volt motors prior to the Winter Operating Season.	✓	✓	✓	✓

Safety:

Boiler Service Pressure Test performed as required by Regulator.	S/U	✓	✓	N/A
Safety Valves testing as required.	S/U	✓	✓	N/A
Boiler Operational Off-Line High / Low Drum Level Trip Tests.	S/U	✓	✓	N/A
Breaker & Disconnect Operation verified by Ops. Dept. & Whitbourne Crew.	S/U	✓	✓	N/A

Service Air and Instrument Air Systems:

All Stationary Air Compressors available.	N/A	N/A	N/A	✓
Air Compressor operational checks performed (e.g. oil levels, cooling water, etc.)	N/A	N/A	N/A	✓
Air Compressor STBY / Sequencing capability.	N/A	N/A	N/A	✓

Raw and Makeup Water System:

Quarry Brook Dam Integrity.	N/A	N/A	N/A	✓
Raw Water Sump Water Supply Control Valve operational.	N/A	N/A	N/A	✓
Raw Water Pumps operational.	N/A	N/A	N/A	✓
Adequate supply of Chemicals (1172, 1179, Polymer, etc.).	N/A	N/A	N/A	✓
1172, 1179, Polymer Injection Pumping Sets, Pumps, valves, lines, agitators, etc. operational.	N/A	N/A	N/A	✓
Portable Diesel Pump check of Emergency Plant Water Supply from Quarry Brook Dam.	N/A	N/A	N/A	✓
Adequate & Readily available supply of Hoses for the Portable Diesel Pump from Quarry Brook Dam to Plant.	N/A	N/A	N/A	✓

Raw and Makeup Water System & Water Treatment Plant:

Instrumentation & Controls operational.	S/U	✓	✓	N/A
Analytical Rack Sample Cooler Filters cleaned/replaced as required.	S/U	✓	✓	N/A
Analytical Rack Sample Coolers cooling water in service.	S/U	✓	✓	N/A
Two (2) Sample cooling water pumps availability.	S/U	✓	✓	N/A

Clarifier:

Clarifier Recirculator, VFD Motor, VFD Controller.	N/A	N/A	N/A	✓
Clarifier Recirculator Scraper.	N/A	N/A	N/A	✓
Clarifier Badger Meter and Clearwell Instrumentation.	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



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Sand Filters:

Sand Filters (#s 1, 2 & 3) Resin integrity.	N/A	N/A	N/A	✓
Sand Filters (#s 1, 2 & 3) Valve Operation (Normal & Backwashing, etc.).	N/A	N/A	N/A	✓
Two (2) Clearwell Pumps available.	N/A	N/A	N/A	✓

Demineralization System:

Cation & Anion Trains (A, B & C) Resin integrity.	N/A	N/A	N/A	✓
Adequate supply of Chemicals (Caustic Soda, Sulphuric Acid, 1172, 1179, Polymer, etc.).	N/A	N/A	N/A	✓
Sulphuric Acid & Caustic Soda Transfer Pumps, valves, lines, etc.	N/A	N/A	N/A	✓
Sulphuric Acid & Caustic Soda Regeneration Sets, Pumps, valves, lines, etc.	N/A	N/A	N/A	✓

Reserve Feedwater System, 'RfW':

RfW Transfer Pump Oil Normal Operating Level.	S/U	✓	✓	N/A
RfW Transfer Pumps operational.	S/U	✓	✓	N/A

Circulating Water 'CW' and Screen Wash System:

Vacuum Seal Pits operational.	S/U	✓	✓	N/A
All CW Travelling Screens Operational.	S/U	✓	✓	N/A
CW Pump Motorized discharge valves 'Manual' & 'Auto', 'Cracked' Position operation verified.	S/U	✓	✓	N/A
CW Pump Motors Oil Normal Operating Level,	S/U	✓	✓	N/A
CW Pumps operational.	S/U	✓	✓	N/A
CW Pump Discharge Vacuum Breakers operational.	S/U	✓	✓	N/A
CW Travelling Screens Wash Pumps operational.	S/U	✓	✓	N/A
Condenser Flushed.	S/U	✓	✓	N/A
Condenser Backwashed.	S/U	✓	✓	N/A
General Service 'GS' Coolers Backwashed, cleaned, etc.	S/U	✓	✓	N/A
Turbine / Generator 'TG' Coolers Backwashed, cleaned, etc.	S/U	✓	✓	N/A
Vacuum Pump Coolers Backwashed, cleaned, etc.	S/U	✓	✓	N/A

Boiler:

Pre-Outage Valve Survey conducted of Boiler Drains.	✓	✓	✓	N/A
Service pressure test on boiler for tube leaks.	S/U	✓	✓	N/A

Condenser Air Extraction System:

Vacuum Pumps available & tested for STBY 'Auto-Start'.	S/U	✓	✓	N/A
Vacuum Pump Seal Water Tank water level controller operational.	S/U	✓	✓	N/A
Vacuum Pump Seal Water Pump operational.	S/U	✓	✓	N/A
Condenser Vacuum Breakers operational.	S/U	✓	✓	N/A

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

✓ - Test completed

N/A - Not Applicable

Status of Test			
Unit 1	Unit 2	Unit 3	BoP

High Pressure 'HP' Feedwater System:**Boiler Feed Pumps:**

Boiler Feed Pumps available.	S/U	✓	✓	N/A
Boiler Feed Pump Oil Tank Normal Operating Level and checked for moisture content.	S/U	✓	✓	N/A
Boiler Feed Pump Auxiliary Oil Pumps available.	S/U	✓	✓	N/A
Boiler Feed Pump Suction Valves & Limit Switches.	S/U	✓	✓	N/A
Boiler Feed Pump Emergency Gland Seal Injection Pump available.	S/U	✓	✓	N/A
Boiler Feed Pump Emergency Gland Seal Pump Oil Normal Operating Level.	S/U	✓	✓	N/A
Boiler Feed Pump Gland Seal Water available from the Emergency Pump and Condensate Extraction Pumps.	S/U	✓	✓	N/A
Boiler Feed Pump Gland Seal Water Control Valve operational.	S/U	✓	✓	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Float Operated Valve operational (Units 1 & 2).	S/U	✓	N/A	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps operational (Units 1 & 2).	S/U	✓	N/A	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Control Valve operational (Unit 3).	N/A	N/A	✓	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps operational (Unit 3).	N/A	N/A	✓	N/A
Boiler Feed Pump Recirculation Control Valves operational.	S/U	✓	✓	N/A
Boiler Feed Pump Motorized Discharge Pilot & Main Valves operational.	S/U	✓	✓	N/A
Low Load Feedwater Isolator & Control Valves operational.	S/U	✓	✓	N/A
Main Feedwater Isolator & Control Valves operational.	S/U	✓	✓	N/A
High Pressure Heater Motorized Valves (Inlet, Outlet & Bypass) checked for proper operation, sequencing, etc.	S/U	✓	✓	N/A

Miscellaneous:

Economizer 'Manual' Operated Valve operational.	S/U	✓	✓	N/A
Economizer Motorized Recirculation Valve operational (Unit 3).	N/A	N/A	✓	N/A
Boiler Drum Level Instrumentation operational.	S/U	✓	✓	N/A
HP Heater Bled Steam Check Valves operational.	S/U	✓	✓	N/A
Start-up Desuperheater Steam & Water valving operation / position verified (Unit 3).	N/A	N/A	✓	N/A
Main Steam & Reheat Steam Desuperheater Spray Water Isolators & Control Valves operational.	S/U	✓	✓	N/A
Auxiliary Steam Desuperheater Spray Water Control Valve operational (Unit 3).	N/A	N/A	✓	N/A

Low Pressure 'LP' Feedwater System:**Condenser:**

Condenser Hotwell Make-Up / Surplus Control Valves operation verified.	S/U	✓	✓	N/A
Condenser Hotwell Make-Up Motorized Isolating Valve operation verified (Unit 3).	N/A	N/A	✓	N/A
Condenser Dye test for leaks, as required.	S/U	✓	✓	N/A

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

✓ - Test completed

N/A - Not Applicable



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Ammonia & Control System:

Adequate Supply in place.	✓	✓	✓	N/A
Pumps operational.	S/U	✓	✓	N/A
Control Instrumentation operational.	✓	✓	✓	N/A

Condensate Extraction Pumps:

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

Condensate Polishers:

Resin integrity verified.	✓	✓	✓	N/A
Two (2) Polishers Rinsed and available.	✓	✓	✓	N/A
Valve Operation (Normal & Regenerating, etc.).	✓	✓	✓	N/A
Regeneration System Skids available (valving, pumps, blowers, tanks. Etc.).	✓	✓	✓	N/A
Condensate Polisher Bypass Control Valve operational.	S/U	✓	✓	N/A

Low Pressure Heaters:

Low Load Recirculation Control Valve operation.	S/U	✓	✓	N/A
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Deaerator:

Deaerator Normal Operating Level	S/U	✓	✓	N/A
Deaerator Steam Coil operational.	S/U	✓	✓	N/A
Deaerator Pegging Steam operational.	S/U	✓	✓	N/A
Deaerator Low Level Trip Test	S/U	✓	✓	N/A

Miscellaneous:

Condenser Flash Tank Control Valve operation / position.	S/U	✓	✓	N/A
Turbine Low Pressure Exhaust Hood Spray Motorized Valve operation.	S/U	✓	✓	N/A
Start-up Desuperheater Steam & Water valving operational (Units 1 & 2).	S/U	✓	N/A	N/A
LP Heater Bled Steam Check Valves operational.	S/U	✓	✓	N/A

Bled Steam and Heater Drains System:

LP and HP Instrumentation and Control operational.	S/U	✓	✓	N/A
LP and HP Heater Level Control operational.	S/U	✓	✓	N/A
Low Pressure 'LP' Heater Condensate Drains Pumps operational.	S/U	✓	✓	N/A
#4 High Pressure 'HP' Heater Condensate Drains Pump operational.	S/U	✓	✓	N/A

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

✓ - Test completed

N/A - Not Applicable



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Air and Flue Gas System:

Instrumentation and Control operational.	S/U	✓	✓	N/A
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Forced Draft 'FD' Fans and Air Dampers:

Two (2) FD Fans available.	S/U	✓	✓	N/A
Bearing Oil Normal Operating Level.	S/U	✓	✓	N/A
Cooling Water on to Fans.	S/U	✓	✓	N/A
Stroke Variable Inlet Vanes, 'VIVs'.	S/U	✓	✓	N/A
Stroke Discharge Dampers.	S/U	✓	✓	N/A
FD Fan Motor Variable Speed Drives operational.	S/U	✓	✓	N/A
All Burner Auxiliary Air Dampers/Positioners operation (Units 1 & 2).	S/U	✓	N/A	N/A
All Elevation Air Flow Dampers/ Positioners operation (Unit 3).	N/A	N/A	✓	N/A

Rotary Air Heaters:

Rotary Air Heaters operational.	S/U	✓	✓	N/A
Rotary Air Heaters Bearing Oil (Top & Bottom) Normal Operating Level.	S/U	✓	✓	N/A
Rotary Air Heaters Bearing Cooling Water On.	S/U	✓	✓	N/A
Rotary Air Heaters Electric Motor Drives operational.	S/U	✓	✓	N/A
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open.	S/U	✓	✓	N/A
Rotary Air Heaters Start-up of Air Motor Drive upon loss of AC Power Supply to the normal operating Electric Drive Motor.	S/U	✓	✓	N/A
Rotary Air Heaters Steam Supply Control Valves operational. (*Note: Two Steam Supplies on (Units 1 & 2)).	S/U	✓	✓	N/A
Rotary Air Heaters Sootblowers operational.	S/U	✓	✓	N/A

Boiler Sootblowing System:

Sootblower Control Panel operational.	S/U	✓	✓	N/A
Sootblowers Steam Supply Control Valve operational.	S/U	✓	✓	N/A
Sootblowers Overhauled during Annual Outage Verify operation (e.g. Rotation, Travel Advancing/Retracting from Furnace, leaks, etc.) first time Unit is placed on Line.	S/U	✓	✓	N/A

Light Fuel Oil System:

Hydro Pad operational.	S/U	✓	✓	N/A
Light Oil Pumps available.	S/U	✓	✓	N/A
Pumps, Valves (including Control & Trip), lines, strainers, pressure (locally & UCB).	S/U	✓	✓	N/A
Check Light Oil Supply & Return Lines to / from Plant respectively.	S/U	✓	✓	N/A
Suction Strainers cleaned with covers secured.	S/U	✓	✓	N/A
Ignitors cleaned, securely in place with associated lines securely fastened.	S/U	✓	✓	N/A
Ignitors all checked for operation during Unit Start-up (e.g. Ignitor Control Box, Valve Operation, Lighting, etc.).	S/U	✓	✓	N/A

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

✓ - Test completed

N/A - Not Applicable



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Fuel Oil Delivery System, Auxiliary Steam & Fuel Oil Piping System:

Adequate Heavy Oil Storage.	N/A	N/A	N/A	✓
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	✓
Adequate Light Oil Storage.	N/A	N/A	N/A	✓
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	✓
All Storage Tanks Suction Heaters available when required.	N/A	N/A	N/A	✓
All Storage Tanks Flatform Heaters available when required.	N/A	N/A	N/A	✓
Auxiliary Steam for Suction Heaters available.	N/A	N/A	N/A	✓
Auxiliary Steam for Flatform Heaters available.	N/A	N/A	N/A	✓
Auxiliary Steam for Heat Tracing available.	N/A	N/A	N/A	✓
Electrical Heat Tracing for Fuel Oil Lines available.	N/A	N/A	N/A	✓
Day Tank Supply Line Trip Valve Tested.	N/A	N/A	N/A	✓
Day Tank available to receive oil.	N/A	N/A	N/A	✓
Day Tank steam coil available.	N/A	N/A	N/A	✓

Fuel (Heavy) Oil System:

Fuel Oil Heating Sets:	S/U	✓	✓	N/A
Fuel Oil Heaters available.	S/U	✓	✓	N/A
Fuel Oil Heaters cleaned and inspected.	S/U	✓	✓	N/A
Steam Supply to Heavy Oil Set Heaters available as required.	S/U	✓	✓	N/A
Fuel Oil Heaters Temperature Steam Control Valve operational.	S/U	✓	✓	N/A
Suction Strainers cleaned (including standby & extras) with covers secured.	S/U	✓	✓	N/A
Fuel Oil Accumulator operational.	S/U	✓	✓	N/A
Fuel Oil Pumps available.	S/U	✓	✓	N/A
Pumps 'Auto-Start' check Off-Line.	S/U	✓	✓	N/A
Header Pressure Control Valve operational.	S/U	✓	✓	N/A
Fuel Oil Meter operational.	S/U	✓	✓	N/A

Fuel Oil Supply Control, Trip, Long & Short Recirculation Valves:

Fuel Oil Supply Control Valve operational.	S/U	✓	✓	N/A
Fuel Oil Trip Valve operational.	S/U	✓	✓	N/A
Fuel Oil Long Recirculation Valve operational (Units 1 & 2).	S/U	✓	N/A	N/A
Fuel Oil Short Recirculation Valve operational (Units 1 & 2).	S/U	✓	N/A	N/A
Elevation Fuel Oil Trip Valves operational (Unit 3).	N/A	N/A	✓	N/A
Elevation Fuel Oil Minimum Supply Control Valves operational (Unit 3).	N/A	N/A	✓	N/A
Elevation Fuel Oil Supply Control Valves operational (Unit 3).	N/A	N/A	✓	N/A
Main Fuel Oil Recirculation Valve operational (Unit 3).	N/A	N/A	✓	N/A
Elevation Recirculation Valves operational (Unit 3).	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



