

1 **Q. Provide a detailed explanation of the operational plans followed prior to December**  
2 **15, 2013 that Newfoundland Power implemented when a severe weather event was**  
3 **forecast or there was a system problem affecting its ability to meet its load. In the**  
4 **response identify the changes from routine operations with respect to the**  
5 **deployment of workers, operation of units such as gas turbines, changes in**  
6 **equipment operations and any other change implemented from routine operations.**

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8 **A. 1. General**  
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10 Newfoundland Power expects that throughout the year the need may arise to respond  
11 to severe weather or system events that have the potential to disrupt service to  
12 customers.<sup>1</sup> When a severe weather event is expected, adjustments to routine  
13 operations are made to ensure the Company is prepared to respond quickly and  
14 effectively should customer outages occur.

15  
16 To assist in preparing for response to an anticipated severe weather event a *storm*  
17 *preparation checklist* has been developed. This checklist is maintained on the  
18 Company's Intranet and is available to all employees. The checklist is reviewed  
19 regularly and additions or deletions made as appropriate. A copy of the checklist is  
20 included here as Attachment A.

21  
22 The nature and extent of the preparations made by Newfoundland Power in  
23 anticipation of severe weather event will vary depending on weather forecast and the  
24 experience elsewhere as the storm moves towards the Province.<sup>2</sup> Preparations for  
25 system problems affecting Newfoundland Power's ability to meet customers' load  
26 would be initiated following discussions with Newfoundland and Labrador Hydro  
27 ("Hydro") regarding any anticipated shortfall in supply to Newfoundland Power  
28 caused by either loss of generation, transmission line capacity and/or failure of  
29 terminal station equipment.

30  
31 Preparations for a severe weather event would typically start 2 days prior to the  
32 forecast event. Preparations for a system event would start immediately when  
33 Newfoundland Power is advised by Hydro of the event occurring or potentially  
34 occurring. The Manager of Operations is the primary person responsible for

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<sup>1</sup> The preparation for a severe weather event or system event both deal with the Company's preparation for customer outages and for most situations the preparation is basically the same. Historically, severe weather events have been more common than severe electrical system problems such as those which occurred from January 2-8, 2014 and affected the Company's ability to serve its customer load.

<sup>2</sup> For example, the weather event may involve Newfoundland Power's entire service territory or be localized to one particular area. In addition, preparations for a fall hurricane or tropical storm event will be different from preparations for a winter blizzard. Events in the fall typically involve trees contacting the transmission and distribution lines while events in the spring and winter typically involve ice building up on the lines and structures.

1 monitoring weather conditions and liaising with Hydro.<sup>3</sup> When a significant event  
2 has been identified the Manager of Operations will advise the Executive and the other  
3 operations managers to initiate preparations to ensure the Company responds  
4 appropriately.  
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## 6 **2. Two Days before Forecast Event**

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8 Two days prior to the forecast event, operations staff will be placed on alert and will  
9 review all work in progress and temporary system conditions to determine the impact  
10 of the approaching event. Where practical, equipment is returned to service and  
11 temporary conditions returned to normal to ensure the security of the electricity  
12 system. At this time the status of the workforce is reviewed and locations where staff  
13 may be redeployed are determined. If necessary, employees are recalled from  
14 vacation and other employees that are trained to take on different duties to support the  
15 regular workforce are put on notice.<sup>4</sup>  
16

17 Preliminary contact is made with the Company's contractors and, if thought  
18 necessary, out of province utilities to advise them of the forecast event and ascertain  
19 their ability to provide support if called upon. Contractors are asked to assess their  
20 workforce and be ready to redeploy staff to support the Company's workforce.  
21

## 22 **3. Day before Forecast Event**

23

24 The day prior to the forecast event, operations staff will complete the work started the  
25 day before to ensure the security of the electricity system. The redeployment of the  
26 workforce identified the day before takes place with employees traveling to the  
27 locations where the storm damage is most likely to occur.  
28

29 On this day preparations are in full swing in all operations, customer service and  
30 support areas. The mobile generators and portable substations are packed up and  
31 made ready for transport. Depending upon the forecast geographic characteristics of  
32 the weather event or system problem, this equipment may be moved.<sup>5</sup> Various pieces  
33 of equipment are tested, vehicles are fuelled, backup generators are placed on line and  
34 tested, inventories of materials are prepared for distribution and employees are

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<sup>3</sup> The Supervisor of System Control receives storm alerts as issued by Environment Canada and through discussions with the Manager of Operations determines if the forecast storm is of sufficient strength to likely cause damage to the electricity system.

