Nova Scotia Energy Board

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Dear Ms. Ross:

M12694 - Cold Weather Event Report - January 23-26, 2026

On February 4, 2026, the Board directed Nova Scotia Power Incorporated (NS Power) to provide a report on the power outages resulting from a cold weather event that occurred from January 23 to 26, 2026. During that event, NS Power asked its customers to conserve energy, when possible, specifically during peak demand periods of 7:00–11:00 a.m. and 5:00–9:00 p.m. The Board directed NS Power to provide an analysis of load-related impacts, along with further direction on what information was to be included in the system report. The Board directed the report to be filed by February 26, 2026. On February 24, 2026, the Board approved the utility's request for an extension to file the report by March 6, 2026.

NS Power filed its report on March 6, 2026. Based on its review, Board staff issued Information Requests (IRs) on April 17, 2026. NS Power responded on May 8, 2026.

The report noted that NS Power served a new all-time hourly integrated average system peak load of 2,459 MW at 18:00 on January 25, 2026 (2,481 MW instantaneous peak), exceeding the previous hourly integrated average system peak load of 2,455 MW set at 12:00 p.m. on February 4, 2023.

NS Power reported that between January 23 and 26, 2026, it experienced 172 unplanned outage events. It further explained that the outages on January 23 and 26 were unrelated to the effects of the cold weather, and that only a small portion of the total 116 outages on January 24 and 25 were directly attributable to the cold weather event. It stated that 9 sustained outages were directly caused by the cold weather, resulting in 7,275 customer interruptions and 6,953 customer-hours of interruption.

NS Power posted messages on its social media platforms and on its Grid Status webpage on Saturday, January 24, at 9:40 a.m. requesting customers to conserve energy. It also issued a media advisory with the same request at 1:00 p.m. on Saturday, January 24, 2026. The update indicating that grid status had returned to normal was shared on Monday, January 26 at 8:20 a.m.

The utility noted, while it is impossible to determine how much energy consumers would have used without the conservation request, reduced customer energy use was likely one of the factors that helped it to satisfy the record peak load demand.

NS Power reported that load management advisories and procedures were implemented on January 25, 2026, utilizing the Large Industrial Interruptible Rider (LIIR) to maintain the operating reserve criteria set by the North American Electric Reliability Corporation (NERC). The utility achieved 20 MW of load relief from LIIR customers without telemetry or control and noted that although telemetry-enabled LIIR customers were not interrupted during the event, an additional 50 MW were available before any firm load curtailment might have been required. Although there were localized outages, no system-wide manual load shedding occurred during this event.

Between January 21 and January 25, NS Power provided and received emergency energy assistance to and from the Newfoundland and Labrador System Operator (NLSO). In addition, it also received emergency energy assistance from Maritime Electric Company Limited via the New Brunswick System Operator as the transmission flow corridor from New Brunswick was fully subscribed.

No issues were reported for the Maritime Link, which performed as designed, flowing energy in both directions in support of both the NLSO and the NS Power system operator. The utility noted that the Maritime Link also provided more than 100 MVAR to the NS Power system to maintain healthy system voltages and dynamic reactive support.

NS Power was able to increase the Onslow South Corridor limit by 45 MW after re-evaluating stability limits following the addition of new transmission-connected Battery Energy Storage Systems (BESS). The utility's power system operations engineers, supported by the planning team at the Independent Energy System Operator Nova Scotia (IESO Nova Scotia) were involved in this re-evaluation study. Further, the primary backbone corridor limits (CBX, Onslow Import) remained within design and studied limits.

On January 24, 2026, NS Power brought Lingan 2 online to support its generation fleet and reduce the risk of firm customer load shedding throughout the event. It also noted that Wreck Cove 2 hydro generation remained offline for a planned life-extension project, and Victoria Junction 2 combustion turbine generation remained offline for a planned generator and controls upgrade. The utility reported two issues with its generation resources. On January 24 and 25, Tufts Cove 6 was derated due to instrumentation tube freezing, and on January 25, Burnside 2 failed to start because of a fuel-control light-off setting that required adjustment. Both issues were resolved later.

NS Power noted that wind generation resources performed well during the event. The January 24 day-ahead forecast for January 25 projected a sharper decline in wind output than the two-day-ahead planning forecast issued on January 23. On January 25, actual wind generation fell by 367 MW between the first and last hour of the day due to decreasing wind speeds. During the system's peak hour, wind resources supplied 92 MW, which represents 14.3% of the 645 MW installed wind capacity.

NS Power's current BESS consists of two sites (99W Bridgewater and 132H Spider Lake) with a combined output capability of 100 MW for up to four hours. With the reduction of forecast wind generation and in anticipation of the tight supply situation over the evening system peak, the batteries were maintained at a state of full charge until approximately 4:20 p.m. on January 25 when they began discharging energy back onto the grid. Over the course of the January 25 evening peak, the BESS provided 230 MWh to the grid and substantial VAR support to maintain system voltages during the period of high system loading. The BESS net capacity also contributed to the utility operating reserves.

Board's Analysis and Observations

The Board accepts the Cold Weather Event Report as filed and observes that from an operational standpoint, NS Power performed well, and the operation showed significant improvement compared to the February 2023 Cold Weather Event. The Board encourages the utility to keep up this positive momentum. However, the Board also notes some concerns that require attention.

In response to the Board's IR-17, the utility provided the hourly net load for January 24 and 25, 2026, the MW supply by resource for each hour, and the remaining generation (supply) available. This information indicates that the peak system load of 2,459 MW was reached on January 25 during the 6:00 p.m. hourly block. The Nova Scotia Generation dispatch data indicates there were six consecutive hourly blocks starting at 6:00 p.m. on January 25 during which the system MW margin was negative, ranging from –45 MW to –162 MW. The remaining supply reserve data indicates that on January 25, 2026, during the 5:00 p.m. to 8:00 p.m. period, power-supply margins were 136 MW, 110 MW, 151 MW, and 171 MW. The battery system accounted for more than 50% of the available margin in the 5:00 p.m. and 6:00 p.m. hours. Also, comparing the system load with the load forecast for January 25, 2026, it appears that the peak load was under-forecast by 4.55%. The forecast projected a 2,352 MW load for the 6:00 p.m. hourly block on January 25, while the actual load for that block was 2,459 MW.

The Board understands that the utility has been operating with reduced reserve margins since the winter of 2023, but it remains concerned about the six consecutive hours during which the system's MW margin was below the current reserve requirement, as well as the underestimation of peak loads. These concerns are consistent with the Board's findings in *Matter M12028: North American Electric Reliability Corporation Winter Reliability Report*. The Board understands the transition of system operator and other reliability functions from NS Power to the IESO Nova Scotia is being done in phases pursuant to the *More Access to Energy Act*. Despite that transitional phase, it is incumbent upon both entities to ensure that system demand, generation, and supply-reserve margins are maintained within NERC's prescribed limits. This requirement is particularly important during cold-weather events, when wind-power capacity derating may cause wind generation to fall below expectations. In addition, the Board encourages NS Power to continue improving its short-term load forecasts to avoid potentially underestimating demand during extreme cold conditions. Contingency plans must be in place during cold weather events to adequately address events such as baseload generation units tripping offline or resources failing to start when required for dispatch.

Yours very truly,

Roland A. Deveau, K.C.
Vice Chair

Richard J. Melanson, LL.B.
Member

Steven M. Murphy, MBA, P.Eng.
Member

c. Mark Peachey, IESO Nova Scotia