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Burners:

All Burners cleaned, securely in place with associated lines securely fastened.	S/U	✓	✓	N/A
All Burners checked for operation during Unit Start-up (e.g. Advancing / Retracting, Valve Operation, Lighting, etc.).	S/U	✓	✓	N/A
All Burner Tilts checked for operation (Units 1 & 2).	S/U	✓	N/A	N/A

General Service 'GS' System:

GS Heat Exchangers Backwashed, cleaned, etc.	N/A	N/A	✓	N/A
Stage I GS Plate Cooler Strainers cleaned.	S/U	✓	N/A	N/A
Stage I GS 'Auto-Clean' Strainer operational.	S/U	✓	N/A	N/A
Stage I GS Duplex Strainers cleaned.	S/U	✓	N/A	N/A
GS Pump Suction Strainers cleaned.	S/U	✓	✓	N/A
GS Pump Oil Normal Operating Level.	S/U	✓	✓	N/A
GS Pumps available & tested for STBY 'Auto-Start'.	S/U	✓	✓	N/A

Turbine / Generator 'TG' Auxiliary Cooling System:

TG Head Tank Normal Operating Level.	S/U	✓	✓	N/A
Turbine Lube Oil Coolers operational.	S/U	✓	✓	N/A
TG Heat Exchangers Backwashed, cleaned, etc.	S/U	✓	✓	N/A
TG Pump Oil Normal Operating Level.	S/U	✓	✓	N/A
TG Pumps available & tested for STBY 'Auto-Start'.	S/U	✓	✓	N/A

Turbine Generator 'TG' System:

Hydraulic System Units 1 & 2:

Hydraulic System Accumulators operational.	S/U	✓	N/A	N/A
Hydraulic System Storage Tank Normal Operating Level and checked for moisture content.	S/U	✓	N/A	N/A
Hydraulic System Storage Tank air purging of moisture in place.	S/U	✓	N/A	N/A
Hydraulic Set Primary, Secondary Filter indications ok.	S/U	✓	N/A	N/A
Two (2) Hydraulic Fluid Pumps availability.	S/U	✓	N/A	N/A
Hydraulic Pump Auto Start Testing.	S/U	✓	N/A	N/A
Two (2) Hydraulic Fluid Pump Coolers availability.	S/U	✓	N/A	N/A

Valves:

Turbine Main Stop Valve Testing (Units 1 & 2).	S/U	✓	N/A	N/A
Turbine Two (2) Main Stop Valves Testing (Unit 3).	N/A	N/A	✓	N/A
Turbine 'Left-Hand' & 'Right Hand' Reheat Stop & Intercept Control Valve Testing verified.	S/U	✓	✓	N/A
Turbine Six (6) Main Control Valve operation (Units 1 & 2).	S/U	✓	N/A	N/A
Turbine Four (4) Main Control Valve operation (Unit 3).	N/A	N/A	✓	N/A
Turbine Blowdown Valve operation.	S/U	✓	✓	N/A

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

✓ - Test completed

N/A - Not Applicable



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Lubricating System:

Lube Oil Tank Normal Operating Level and checked for moisture content.	S/U	✓	✓	N/A
Lube Oil Tank Oil Centrifuge operational (Unit 3).	N/A	N/A	✓	N/A
Portable Centrifuge operational.	S/U	✓	✓	N/A
Lube Oil Tank Vapor Extractor operation.	S/U	✓	✓	N/A
Bowser Oil Conditioner Vapor Extractor Operation (Units 1 & 2).	S/U	✓	N/A	N/A
Two (2) AC Lube Oil pumps available & tested for STBY 'Auto-Start' (Units 1 & 2)	S/U	✓	N/A	N/A
DC Pump Testing & Starting from UCB (Units 1 & 2).	S/U	✓	N/A	N/A
Verify Discharge Pressure of EACH AC Lube Oil Pumps (Locally & UCB) (Units 1 & 2).	S/U	✓	N/A	N/A
Verify Discharge Pressure of DC Lube Oil Pump (Locally & UCB) (Units 1 & 2).	S/U	✓	N/A	N/A
Jacking Oil Pump Testing & Starting from UCB (Unit 3).	N/A	N/A	✓	N/A
Verify Discharge Pressure of Jacking Oil Pump (Locally & UCB).	N/A	N/A	✓	N/A
Auxiliary Oil Pump 'AOP' Testing & Starting from UCB & Turbine Lube Oil Tank (Unit 3).	N/A	N/A	✓	N/A
Verify Discharge Pressure of AOP Pump (Locally & UCB) (Unit 3).	N/A	N/A	✓	N/A
AC Pump Testing & Starting from UCB & Turbine Lube Oil Tank (Unit 3).	N/A	N/A	✓	N/A
Verify Discharge Pressure of AC Flushing Oil Pump (Locally & UCB) (Unit 3).	N/A	N/A	✓	N/A
DC Pump Testing & Starting from UCB & Turbine Lube Oil Tank (Unit 3).	N/A	N/A	✓	N/A
Verify Discharge Pressure of DC Flushing Oil Pump (Locally & UCB) (Unit 3).	N/A	N/A	✓	N/A
Barring / Turning Gear Low Oil Pressure Trip Test.	S/U	✓	✓	N/A

Barring / Turning Gear:

Turning Gear operation verified.	S/U	✓	✓	N/A
Perform trip test of Turning Gear.	S/U	✓	✓	N/A

Miscellaneous:

Steam Seal Regulator operational.	S/U	✓	✓	N/A
Operational On-Line / Off-Line Overspeed Trip Tests.	S/U	✓	✓	N/A

Hydrogen 'H2' & Carbon Dioxide 'CO2' System:

H2 and CO2 systems in operation.	N/A	N/A	N/A	✓
Adequate H2 Bulk Packs on hand.	N/A	N/A	N/A	✓
CO2 Adequate Bulk Packs on hand.	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



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

Generator:

Generator Exciter Operation checked Off & On Line.	S/U	✓	✓	N/A
Seal Oil System tested with 'Air' on Generator in preparation for Leak Testing.	S/U	✓	✓	N/A
Seal Oil Regulator operational.	S/U	✓	✓	N/A
AC Seal Oil pumps available & tested for STBY 'Auto-Start' (Units 1 & 2).	S/U	✓	N/A	N/A
AC Seal Oil Pump available (Unit 3).	N/A	N/A	✓	N/A
DC Seal Oil Pump available & tested for STBY 'Auto-Start'.	S/U	✓	✓	N/A
Seal Oil Vacuum Pumps available.	S/U	✓	✓	N/A
Vacuum Tank Level Control operational.	S/U	✓	✓	N/A
Leak Testing Performed prior to 'Gassing Up' Generator.	S/U	✓	✓	N/A
Purity, Dew Point, etc. Instrumentation operation verified.	S/U	✓	✓	N/A

Powerhouse and Switchyard Single Line:

Plant 129V System:

129 V Battery Banks checked Stage I & II.	✓	✓	✓	N/A
129V Battery Chargers checked Stage I & II.	✓	✓	✓	N/A

Plant 258V System:

258V Battery Banks checked Stage I & II.	✓	✓	✓	N/A
258V Battery Chargers checked Stage I & II.	✓	✓	✓	N/A

Plant Uninterrupted Power Supplies 'UPS':

Number's 1, 2, 3 & 4 'UPS' Power Supplies including Batteries, Cooling Fans, etc., checked.	✓	✓	✓	N/A
---------------------------------------------------------------------------------------------	---	---	---	-----

Emergency Diesel Generators:

Stage I & II Emergency Diesel Generators Tested for Emergency Stop.	✓	✓	✓	N/A
Stage I & II Emergency Diesel Generators Tested for Manual & Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers.	✓	✓	✓	N/A
Diesel Bus Tie Breaker, 'DBT' operation verified.	✓	✓	✓	N/A

Holyrood Main Powerhouse:

Back-Up ECC and Guardhouse Propane Generator.	N/A	N/A	N/A	✓
-----------------------------------------------	-----	-----	-----	---

Plant Air Conditioning System:

Control & Relay Rooms.	N/A	N/A	N/A	✓
Uninterrupted Power Supply 'UPS' #1 Room.	N/A	N/A	N/A	✓
Generator Excitation and 'UPS' #s 2, 3 & 4 Room (Unit 3).	N/A	N/A	N/A	✓

Plant Heating Steam:

All Systems operational for when required.	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 C

Status of Winter Readiness Testing of Plant and Equipment
Hydraulic Generation
As of October 30, 2015

2015-16 Winter Readiness Planning Report



Status of Test								
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Bop PH 1	BoP PH 2

Following Annual outages, Unit is run up, Synchronized and all Systems verified before Operating Status determined, as per ECC, prior to coming Winter Operating Season to ensure preparedness. A Unit Load Test is performed at this time.	✓	✓	✓	12-Nov	✓	✓	✓	N/A	N/A
Black Start Test of the black start systems is performed prior to the Winter Operating Season. Station service transfers alternate sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

Spherical Valves:

Turbine Main Stop Valve Testing	✓	✓	✓	12-Nov	✓	✓	N/A	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A

Service Air , 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	N/A	✓	✓
Air Compressor STBY / Sequencing capability./Lead Lag/Standby	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HP compressors available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
LP 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	N/A	N/A	N/A

TG Cooling Water Systems:

Cooling water pumps available	✓	✓	✓	✓	✓	✓	N/A	✓	N/A
Emergency Cooling water available Penstock Supply	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Cooling water system available	✓	✓	✓	✓	✓	✓	✓	✓	✓
TG Pumps available & tested for Auto/manual Start.	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Shaft seal sytem available	✓	✓	✓	12-Nov	✓	✓	✓	N/A	N/A
CW Pump Motorized discharge valves 'Manual' & 'Auto', 'Cracked' Position operation verified. GCI /Hk	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rotary Strainer inspected and available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Status of Test								
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Bop PH 1	BoP PH 2

Turbine Generator Governor System:

Hydraulic System Accumulators operational.	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Testing	✓	✓	✓	12-Nov	✓	✓	✓	N/A	N/A
Governor System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic pump(s) available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic Pump Gov Auto Start Testing.	✓	✓	✓	12-Nov	✓	✓	✓	N/A	N/A

Generator:

Generator Exciter Operation checked Off & On Line.	✓	✓	✓	12-Nov	✓	✓	✓	N/A	N/A
Generator Exciter Available.	✓	✓	✓	✓	✓	✓	✓	N/A	N/A

Lubricating System:

Portable Centrifuge operational.	✓	✓	✓	✓	✓	✓	✓	✓	✓
Portable oil Pump (Jacking)	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Oil level system generator metering available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Oil level system turbine metering available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
AC High pressure Jacking Oil Pump available automatic	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A

Switchtard /Terminal Station

Breakers and Disconnects Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Breaker & Disconnect Operation verified by Ops. Dept. & TRO Bishops Falls .	✓	✓	✓	S/U	✓	✓	✓	N/A	N/A

Intake

Water elevation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Trashrack system	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Gate operation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A

Surge Tank

Heating system	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15-Nov	N/A
Alarm Systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15-Nov	N/A

Spillway

Water elevation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Gate Heating /Ice Away unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15-Nov	N/A
Gate operation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Emergency(back-up) Diesel Generator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2015-16 Winter Readiness Planning Report



	Status of Test								
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	BoP PH 1	BoP PH 2
Emergency lift operation and tested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Battery Banks And Battery Chargers									
Plant 129V System:									
129 V Battery Banks checked	N/A	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	N/A	✓	✓
129 V battery Banks Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Plant 48V System:									
48V Battery Banks checked	N/A	N/A	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	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	N/A	✓	N/A
Emergency Diesel Generators Tested for Manual & 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	✓	N/A
Alternate AC sources available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Station Services Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Transfer alternate source	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Plant Air Conditioning System:									
Control Rooms.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Communications Rooms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Plant Heating Steam:									
All Systems operational for when required.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

APPENDIX D

Master Generation Outage Schedule
Updated as of November 4, 2015

2015 Planned Generation Outage Schedule*															
Unit	MW	October				November					December				Scheduled Annual Maintenance Outages
		Week Starting 4	11	18	25	1	8	15	22	29	6	13	20	27	
Holyrood - G1	170														Aug 01 - Oct 27
Holyrood - G2	170														June 06 - Oct 05
Holyrood - G3	150														Apr 10 - Aug 18
Bay D'Espoir - G1	76.5														Apr 26 - July 09
Bay D'Espoir - G2	76.5														Apr 05 - May 15, Aug 2 - Sept 12
Bay D'Espoir - G3	76.5														Oct 04 - 26
Bay D'Espoir - G4	76.5														Sept 27 - Nov 8
Bay D'Espoir - G5	76.5														May 27 - Aug 12
Bay D'Espoir - G6	76.5														May 27 - July 31
Bay D'Espoir - G7	154														Aug 16 - Sept 06
Upper Salmon	84														Aug 02 - 14
Granite Canal	40														July 19 - 30
Hinds Lake	75														Oct 26 - Nov 07
Cat Arm - G1	67														July 06 - 16, Nov 01 - 14
Cat Arm - G2	67														Sept 08 - 26
Paradise River	8														May 10 - 23, Sept 13 - 23
Hardwoods GT ^{Note 1}	50														
Stephenville GT	50														Apr 13 - May 29, Aug 31 - Oct 17
Holyrood CT	123.5														
Star Lake	18														June 08 - 11, Sept 07 - 12
Exploits	63														
CoGen	8														
NLH Diesels ^{Note 6}	24.7														
Newfoundland Power	117.9														
CBPP 60 Hz	99.1														
Available Capacity ^{Note 2}	1,998	1,497	1,611	1,614	1,617	1,512	1,794	1,986	1,949	1,998	2,011	2,011	2,011	2,011	
Forecasted Gross Island Peak Load ^{Note 3, 4}		959	994	1,084	1,184	1,211	1,262	1,314	1,365	1,417	1,758	1,758	1,758	1,758	
Total Reserves ^{Note 5}		538	617	530	433	301	532	672	584	581	363	363	363	363	
Largest Operating Unit		170	170	170	170	170	170	170	170	170	170	170	170	170	
n-1 Reserve		368	447	360	263	131	362	502	414	411	193	193	193	193	

Legend	
Unit Available	White
Unit Unavailable	Dark Blue
Unit Derated	Light Blue
Unplanned / Extension	Gray

Notes:

- 1 Hardwoods Gas Turbine derated to 38 MW due to a temporarily installed leased engine (Reference PUB Advisory 2015-H-057).
 - 2 As of December 01, planned Vale Diesels capacity of 13 MW is included in Available Capacity. A pre-winter capacity test is required to prove capacity up to 13 MW.
 - 3 The Forecasted Gross Peak Load values for Oct 04, Oct 11, and Oct 18 are the actual Gross Peak Load values.
 - 4 December's Forecasted Gross Peak Load is the 2015 - 2016 Island Winter Peak Load (1,758 MW). This is a P50 forecast.
 - 5 December's Total Reserves reflect the planned agreements for CBPP Capacity Assistance (80 MW), Newfoundland Power Curtailable Load (9.9 MW), and System Voltage Reduction (20 MW).
 - 6 24.7 MW includes Hawke's Bay (5 MW), St. Anthony (9.7 MW), and Holyrood Diesels (10 MW).
- * Preventative/Corrective Maintenance items that require short duration outages are not reflected in this chart. They are planned in conjunction with system operations for an appropriate time.