<sup>4</sup> For example, in advance of the January 2014 supply shortfall event Newfoundland Power's Director of Internal Audit was trained to answer customer calls as a Customer Account Representative in the Customer Contact Centre. Additional Customer Account Representatives are needed for 24 hour a day operations for extended periods of time.

<sup>5</sup> The Company has 2 mobile generators and 3 portable substations that are important resources to serve customers in extended outages. The Company will accept delivery of a 4<sup>th</sup> portable substation in early 2014. This equipment is maintained in standby mode throughout Newfoundland Power's service territory but can be moved to a specific location within one day.

1 briefed on the anticipated work conditions. If the timing of response to the event or  
2 system problem dictates, employees are identified to start work prior to their regular  
3 report time. Contact is made with some key customers to ensure they are aware of  
4 the upcoming event and are making necessary preparations.<sup>6</sup>  
5

#### 6 **4. Day of the Event**

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8 On the day of the event the System Control Centre monitors the electricity system and  
9 notifies the operations and customer service staff of equipment failures as they occur.  
10 The Customer Contact Centre also keeps operations staff up to date on outage reports  
11 from customers. Once an equipment failure is experienced, line crews or technical  
12 staff are dispatched to assess the damage. Based on priority, the appropriate work  
13 crews are dispatched to facilitate repairs.<sup>7</sup> Otherwise, the work is placed into a  
14 dispatch queue for the next available crew.<sup>8</sup>  
15

16 As the event or problem develops, assessments are undertaken to determine if the  
17 deployment of physical and human resources remains appropriate. If damage  
18 assessments indicate more resources are required, then additional crews and local  
19 contractors are deployed. Once assessments indicate that restoration efforts will  
20 extend for multiple days, out of province support will typically be called upon.  
21

22 On the day of the event key Engineering and Information Services staff is deployed to  
23 the System Control Centre, Contact Centre and Regional Operations facilities to  
24 provide on-site support for critical technology. Other staff with operations experience  
25 are deployed to the System Control Centre, Contact Centre and Regional Operations  
26 Centres to supplement the regular complement of employees.<sup>9</sup>

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<sup>6</sup> These key customers typically contacted in advance potential disruptions in electricity service include government, municipalities, school boards and hospitals.

<sup>7</sup> Work is prioritized based on public safety and the ability to restore power to as many customers as possible in the shortest time. This typically means transmission line and substation work takes priority over distribution work.

<sup>8</sup> Over the past few years, Newfoundland Power has deployed mobile computing in all of its line trucks, implemented a computerized operations dispatch system, and expanded its use of geographic information systems for its vehicles and electrical system assets. This has improved the overall efficiency of the Company's response capabilities in situations of localized or widespread electrical system distress.

<sup>9</sup> For example, during the January 2-8, 2014 event Newfoundland Power's Director of Procurement, who formerly held the position of Superintendent of System Control, provided necessary supervision at the System Control Centre through the night shifts.

**Storm Preparation Checklist**

### Storm Preparation Checklist

The following is a list of items to consider when preparing for a storm or other significant event.

1. Trucks
  - a. Fuel all vehicles (heavy & passenger).
  - b. Ensure all line vehicles are stocked with required material.
  - c. Equip trucks with special tools as required. For example for a pending wind storm, trucks should be equipped with a functioning chain saw.
  - d. Ensure truck radios are working.
  - e. Consider having line, meter reader, field services reps, technical and head office staff, take company vehicles home.
  
2. Operations Staff
  - a. Put staff on notice of pending storm/event. Consider bringing staff in early or holding them back from their normal days work to stand-by for the storm.
  - b. Where possible ensure staff is rested.
  - c. Ensure Supervisors have an accurate listing of staff including the availability of staff on vacation. Listing should include contact information.
  - d. Consider re-deploying Area line and technical staff to Areas most likely to be impacted by the storm/event.
  - e. Put head office technical staff on notice of the pending storm/event and consider re-deploying non critical head office staff to support possible Area restoration efforts.
  - f. Ensure support staff and customer service staff such as Meter Readers, Field Services Representatives, Customer Account Representatives, Area Customer Representatives, and Information Services staff etc. are included and are made aware of the pending storm/event. Confirm their contact information as well.
  - g. Ensure Electrical Maintenance Centre staff are notified and their availability and contact information is current.
  - h. Ensure Information Services Support Team is in place.
  - i. Ensure the Operations Support Team is notified and the operations centre is staffed.
  
