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March 09, 2026

Lisa Wallace
Chief Clerk of the Board
Nova Scotia Energy Board
1601 Lower Water Street, 3rd Floor
Halifax, NS B3J 3S3

Re: M12730 – Customer Complaint – Greg Nichols

Dear Ms. Wallace:

On March 4, 2026, Greg Nichols contacted the Nova Scotia Energy Board (NSEB, Board) stating that he recorded a steady-state voltage of 108.6 V at his main breaker panel during peak load and that NS Power was in violation of service standards and infrastructure negligence. In response to his concerns, NS Power had installed a data logger on January 15, 2026 and monitored it over a four-week window. The customer states NS Power withheld the voltage quality report and provided no analysis.

In the NSEB's letter dated March 4, 2026 the Board directed as follows:

By copy of this letter, the Board requests NS Power to file a response with the Board to the enclosed complaint on or before **2:00 PM on Wednesday, March 18, 2026**. NS Power must also provide a copy of their response to the complainant.

Please accept the following summary of activities and communications pertaining to the March 4, 2026 complaint submitted by Greg Nichols:

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NS Power completed its investigation at the customer's premises during the period of January 15 to February 12, 2026, using a meter-base voltage data logger installed on-site. The logger was deployed in direct response to the customer's Power Quality (PQ) investigation request received in mid-January. This monitoring period coincided with an extended cold weather event that placed significant loading pressure on the distribution system in the Tidewater Substation supplying the Tantallon area. This was confirmed based on the system loading data, feeder conditions, substation configuration constraints, and additional AMI voltage data to ensure a complete and accurate assessment of the customer's service conditions.

Based on this investigation, NS Power provides the following findings and clarifications:

- The customer experienced a short periods of low—but still within the extreme operating limit—voltage during the extreme cold days in late January.
- Logger measurements recorded minimum voltages as low as 106 V, which is within NS Power's extreme operating limits for service voltage, although below the preferred normal range conditions.

The logger was removed at the end of January, and a complete review was conducted. As the logger was installed during an atypical peak-demand weather event, NS Power supplemented the assessment with an extract of the customer AMI voltage data through February and early March to confirm the customer's voltage profile under normal seasonal conditions.

NS Power is attaching a copy of the Power Quality Report to this response as **Attachment 1**.

Since February 14, 2026, NS Power's AMI review shows a clear and sustained improvement in the customer's voltage:

- Between February 14 and March 2, all recorded voltage samples were within normal operating limits, except for one instance measuring 1 V below normal, which remained within the extreme operating limits.
- As temperatures normalized, the feeder returned to typical loading levels, and customer voltage has stabilized accordingly.
- NS Power expects these improved service conditions to persist as Nova Scotia moves into the spring period.

NS Power confirms that the periods of voltage outside the normal operating range, and into the extreme operating range, were the result of exceptional system loading conditions combined with severe weather impacts. These voltage levels occurred during an extraordinary cold-weather event that placed significant stress on the

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Tidewater substation and feeder 92H-331.

To address the customer's immediate service conditions, NS Power implemented a quick corrective action by replacing the customer's service conductor, which has improved the local voltage performance. In parallel with this short-term correction, NS Power has also advanced a series of long-term system-level upgrades designed to permanently resolve the loading and voltage challenges experienced during extreme weather events. These initiatives will strengthen the voltage performance across the feeder 92H-331, including this customer.

The long-term corrective action requires system-level capacity upgrades, which require NSEB approval. These capital plans are:

- Tidewater Substation Upgrade
- Replacement and upsizing of the Tidewater transformer planned for 2026, which will resolve the substation-level capacity constraint
- Addition of a Fourth Feeder and Line Extensions

The Distribution Capital team is advancing a project to construct a new fourth feeder and several kilometers of additional line extensions from the Tidewater substation to supply the Tantallon area.

These upgrades will significantly reduce loading on feeder 92H-331 and improve overall voltage stability.

If delays occur with either major project, NS Power has developed a contingency plan to ensure reliability and voltage quality before the next winter season.

NS Power has completed a thorough assessment consisting of onsite logging, AMI data analysis, and system loading review. The customer's voltage during the January cold snap remained within allowable limits; while it temporarily fell below normal ranges, it was still within the extreme voltage ranges during the exceptional feeder and substation loading.