APPENDIX E

Critical Spares Status Listing – Thermal Generation
As of October 30, 2015

2015-16 Winter Readiness Planning Report

Asset	Define Spares Parts	Price Spare Parts			Spare Part Criticality						Status Update October 30, 2015
		Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	Ranking	
System	Defined Spares Parts										
Fire Protection System	Pump	In Stock			10	1	10	10	10	41	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	8" Butterfly Valve and Actuator	In Stock			10	10	10	5	5	40	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Actuator	In Stock			10	10	10	1	5	36	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	16" Gate Valve	In Stock			10	10	5	1	5	31	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	6" Control Valve	In Stock			10	10	10	1	10	41	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Actuator	In Stock			10	10	10	1	5	36	
Hydrogen Generation and Storage	1/2 " Valve	In Stock			10	10	10	1	10	41	
Hydrogen Generation and Storage	Tubing - See Parts List # COM - 1	In Stock			10	10	10	1	1	32	
Powerhouse and Switchyard Single Line	Repair Parts	In Stock			10	1	10	1	10	32	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2205C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2206C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3205C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3206C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2203C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2207C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2202C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Cation Valve - KV2208C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3203C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3207C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3202C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Anion Valve - KV3208C	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4003B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4004A	In Stock			10	10	5	1	10	36	

2015-16 Winter Readiness Planning Report

Asset	Define Spares Parts	Price Spare Parts			Spare Part Criticality						Status Update October 30, 2015
		Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	Ranking	
System	Defined Spares Parts										
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4005B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4006B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4007B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4008B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4009B	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4010A	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - KV4011A	In Stock			10	10	5	1	10	36	
Raw and Makeup Water System & Water Treatment Plant	Mixed Bed Valve - PCV4071	In Stock			10	10	10	1	10	41	
Raw and Makeup Water System & Water Treatment Plant	Sodium Monitor	In Stock			10	1	10	1	10	32	
Raw and Makeup Water System & Water Treatment Plant	Frequency Drive	In Stock			10	10	10	1	10	41	
Raw and Makeup Water System & Water Treatment Plant	Recirculator - Double Induction Speed Reducer - In Stock	In Stock			10	1	10	1	10	32	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	18 " Butterfly Valve	In Stock			10	10	10	1	5	36	Tier 2 Critical Spare - Addition to Inventory process in progress
Fire Protection System	Fire Pump Controller	Not in Stock	N/A	N/A	10	1	10	5	10	36	Expect to replace the control panel in Q1, 2016. A replacement panel is on site and is available in the event of any failure.
Powerhouse and Switchyard Single Line	Breakers	Not in Stock	N/A	N/A	10	10	5	1	10	36	2015 Capital Project.

2015-16 Winter Readiness Planning Report

Asset		Define Spares Parts		Price Spare Parts			Spare Part Criticality					Status Update October 30, 2015
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	36" Butterfly Valve	In Stock			10	1	10	1	10	32
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	Actuator	In Stock			10	1	10	1	10	32
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules	In Stock			10	10	10	1	10	41
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays	In Stock			10	10	10	5	10	45
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor	In Stock			10	10	10	5	10	45
Combustion Air & Gas Instruments	Burner Management	Elevation Oil Flow Transmitter	Meter & Sensor	In Stock			10	10	5	5	5	35
Combustion Air & Gas Instruments	Burner Management	Elevation Oil Flow Transmitter	Transmitter	In Stock			10	10	5	5	5	35
Combustion Air & Gas Instruments	Burner Management	Flame Scanners	24Vdc Scanner Power Supply	In Stock			10	10	5	5	10	40
Combustion Air & Gas Instruments	Burner Management	Air Flow Transmitters	Transmitter	In Stock			10	10	10	5	10	45
Combustion Air & Gas Instruments	Burner Management	Oil Flow Transmitter	Transmitter - Unit 1	In Stock			10	10	5	5	10	40
Combustion Air & Gas Instruments	Burner Management	Oil Flow Transmitter	Sensor - Unit 2	In Stock			10	10	5	5	10	40
Combustion Air & Gas Instruments	Burner Management	Oil Flow Transmitter	Transmitter - Unit 2	In Stock			10	10	5	5	10	40
Condenser Air Extraction System	Vacuum Breakers		6" Flanged	In Stock			10	1	10	5	5	31
Generator	Seal Oil System	Seals	See Parts List #U1&2 - 1 from Service Contractor	In Stock			10	1	10	1	10	32
Generator	Exciter	Bridges	See OEM Parts List #U1&2 - 2	In Stock			10	1	10	1	10	32
Generator	Exciter	Channels	See OEM Parts List	In Stock			10	1	10	1	10	32
Generator	Stator	PT Cubicle	Primary Contact for Generator P.T.	In Stock			10	1	10	1	10	32
Generator	Seal Oil System	Regulator	1.5" Regulating Valve	In Stock			10	10	10	1	10	41
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1" Valve	In Stock			10	10	10	5	10	45
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Ignition Transformer	In Stock			10	10	5	1	5	31
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Sunspot	In Stock			10	10	5	1	5	31
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Valve Assembly / Oil Igniter	In Stock			10	10	5	1	5	31
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Level Transmitters	In Stock			10	10	10	5	10	45
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules	In Stock			10	10	10	5	10	45
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relays	In Stock			10	10	10	5	10	45
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid	In Stock			10	10	10	5	10	45
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Deaerator System	Level Control	Level Switch	In Stock			10	10	5	5	10	40
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter	In Stock			10	10	10	5	10	45
L.P. Feedwater System	Deaerator System	Level Control	Relay	In Stock			10	10	10	5	10	45
L.P. Feedwater System	Ammonia System		Bulk Chemical	In Stock			10	10	10	1	10	41
L.P. Feedwater System	Deaerator System	NRV Valves (2)	Non-Return Valve	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Deaerator System	NRV Valves (2)	Gaskets	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Deaerator System	NRV Valves (2)	O-Rings	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Deaerator System	NRV Valves (2)	Packing	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Deaerator System	NRV Valves (2)	Seal washers	In Stock			10	1	10	1	10	32
L.P. Feedwater System	L.P. Heaters	NRV Valves	Non-Return Valve	In Stock			10	1	10	1	10	32
L.P. Feedwater System	L.P. Heaters	NRV Valves	Gaskets	In Stock			10	1	10	1	10	32
L.P. Feedwater System	L.P. Heaters	NRV Valves	o-Rings	In Stock			10	1	10	1	10	32
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing	In Stock			10	1	10	1	10	32
L.P. Feedwater System	L.P. Heaters	NRV Valves	Seal washers	In Stock			10	1	10	1	10	32
L.P. Feedwater System	Polisher Bypass Valve		Valve	In Stock			10	10	10	1	10	41
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	3" Valves	In Stock			10	10	10	1	10	41
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	2" Valves	In Stock			10	10	10	1	10	41
Main Steam & Reheat Steam; Turbine Drains	Vacuum Trip Device		Pressure Transmitter - Unit 1	In Stock			10	10	10	5	10	45
Powerhouse and Switchyard Single Line	258V DC System	Unit 1 & 2 Field Breakers	Field Breaker	In Stock			10	10	10	5	10	45
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - cable assemblies	In Stock			10	10	10	1	10	41
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Intercept Control Valve Servos	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Main Control Valve Servos	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 6 gal. Intercept Control Valve Servos (scram)	In Stock			10	1	10	1	10	32

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Asset		Define Spares Parts		Price Spare Parts			Spare Part Criticality					Status Update October 30, 2015
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 6 gal. Main Stop Valve Servos	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Governor	Governor	Linear Variable Differential Transducer for Intercept Control Valve & Main Control Valve	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Governor	Governor	Linear Variable Differential Transducers for 1 per Main Stop Valve	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Governor	Governor	Trip Manifold Assembly (TMA) - Unit 2 OEM \Parts list #U1&2 - 4 List of OEM recommended	In Stock			10	10	10	1	10	41
Turbine Generator System Stage 1	Governor	Governor	Go Switch - Limit Switches	In Stock			10	10	10	1	10	41
Turbine Generator System Stage 1	Governor	Governor	Fluid Power Products	In Stock			10	10	10	1	10	41
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Oil Pump	Pump	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Motor	Motor	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switches	Switch	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Hydraulic Fluid System	Fluid Pumps	Pump	In Stock			10	10	10	5	10	45
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Pump	In Stock			10	1	10	5	10	36
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Motor	Motor	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 2	Switch	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Steam Seal Regulator		Main Steam Valve - Actuator Repair Kit - Unit 1 & 2	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Steam Seal Regulator		Main Steam Control Valve - Repair Kit - Unit 1 & 2	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Steam Seal Regulator		Dump Control Valve - Actuator - Repair Kit - Unit 1 & 2	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Steam Seal Regulator		Dump Control Valve - Body - Repair Kit - Unit 1 & 2	In Stock			10	1	10	1	10	32
Units 1 & 2 Air & Flue Gas	Furnace Pressure TX (Trip)		Pressure Transmitter	In Stock			10	10	5	1	10	36
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Baskets	See OEM Parts List #U1&2- 6	In Stock			10	10	10	1	10	41
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Rotating Element & Bearings	See OEM Parts List #U1&2- 6	In Stock			10	10	10	1	10	41
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	See OEM Parts List #U1&2- 6	In Stock			10	10	10	1	10	41
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	See OEM Parts List #U1&2- 6	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	2" Flanged valv	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Atomizing Steam Valve	Atomizing Steam Valve	2" Flanged Valve	In Stock			10	10	5	5	5	35
Units 1 & 2 Fuel Oil System	Main Fuel Oil Trip Valve	Main Fuel Oil Trip Valve	Flanged Valve	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Header Pressure Control Valve	Header Pressure Control Valve	327680000	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Fuel Oil Pumps	Fuel Oil Pumps	Pump	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Mechanical Seal	Mechanical Seal	Seal	In Stock			10	1	10	1	10	32
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Welded Flange	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Welded Valve	In Stock			10	10	10	1	10	41
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Gaskets	In Stock			10	10	5	1	10	36
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Tube Bundles	In Stock			10	1	10	1	10	32
Units 1 & 2 Fuel Oil System	Burners	Oil Valve	oil, Steam & Svange Valves - All Same	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	See Pats List #U1&2-8	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Pump or Parts	In Stock			10	1	10	5	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Unit 2 E & W	Pump	In Stock			10	1	10	5	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Rotating Assembly	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Volute casing for rotating assembly	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Throttle bushing (2 req'd)	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Sleeve bearing	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Balance bushing	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Thrust bearing	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Pump Parts	Gaskets	In Stock			10	10	5	1	10	36
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	See Pasrts List #U1&2-9	In Stock			10	10	10	5	5	40

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Asset		Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update October 30, 2015	
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec		# of suppliers
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #1 - All HP Heaters	Level Transmitters	In Stock			10	10	10	1	1	32
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 2 - HP Heater # 4 & 6	Leve Transmitter	In Stock			10	10	10	1	1	32
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 2 -HP Heater # 5	Level Transmitter	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 - All HP Heaters	Aquarian Alarm Modules	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - Heater # 4 & 6	Aquarian Alarm Modules	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 2 -HP Heater # 5	Aquarian Alarm Modules	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2 - All HP Heaters	Conductivity Probe	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 1 & 2 - All HP Heaters	Relay	In Stock			10	10	5	1	5	31
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2	Solenoid	In Stock			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve Limit Switch	Oil Tight Limit Switch	In Stock			10	10	10	1	1	32
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve	10" Valve	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	8" Valve	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 4	8"-150#	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 5	8"-300#	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 6	8"-600#	In Stock			10	1	10	1	10	32
Units 1 & 2 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Level Transmitter	In Stock			10	10	10	1	1	32
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" x 1" Valve	In Stock			10	10	10	1	1	32
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Recirculation Valve to DA	4" Valve	In Stock			10	10	10	1	10	41
Combustion Air & Gas Instruments	Burner Management	Positioner	2.5" x 5 "Pneumatic PowerPositioner In Stock	In Stock			10	1	10	5	10	36
L.P. Feedwater System	Condensate Extraction Pumps		See OEM Parts List -# U1&2 - 3	In Stock			10	1	10	1	10	32
Powerhouse and Switchyard Single Line	258V DC System	Cable	In Stock	In Stock			10	10	5	1	5	31
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - speed probes	In Stock			10	10	10	1	10	41
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 1	Switch	In Stock			10	1	10	1	10	32
Turbine Generator System Stage 1	Steam Seal Regulator		Main Steam Control Valve - Positioner - Unit 2	In Stock			10	1	10	1	10	32
Condenser Air Extraction System	Mechanical Vacuum Pumps	Motor	Motor	In Stock			10	1	10	5	5	31
Generator	Stator	PT Cubicle	Potential Transformer (PT)	In Stock			10	1	10	1	10	32
	Stator	Stand Off Insulators	Stand Off Insulator	In Stock			10	1	10	5	10	36
Turbine Generator System Stage 1	Governor	Governor	Truck V-Fast Cables	duplicate			10	10	10	1	10	41
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Unit 2	Flanged Valve - TJ to chek system	duplicate			10	10	10	1	10	41
Generator	Rotor	Rotor	Rotor	Not in Stock	N/A	N/A	10	1	10	5	10	36
Generator	Rotor	Rotor Poles	Rotor Poles	Not in Stock	N/A	N/A	10	1	10	5	10	36
Generator	Stator		Stator and Brush Rigging Assembly	Not in Stock	N/A	N/A	10	1	10	5	10	36

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Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality						Status Update October 30, 2015
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	Ranking	
Generator	Stator	Stator Poles	Stator Poles	Not in Stock	N/A	N/A	10	1	10	5	10	36	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	See Parts List #U1&2 - 5 - from OEM	Not in Stock	N/A	N/A	10	1	10	10	10	41	Predictive and preventative maintenance plus condition monitoring are utilized to maintain the FD Fans, mitigating the requirement for whole spare replacements.
Powerhouse and Switchyard Single Line	258V DC System	Panel	Breakers	Not in Stock	N/A	N/A	10	10	10	5	10	45	Capital Project in 2015.
Powerhouse and Switchyard Single Line	258V DC System	Unit 1 & 2 - Rectifying Transformers	Rectifying Transformer	Not in Stock	N/A	N/A	10	1	10	5	5	31	Capital Project in 2018.
Powerhouse and Switchyard Single Line	258V DC System	Charger	Breakers	Not in Stock	N/A	N/A	10	1	10	1	10	32	Capital Project in 2015.
Powerhouse and Switchyard Single Line	258V DC System	Charger	Charger	Not in Stock	N/A	N/A	10	1	10	1	10	32	Capital Project in 2015.