3. Other Utilities
  - a. Coordinate response with Newfoundland and Labrador Hydro.
  - b. Consider putting sister utilities on notice for the possibility of supplying material or human resources.
  
4. Safety
  - a. Consider holding a pre-storm safety meeting & briefing with available staff.

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5. Accommodations
  - a. Contact local hotels to determine availability of rooms in the event that crews are moved into the Area. Consider reserving a block of rooms.
6. Finance
  - a. Take out a set of numbers for charging the storm/event. Communicate same.
7. Buildings
  - a. Test run back-up diesel generators and ensure they are fully fuelled.
  - b. Consider renting a portable generator for buildings not equipped with a backup diesel or, if an NP owned portable generator is available, ensure it is test run and a supply of fuel is available. Consider how the generator is to be connected/used.
  - c. Confirm ability to alter temperature controls in the building to defeat normal after-hours temperature setbacks.
8. Tools & Equipment
  - a. Test tools as required; chain saws, phasing sticks.
  - b. Test/maintain 60 ton press and ensure it is complete with dies, hoses etc.
  - c. Test portable generators.
9. Communications
  - a. Check location and availability of Satellite Phones. Ensure they are charged and that they are working.
  - b. Ensure appropriate staff has working cell phones. Ensure adequate cell phone chargers and spare batteries are available.
  - c. Charge portable radios.
  - d. Test Area office base station radios.
10. Stores
  - a. Ensure Central Stores has staff on call.
  - b. Ensure Area stores are staffed.
  - c. Check stock levels in Area stores for items likely to be needed during the storm; fuses, cutouts, insulators, transformers, conductor, etc.
  - d. Consider confirming the supply of poles on the island.
11. Substation & Generation
  - a. Consider location and availability of portable generation and portable substations. Re-deploy as required.
  - b. Ensure fuel supply for system generators.
  - c. Consider clearing snow from substations and yards.

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12. System Security

- a. Make extra efforts to correct any abnormal system conditions on the Transmission, Distribution and Substation systems.
- b. Where practical consider suspending construction on capital jobs to return the system to normal.
- c. Where abnormal conditions cannot be corrected consider developing contingency plan(s).
- d. Consider reviewing substation transformer loading and protection settings and feeder loading and protection settings and consider protection changes above normal settings or groups.
- e. Review and update list of priority feeders and critical loads.

13. Contractors

- a. Put Pole/Live Line/Line Construction/Vegetation/Flagging contractors on notice of pending storm/event and ask that they prepare their vehicles and staff.
- b. Confirm with each contractor their emergency contact information.
- c. Also confirm their available resources and their ability to assist.
- d. Confirm pole contractor's supply of poles on hand.
- e. Ensure snow clearing contractors are on alert and available.
- f. Consider confirming the availability of helicopters.

14. Customer Service & Communications Hub

- a. Confirm Area connections to the Communication Hub. Ensure an Area person is assigned to communicate with the Communication Hub.
- b. Consider assigning a Communications Hub member to System Control Centre.
- c. Communicate with Customer Service to determine their requirement for Remote.
- d. Confirm the availability of local Customer Service staff to help with local dispatch, ticket management, food delivery, contacting critical customers, call backs etc.

15. Operations Centre

- a. Consider establishing the operations centre prior to the storm/event.
- b. Confirm all data and phone communications into the operations centre prior to the storm/event.
- c. Establish/confirm roles & responsibilities of key operations centre staff.
- d. Ensure the availability of restoration manual.

16. Government

- a. If required, prior to the storm confirm contacts for emergency snow clearing with the Department of Transportation.
- b. Ensure you have an updated contact list for surrounding municipalities (located in the Service Restoration Manual for the Area). Consider contacting municipalities prior to the storm to inform them of our preparations.

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17. Transportation

- a. Put a rush on any maintenance or repair work for any vehicles that are off the road for maintenance or repair and get as many vehicles back in service as possible.
- b. Notify garages and mechanics of the impending storm/event.
- c. Confirm after hour contacts with government departments in the event that permits are required to re-locate portable equipment. Or, obtain permits in advance as a precaution.
- d. Confirm the availability of tractor to relocate portable equipment. Confirm contractors emergency contact information. Or, hire the tractor and send it to the location of the portable equipment to stand-by as a precaution.
- e. Arrange for any necessary escorts.
- f. Ensure off-road vehicles (ATV's, snowmobiles, Argo's) are working and fuelled.