

1 Q. Please explain if and how Newfoundland Hydro and Newfoundland Power
2 cooperate or coordinate in the activities associated with the generation,
3 transmission and distribution of electricity to customers.

4

5

6 A. Hydro and Newfoundland Power (NP) cooperate and coordinate in a number of
7 activities associated with the safe, reliable and efficient generation, transmission
8 and distribution of electricity to customers. These are detailed as follows:

9

10 Hydro is responsible for managing generation resources and the Newfoundland and
11 Labrador bulk transmission system in order to reliably meet the Island System
12 demand requirements. The Newfoundland and Labrador System Operator (NLSO)¹
13 operates the provincial power system to withstand:

14 (1) any single **transmission** contingency without violating any operating limit
15 and impacting customer service; and

16 (2) the loss of the largest **generating** unit contingency without violating the
17 reserve criterion (ten-minute reserve at least equal to its single worst
18 contingency, typically 150-170 MW).

19

20 On an ongoing basis, Hydro and NP share real-time data between the control
21 centres' energy management systems through an Inter Control Centre Protocol
22 (ICCP) data link.² Data that is shared between the utilities include individual
23 generating unit output levels, the system demand, and the system frequency, as

¹ NLSO is a department of Hydro which is responsible for the safe, reliable and efficient operation of the NL transmission system, as well as for facilitating and administering transmission service.

² Hydro and NP have executed a Non-Disclosure Agreement which sets parameters around the sharing of non-public transmission function information.

1 well the status of key transmission equipment. If there are concerns with
2 equipment outages determined through monitoring of ICCP data, communication
3 will be initiated between the two control centres. The generation data that is
4 shared in real-time is presented in consolidated reports, allowing the NLSO's Energy
5 Control Centre's (ECC) operators to see at a glance the status of NP's generating
6 units, its regional generation totals and company generation total.

7
8 Daily, Hydro and NP communicate and coordinate generation and transmission
9 resources in order to reliably and efficiently meet the system demand. NP reports
10 to Hydro on the availability of their generating units. The ECC operators discuss with
11 NP the availability of water resources in NP's hydroelectric facilities to ensure timely
12 use of their generation and to maximize the benefits in maintaining customer
13 supply. The NLSO also makes requests to NP, as required, to change the level of
14 production output of NP's hydroelectric units.

15
16 During periods when the system demand is expected to be high or when the
17 reliability criteria may be at risk, the NLSO and NP coordinate some additional
18 activities. When cold weather and high system demands are on the forecast
19 horizon, hourly forecasts of system demand are shared with NP. In accordance with
20 Hydro's instruction titled "BA-P-012 Operating Reserves", as attached in PUB-
21 Nalcor-013, Attachment 1, the NLSO may request NP to place in service its standby
22 gas turbine and diesel units or to curtail its interruptible customers to help meet the
23 system demand. The NLSO and NP also discuss the appropriate timing associated
24 with each of these requests to ensure the maximum reliability benefit to the system
25 while minimizing impacts to customer service. In the event of a forced outage to
26 transmission equipment or station equipment that directly affects NP, the ECC will

1 make immediate and direct contact with the NP control centre. The ECC would then
2 provide the NP control centre with an update on the status of the equipment, the
3 expected return to service and the potential reliability impacts. The equipment
4 status can also be viewed through the ICCP data link.

5

6 In the event of major contingency events on the system, Hydro and NP have
7 regional restoration plans that require the close coordination of both utilities in
8 order to restore customers in a safe and expedient manner.

9

10 On a weekly basis, the NLSO shares its “Reliability and Transmission Equipment
11 Status” report with NP.³ This includes information related to the following:

- 12 • The weather outlook and notifications which may impact on the
13 transmission system;
- 14 • Hydro’s planned transmission equipment outages for the week which
15 impact on NP’s operations; and
- 16 • The seven day Island available reserves forecast.

17

18 As well, on a weekly basis at the regional level contact details of on call staff from
19 both utilities are shared to help better coordinate response during system events.

20

21 On an annual basis, Hydro develops and maintains a master equipment outage
22 schedule. Hydro makes a request for NP’s planned transmission equipment outages
23 for input into this schedule, in order to ensure coordinated and reliable operation
24 of the system. Hydro and NP meet annually to discuss the upcoming annual outage

³ Please see PUB-Nalcor-013, Attachment 2 for an example of this report.