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Asset		Define Spares Parts		Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Circulating Water and Screen Wash System	CW Discharge Valves		CW Butterfly Valve Actuator	In Stock			10	10	10	1	5	36	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules	In Stock			10	10	10	1	10	41	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays	In Stock			10	10	5	1	10	41	Tier 1 Critical Spare - Addition to Inventory process in progress
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor	In Stock			10	10	10	1	10	41	
Combustion Air & Gas Instruments	Burner Management	Elevation Oil Flow Transmitter	Meter & Transmitter	In Stock			10	10	10	1	1	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Combustion Air & Gas Instruments	Burner Management	Elevation Air Dampers	Positioner	In Stock			10	1	10	1	10	32	
Condenser Air Extraction System	Vacuum Breakers		6" Flange Vacuum Breaker	In Stock			10	10	10	1	5	36	
Generator	Synchronous Condensor	Thrust Bearing	See Parts List & Estimate by Supplier - #U3-1	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Generator	Exciter	Bridges	See OEM Parts List - # U3- 2	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Generator	Exciter	Channels	See Above	In Stock			10	1	10	1	10	32	
Generator	Stator	PT Cubicle	Potential Transformer (PT)	In Stock			10	1	10	5	10	36	Tier 2 Critical Spare - Additional Engineering Required
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Light Oil / Air Supply Solenoid Valve	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Purge Solenoid Valve	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Pneumatic Actuator	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Ignition Transformer	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Relay	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Sunspot - Scanner	In Stock			10	10	5	1	10	36	
Ignitor Light Oil and Air Supply		Igniter Control Box	Snap Action Switch	In Stock			10	10	10	1	10	41	Tier 1 Critical Spare - Addition to Inventory process in progress
Ignitor Light Oil and Air Supply		Igniter Control Box	1/4" Light Oil Air Ball Valves	In Stock			10	10	5	1	5	31	Tier 1 Critical Spare - Addition to Inventory process in progress
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Level Transmitter LP Heater #1	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relay	In Stock			10	10	10	1	10	41	Tier 1 Critical Spare - Addition to Inventory process in progress
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe	In Stock			10	10	5	1	10	36	
L.P. Feedwater System	Deaerator System	Deaerator	Gauge Glasses	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter	In Stock			10	10	10	1	1	32	
L.P. Feedwater System	Ammonia System		Bulk Chemical Tote Tank	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	8" Valve	In Stock			10	1	10	1	10	32	
L.P. Feedwater System	L.P. Heaters	NRV Valves - #2 - LP Heater	20" Dia	In Stock			10	1	10	1	10	32	
L.P. Feedwater System	L.P. Heaters	NRV Valves - #1 LP Heater	24" Dia	In Stock			10	1	10	1	10	32	
L.P. Feedwater System	Deaerator System	NRV Valves (2)	14" Dia on DA	In Stock			10	1	10	1	10	32	
L.P. Feedwater System	Deaerator System	Safety Valves	6" Valves	In Stock			10	1	10	1	10	32	
L.P. Feedwater System	Polisher Bypass Valve		Parts to Repair	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	3" Valves	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	2" Valves	In Stock			10	10	10	1	10	41	
Powerhouse and Switchyard Single Line	258V DC System	Field Breaker	Field Breaker	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Governor	Governor	See Hitachi Parts List # U3-5 for Governor Drive Assembly	In Stock			10	10	10	1	10	41	Tier 2 Critical Spare - Addition to Inventory process in progress

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Asset		Define Spares Parts		Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Solenoid Trip - See Hitachi OEM Parts list #U3-8	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump Same for AC Pump	See Hitachi Parts List #U3-11 for pump - 2 Recommended Parts	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Auto Start Pressure Switch	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Motor	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	See OEM list & Quote see list #U3-12	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	See OEM list & Quote see list #U3-13	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	See 2 OEM lists & Quotes List #U3-14	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	See 4 OEM lists & Quotes - List #U3-15	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Steam Seal Regulator		Pressure Transmitter - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Main Steam Control Valve - Actuator - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Main Steam Control Valve - Body - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Main Steam Control Valve - Positioner - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Aux Steam Control Valve - Actuator Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Aux Steam Control Valve - Body - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Dump Control Valve - Actuator - Repair Kit - Unit 3	In Stock			10	1	10	1	10	32	
Turbine Generator System Stage 2	Steam Seal Regulator		Dump Control Valve - Body - Repair Kit - Unit 3	In Stock			10	1	10	1	10	32	
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Series 8500 size 95 w/ 95" @ 100% width wheel	In Stock			10	1	10	1	10	32	Repair materials in stock
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Series 8500size 95 w/ 95" @ 100%width Shaft	In Stock			10	1	10	1	10	32	Repair materials in stock
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Drive side bearing	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Opposite side bearing	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		2 - Temperature probes installed in bearings	In Stock			10	1	10	1	10	32	
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Falk Steelflex coupling	In Stock			10	1	10	1	10	32	
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		outlet damper	In Stock			10	1	10	1	10	32	Repair materials in stock
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		variable inlet vanes	In Stock			10	1	10	1	10	32	Repair materials in stock
Unit 3 Air & Flue Gas	F.D. Fans (EFD)		Inlet Silencer	In Stock			10	1	10	1	10	32	Repair materials in stock

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Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit 3 Air & Flue Gas	Rotary Air Heaters	Gearbox	Gearbox	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 Air & Flue Gas	O2 Analyzers		Analyzer - In Stock	In Stock			10	1	10	1	10	32	
Unit 3 Air & Flue Gas	O2 Analyzers		Probe - In Stock	In Stock			10	1	10	1	10	32	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	4" Type ET Class 300	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Combustion Control Valves	1 1/2" flanged valve w/ actuator	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Atomizing Steam Valve	2" Typw ED Class 300	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	2-1/2" Flanged (?) Ball Valve cw/ Actuator	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Header Pressure Control Valve	1-1/2" - Welded Flanged	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Fuel Oil Pumps	Pump	In Stock			10	10	10	1	10	41	
Unit 3 Fuel Oil System		Main Fuel Oil Recirculation Valve	1" Welded Flange Valve w/ Actuator	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System		Level Fuel Oil Recirculation Valves	3/4" Welded Valve w/ Actuator	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System	Burners	Oil Valve	1/2" Ball Valve	In Stock			10	1	10	1	10	32	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 Fuel Oil System	Burners	Steam Valve	1" Valve	In Stock			10	1	10	1	10	32	
Unit 3 Fuel Oil System	Burners	Scavenge Valve	1" Valve	In Stock			10	1	10	1	10	32	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Rotating Assembly	In Stock			10	1	10	1	10	32	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Volute casing for rotating assembly	In Stock			10	1	10	1	10	32	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Throttle bushing (2 req'd)	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Sleeve bearing (2 req'd)	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Balance bushing	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Thrust bearing	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Gaskets	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	6" - EHT valve 1500lb - Welded	In Stock			10	10	10	1	10	41	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 10A5411X022 - Seal Ring	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 13A5599X052 - O-Ring	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 26A52990X52 - Seat Ring Retainer	In Stock			10	10	10	1	10	41	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 27A2798X042 - Seat Ring, O-Ring	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 42B3570X012 - Cage, Eq%	In Stock			10	10	10	1	10	41	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 36A5442X0K2 - Plug/Stem Bal	In Stock			10	10	10	1	10	41	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	2 - 26A5314X012 - Gasket	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1J872906332 - Upper Wiper	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1J873435072 - Packing Box Ring	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1R290601012 - Packing Set	In Stock			10	10	5	1	10	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1H7441X0022 - Bushing Seal	In Stock			10	10	5	1	10	36	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 2R6376X0082 - Diaphragm	In Stock			10	10	5	1	10	36	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - R667X000802 - Repair Kit	In Stock			10	10	5	1	10	36	Tier 1 Critical Spare - Addition to Inventory process in progress
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	All HP Heaters	Conductivity Probe	In Stock			10	10	10	1	10	41	
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Module	In Stock			10	10	10	1	10	41	

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Asset		Define Spares Parts		Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Level Transmitter	In Stock			10	10	10	1	1	32	
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	10" Dia	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #6 HP Heater	6" Dia	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #5 HP Heater	8" Dia	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #4 HP Heater	10" Dia	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	8" Dia Valve	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Transmitter	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Valve	In Stock			10	10	10	1	5	36	
Unit 3 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" Dia	In Stock			10	1	10	1	10	32	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Actuator	In Stock			10	10	10	1	10	41	
Generator	Stator	PT Cubicle	Fuse	In Stock			10	1	10	5	10	36	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules	In Stock			10	10	10	1	10	41	
L.P. Feedwater System	Deaerator System	Level Control	Level Switch	In stock			10	10	10	1	10	41	
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	See Hitachi Parts List #U3-10 for Pump - 3 recommended Parts	In Stock			10	1	10	1	10	32	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Pneumatic Drive System	Air Drive Motor	In Stock			10	1	10	1	10	32	
Generator	Seal Oil System	Seals	Regulator	In Stock			10	1	10	5	10	36	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Governor	Governor	See Hitachi Parts List # U3-18 for Speed Governr Aassembly	In Stock			10	10	10	1	10	41	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Governor		See Hitachi Parts List #U3-6 for Load Limit Handwheel Assembly	In Stock			10	10	10	1	10	41	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Governor		See Hitachi Parts List #U3-7 for Speed Load Charger Assembly	In Stock			10	10	10	1	10	41	Tier 2 Critical Spare - Addition to Inventory process in progress
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	See Hitachi Parts List #U3-9 for Pump - 6 recommended Parts	In Stock			10	1	10	1	10	32	Tier 2 Critical Spare - Addition to Inventory process in progress
Circulating Water and Screen Wash System	CW Discharge Valves		36" Butterfly Valve	Common Spare	N/A	N/A	10	10	10	1	5	36	Common with Units 1 & 2
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1" Ball Valve	Common Spare	N/A	N/A	10	10	10	1	5	36	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Relay	Common Spare	N/A	N/A	10	10	5	1	5	31	Common with Units 1 & 2
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Solenoid	Common Spare	N/A	N/A	10	10	10	1	10	41	Common with Units 1 & 2
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid	Duplicate	N/A	N/A	10	10	10	1	10	41	Duplicate
L.P. Feedwater System	Deaerator System	Level Control	Solenoid	Duplicate	N/A	N/A	10	10	10	1	10	41	Duplicate
Generator	Stator	Stand Off Insulators		Not in Stock - on Order	Capital Spare	Capital Spare	10	1	10	5	10	36	Tier 2 Critical Spare - Additional Engineering Required
Generator	Rotor		Rotor	Not in Stock	N/A	N/A	10	1	10	5	10	36	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.
Generator	Rotor	Rotor Poles		Not in Stock	N/A	N/A	10	1	10	5	10	36	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.

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Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality						Status Update - October 30, 2015
System	Sub System	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers	Ranking	
Generator	Stator		Stator and Brush Rigging Assembly	Not in Stock	N/A	N/A	10	1	10	5	10	36	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.
Generator	Stator		Stator and Brush Rigging Assembly	Not in Stock	N/A	N/A	10	1	10	1	10	32	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.
Generator	Stator	Stator Poles		Not in Stock	N/A	N/A	10	1	10	5	10	36	Predictive and preventative maintenance plus condition monitoring and condition assessments are used to maintain and extend the life of the generator.
Powerhouse and Switchyard Single Line	258V DC System	Rectifying Transformer	Rectifying Transformer	Not in Stock	N/A	N/A	10	1	10	1	10	32	Capital Project in 2016
Powerhouse and Switchyard Single Line	258V DC System	Charger	Breaker	Not in Stock	N/A	N/A	10	1	10	1	10	32	Capital Project in 2016
Powerhouse and Switchyard Single Line	258V DC System		Charger	Not in Stock	N/A	N/A	10	1	10	1	10	32	Capital Project in 2016
Turbine Generator System Stage 2	Governor	Mechanical Overspeed Trip Device	See Emergency Governor OEM Parts List #U3-17	Not in Stock	N/A	N/A	10	1	10	1	10	32	Not practical to have in stock as device requires calibration prior to replacement.

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Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Asset	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Station Board SB34 (ST34)			breaker PSM3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB1 (UB1-2)			UB1-5 relay	In Stock			10	1	5	5	10	31	
Unit Board UB1 (UB1-2)			UB1-6 relay	In Stock			10	1	5	5	10	31	
Unit Board UB1 (UB1-2)			UB1-7 relay	In Stock			10	1	5	5	10	31	
Unit Board UB1 (UB1-2)			UB1-8 relay	In Stock			10	1	5	5	10	31	
Unit Board UB1 (UB1-2)			UB1-10 relay	In Stock			10	1	5	5	10	31	
Unit Board UB2 (UB2-1)			UB2-5 relay	In Stock			10	1	5	5	10	31	
Unit Board UB2 (UB2-1)			UB2-6 relay	In Stock			10	1	5	5	10	31	
Unit Board UB2 (UB2-1)			UB2-7 relay	In Stock			10	1	5	5	10	31	
Unit Board UB2 (UB2-1)			UB2-8 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			BFE3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			BFW3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			FDE3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			FDW3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			CEN3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			CES3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			CWE3 relay	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)			CWW3 relay	In Stock			10	1	5	5	10	31	
Station Board SB12 (SSB1)			Feeder to Station Board - breaker SSB-1 & Relays	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)			SSB-1 Relay	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)			SSB-1 Relay	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)			SSB-1 Relay	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)			SSB-3 Relay	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	In Stock			10	1	5	5	10	31	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	In Stock			10	1	5	5	10	31	
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 C1	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to MCC C1 - breaker C2	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB34 (ST34)			Feeder to transformer SAT34 - breaker SAT34 & relays	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Station Board - breaker SAB34	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Station Board - breaker ATB12	In Stock			10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	WAM34	Not in Stock - on Order	15,000.00	Nov-15	10	1	5	5	10	31	Tier 2 Critical Spare - Addition to Inventory process in progress
Unit Board UB1 (UB1-2)			UB1-4 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB1 (UB1-2)			UB1-9 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB1 (UB1-2)			UB1-11 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB2 (UB2-1)			UB2-3 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB2 (UB2-1)			UB2-4 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB2 (UB2-1)			UB2-9 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.

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System	Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
	Asset	Asset	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit Board UB2 (UB2-1)				UB2-10 relay	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Relays	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)		Relays	Common Spare - In Stock			10	1	5	5	10	31	Shares spare with all other P&B Golds devices.
Station Board SB12 (SSB1)				Feeder to Station Board - breaker SSB-2	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB12 (SSB1)				Feeder to transformer ATC - breaker SSB-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB12 (SSB1)				SSB-3 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB12 (SSB1)				Feeder to Station Board - breaker SSB-4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB12 (SSB1)				SSB-4 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB12 (SSB1)				SSB-4 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)		Feeder to MCC E1 - breaker C4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)		Feeder to MCC C12 - breaker C7	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
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 C14	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
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	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C5	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C6	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C8	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C9	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C10	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C11	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.

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System	Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
	Asset	Asset	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C12	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)		breaker C13	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Diesel Bus DB12 (Alternate Feeds Diesel Generator D1, Diesel Bus Tie, Tie Breaker to Transfer Bus C15)	Circuit Breaker to Bus - breaker C16	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Diesel Bus DB12 (Alternate Feeds Diesel Generator D1, Diesel Bus Tie, Tie Breaker to Transfer Bus C15)	Circuit Breaker to Bus - breaker C17	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Diesel Bus DB12	Feeder to MCC - breaker C18	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Diesel Bus DB12 (Alternate Feeds Diesel Generator D1, Diesel Bus Tie, Tie Breaker to Transfer Bus C15)	Circuit Breaker to Bus - breaker C19	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Station Board SB34 (ST34)				Feeder to Station Board - breaker ST34 & relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB34 (ST34)				breaker ST34 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				breaker ST34 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				Feeder to Station Board - breaker TB12 & relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB34 (ST34)				breaker TB12 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with MAVS devices - replaced by ABB SYN5201-0271
Station Board SB34 (ST34)				breaker TB12 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Station Board SB34 (ST34)				breaker TB12 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				breaker TB12 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				breaker SAT34 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				breaker SAT34 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)				breaker PSM3 & relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)			Circuit Breaker TB3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)			TB3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)			TB3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)			TB3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)			TB3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)		Feeder to Boiler Area MCC BAB3 - breaker SDB-34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.