NS Power remains committed to completing the planned 2026 infrastructure upgrades to address the root contributing factors identified in this investigation.

Yours truly,

A handwritten signature in blue ink, appearing to read 'Jennifer Ross', is positioned above the printed name.

Jennifer Ross
Director, Regulatory Planning & Compliance



Power Quality Report

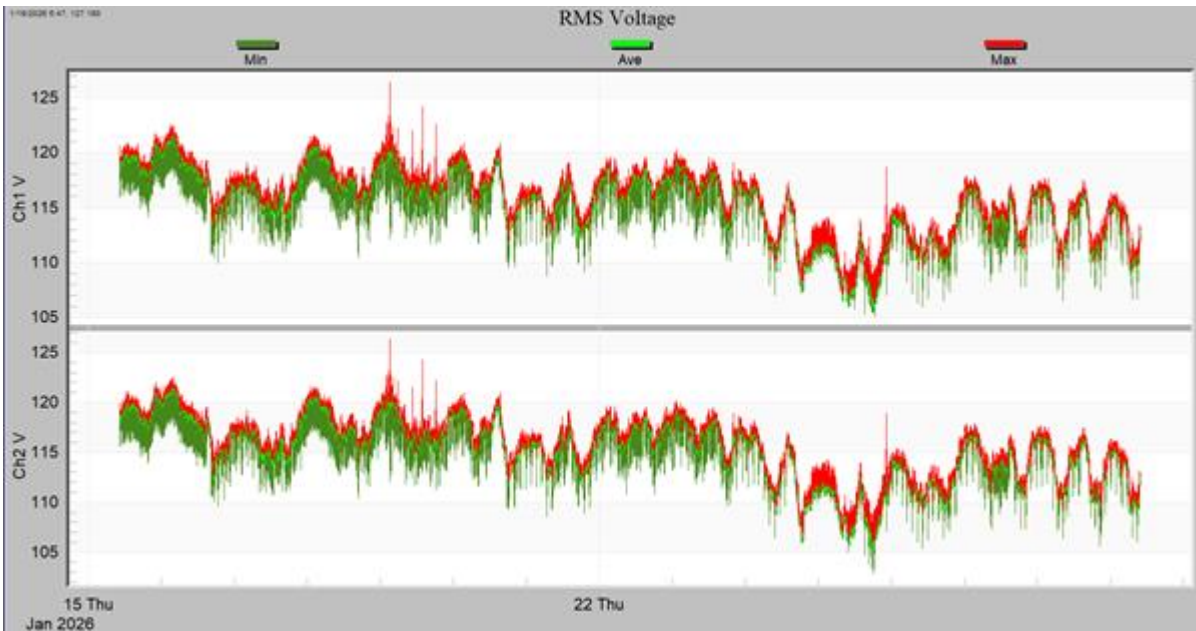
Address:	[REDACTED]											
Area:	[REDACTED]											
Type of Work:	Power Quality											
Start Date:	24/Jan/2026											
End Date:	4/Mar/2026											
Type of Customer:	Residential	Service:	Single Phase									
		Operating Voltage:	120/240V									
Customer Comments: On Jan 7th, 2026, the customer requested NSPI to investigate the recent power events that have occurred at their home. The customer reported low voltage during colder weather conditions impacting the operation of their electrical heating and appliances.												
Comments: Upon review of the customer site, a line crew went to site on Jan 14th, 2026, to upgrade the service conductor at the customer's home to ensure their service is updated to NSPI's utility standards. After this work was completed, power monitoring equipment was installed at the customer's revenue meter base on Jan 15th, 2026, to further investigate the power characteristics on site.												
Voltage Limits: The following table provides standard voltage limits for the customer's service, as per NSPI Regulations: <table border="1"> <thead> <tr> <th></th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>Normal Operating Limits</td> <td>110/220V</td> <td>125/250V</td> </tr> <tr> <td>Extreme Operating Limits</td> <td>106/212V</td> <td>127/254V</td> </tr> </tbody> </table>					Min	Max	Normal Operating Limits	110/220V	125/250V	Extreme Operating Limits	106/212V	127/254V
	Min	Max										
Normal Operating Limits	110/220V	125/250V										
Extreme Operating Limits	106/212V	127/254V										