1 schedule and to identify any potential coordination issues with an aim to minimize
2 customer and equipment outages, for both Hydro and NP work. The master
3 equipment outage schedule is updated as required during the year, incorporating
4 any additional inputs from NP, and communicated periodically to all stakeholders
5 (usually weekly). As outages are vetted during the NLSO's week-ahead reliability
6 assessments, Hydro discusses any equipment outages with NP that may have an
7 impact on NP's operations. The equipment includes transmission lines and terminal
8 station breakers. The discussion covers the following areas:

- 9 • The determination of the potential impact on reliability, which may require
10 that load flows be run;
- 11 • Loading constraints (i.e., transmission line and transformer limitations, given
12 the short term load forecast);
- 13 • Outage time and duration; and
- 14 • Contingency plans.

15
16 Once this initial discussion occurs, the outage details will be finalized and the
17 approval to proceed is given. NP is issued email confirmation of the outage though
18 Hydro's equipment outage database. On the day of the outage, the ECC would give
19 the final approval on proceeding, and would call the NP control room to advise NP
20 of the same. The ECC provides updates throughout the day as to the status of the
21 work and if there are any concerns with the return to service.

22
23 For transmission (at the regional level) there is on going coordination of outages
24 activities to ensure switchers are in place and to package both Hydro and NP work
25 to minimize outages to customers and equipment. Depending upon the work
26 requirements, resources are also shared between utilities in accordance with a

1 Memorandum of Understanding –Services and Equipment Sharing (See PUB-Nalcor-
2 014), such as in the past year, Hydro has assisted NP during the following work:

- 3 • 142L (Cobbs Pond to Gander Bay) April 10, 2018 – Hydro assisted during an
4 unplanned outage and patrolled the line and removed danger trees;
- 5 • 363L (Indian River to Seal Cove) September 14, 2018 – Hydro completed
6 planned installation of new overhead ground wire for newly constructed NP
7 363L line;
- 8 • 363L (Indian River to Seal Cove) September 14, 2018, October 3 to 4, 2018 –
9 Assisted NP with the planned tie in of new 363L line at Indian River; and
- 10 • 114 L (Gander Bay to Boyd’s Cove) November 16, 2018 – Hydro assisted
11 during an unplanned outage and removed trees and repaired primary
12 conductor to help improve restoration time.

13
14 During system events such as storms, there is communication between Hydro and
15 NP regional staff to coordinate response and in cases such as work in the Port Aux
16 Basques area, NP has assisted Hydro with line patrols to help improve restoration
17 time for customers. This also happens periodically on the Burin Peninsula where NP
18 have people stationed and Hydro does not. There is also strong regional
19 cooperation and coordination leading up to planned outage work. This was seen in
20 2018 during work at Doyles, Massey Drive and Indian River. At Indian River in
21 particular, it was the first time NP crews signed on to a Hydro work protection
22 permit, which minimized the amount of switching and thus outage time to
23 customers.

24 A significant input into the annual generation outage schedule is the forecast
25 customer demand requirements. NP periodically provides Hydro with a forecast, by
26 month, of its energy and peak requirements from Hydro, net of NP’s generation

1 supply. Hydro uses this forecast, together with forecasts for Hydro's Industrial and
2 Rural Customers, to develop a generation outage schedule which is aligned with its
3 reliability criteria. In addition, each year Hydro and NP coordinate a capacity test of
4 NP's generation to prove the availability of their generation plants for the winter
5 period. NP's generation capacity is also included in the overall Island supply
6 capability.

7
8 The utilities have formed and participate in long standing Inter-Utility System
9 Planning and Reliability Committee (IUSPRC). The committee, made of up senior
10 leaders from Hydro and NP in the areas of Operations and Planning, normally meets
11 twice per year. The meetings focus on several areas including generating and
12 transmission asset performance and reliability as well as system preparedness (in
13 particular going into the winter peak period). In recent years, the Lower Churchill
14 and Maritime Link integration activities have also been discussed.

15
16 For distribution, there is cooperation and coordination for work associated with
17 Hydro customers in Monkstown and Petite Forte. Due to NP having staff on the
18 Burin Peninsula, NP will respond to unplanned outages in the area to expedite the
19 response. In 2018 this occurred on two occasions. There has also been discussions
20 at the regional level where it was noted that Hydro has line workers located in
21 Springdale and Baie Verte that can assist NP crews for work in the NP serviced areas
22 of Springdale and Baie Verte, due to NP staffing level being limited in these areas.