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System	Asset				Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
	Asset				Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			GPB34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			AC34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			CWP34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			LDP34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			WTP34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)			Feeder to Diesel Bus DB34 - Breaker DB34	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Diesel Bus DB34 (Alternate Feeds Diesel Generator D2, Diesel Bus Tie)		Feeder to Diesel Bus - D2	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Diesel Bus DB34 (Alternate Feeds Diesel Generator D2, Diesel Bus Tie)		Feeder to Diesel Bus - DBT	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)					Circuit Breaker UB1-1	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1.
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)					UB1-1 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with MAVS devices - replaced by ABB SYN5201-0271
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)					UB1-1 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)					UB1-1 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB1 (UB1-2)					Feeder to Unit Board UB1 - breaker UB1-2	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A
Unit Board UB1 (UB1-2)					UB1-2 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB1 (UB1-2)					UB1-2 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE HFA devices
Unit Board UB1 (UB1-2)					UB1-2 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE HFA devices
Unit Board UB1 (UB1-2)					Feeder to transformer ATA - breaker UB1-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)					UB1-3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Unit Board UB1 (UB1-2)					UB1-3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Unit Board UB1 (UB1-2)					breaker UB1-4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)					breaker UB1-5	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)					breaker UB1-6	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)					breaker UB1-7	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)					breaker UB1-8	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A

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Asset				Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
System	Asset			Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit Board UB1 (UB1-2)				breaker UB1-9	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)				breaker UB1-10	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)				breaker UB1-11	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
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	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
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	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)		Feeder to transformer LT-A - breaker A3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)		Feeder to MCC A1 - breaker A4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)		A5	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)		A6	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)		A7	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)				Circuit Breaker UB2-12	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1.
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)				UB2-12 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with MAVS devices - replaced by ABB SYN5201-0271
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)				UB2-12 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)				UB2-12 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)				UB2-12 Relay	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB2 (UB2-1)				Feeder to Unit Board - breaker UB2-1 & relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1.
Unit Board UB2 (UB2-1)				UB2-1 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB2 (UB2-1)				UB2-1 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE HFA devices
Unit Board UB2 (UB2-1)				UB2-1 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE HFA devices
Unit Board UB2 (UB2-1)				Feeder to Transformer ATB, breaker UB2-2	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-2 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB2 (UB2-1)				UB2-2 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB2 (UB2-1)				UB2-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-5	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A

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System	Asset			Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
	Asset			Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit Board UB2 (UB2-1)				UB2-6	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-7	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-8	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-9	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)				UB2-10	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Spares spare with CGE IAC51 and ICA53 devices
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Spares spare with CGE IAC51 and ICA53 devices
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Feeder to Power Centre B - breaker B1	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Feeder to transformer LT-B - breaker B4	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		Feeder to MCC B1 - breaker B5	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		B2	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		B6	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		B7	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)		B8	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other CGE AK breakers.
Unit Board UB3 (UT3)				Feeder to Unit Board - breaker UT3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to Station Board - breaker SSB-1.
Unit Board UB3 (UT3)				UT3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB3 (UT3)				UT3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB3 (UT3)				UT3 relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB3 (UT3)				Feeder to transformer UAT3 - breaker UAT3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)				UAT3 Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB3 (UT3)				UAT3 Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C
Unit Board UB3 (UT3)				BFE3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)				BFW3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)				FDE3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)				FDW3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)				CEN3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A

2015-16 Winter Readiness Planning Report

System	Asset				Define Spares Parts	Price Spare Parts			Spare Part Criticality					Status Update - October 30, 2015	
	Asset	Asset	Asset	Asset	Defined Spares Parts	Stock Status	Cost	Delivery	Asset Criticality	PM / CM	Lead Time	Tech Spec	# of suppliers		Ranking
Unit Board UB3 (UT3)					CES3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)					CWE3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)					CWW3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Relays	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare with CGE IACS1 and ICA53 devices - replaced by SEL-551C
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Feeder to Aux Board - breaker UAB-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Feeder to transformer LDP-3 - breaker LDP-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Feeder to MCC BAB3 - breaker BAB-3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			AOP3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			TAB3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			AC12	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)			Tie Breaker to Station Board - breaker ATB3	Common Spare - Not in Stock	N/A	N/A	10	1	5	5	10	31	Shares spare re-build kit/critical spares kit with other FP breakers.

APPENDIX F

Critical Spares Status Listing – Combustion Turbines
As of October 30, 2015

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
High Energy Ignition Unit, Gas Generator, Prime Mover Systems	In Stock	N/A	Med
Fire Fuel Shutoff Valve (LF-8), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Bearing (494047), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Bearing (494056), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Vibration Transducer, Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Jacking Oil Pump, Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Fuel Filter, Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Oil Filter Unit - Complete (B.108506), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Filter (494064), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Proximity Switch, Clutch, Prime Mover Systems	In Stock	N/A	Low
Altair Quick Shutoff Valve (AV-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Fuel Valve (FC-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Supplemental Fuel AC Pump (P&MLF-5), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Fuel Recirculation Solenoid Valve (LF-7), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Fuel Regulator (LF-4), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Jacking Oil Permissive Pressure Switch, Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Clutch Control Solenoid Valve (LO-6), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Clutch Control Solenoid Valve (LO-6), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	N/A	Low
Valve (181536), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Primary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	N/A	Low
Primary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	N/A	Low
Secondary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Secondary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	N/A	Low
Ring that the Primary Pawl and spring are installed	In Stock	N/A	Low
Primary Pawl Spring, Clutch, Prime Mover Systems	In Stock	N/A	Low
Primary Pawl, Clutch, Prime Mover Systems	In Stock	N/A	Low
Secondary Pawl, Clutch, Prime Mover Systems	In Stock	N/A	Low
Limit Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, SVL GT	In Stock	N/A	Low
Proximity Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, HWD GT	In Stock	N/A	Low
NC Solenoid Valve (SV-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
NO Solenoid Valve (SV-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
Starter Control Valve (CA-17), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
3-Way Thermostatic Valve (GL-2), MLO/Glycol Cooling System, Auxiliary Systems	In Stock	N/A	Low
Thermocouple (181398N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Speed Pickup (181487), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Vibration Pickup (181571), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Thermocouple (181397), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Thermocouple (181398N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Probe (181414N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Probe (181414N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Thermocouple (184847), Power Turbine Model CT2, Prime Mover Systems	In Stock	N/A	Low
Motor Operated Tank Shutoff Valve (LF-38), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	N/A	Med
Final Fuel Filter (F-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Heater Filter Coalescer, Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Prefilter, Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Supplemental Fuel Filter (F-LF-5), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
High Efficiency Farr HP-100 Filter (2'x2'x2"), Filter Box - Curtiss Wright, Prime Mover Systems	In Stock	N/A	Low
Filter (F-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Unloading Filter, Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Duplex 25u Filter (F-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Filter/Coalescer Heater (HTR-LF-1), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	N/A	Low
P3 Pressure Transducer (PT-P3-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Common Drain Clutch A Thermocouple (TC-LO-3), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Fuel Supply Thermocouple (TC-LF-1), Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Alternator Bearing Drain Oil Thermocouple (TC-LO-3), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	N/A	Low
Alternator Cooling Air Temperature Thermocouple (TC-A-1), Alternator Cooling System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Common Drain Clutch B Thermocouple (TC-LO-11), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Compressor Start-Stop Pressure Switch (PS-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
Compressor Start-Stop Pressure Switch (PS-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 1 Thermocouple (TC-LO-4), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 2 Thermocouple (TC-LO-5), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 3 Thermocouple (TC-LO-6), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 4 Thermocouple (TC-LO-7), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 5 Thermocouple (TC-LO-8), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Alternator Clutch Bearing 6 Thermocouple (TC-LO-9), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Exciter Bearing 7 Thermocouple (TC-LO-10), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Oil Drain Thermocouple (TC-LO-2), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	N/A	Low
Oil Supply Thermocouple (TC-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Oil Supply Thermocouple (TC-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Anti-Icing Hot Air Valve - Complete (810-501-0747), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Gas Generator Permissive Start Pressure Switch, Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
Starter Overpressure Pressure Switch (PS-CA-3), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Pressure Regulating Valve (LO-8), Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Inlet Temperature Thermocouple, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	N/A	Low
Resistance Temperature Detector Probe, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	N/A	Low
NC Solenoid Valve (SV-CA-3), Gas Generator Air Starter System, Auxiliary Systems	In Stock	N/A	Low
Fuel Temperature Sensor (TS-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Liquid Fuel Burner - Complete (BDC.3026), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Oil Pump - Complete, Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Outer Oil Pump Drive Assembly (47-1-1-006409), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Outer Starter Drive Assembly (BDA.1153), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
Scavenge Pump Assembly (47-1-1-006418), Gas Generator, Prime Mover Systems	In Stock	N/A	Low
HP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	N/A	Low
LP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

Recommended Component	October 2015 update		
	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Inertial Filter Element, Filter Box - Curtiss Wright, Prime Mover Systems	In Stock	N/A	Low
Pressure Switch, Trip - Low Fuel Pressure (PS-LF-3), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Low Oil Pressure Switch (PS-GGLO-2), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Pressure Switch, Permissive Start - Low Pressure Alarm (PS-LF-2), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low
Low Trip Pressure Switch (PS-LO-7), Main Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
Start Permissive Pressure Switch (PS-LO-6), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	N/A	Low
Low Oil Pressure Switch (PS-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	N/A	Low
AC Pump Discharge Fuel Pressure Switch (PS-LF-4), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	N/A	Low
Pressure Switch (PS-HO-1), Liquid Fuel System, Auxiliary Systems	In Stock	N/A	Low

2015-16 Winter Readiness Planning Report

October 2015 update				
Recommended Component	Risk Score	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Filter Upstream Pressure Switch (PS-GGLO-3), Gas Generator Lube Oil System, Auxiliary Systems	High	On Order	December 11 2015	Low
Heater Control Temperature Switch (TS-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	Medium	On order	October 31 2015	Low
Heater Control Temperature Switch (TS-LO-1), Main Lube Oil System, Auxiliary Systems	Medium	On order	December 11 2015	Low
Final Fuel Filter Differential Pressure Switch (PSD-LF-1), Liquid Fuel System, Auxiliary Systems	Medium	On order	December 11 2015	Low
Filter Differential Pressure Switch (PSD-LO-1), Main Lube Oil System, Auxiliary Systems	Medium	On Order	December 11 2015	Low
Pre-filter Differential Pressure Switch (PSD-LF-2), Liquid Fuel System, Auxiliary Systems, HWD GT	Medium	On Order	December 11 2015	Low

2015-16 Winter Readiness Planning Report

Recommended Component	Risk Score	Spare Cost >\$50,000	Comments	October 2015 update		
				Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Combustion Chamber, Gas Generator, Prime Mover Systems	Medium	Y	1 set to refurbish	Procurement in progress	December, 2015	Low
Lower Fuel Pump Assembly, Gas Generator, Prime Mover Systems	Medium	Y		Procurement in progress	December, 2015	Low
Outer Fuel Pump Drive Assembly (BDA.7591), Gas Generator, Prime Mover Systems	Medium	N		Procurement in progress	December, 2015	Low
Upper Fuel Pump Assembly, Gas Generator, Prime Mover Systems	Medium	Y		Procurement in progress	December, 2015	Low
Exciter Bearing, 63MVA 50MW Generator, Power Generation Systems	High	N		On Order	December, 2015	Low
Rotor Bearing, 63MVA 50MW Generator, Power Generation Systems	High	N		On Order	December, 2015	Low
Bearing (181413 or 181332), Power Turbine Model CT2, Prime Mover Systems	Medium	N		On Order	December, 2015	Low

2015-16 Winter Readiness Planning Report

			October 2015 update		
Recommended Component	Risk Score	Spare Cost >\$50,000	Updated Stock Status	Expected Delivery Date	Exposure for winter 2015/2016 based on current plan
Fuel Pump Servo Valve (SV-LF-1), Liquid Fuel System, Auxiliary Systems	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
DC Pump Start Pressure Switch (PS-LO-1), Main Lube Oil System, Auxiliary Systems, SVL GT	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
DC Pump Start Pressure Switch (PS-LO-2), Main Lube Oil System, Auxiliary Systems, SVL GT	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
DC Pump Start Pressure Switch (PS-LO-3), Main Lube Oil System, Auxiliary Systems, HWD GT	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
Oil to Clutch A Pressure Transducer (PT-LO-1), Main Lube Oil System, Auxiliary Systems, SVL GT	High	N	In-kind part unavailable - reengineering required	TBD	Low
Oil to Clutch B Pressure Transducer (PT-LO-2), Main Lube Oil System, Auxiliary Systems, SVL GT	High	N	In-kind part unavailable - reengineering required	TBD	Low
Fuel Pressure Transducer (PT-LF-1), Liquid Fuel System, Auxiliary Systems	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
Low Liquid Level Alarm Switch (LL-GL-1), MLO/Glycol Cooling System, Auxiliary Systems	Medium	N	In-kind part unavailable - reengineering required	TBD	Low
Level Switch (LS-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	High	N	In-kind part unavailable - reengineering required	TBD	Low
Inlet Pressure Transducer, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	Medium	N	In-kind part unavailable - reengineering required	TBD	Low

APPENDIX G

Critical Spares Status Listing – Hydraulic Generation
As of October 30, 2015

2015-16 Winter Readiness Planning Report

Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - INTAKE STRUCTURE NO. 1 - TRANSMITTER,PRESS 0-6MH20	In Stock	MEDIUM	NO	
BDE - PENSTOCK NO. 1 - TRANSMITTER,PRESS 0-375	In Stock	MEDIUM	NO	
BDE - PENSTOCK NO. 2 - TRANSMITTER,PRESS 0-375	In Stock	MEDIUM	NO	
BDE - PENSTOCK NO. 3 - TRANSMITTER,PRESS 0-375	In Stock	MEDIUM	NO	
BDE - PENSTOCK NO. 4 - TRANSMITTER,PRESS 0-375	In Stock	MEDIUM	NO	
BDE - TURBINE - Turbine Carbon Seal (Units 1 to 4)	In Stock	HIGH	NO	
BDE - TURBINE - Turbine Carobn Seal (Units 5 & 6)	In Stock	HIGH	NO	
BDE - WICKET GATES AND LINKAGES - Shear Pins	In Stock	MEDIUM	NO	
BDE - WICKET GATES AND LINKAGES - PACKING,V TYPE 2-EASY	In Stock	MEDIUM	NO	
BDE - WICKET GATES AND LINKAGES - PIN,ECCENTRIC	In Stock	MEDIUM	NO	
BDE - WICKET GATES AND LINKAGES - RING,PISTON SERVO MOTOR 18"OD	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - XFMR,CT 13.8KV	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - XFMR,CT 1000:	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - XFMR,PT 14400KV	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - XFMR,CT 30332313	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - XFMR,CT 800:5	In Stock	HIGH	NO	
BDE - ISOLATED PHASE BUS - CT 50/51	In Stock	HIGH	NO	
BDE - GATE HOIST - BAY D'ESPOIR - ST - Remote I/O Adapter	In Stock	MEDIUM	NO	
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING,UPPER HEAD COVER P003	In Stock	HIGH	NO	
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING,UPPER WICKET	In Stock	HIGH	NO	
BDE - RUNNER - UNIT 1 - BOLT,SHAFT TO RUNNER	In Stock	HIGH	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,ANALOG QUANTUM	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,CPU MODICON	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,DISCRETE IN	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,DISCRETE OUT	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,ETHERNET QUANTUM	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,GPS QUANTUM	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,HOT STANDBY	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,INTERFACE PLC	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,RACK FILLER	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - MODULE,RELAY OUT	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY, 125-24 VDC	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,125 VDC	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,125VDC 8A	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - POWER SUPPLY,24 VDC	In Stock	MEDIUM	NO	