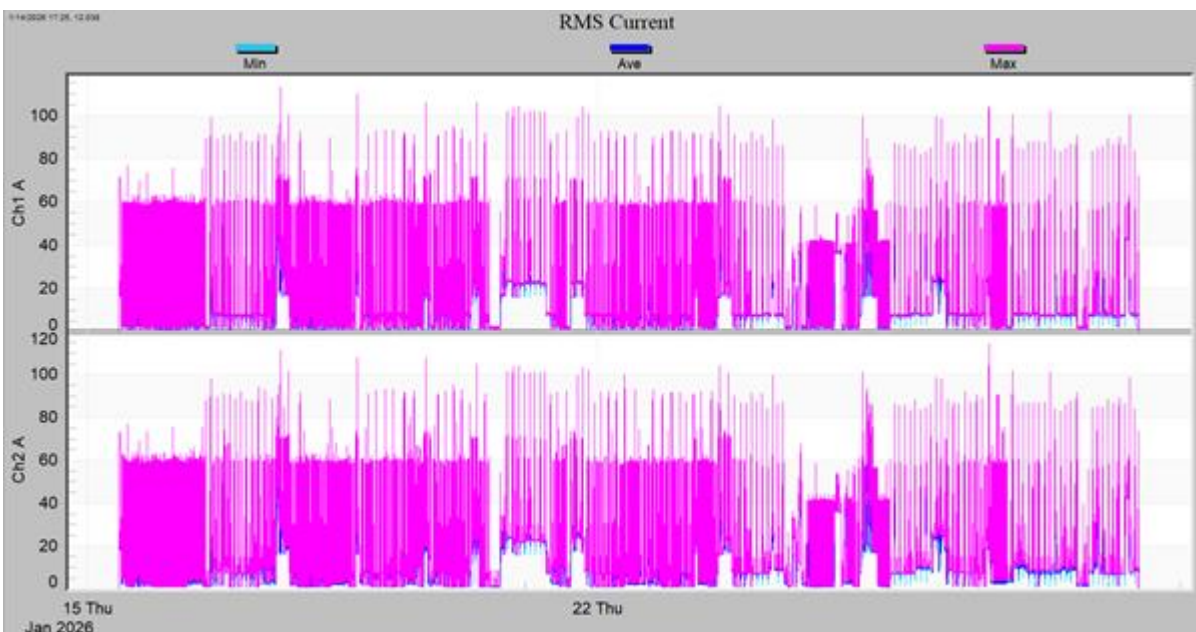
Results:

Power monitoring data listed below of the recording from Jan 15th to Jan 29th, 2026, and sampling in 1-minute intervals. This higher resolution data reveals more detailed trends of line-to-neutral voltage and current data. Recording data samples listed below.

RMS Voltage Data:



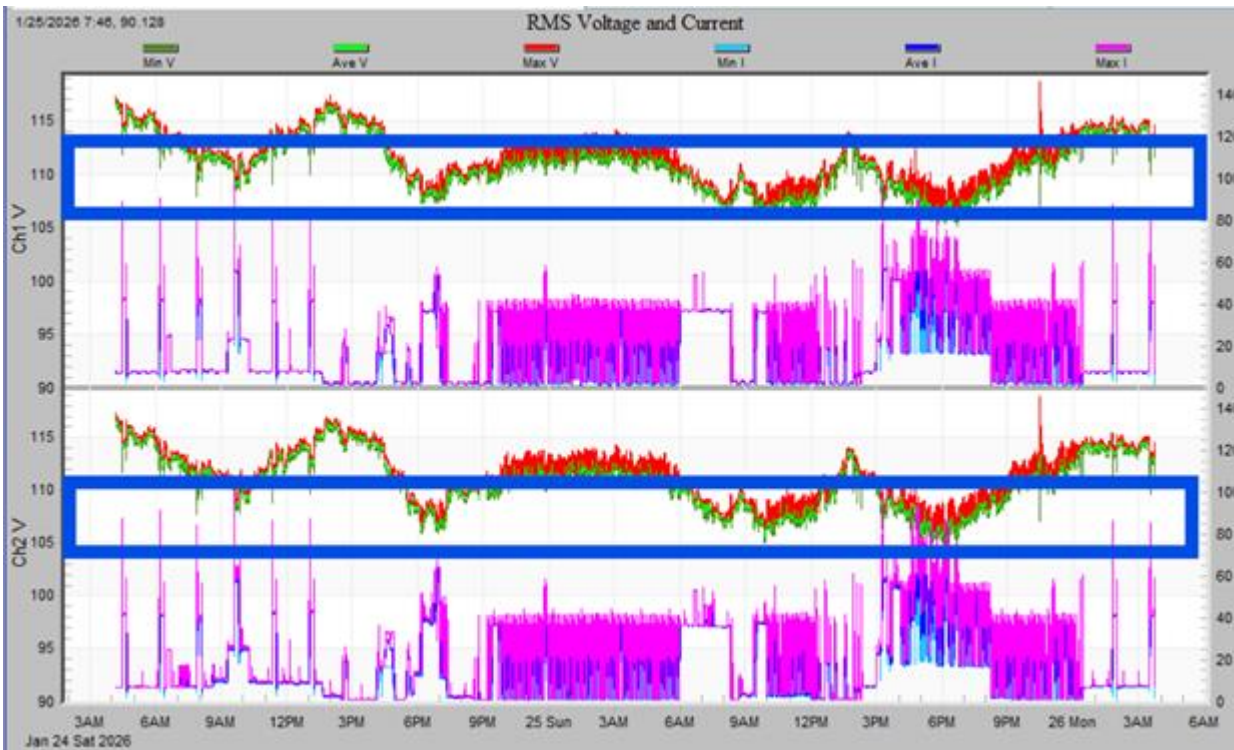
Current (I) Data:





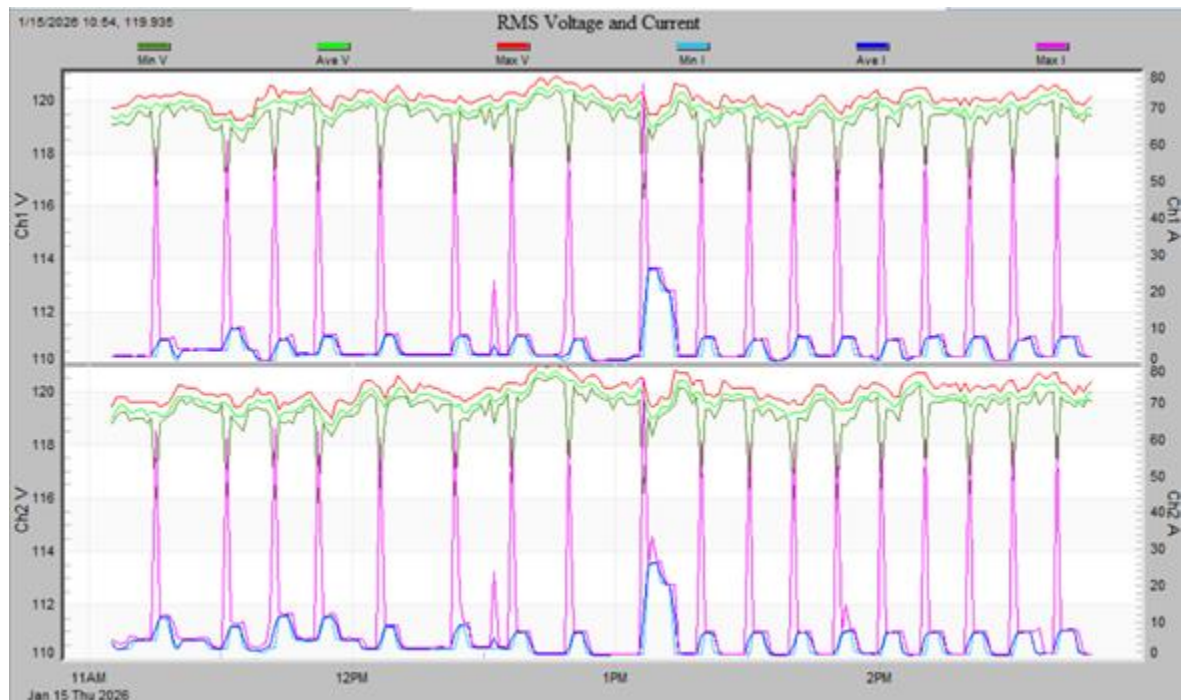
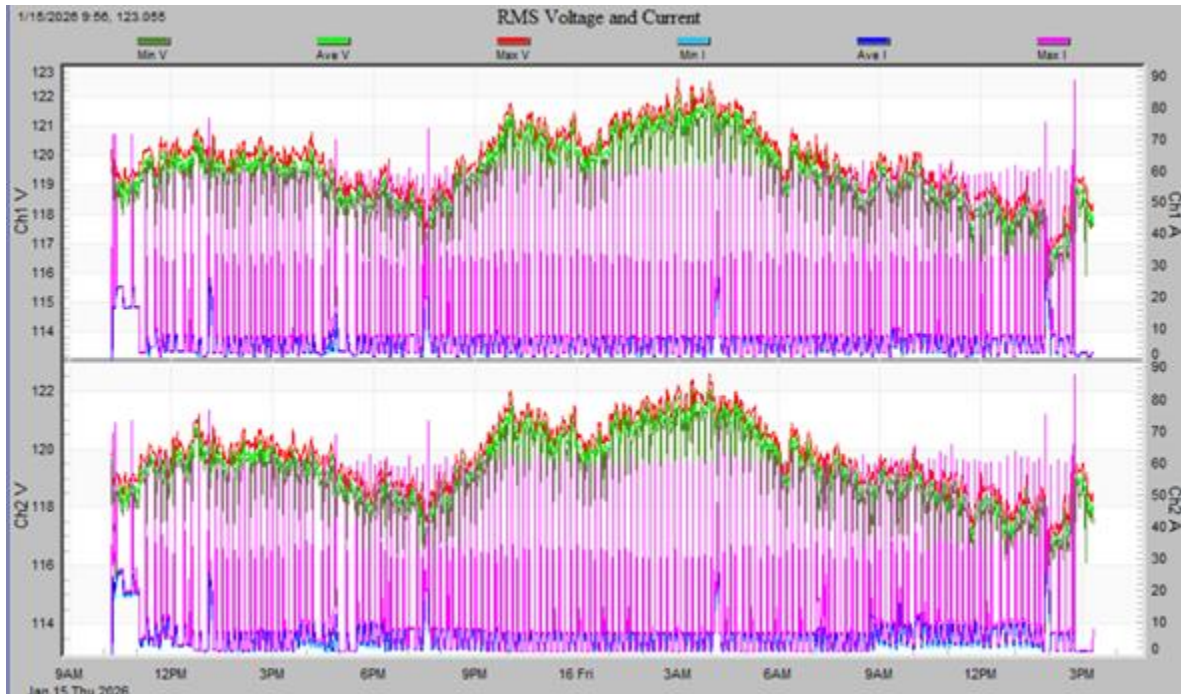
Low voltage trends were identified for extended durations that do not relate to the customer's energy consumption. These voltage trends occurred during extreme cold weather conditions and resulted in a lower voltage supply level for customers within the area.

Example listed below:





Outside of the extreme cold weather days, brief momentary voltage sags were identified in the recording that correspond with the customer's high load inrush. Voltage trends do not exceed operating limits when the customer's equipment is operating in high demand. Examples listed below:





Conclusions:

During the time of the recording, the system experienced extreme cold weather, resulting in high loading conditions on the system. On the most affected days, the increased loading resulted in lower service voltage at the customer's residence resulting in brief drops outside normal operating levels. However, during these periods the service voltage remained within the acceptable extreme voltage limits. Brief momentary voltage drops were also observed throughout the recording which appeared to be related to a high demand inrush from customer equipment. Aside from the colder weather related events and the customer's equipment driven voltage fluctuations, the service operated within the normal operating voltage limits.

To further understand the service voltage in this area, NSPI assessed metering data following the timeframe outlined in this report. With the weather conditions improving outside of the winter peaks, the service voltage has considerably improved. This trend should continue as we transition into milder weather conditions. The issue presented in this area should cease while improvements are introduced on the system. NSPI has active plans in 2026 to improve infrastructure in this service area.

Metro Regional Engineering Team

06-03-2026