23 From an engineering perspective, there is also ongoing coordination between NP
24 and Hydro during preliminary engineering design. For example in 2018, NP
25 completed a site visit with Hydro staff to help design the layout of a new 69 kV line

1 into Oxen Pond terminal station. As well, there is ongoing coordination between
2 protection and control engineering departments during design and post event
3 reviews, to ensure proper coordination of protection systems.

BA-P-012 (T-001)

Operating Reserves^{1,2}

General

Purpose

This procedure outlines the requirements to assess and maintain sufficient operating reserve³ to meet current and anticipated customer needs under normal operating conditions and for specific contingency situations that result in reductions to resources. Resources are comprised of contributions provided by supply-side and demand-side facilities and/or actions. Supply-side facilities include utility and non-utility generation and may include reserve assistance or purchases from neighbouring systems. Demand-side facilities include measures for reducing load, such as interruptible load, demand management and conservation.

In order to ensure that customer service is maintained, the Energy Control Centre (ECC) shall exercise its authority to reduce risks to resources and maintain sufficient operating reserve to meet current and anticipated customer demands. The ECC shall be prepared to deal with generation and other resource capacity shortages and take appropriate actions, including stakeholder notification, in order to communicate and maintain the reliability of the Island Interconnected System.

Operating reserve^{4,5} is required to replace resource capacity lost as a result of an equipment forced outage as well as to cover performance uncertainties in generating units and tie-line capacity, or to cover unanticipated increases in demand. Sufficient operating reserve is required to meet current and forecasted demands under the largest resource contingency, being the greater of:

- the largest generating unit;
- the largest combination of generating units on a single interface (e.g., generation connected to the transmission system via a single transmission line); or
- the largest import over a single transmission interface.

¹Part of the Corporation's Environmental Management Plan.

²Part of the Emergency Response Plan.

³This document relates to the current approach to operating reserves – *Available* and *Spinning*. This may be modified in the future to better align with the NERC 10- and 30- minute reserve criteria.

⁴*Available Reserve*, for the Island Interconnected System, is defined as the sum of generation reserve, recallable interchange transactions (exports) and, in specific circumstances, interruptible loads. Generation reserve is defined as the quantity of available generation supply that is in excess of demand, and includes spinning and non-spinning reserve. Generation reserve is equal to available generation supply less current/forecasted demand.

⁵*Spinning Reserve* is included in Available Reserve and defined as unloaded generation that is synchronized to the power system and interruptible load (up to 40 MW from CBPP during the contractual period of Capacity Assistance) that is ready to serve additional demand.

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1 Procedure

1.1 Calculation of Available Reserve

Available Reserve shall be calculated in the manner indicated below:

- Available generation⁶ of NLH (Hydro + Thermal + Standby⁷ + Purchases⁸); plus
- Scheduled firm Import transactions on the Maritime Link; plus
- Available generation of Newfoundland Power (Hydro + Standby); plus
- Available generation of Deer Lake Power (60 Hz Hydro); plus
- Capacity Assistance⁹ of Vale (Standby Diesels); less
- Forecasted Island peak load (adjusted for Corner Brook Pulp and Paper and Vale Capacity Assistance, Newfoundland Power Curtailable and Voltage Reduction)¹⁰; less
- Scheduled Exports on the Maritime Link with firm transmission service.

1.2 Assessment and Notification of Available Reserve

The Available Reserve will be calculated for the current day and the following six days for the peak demand hour forecast for each day. An assessment will be made against the criteria in the table below with notifications to be issued to stakeholders when Available Reserve is below the stated thresholds for anytime within the next week.

Available Reserve ¹¹	Expected Action	Level
> [Largest Resource Contingency + 70 MW]	None	0
> [Largest Resource Contingency] and < [Largest Resource Contingency + 70 MW]	Prepare for Potential Load Reduction	1
> [½ Largest Resource Contingency] and < [Largest Resource Contingency]	Load Reduction	2
> [Zero or deficit] and < [½ Largest Generating Unit]	Conservation	3
[Zero or deficit; hold f=59.8 Hz]	Rotating Outages	4

⁶ Available generation is generation that is in service or planned to be in service; or generation that can be started within 15 minutes.