2015-16 Winter Readiness Planning Report

Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - PLC,Model Quantum- Modicon - REMOTE I/O HEAD,MODICON	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - ADAPTER,REMOTE I/O	In Stock	MEDIUM	NO	
BDE - PLC,Model Quantum- Modicon - BACKPLANE,10 SLOT MODICON	In Stock	MEDIUM	NO	
BDE - STATION SERVICE - BDE PH1 - ACB	In Stock	HIGH	NO	
BDE - STATION SERVICE - BDE PH1 - Trip Unit - Breker control device	In Stock	HIGH	NO	
BDE - ROTOR SHAFT - Rotating Ring	In Stock	HIGH	TBD	
BDE - STATOR ASSEMBLY - BAR,COPPER 1/2"X2"X10'	In Stock	HIGH	NO	
BDE - STATOR ASSEMBLY - BAR,ROTOR CONNECTION	In Stock	HIGH	NO	
BDE - STATOR ASSEMBLY - BAR,ROTOR CONNECTION	In Stock	HIGH	NO	
BDE - STATOR ASSEMBLY - BAR,STATOR	In Stock	HIGH	TBD	
BDE - STATOR ASSEMBLY - BAR,STATOR	In Stock	HIGH	TBD	
BDE - SPILLWAY #1-SALMON RIVE - Lift gearboxes/nuts	In Stock	HIGH	NO	
BDE - INTAKE GATE - BACKPLANE,6 SLOT MODICON	In Stock	MEDIUM	NO	
BDE - DISCONNECT SWITCH 29-1 - Complete Unit	In Stock	HIGH	YES	
BDE - Generator SLIPRING/BRUSH RIGGING - Carbon Brushes	In Stock	MEDIUM	NO	
BDE - Generator SLIPRING/BRUSH RIGGING - Brush Holders	In Stock	MEDIUM	NO	
BDE - Generator SLIPRING/BRUSH RIGGING - Slip Ring	In Stock	HIGH	YES	
BDE - TURBINE GUIDE BEARING - Bearing	In Stock	HIGH	YES	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE200130R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205011R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205012R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE205014R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300661R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300686R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300690R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300698R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE300766R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE305043R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE305069R0001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE30598R1	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - CARD,ABB HIEE401481RD001	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - COIL,ABB HIER464920P1	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - MAINBOARD,ABB HIER465176R22	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock	HIGH	NO	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - EXCITATION CONTROLS - RESISTOR,FIELD DISCHARGE	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - SHUNT,ABB UXAB269330R909	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - VARISTOR,ABB 3ACD5245A003	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - BREAKER,ABB HIER466757P2331 (entire unit)	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - SHUNT,ABB UXAB269350R909	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT,ABB UXAB239Z60R002	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT,ABB UXAB239299R0003	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT,ABB UXAB269399R032	In Stock	HIGH	NO	
BDE - FIELD BREAKER QO2 - PANEL EE - ARC-CHUTE,ABB UXAB269399R012	In Stock	HIGH	NO	
BDE - GENERATOR - CREEP DETECTOR ASSY,129 VCD	In Stock	HIGH	NO	
BDE - GENERATOR - PLATES,BRAKE (24 PER SET)	In Stock	HIGH	NO	
BDE - GENERATOR - SWITCH,WOODWARD 8935-139	In Stock	HIGH	NO	
BDE - Exciter POWER ELECTRONICS - Pulse Transformers	In Stock	MEDIUM	NO	
BDE - Exciter POWER ELECTRONICS - BRIDGE,ABB S00772	In Stock	HIGH	NO	
BDE - Exciter POWER ELECTRONICS - FUSE,ABB 6,6URD32TTF0800	In Stock	MEDIUM	NO	
BDE - Exciter POWER ELECTRONICS - FAN ASSY,ABB 500773	In Stock	HIGH	NO	
BDE - Exciter POWER ELECTRONICS - THYRISTOR,ABB 5STP27F1200	In Stock	HIGH	NO	
BDE - RECTIFYING TRANSFORMER - Full Unit	In Stock	HIGH	YES	
BDE - SURFACE AIR COOLERS - SAC Unit	In Stock	MEDIUM	TBD	
BDE - SURFACE AIR COOLERS - Tubes	In Stock	MEDIUM	NO	
BDE - THRUST/GUIDE BEARING COOLERS - Cooler	In Stock	HIGH	YES	
BDE - ROTOR POLES - Pole	In Stock	HIGH	TBD	
BDE - STATOR WINDINGS - UNIT 1 - CONNECTOR,STATOR CU	In Stock	HIGH	NO	
BDE - STATOR WINDINGS - UNIT 1 to 4 - Coils	In Stock	HIGH	TBD	
BDE - THRUST/GUIDE BEARING ASSEMBLY - Springs	In Stock	HIGH	NO	
BDE - THRUST/GUIDE BEARING ASSEMBLY - Oil	In Stock	MEDIUM	NO	
BDE - THRUST/GUIDE BEARING ASSEMBLY - TRANSMITTER,DIFF	In Stock	MEDIUM	NO	
BDE - GOVERNOR - BEARING,DASHPOT LINK	In Stock	HIGH	NO	
BDE - GOVERNOR - BRACKET,WOODWARD 11002-57	In Stock	HIGH	NO	
BDE - GOVERNOR - BRACKET,WOODWARD 91588	In Stock	HIGH	NO	
BDE - GOVERNOR - BUSHING,PILOT VALVE	In Stock	HIGH	NO	
BDE - GOVERNOR - BUSHING,SNAP ACTION	In Stock	HIGH	NO	
BDE - GOVERNOR - BUSHING,WW 11002-65	In Stock	HIGH	NO	
BDE - GOVERNOR - BUSHING, DASHPOT - SMALL	In Stock	HIGH	NO	
BDE - GOVERNOR - BUSHING, DASHPOT - LARGE	In Stock	HIGH	NO	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - GOVERNOR - CABLE,AIRCRAFT 1/4 187083	In Stock	HIGH	NO	
BDE - GOVERNOR - CLIP,WW 11002-16	In Stock	HIGH	NO	
BDE - GOVERNOR - COIL,DASHPOT	In Stock	HIGH	NO	
BDE - GOVERNOR - COIL,PARTIAL SHUTDOWN RESET	In Stock	HIGH	NO	
BDE - GOVERNOR - COIL,SHUTDOWN SOLENOID	In Stock	HIGH	NO	
BDE - GOVERNOR - COIL,SHUTDOWN SOLENOID 65SD	In Stock	HIGH	NO	
BDE - GOVERNOR - COIL,WW 202132	In Stock	HIGH	NO	
BDE - GOVERNOR - CONTACT,CONTACTOR-TYPE DG-	In Stock	HIGH	NO	
BDE - GOVERNOR - DASHPOT,WW 161314	In Stock	HIGH	NO	
BDE - GOVERNOR - DIODE,WW 202891	In Stock	HIGH	NO	
BDE - GOVERNOR - DISC,RELIEF VALVE	In Stock	HIGH	NO	
BDE - GOVERNOR - DISC,UNLOADER	In Stock	HIGH	NO	
BDE - GOVERNOR - GASKET KIT,WOODWARD 8926-137	In Stock	HIGH	NO	
BDE - GOVERNOR - GASKET,WOODWARD 1327-816	In Stock	HIGH	NO	
BDE - GOVERNOR - GASKET,WOODWARD 206317	In Stock	HIGH	NO	
BDE - GOVERNOR - LEVER,CONNECTING LOWER	In Stock	HIGH	NO	
BDE - GOVERNOR - LEVER,LOWER FLOATING	In Stock	HIGH	NO	
BDE - GOVERNOR - LEVER,UPPER FLOATING	In Stock	HIGH	NO	
BDE - GOVERNOR - LINK,WOODWARD 070346	In Stock	HIGH	NO	
BDE - GOVERNOR - LOCKWASHER,BEARING	In Stock	HIGH	NO	
BDE - GOVERNOR - MOTOR ASSY,C/W SHAFT & GEAR	In Stock	HIGH	NO	
BDE - GOVERNOR - MOTOR ASSY,GATE LIMIT	In Stock	HIGH	NO	
BDE - GOVERNOR - MOTOR,GOVERNOR SPEED 28 VOLT	In Stock	HIGH	NO	
BDE - GOVERNOR - MOTOR,SYNCHRONIZING	In Stock	HIGH	NO	
BDE - GOVERNOR - MOTOR, VIBRATING OIL	In Stock	HIGH	NO	
BDE - GOVERNOR - FILTER,HYD 932633Q	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,BALLARM	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,DASHPOT	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,LOWER DRIVE	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,PIVOT	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,WOODWARD 11002-71	In Stock	HIGH	NO	
BDE - GOVERNOR - PIN,WOODWARD 11002-75	In Stock	HIGH	NO	
BDE - GOVERNOR - PLUNGER,SNAP ACTION	In Stock	HIGH	NO	
BDE - GOVERNOR - POTENTIOMETER,1250OH 0.24A	In Stock	HIGH	NO	
BDE - GOVERNOR - PUMP,OIL IMO A3DB-275	In Stock	HIGH	NO	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - GOVERNOR - RETAINER,SWITCH	In Stock	HIGH	NO	
BDE - GOVERNOR - RING,SNAP (PILOT SERVO PLUG)	In Stock	HIGH	NO	
BDE - GOVERNOR - ROTOR,BALL HEAD MOTOR	In Stock	HIGH	NO	
BDE - GOVERNOR - SOLENOID,125 V DC	In Stock	HIGH	NO	
BDE - GOVERNOR - SOLENOID,125VDC 211E	In Stock	HIGH	NO	
BDE - GOVERNOR - SPRING,PILOT VALVE LINK	In Stock	HIGH	NO	
BDE - GOVERNOR - SPRING,RELIEF	In Stock	HIGH	NO	
BDE - GOVERNOR - SPRING,UNLOADER	In Stock	HIGH	NO	
BDE - GOVERNOR - STATOR,BALL HEAD MOTOR	In Stock	HIGH	NO	
BDE - GOVERNOR - SWITCH,PRESS OIL ALARM	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - BEARING,SPEED SIGNAL	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - PIN,DOWEL - SPEED SWITCH	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - PLATE,MOUNTING - MERCURY	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - RING,ROTOR	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - PIN,ROCKER ARM	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - BEARING,WW 1800125	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - BEARING,WW 111006	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - BEARING,PMG P/N Z995205	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - PIN,BALLARM	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - BUSHING,URETHANE UPPER D	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - BUSHING,URETHANE LOWER D	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - BALLARM,SPEED SWITCH	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - PIN,TAPERED	In Stock	MEDIUM	NO	
BDE - GOVERNOR SPEED GENERATOR - SPRING,SPEED SWITCH	In Stock	HIGH	NO	
BDE - GOVERNOR SPEED GENERATOR - STATOR,P.M.G.	In Stock	HIGH	NO	
BDE - GUIDE BEARING SEGMENTS - bearing segments,	In Stock	HIGH	YES	
BDE - THRUST BEARING SEGMENTS - bearing segments,	In Stock	HIGH	YES	
BDE - UNIT 7 GOVERNOR - FILTER,HYD 932633Q	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,BALLARM	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,DASHPOT	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,LOWER DRIVE	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,PIVOT	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,ROCKER ARM	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - UNIT 7 GOVERNOR - PIN,WOODWARD 11002-71	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PIN,WOODWARD 11002-75	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PLUNGER,SNAP ACTION	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - POTENTIOMETER,12500H 0.24A	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - PUMP,OIL IMO A3DB-275	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - RETAINER,SWITCH	In Stock	MEDIUM	N/A	
BDE - UNIT 7 GOVERNOR - RING,SNAP (PILOT SERVO PLUG)	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - ROTOR,BALL HEAD MOTOR	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SENSOR,LOAD GOVERNOR	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SOLENOID,125 V DC	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SOLENOID,125VDC 211E	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SPRING,PILOT VALVE LINK	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - STATOR,BALL HEAD MOTOR	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SWITCH,PRESS OIL ALARM	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - STATOR,PERMANENT MAGNET	In Stock	HIGH	N/A	
BDE - UNIT 7 GOVERNOR - SPRING,SPEED SWITCH	In Stock	HIGH	N/A	
BDE - UNIT 7 TURBINE - Carbon Seal	In Stock	HIGH	N/A	
BDE - UNIT 7 TURBINE - wicket gate	In Stock	HIGH	N/A	
BDE - UNIT 7 TURBINE - turbine bearing	In Stock	HIGH	N/A	
BDE - Unit 7 DRAFT TUBE-TURBINE - Water Level Probe	In Stock	MEDIUM	N/A	
BDE - Unit 7 HEADCOVER ASSEMBLY - BOTTOM RING P001 bushing	In Stock	HIGH	N/A	
BDE - Unit 7 HEADCOVER ASSEMBLY - BUSHING,LOWER HEAD COVER P001	In Stock	HIGH	N/A	
BDE - Unit 7 HEADCOVER ASSEMBLY - PACKING,V-TYPE 3/8 EASY	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - Linkage	In Stock	HIGH	N/A	
BDE - Unit 7 OPERATING RING - BUSHING,LINK PIN	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - CAP,SHEARPIN	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - PIN,ECCENTRIC P005	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - PIN,LINK P006	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - PIN,ROD SHEARPIN	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - PIN,UPPER DRIVE	In Stock	MEDIUM	N/A	
BDE - Unit 7 OPERATING RING - LEVER,WICKET GATE	In Stock	HIGH	N/A	
BDE - Unit 7 ROTOR ASSEMBLY - POLE	In Stock	HIGH	N/A	
BDE - Unit 7 RUNNER - TURBINE - CARBON SEAL	In Stock	HIGH	N/A	
BDE - Unit 7 SERVOMOTOR # 1 - Piston Ring	In Stock	HIGH	N/A	
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,SERVOMOTOR	In Stock	MEDIUM	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,V TYPE 2-EASY	In Stock	MEDIUM	N/A	
BDE - Unit 7 SERVOMOTOR # 1 - PACKING,V-TYPE 9"X8"ID	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - BOARD,DIGITAL I/O	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - BOARD,I/O ANALOG	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - BOARD,MEASURING ABB	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - BOARD,POWER SYSTEM STABI	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - CAPACITOR,20 MF +-10% 150 V	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - COMPONENT, INTEG CCT	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - INTEG CCT	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - CONTACT,ISOLATING	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - MODULE,ABB DCS500B200361	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - PANEL,CONTROL	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - POWER SUPPLY,ABB 3BHE013940R00	In Stock	MEDIUM	N/A	
BDE - UNIT 7 EXCITER - RELAY,GROUND VOLTAGE	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - Main Moving Contacts	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - Main Fixed Contacts	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - COIL,SHUNT CLOSING	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - COIL,SHUNT OPENING	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - Charging Motor	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - BREAKER,ABB EZNE1600MS4-B1	In Stock	HIGH	N/A	
BDE - Unit 7 Generator Field Breaker - ARC CHUTE,ABB UXAB289199215	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - MOTOR,CHARGING	In Stock	MEDIUM	N/A	
BDE - Unit 7 Generator Field Breaker - CONTACT,ABB UXAB239Z60R0	In Stock	MEDIUM	N/A	
BDE - Unit 7 Control Board - BOARD,CONTROL	In Stock	MEDIUM	N/A	
BDE - UNIT 7 HYDRAULIC GENERATOR - coolers	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - BEARING,SPEED SIGNAL	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - PIN,DOWEL - SPEED SWITCH	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - PLATE,MOUNTING - MERCURY	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - RING,ROTOR	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - PIN,ROCKER ARM	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - BEARING,WW 1800125	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - BEARING,WW 111006	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - BEARING,PMG P/N Z995205	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - PIN,BALLARM	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
BDE - Unit 7 PMG - BUSHING,URETHANE UPPER D	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - BUSHING,URETHANE LOWER D	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - BALLARM,SPEED SWITCH	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - PIN,TAPERED	In Stock	MEDIUM	N/A	
BDE - Unit 7 PMG - SPRING,SPEED SWITCH	In Stock	HIGH	N/A	
BDE - Unit 7 PMG - STATOR,P.M.G.	In Stock	HIGH	N/A	
BDE - Unit 7 VIBRATION MONITORING - PICK-UP,NON-CONTACT	In Stock	MEDIUM	N/A	
BDE - Unit 7 VIBRATION MONITORING - PICK-UP,SPEED SENSING	In Stock	MEDIUM	N/A	
BDE - Unit 7 VIBRATION MONITORING - POWER SUPPLY,IRD PCB 29128	In Stock	HIGH	N/A	
BDE - Unit 7 GENERATOR COOLING WATER SYSTEM - TRANSMITTER,DIFF	In Stock	MEDIUM	N/A	
BDE - Unit 7 WICKET GATES - GATE, WICKET	In Stock	HIGH	N/A	
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Collector rings	In Stock	HIGH	N/A	
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Brushes	In Stock	MEDIUM	N/A	
BDE - Unit 7 SURFACE AIR COOLERS - Tubes	In Stock	MEDIUM	N/A	
BDE - Unit 7 NEUTRAL GROUND TRANSFORMER - transformer	In Stock	MEDIUM	N/A	
BDE - Unit 7 ROTOR - Pole	In Stock	HIGH	N/A	
BDE - Unit 7 STATOR WINDINGS - Stator Bars	In Stock	HIGH	N/A	
BDE - Unit 7 STATOR WINDINGS - Wedges	In Stock	HIGH	N/A	
BDE - Unit 7 GENERATOR GUIDE BEARING - segments	In Stock	HIGH	N/A	
BDE - Unit 7 THRUST BEARING - Thrust Pads	In Stock	HIGH	N/A	
BDE - Unit 7 THRUST BEARING - Rotating Ring	In Stock	HIGH	N/A	
BDE - PANEL STATION SERVICE - PH #2 - ACB	In Stock	HIGH	YES	
CAT - ACCUMULATOR TANK - COIL AUTO AIR CHARGING SOLND	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE DEFLECTOR FDBK AMP	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE FEEDBACK 20'	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE FEEDBACK 200'	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE FEEDBACK 50'	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE,NEEDLE FDBK AMP,	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE PROPORTIONAL VLV	In Stock	HIGH	N/A	
CAT - Governor Control System - CABLE90 DEG.5' ZVPU,	In Stock	HIGH	N/A	
CAT - Governor Control System - Power Supply	In Stock	MEDIUM	N/A	
CAT - Governor Control System - Power Supply 24V	In Stock	MEDIUM	N/A	
CAT - Governor - JOINT,UNIVERSAL SSG #1787058	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - Tip	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - NEEDLE VALVE ASS (6) - Shuttle Valve	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - Casing guide U/S	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - Casing guide D/S	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - Needle seat	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - BUSHING NOZZLE 374527007/P001	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT,	In Stock	MEDIUM	N/A	
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT 20,	In Stock	MEDIUM	N/A	
CAT - NEEDLE VALVE ASS (6) - CHAIN,DBS FCS-A1-15	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - CONTROL DEVICE,NEEDLE	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - Amplifer/proportional	In Stock	HIGH	N/A	
CAT - NEEDLE VALVE ASS (6) - seal piston ring	In Stock	MEDIUM	N/A	
CAT - NEEDLE VALVE ASS (6) - Seal	In Stock	MEDIUM	N/A	
CAT - Electronic Governor - BUSHING CABLE PROP VLV,	In Stock	HIGH	N/A	
CAT - Electronic Governor - CONNECTOR,MLDT ROD BALL	In Stock	HIGH	N/A	
CAT - Electronic Governor - CONVERTER,SERIAL/ETHERNET	In Stock	HIGH	N/A	
CAT - Electronic Governor - HOLDER,CIRCUIT BREAKER	In Stock	HIGH	N/A	
CAT - Electronic Governor - INTERFACE,ETHERNET VERSA	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,GE AMPLIFIER	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,GE PT INTERFACE	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,PLUG-IN DIODE	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,VERSAMAX 16 PT	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,VERSAMAX 32 PT	In Stock	HIGH	N/A	
CAT - Electronic Governor - MODULE,VERSAMAX 4 AO	In Stock	HIGH	N/A	