⁷ Standby generation includes gas turbine/diesel generation.

⁸ NLH Purchases include wind generation for the current day based on actual wind output, but assumes no wind generation for the following six days.

⁹ Refer to Schedule 1 at the end of this procedure for the details of the Capacity Assistance agreements.

¹⁰ Up to 20 MW of load reduction (on peak) is expected to be achieved through the reduction of voltage at the major delivery points on the system as well as on Newfoundland Power's system.

¹¹ Hydro plans to have Available Reserve to cover its largest resource contingency (e.g., largest generating unit) plus an additional 70 MW. During normal operation this ensures that an amount of Spinning Reserve is available to cover the loss of the largest unit, with an additional 70 MW that can be activated or placed on-line to meet minimum Spinning Reserve requirements for system frequency regulation under the loss of a large generating unit (i.e., on-line regulating reserve to cover performance uncertainties in generating units, especially wind and other variable generation, and unanticipated increases in demand).

Based on the assessment above, perform the following:

- **Level 0**
 - If the Available Reserve is anticipated to be greater than the largest resource contingency plus 70 MW, the ECC is not expected to perform any further actions, other than to communicate to advise the appropriate stakeholders that Available Reserve has returned to normal following a prior Level 1, 2, 3, or 4 notice.
- **Level 1**
 - If the Available Reserve is anticipated to be less than the largest resource contingency plus 70 MW, the ECC will notify Newfoundland Power's Control Centre to advise them of the possible requirement for load reduction strategies should the Available Reserve decrease.
- **Level 2**
 - If the Available Reserve is anticipated to be less than the largest resource contingency, the ECC will notify Hydro's Exec On-Call under the Corporate Emergency Response Plan (CERP),¹² Corporate Communications,¹³ and Newfoundland Power to advise them of the requirement for load reduction strategies should the generation shortfall not be corrected. The ECC shall also notify the Nova Scotia System Operator (NSSO) of the potential deficit in Available Reserves.
- **Level 3**
 - If the Available Reserve is anticipated to be less than half of the largest resource contingency, the ECC will notify Hydro's Exec On-call (CERP), Corporate Communications, and Newfoundland Power, to advise them of a requirement for customer conservation strategies should the generation shortfall not be corrected. The ECC shall also notify the NSSO of the potential deficit in Available Reserves.
- **Level 4**
 - If the Available Reserve is anticipated to approach zero or fall into a deficit, the ECC will notify Hydro's Exec On-call (CERP), Corporate Communications, and Newfoundland Power to advise them of a requirement for rotating outages should the generation shortfall not be corrected. The ECC shall also notify the NSSO of the potential deficit in Available Reserves.

The following is the standard message that will be communicated by Corporate Communications and posted on the NLSO OASIS website if it is anticipated that a notification is to be made under Level 2, 3, or 4 or a return to Level 0 (note that a Level 1 notification is only communicated between the two control centres of Newfoundland Power and the NLSO):

"The NLSO is advising that the Available Island reserve is at (or has returned to) a notification level [0, or 2–4] for [insert date here]. The Available Reserve is expected to be [insert reserve amount in MW], calculated from an available resource capacity of [insert available capacity in MW] and a peak load forecast of [insert peak forecast in MW]."

¹² As part of the CERP, the Exec On-Call makes the decision to activate the Corporate Emergency Operations Centre (CEOC) and issues alert notifications.

¹³ Corporate Communications is responsible for activating the joint communication plan between NLH and Newfoundland Power.

Refer to CMN-P-008 – NLSO OASIS Communication Protocol for further information on posting messages in OASIS.

1.3 Maintaining Spinning and On-Line Regulating Reserve

Under normal operations the ECC shall take action to meet a targeted Spinning Reserve that is sufficient to cover the loss of the largest resource contingency. Typically this is Holyrood Unit 1 or 2 (170 MW) or Bay d’Espoir Unit 7 (154.4 MW). During contingency operations the ECC shall take steps to maintain a minimum Spinning Reserve of 70 MW for system frequency regulation (on-line regulating reserve). Such actions include the following: placing in service all available generating capacity, cancelling outages to generating units that have a short recall, recalling non-firm exports on the Maritime Link, deploying all available standby and demand side resources, including Corner Brook Pulp and Paper and Vale Capacity Assistance as well as Newfoundland Power curtailable load, cancelling industrial interruptible load, and further reducing system load through procedures such as voltage reductions.

The ECC should request capacity and energy from the market through the Nalcor Energy Marketing group (NEM) when it deems that resources and load reduction strategies are not sufficient to reliably meet current or forecasted demand. Under a contingency event the ECC can request Reserve Assistance from the NSSO which, if available, can be activated within ten minutes and extended for up to 120 minutes. Following the 120 minutes, Emergency Energy may be made available from NSPI under commercial arrangements. **Note that Reserve Assistance and Emergency Energy are not firm products and may not be available or may be recalled by the NSSO at any time following its activation.**

The following guideline shall be followed by the ECC Shift Supervisor – Reliability, and System Operator – Balancing and Interchange in the sequence outlined in order to maintain sufficient on-line regulating and Spinning Reserve in order to maintain the reliability of the Island Interconnected System.

Sequence for Maintaining Spinning and On-Line Regulating Reserve ***

1.3.1 Resource Dispatch

*** Note that under a contingency event (e.g., the sudden loss of a large generating unit) – perform the actions in Section 1.5 – Reserve Assistance and Emergency Energy to provide time to carry out the steps listed below, while market-based real-time energy transactions are being sought and implemented.

1. Place in service all of Hydro’s available hydroelectric generation.
2. Request Newfoundland Power to maximize their hydroelectric generation.
3. Make a Capacity Request of Deer Lake Power to maximize their hydroelectric generation.
4. Request Non-Utility Generators to maximize their hydroelectric and wind generation (i.e., start any offline wind turbines if available).
5. Maximize Holyrood thermal generation.
6. Make a request to cancel outage(s) to hydroelectric generating unit(s) that have a short recall.
7. Recall non-firm exports on the Maritime Link.

8. Start and load standby generators, both Hydro and Newfoundland Power units, in order of increasing average energy production cost with due consideration for unit start-up time.¹⁴
9. Request Corner Brook Pulp and Paper for Capacity Assistance (up to 90 MW of load reduction in block sizes of 20, 40, 60, or 90 MW).
10. Request Vale for Capacity Assistance (7.6 MW – standby diesels).
11. Request Vale for Capacity Assistance (up to 6 MW load reduction).
12. Request Newfoundland Power to interrupt its Curtailable loads (typically up to 10 MW and can take up to two hours to implement).

1.3.2 Load Reduction

1. Cancel all non-firm power delivery to customers and ensure all industrial customers are within contract limits.
2. Inform Newfoundland Power of Hydro's need to reduce supply voltage at the major delivery points to minimum levels to facilitate load reduction. Implement voltage reduction.
3. Request Newfoundland Power to implement voltage reduction on its system.

1.4 Maintaining Frequency near the Standard 60 Hz

If the Spinning Reserve continues to decrease below the minimum level and all resources and load interruption strategies have been deployed, the system frequency should be watched closely. In order to protect the integrity of the system, and to avoid the potential for cascading outages the system frequency shall be maintained above 59.8 Hz. **If not already performed, the ECC should request capacity and energy from the market through the Nalcor Energy Marketing group (NEM) to support the system frequency and minimize any customer impact.**

Sequence for maintaining frequency near the standard 60 Hz ***

1.4.1 Firm Load Interruption

*** Note that under a contingency event (e.g., the sudden loss of a large generating unit) – perform the actions in Section 1.5 – Reserve Assistance and Emergency Energy to provide time to carry out the steps listed below, while market-based real-time energy transactions are being sought and implemented.

1. Request Industrial Customers to shed non-essential loads, informing them of system conditions.
2. Request Newfoundland Power to shed load by rotating feeder interruptions. At the same time, shed load by rotating feeder interruptions in Hydro's rural distribution areas. Follow instruction for rotating outages, CMN-P-020, latest revision.

¹⁴ At this point in time it is important the ECC notify customers taking non-firm power and energy that if they continue to take non-firm power, the energy will be charged at higher standby generation rates.

1.5 Reserve Assistance and Emergency Energy

Note that only under a contingency event can the ECC request Reserve Assistance or Emergency Energy from the Nova Scotia System Operator (NSSO) – per instruction BA-P-007 - NLSO - NSSO Reserve Assistance Responsibility and Activation and BA-P-037 -NLSO - NSSO Emergency and Security Energy Transactions and Activation. Contingency events include a trip of a unit or sudden deration, a requirement for a sudden offload and shut of a unit, or a failed start.