CAT - Electronic Governor - PC,ATLAS VX WORKS	In Stock	HIGH	N/A	
CAT - Electronic Governor - VERSAMAX powersupply	In Stock	HIGH	N/A	
CAT - Electronic Governor - PROBE,SPEED ZVPU	In Stock	HIGH	N/A	
CAT - Electronic Governor - RELAY,14 PIN PLUG 24VDC	In Stock	HIGH	N/A	
CAT - Electronic Governor - LVDT deflector	In Stock	HIGH	N/A	
CAT - Electronic Governor - Pos.Xducer	In Stock	HIGH	N/A	
CAT - Electronic Governor - POs.Xducer	In Stock	HIGH	N/A	
CAT - Electronic Governor - Deflector proportional	In Stock	HIGH	N/A	
CAT - Electronic Governor - Rod vdeflector	In Stock	HIGH	N/A	
CAT - Electronic Governor - PC, Atlas 2	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - Electronic Governor - Guide Ball Slide	In Stock	HIGH	N/A	
CAT - Governor Hydraulics - ELEMENT,FILTER SM 10	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - ELEMENT,FILTER SM 25	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - PLUG,C/V 010168-390-163	In Stock	HIGH	N/A	
CAT - Governor Hydraulics - PLUG,C/V 021002-281-208	In Stock	HIGH	N/A	
CAT - Governor Hydraulics - PLUG,ESCHER WYSS	In Stock	HIGH	N/A	
CAT - Governor Hydraulics - Deflector valve	In Stock	HIGH	N/A	
CAT - Governor Hydraulics - Piston seal 725X8 X3/8	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - Piston seal 9X8X1/2	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - Seal	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - Pressure Switch	In Stock	MEDIUM	N/A	
CAT - Governor Hydraulics - OIL,TURBINE 46 (205L)	In Stock	MEDIUM	N/A	
CAT - POWER TUNNEL (ROCKCUT) - Seal, Adit Door	In Stock	HIGH	N/A	
CAT - ROTOR - GENERATOR - Pole	In Stock	HIGH	N/A	
CAT - Turbine - Runner	In Stock	HIGH	N/A	
CAT - GENERATOR - MODULE,TYP 1CD 108 M 2-02 vibro-meter	In Stock	MEDIUM	N/A	
CAT - GENERATOR - OVERCURRENT relay	In Stock	MEDIUM	N/A	
CAT - GENERATOR - RELAY,TIME DELAY .6 - 1.0	In Stock	MEDIUM	N/A	
CAT - GENERATOR - rotating ring	In Stock	HIGH	N/A	
CAT - GENERATOR - INSLTR,SLIP RING	In Stock	MEDIUM	N/A	
CAT - GENERATOR - Brake ring	In Stock	HIGH	N/A	
CAT - GENERATOR - Brake valve	In Stock	HIGH	N/A	
CAT - GENERATOR - Brake Solenoid	In Stock	HIGH	N/A	
CAT - Isolated Phase Bus - PT fuse	In Stock	MEDIUM	N/A	
CAT - STATION SERVICE SYSTEM - COIL,CLOSING 129 V DC	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Arc Chute	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Trip Coil	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Main Drawout Contact	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Contact Moving Arc	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Contat Stationary Arc	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Undervoltage Coil	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - Contact 1600Amp	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - CT 400-800	In Stock	HIGH	N/A	
CAT - STATION SERVICE SYSTEM - CT 800-1600	In Stock	HIGH	N/A	
CAT - SURFACE AIR COOLERS - Surface Air Cooler	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - Stator Assembly - BAR STATOR BOTTOM,	In Stock	HIGH	N/A	
CAT - Stator Assembly - BAR STATOR TOP,	In Stock	HIGH	N/A	
CAT - Stator Assembly - CAP STATOR WINDING END,	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR ASM 105	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR ASM 107	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR ASM 108	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR ASM 109	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - Stator Assembly - Wedge	In Stock	HIGH	N/A	
CAT - Stator Assembly - Wedge	In Stock	HIGH	N/A	
CAT - Stator Assembly - Connector	In Stock	HIGH	N/A	
CAT - Stator Assembly - Slider	In Stock	HIGH	N/A	
CAT - Stator Assembly - Slider	In Stock	HIGH	N/A	
CAT - Stator Assembly - Slider	In Stock	HIGH	N/A	
CAT - Exciter # 1 - COIL,SHUNT CLOSING	In Stock	HIGH	N/A	
CAT - Exciter # 1 - COIL,SHUNT OPENING	In Stock	HIGH	N/A	
CAT - Exciter # 1 - CONTACT,ISOLATING	In Stock	HIGH	N/A	
CAT - Exciter # 1 - MODULE,THYRISTOR BRIDGE	In Stock	HIGH	N/A	
CAT - Exciter # 1 - SUPPLY,110-220 VOLT	In Stock	HIGH	N/A	
CAT - Exciter # 1 - Breaker	In Stock	HIGH	N/A	
CAT - Exciter # 1 - Arc Chute	In Stock	HIGH	N/A	
CAT - Exciter # 1 - Control Board	In Stock	HIGH	N/A	
CAT - Exciter # 1 - I/O ANALOG BOARD CONTROL,	In Stock	HIGH	N/A	
CAT - Exciter # 1 - DIGITAL I/O BOARD,	In Stock	HIGH	N/A	
CAT - Exciter # 1 - PANEL,CONTROL	In Stock	HIGH	N/A	
CAT - Exciter # 1 - BOARD POWER SYSTEM STABI,	In Stock	HIGH	N/A	
CAT - Exciter # 1 - BOARD MEASURING,	In Stock	HIGH	N/A	
CAT - Exciter # 1 - MOTOR,CHARGING	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CONTROL BOARD,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB HIER319619R2,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB KX9170A V1,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN 2010B-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UNC001D-E,	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - EXCITER NO. 2 - CARD ABB UNS0026A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD\ ABB UN0014B-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0016A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0025A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0026A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0027A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0031A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN004A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0079A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0083A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0089A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0091A-P,CARD ABB UN0093A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0503A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Unitrol Card	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Thyristor	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Transformer	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Field Voltage Transducer	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Shunt Voltage Transducer	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Analog Input Transducer	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - Fuse 600Amp	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0510C-9,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0516A,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0900B-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN0901B-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN1001C-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN1004A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - COIL,SHUNT CLOSING	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - COIL,125 VOLT 60HZ	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD\ ABB UN1004A-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB UN1024C-P,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD ABB 1WX 174-2,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD BBC UN0077AP,	In Stock	HIGH	N/A	
CAT - EXCITER NO. 2 - CARD,BBC UN2001F-P	In Stock	HIGH	N/A	
CAT - BREAKERS BY BROWN BOVERI, 600V - spare field breaker in used spare exciter	In Stock	HIGH	N/A	
CAT - Slipring/brush Rigging Assembly - Ring, Collector Assembly	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - Slipring/brush Rigging Assembly - Brushes	In Stock	MEDIUM	N/A	
CAT - Slipring/brush Rigging Assembly - Brush Holder	In Stock	HIGH	N/A	
CAT - Slipring/brush Rigging Assembly - Insulator	In Stock	HIGH	N/A	
CAT - Governor Pumps - Pump	In Stock	HIGH	N/A	
CAT - Governor Pumps - INSERT,CURVED JAW SPIDER	In Stock	HIGH	N/A	
CAT - Rotor Poles - Entire Pole	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR ASM 105	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR ASM 107	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR ASM 108	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR ASM 109	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - Stator Windings - JUMPER,STATOR WINDING	In Stock	HIGH	N/A	
CAT - THRUST BEARING - thrust pads	In Stock	HIGH	N/A	
CAT - Turbine Guide Bearing - Bearing	In Stock	HIGH	N/A	
CAT - Guide Bearing Segments - Bearing	In Stock	HIGH	N/A	
CAT - Thrust Bearing Segements - Segments	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - PUMP UNLOADER,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - COILDASHPOT,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL OIL PUMP UNLOADER SOLND. ,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL PARTIAL SHUTDOWN RESET ,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL SHUTDOWN SOLENOID 65SD ,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL RESET SOLENOID ,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447- 634,motor	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447-640,MOTOR	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - GATE LIMIT,ROD,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - UNLOADER PISTON,	In Stock	HIGH	N/A	
HLK - GOVERNOR HYDRAULIC SYSTEM - filter	In Stock	HIGH	N/A	
HLK - GOVERNOR ACCUMULATOR TANK - SWITCH PRESS OIL ALARM,	In Stock	HIGH	N/A	
HLK - GOVERNOR ACCUMULATOR TANK - Air admission solenoid	In Stock	HIGH	N/A	
HLK - GOVERNOR SPEED GENERATOR - GEAR,WOODWARD 1447-640	In Stock	HIGH	N/A	
HLK - GOVERNOR SPEED GENERATOR - gear drive	In Stock	HIGH	N/A	
HLK - MECHANICAL GOVERNOR CONTROLS - Motor limit	In Stock	HIGH	N/A	
HLK - MECHANICAL GOVERNOR CONTROLS - Motor speeder	In Stock	HIGH	N/A	
HLK - MECHANICAL GOVERNOR CONTROLS - Unloader timing valve	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
HLK - OPERATING RING - Bearing pads	In Stock	HIGH	N/A	
HLK - SERVOMOTOR #1 - servomotor repair kit	In Stock	HIGH	N/A	
HLK - SERVOMOTOR ASSEMBLY - shear pins	In Stock	HIGH	N/A	
HLK - Rotor Assembly - HLK Generator - Rotor pole	In Stock	HIGH	N/A	
HLK - TURBINE - Carbon seal,	In Stock	HIGH	N/A	
HLK - TURBINE - BEARING SEGMENT TURBINE,	In Stock	HIGH	N/A	
HLK - TURBINE - PLATE BEARING,	In Stock	HIGH	N/A	
HLK - TURBINE - SEAL TURBINE,	In Stock	HIGH	N/A	
HLK - TURBINE - Wicket gate lever	In Stock	HIGH	N/A	
HLK - TURBINE - Friction hub	In Stock	HIGH	N/A	
HLK - TURBINE - Friction hub	In Stock	HIGH	N/A	
HLK - TURBINE - Packing box	In Stock	HIGH	N/A	
HLK - TURBINE - link thin	In Stock	HIGH	N/A	
HLK - TURBINE - link thick	In Stock	HIGH	N/A	
HLK - TURBINE - wicket gate seal	In Stock	HIGH	N/A	
HLK - TURBINE - Dowel	In Stock	HIGH	N/A	
HLK - TURBINE - Link pin	In Stock	HIGH	N/A	
HLK - TURBINE - Eccentric pin	In Stock	HIGH	N/A	
HLK - WICKET GATES - wicket gate	In Stock	HIGH	N/A	
HLK - GENERATOR - brake shoes	In Stock	HIGH	N/A	
HLK - GENERATOR - SOLENOID,GENERATOR AIR VALVE,	In Stock	HIGH	N/A	
HLK - GENERATOR - Generator air valve	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - SEAL TURBINE,	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - SEALWICKET GATE,	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - BUSHING 60X75 MM,	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - BUSHING GATE STEM - LOWER,	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - BUSHING GATE STEM - UPPER,	In Stock	HIGH	N/A	
HLK - HEADCOVER ASSEMBLY - Bushing upper	In Stock	HIGH	N/A	
HLK - INTAKE HEADGATE AND HOIST EQUIP - Pressure druk	In Stock	MEDIUM	N/A	
HLK - STATION SERVICE SWITCHGEAR - Breaker (EATON)	In Stock	HIGH	N/A	
HLK - Thrust/Guide Bearing Coolers - Hi pressure lift pump	In Stock	HIGH	N/A	
HLK - ISOLATED PHASE BUS - PT fuse	In Stock	HIGH	N/A	
HLK - STATOR ASSEMBLY - Stator connection caps	In Stock	HIGH	N/A	
HLK - STATOR ASSEMBLY - Stator bars	In Stock	HIGH	N/A	
HLK - EXCITATION - Bridge (entire module)	In Stock	HIGH	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
HLK - Slipring /Brush Rigging - Carbon brush	In Stock	MEDIUM	N/A	
HLK - Slipring /Brush Rigging - Brush holder	In Stock	HIGH	N/A	
HLK - Rotor - Pole	In Stock	HIGH	N/A	
HLK - STATOR WINDINGS - UNIT 1 - robel bars	In Stock	HIGH	N/A	
HLK - TURBINE GUIDE BEARING - BEARING, Segment TURBINE	In Stock	HIGH	N/A	
HLK - GUIDE BEARING SEGMENTS (SET) - BEARING,SEGMENT	In Stock	HIGH	N/A	
HLK - HD-1N - HINDS LAKE INTAKE - TRANSMITTER,PRESS 0-375	In Stock	MEDIUM	N/A	
HLK - THRUST BEARING SEGMENTS (SET) - Thrust Bearing Segments	In Stock	HIGH	N/A	
HLK - UPPER GUIDE BEARING SEGMENTS - Upper Guide Bearing Segments	In Stock	HIGH	N/A	
HLK - IN FRAZIL ICE SYS - INTAKE - TRANSMITTER,TEMPERATURE	In Stock	MEDIUM	N/A	
HLK - GOVERNOR SPEED GENERATOR - Speed switch bracket	In Stock	HIGH	NO	
GCL - Governor Control System - Pressure Switch	In Stock	MEDIUM	N/A	
GCL - Governor Control System - POWER SUPPLY,18-32VDC	In Stock	MEDIUM	N/A	
GCL - Governor Control System - TRANSMITTER,PRESS 0-2000	In Stock	MEDIUM	N/A	
GCL - Governor Control System - TRANSMITTER,TEMP 4-20 MA	In Stock	MEDIUM	N/A	
GCL - Governor Hydraulic System - Filter, Element NS-7	In Stock	MEDIUM	N/A	
GCL - Governor Hydraulic System - Joint, Shaft Parker	In Stock	MEDIUM	N/A	
GCL - Governor Hydraulic System - Pump, Vane Vick	In Stock	HIGH	N/A	
GCL - Governor Hydraulic System - Seal, Polypak "U" Cup	In Stock	MEDIUM	N/A	
GCL - Governor Hydraulic System - Valve, Relief	In Stock	HIGH	N/A	
GCL - Governor Hydraulic System - Valve, Check 1 6000 psi	In Stock	MEDIUM	N/A	
GCL - Governor Hydraulic System - Valve, Proportional	In Stock	HIGH	N/A	
GCL - Operating Ring - Washer, Ring Seal	In Stock	MEDIUM	N/A	
GCL - Operating Ring - BUSHING,GE 226043126X015	In Stock	MEDIUM	N/A	
GCL - Servomotor - Rod, Seal H254-918	In Stock	MEDIUM	N/A	
GCL - Servomotor - Rod, Seal H092-730	In Stock	MEDIUM	N/A	
GCL - Servomotor Assembly - Ring, Piston GE	In Stock	HIGH	N/A	
GCL - Speed Signal Generator - Pickup, Zero Velocity	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Packing Ring, Segment	In Stock	MEDIUM	N/A	
GCL - Turbine Assembly - Pad, Stop GE	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Seal, Inflatable	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Transmitter, Pressure GE	In Stock	MEDIUM	N/A	
GCL - Turbine Assembly - Transmitter, Pressure -5TO55	In Stock	MEDIUM	N/A	
GCL - Turbine Assembly - Transmitter, Pressure 0-90 PSIG	In Stock	MEDIUM	N/A	
GCL - Turbine Assembly - Transmitter, Diff Pressure	In Stock	MEDIUM	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
GCL - Turbine Assembly - Ring, Rotating GE	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Ring, Sealing C/W Spring	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Ring, Wear	In Stock	HIGH	N/A	
GCL - Turbine Assembly - Valve, Check Wafer 12"D	In Stock	MEDIUM	N/A	
GCL - Wicket Gates - Bushing, GE 226043126X015	In Stock	MEDIUM	N/A	
GCL - Wicket Gates - Gate, Wicket GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Level, Gate GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Lever, Shear GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Liner, Gate Operating	In Stock	HIGH	N/A	
GCL - Wicket Gates - Link, GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Pin, Eccentric	In Stock	HIGH	N/A	
GCL - Wicket Gates - Pin, Shear GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Pin, Taper GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Plate, Retaining GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Plate, Top GE	In Stock	HIGH	N/A	
GCL - Wicket Gates - Shim, Laminum	In Stock	MEDIUM	N/A	
GCL - Wicket Gates - Sleeve, BRS 210mm	In Stock	MEDIUM	N/A	
GCL - Wicket Gates - Spacer	In Stock	MEDIUM	N/A	
GCL - Generator - Top Stator Bars (36)	In Stock	HIGH	N/A	
GCL - Generator - Bottom Stator Bars (18)	In Stock	HIGH	N/A	
GCL - Generator - Guide Bearing, GE	In Stock	HIGH	N/A	
GCL - Generator - Converter, RTD Temperature	In Stock	HIGH	N/A	
GCL - Generator - Converter, RTD Universal	In Stock	HIGH	N/A	
GCL - Generator - Creep Detector ASSY, 129 V	In Stock	HIGH	N/A	
GCL - Generator - Device, Surge Suppresion	In Stock	MEDIUM	N/A	
GCL - Generator - Fuse, TEMP Limiter	In Stock	MEDIUM	N/A	
GCL - Generator - Fuse, Voltage XFMR	In Stock	MEDIUM	N/A	
GCL - Generator - Jumper, Pole ASM #1	In Stock	HIGH	N/A	
GCL - Generator - Jumper Pole ASM #2	In Stock	HIGH	N/A	
GCL - Generator - Jumper Pole ASM #3	In Stock	HIGH	N/A	
GCL - Generator - Jumper Pole ASM #4	In Stock	HIGH	N/A	
GCL - Generator - Level, Indicator Magnetic	In Stock	HIGH	N/A	
GCL - Generator - Oil, Turbine 46 (205L)	In Stock	MEDIUM	N/A	
GCL - Generator - Packing, V-Type GE	In Stock	MEDIUM	N/A	
GCL - Generator - Pin, Taper 25MM x 90MM	In Stock	MEDIUM	N/A	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
GCL - Generator - Plate, Brake GE	In Stock	HIGH	N/A	
GCL - Generator - Plate, Locating Pivoted	In Stock	HIGH	N/A	
GCL - Generator - Pole, Wound GE	In Stock	HIGH	N/A	
GCL - Generator - Probe, 741 GE	In Stock	HIGH	N/A	
GCL - Generator - RTD, 12.5" -50-550 DEG	In Stock	HIGH	N/A	
GCL - Generator - RTD, 17" -50-550 DEG C	In Stock	HIGH	N/A	
GCL - Transmitter, PFM	In Stock	MEDIUM	N/A	
GCL - Transmitter, Temp 4-20 MA	In Stock	MEDIUM	N/A	
GCL - Switch, Press 200 PSI 15A	In Stock	MEDIUM	N/A	
GCL - Switch, 20-160 ABB 104-324-46	In Stock	MEDIUM	N/A	
GCL - Thermometer, ADJ 0-55	In Stock	MEDIUM	N/A	
GCL - Transducer, Balluff Track	In Stock	HIGH	N/A	
GCL - Shim, GE 007	In Stock	MEDIUM	N/A	
GCL - Shim, GE 008	In Stock	MEDIUM	N/A	
GCL - Shoe, brake GE 6201B6815L005	In Stock	HIGH	N/A	
GCL - Spring, GE	In Stock	MEDIUM	N/A	
GCL - Valve, Purge GE	In Stock	HIGH	N/A	
GCL - Washer, Brake Plate	In Stock	MEDIUM	N/A	
GCL - Washer, GE 105000100	In Stock	MEDIUM	N/A	
GCL - Ring Assy, Collector	In Stock	HIGH	N/A	
GCL - Stick, Joint Horz	In Stock	MEDIUM	N/A	
GCL - Stick, Joint Vert	In Stock	MEDIUM	N/A	
GCL - Switch, Press Actuated	In Stock	MEDIUM	N/A	
GCL - Switch, Press Gran 20W	In Stock	MEDIUM	N/A	
GCL - Seal, Top Guide Bearing	In Stock	MEDIUM	N/A	
GCL - Runner - Seal, 770mm x 730mm x 25mm	In Stock	MEDIUM	N/A	
GCL - Surface Air Coolers - Cooler, Surface Air	In Stock	HIGH	N/A	
GCL - Thrust/Guide Bearing Coolers - Coil, Cooling GE	In Stock	HIGH	YES	
BDE - RECTIFYING TRANSFORMER - Insulating Fluid	In Stock	MEDIUM	NO	
BDE - ISOLATED PHASE BUS - Surge Capacitor	In Stock	HIGH	NO	
BDE - EXCITATION CONTROLS - Field Flashing Resistor	In Stock	HIGH	NO	
BDE - UNIT 7 GOVERNOR - Unloader/Relief Valve	In Stock	HIGH	NO	
BDE - TURBINE GUIDE BEARING - oil cooler	In Stock	HIGH	NO	
CAT - Governor Hydraulics - Cooler	In Stock	HIGH	NO	