Reserve Assistance

- Reserve Assistance is available as a short term product (within 10 minutes) following a contingency event. The ECC may request reserve assistance up to 50% of the contingent loss to a maximum of 100 MW. The initial period is up to 30 minutes.
- During the initial 30 minute Reserve Assistance period the ECC should perform the steps as outlined above in Sections 1.3.1 to 1.3.2. If sufficient resources are not available the ECC shall request a market based solution (i.e. contact NLH – Production Planning and/or NEM).
- In the event that on-line regulating and Spinning Reserve requirements are not able to be met by internal resources in 30 minutes, reserve assistance can be extended for an additional 90 minutes (only if available from the NSSO system).
- All energy provided under Reserve Assistance is treated as inadvertent.

Emergency Energy

- Emergency Energy can be sought from NSSO as a last resort, when market-based real-time energy transactions are not available in a timely fashion in order to maintain on-line regulating and Spinning Reserve requirements.
- Emergency Energy is a commercial product with pre-defined energy rates.

Reference Documents

CMN-P-008 *NLSO OASIS Communication Protocol*

CMN-P-020 *Rotating Outages*

BA-P-007 *NLSO - NSSO Reserve Assistance Responsibility and Activation*

BA-P-037 *NLSO - NSSO Emergency and Security Energy Transactions and Activation*

NLH and NSPI Interconnection Operators Agreement, 07/31/2012, Schedules A2, C9 and C10

Schedule 1 – Capacity Assistance Arrangements

Provider	Contracted Capacity	Conditions
Corner Brook Pulp and Paper	Up to 90 MW in the following increments: - 20 MW - 40 MW - 60 MW - 90 MW	<ul style="list-style-type: none"> • Notification Period – 10 minutes • Period – 4 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments – 2 per day, 30 per winter • Total Assistance Period – 150 hours per winter • Term – November 1 to April 30 (Annually) • Test – Tested annually, 90 MW planned to be available
Vale Generation	7.6 MW	<ul style="list-style-type: none"> • Notification Period – 20 minutes • Period – Up to 6 hours (maximum) • Maximum number of curtailments – 2 per day, 20 per winter • Total Assistance Period – 100 hours per winter • Term – December 1 to March 31 (Annually) • Test – Tested annually, 7.6 MW planned as available
Vale Load Curtailment	6 MW	<ul style="list-style-type: none"> • Notification Period – 60 minutes • Period – 3 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments – 2 per day, 10 per winter • Total Assistance Period – 50 hours per winter • Term – December 1 to March 31 (Annually) • Test – Tested annually, 6 MW planned as available

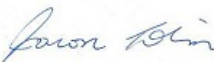
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0		Original Issue	1992/07/16
16	K. Goulding	General revisions	2018/08/28
17	K. Andrews	Added reference to CMN-P-008	2018/11/15
18	J. Tobin	Added CBPP interruptible load to spinning reserves (up to 40 MW)	2019/02/04

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Reliability and Equipment Status – September 10, 2018		
Topic	Notes	
1.	Weather Outlook and Notifications	No weather alerts in effect.
2.	Planned Transmission Equipment Outages	<ul style="list-style-type: none"> • STB T2 and B3T2-1 from July 26 to Sep 14 to complete tap changer overhaul and replace B3T2. • SVL L405T4 from Aug 7 to Sept 20 to replace the breaker. • SSD B1L02 from Aug 9 to Sept 14 to complete an upgrade of the breaker controls. • WAV T5 from Sept 4-10 to replace radiators. • OPD B2 from Sept 10-20 to remove equipment associated with old disconnect B2GT1 and install new equipment associated with the replacement station service transformers. • WAV T3 from Sept 10-21 to complete capital upgrading, maintenance and double testing. • BBK T1 and T3 on Sept 12 to make wiring changes for protection and metering. • TL 222 on Sept 12 to complete maintenance. • BBK T1 on Sept 13 to install new meter. • TL 223 on Sept 13 to replace cross arms. • TL 212 from Sept 17-21 to replace poles and jumpers.
3.	Island Reserves	<ul style="list-style-type: none"> • Island reserves are 290-580 MW for the next 7 days. <div style="text-align: center; margin-top: 10px;">  <p>Island Reserves.JPG</p> </div>