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Critical Spare Component	Stock Status	Risk Score	Spare Cost >\$50,000	Comments
CAT - ACCUMULATOR TANK - Air Admission Valve	In Stock	HIGH	NO	

Critical Spare Component	Stock Status	Risk Score	Lead Time	Spare Cost >\$50,000	Status Update October 2015	Expected Delivery Date
HLK - CIRCUIT BREAKER - Primary disconnect	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15
HLK - CIRCUIT BREAKER - Charging motor	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15
HLK - CIRCUIT BREAKER - Motor brush kit	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15
HLK - CIRCUIT BREAKER - Spring release coil	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15
HLK - CIRCUIT BREAKER - Shunt trip coil	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15
HLK - CIRCUIT BREAKER - Anti-pump relay	Not in Stock	HIGH	TBD	NO	In purchasing process	30-Nov-15

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Critical Spare Component	Stock Status	Risk Score	Lead Time	Spare Cost >\$50,000	Comments	Status Update October 2015	Expected Delivery Date
HLK - GOVERNOR HYDRAULIC SYSTEM - Main valve	Not in Stock	LOW	6 weeks	NO		Consulted with supplier, likelihood of failure is very low.	29-Feb-16
HLK - STATION SERVICE SWITCHGEAR - Breaker (Federal Pioneer)	Not in Stock	MEDIUM	TBD	TBD	Discontinued breaker model.	Consulting with supplier. Engineering required	late 2016.
HLK - EXCITER FIELD BREAKER - Entire unit	Not in Stock	MEDIUM	TBD	TBD		Consulting with supplier	31-Aug-16
GCL - 13.8 kv bus duct - Insulators	Not in Stock	LOW	TBD	NO		Consulting with supplier. Temporary measures can be taken in the event of a failure to keep the unit online	31-Oct-16
CAT - BRAKING JET ASSEMBLY - Control Valve	Not in Stock	MEDIUM	TBD	TBD		Supplier Rep visited site and is evaluating replacement options and preparing a quote. Current equipment is obsolete.	30-Apr-16

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Recommended Component	Stock Status	Risk Score	Lead Time	Spare Cost >\$50,000	Status Update October 2015	Expected Delivery Date
BDE - Unit 7 RECTIFYING TRANSFORMER - Full Unit	Not in Stock	MEDIUM	20 weeks	YES	Added to the capital plan	1-Nov-20
HLK - CIRCUIT BREAKER - VCP-WG, 4000A vacuum breaker	Not in Stock	MEDIUM	18wks	YES	In Capital Plan for 2018 purchase	Early Q4 in 2018
HLK - Thrust/Guide Bearing Coolers - Cooler	Not in Stock	MEDIUM	18wks	YES	In Capital Plan for 2020 purchase	Q4 in 2020
HLK - UPPER GUIDE BEARING COOLERS - Cooler	Not in Stock	MEDIUM	TBD	YES	In Capital Plan for 2020 purchase	Q4 in 2020
HLK - Slipring /Brush Rigging - Slipring	Not in Stock	MEDIUM	TBD	YES	In Capital Plan for 2017 purchase	Early Q4 in 2017
HLK - SURFACE AIR COOLERS - Cooler	Not in Stock	MEDIUM	TBD	YES	Engineering Required	Q4 2020
CAT - EXCITATION TRF - Transformer-CORE	Not in Stock	MEDIUM	TBD	TBD	Not available. Consulting with suppliers for a spare transformer. Likely >\$50k. Currently in the capital plan for 2018	30-Nov-18
HLK - RECTIFYING TRANSFORMER-Core	Not in Stock	MEDIUM	TBD	TBD	Not available. Consulting with suppliers for a spare transformer. Likely >\$50k. Currently in the capital plan for 2018	30-Nov-18
HLK - STN SERVICE TRANSFORMER (SST-1) - Entire unit	Not in Stock	MEDIUM	TBD	TBD	Not available. Consulting with suppliers for a spare transformer. Likely >\$50k. Currently in the capital plan for 2018	30-Nov-18
BDE - Unit 7 TURBINE GUIDE BEARING - bearing	On Order	MEDIUM	~12 Wks	YES	The existing spare bearing was determined to be not ready for service and is being refurbished under the supplemental Capital Project for critical spares	15-Feb-16
CAT - Governor Hydraulics - DEFLECTOR,SERVOMOTOR	On Order	MEDIUM	26 weeks	YES	The existing spare deflector servomotor is a used spare and is being replaced under the supplemental Capital Project for critical spares	30-Apr-16
CAT - Generator Bearing - Cooler	On Order - Drawings Approved	MEDIUM	8 wks	YES	The existing spare generator bearing cooler is a used spare and is being replaced by a new part under the supplemental Capital Project for critical spares	20-Dec-15

Recommended Component	Stock Status	Risk Score	Lead Time	Spare Cost >\$50,000	Status Update October 2015	Expected Delivery Date
HLK - TURBINE - BEARING SEGMENT TURBINE,	On Order - being fabricated	MEDIUM	~14 wks	N/A	This part was used as part of a unit overhaul after critical spares reporting was initiated. It is being refurbished under the supplemental Capital Project for critical spares	20-Dec-15