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Request IR-13:

(a) Please explain the process by which the utility currently estimates a monthly bill?

(b) Please provide details about the design limitations and tuning of NS Power's system for estimating bills referenced in the following statement by Peter Gregg in his November 23, 2025, appearance before the Nova Scotia House of Assembly Standing Committee on Natural Resources and Economic Development:

The system was never designed to estimate that number of bills. It was meant to be for more one-off situations. We have been tuning the system as much as we can. We haven't always gotten it right, and that's why you're seeing some of these overestimations.

(c) Does NS Power have access to the actual meter reading for that month for prior years?

(i) If not, how can NS Power determine what the estimated bill should be?

Response IR-13:

(d) Since the launch of the AMI network in 2019, missing bill meter reads have largely been estimated through statistical imputation within the smart meter data model. When NS Power lost the ability to communicate with that network through the cyber incident, the estimation logic reverted to a contingency CIS subroutine which uses seasonal logic. When a bill read is missing, CIS estimates a reading using the average usage per day at the specific property on bills in the last 12 months that are considered in the same season.

(e) The CIS subroutine for estimating seasonal usage considers two seasons, 'warm' and 'cold'. Historically, bills in May through October are considered as warm and the

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1 remaining 6 months of the year as cold. The ability to tune the estimation subroutine is
2 limited to adjusting when the change-over from warm to cold billing happens. While using
3 average seasonal usage can protect customers from volatility in billing within a season,
4 months on either side of the CIS seasonal change-over (April to May, October to
5 November) can be susceptible to larger swings and variances to true usage since the bill
6 date determines the season used for the calculation. Year-over-year changes in temperature
7 can further exacerbate or mitigate these shoulder-season variances.

8
9 Bills automatically transitioned to cold season billing on November 1. Following an
10 analysis of residential bills in early November, NS Power reverted to warm billing on
11 November 21. NS Power has begun to proactively reach out to customers who appeared to
12 have higher estimated bills sent from November 1-20, to encourage them to submit a photo
13 meter read. NS Power is regularly assessing bill batches to determine the best time to
14 switch to cold billing.

- 15
16 (a) NS Power has access to historical billing data, including the true meter reads used for those
17 bills. The CIS system uses this data to inform the estimation subroutine described above.

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Request IR-14:

On page 2 of the Monthly Update 4, NS Power noted that customer meters have continued to accurately record electricity usage. To date, approximately 75 percent of customers have now had at least one meter reading since the Incident, and the Company will continue to target the remaining 25 percent until communication with customer meters is re-established.

On Page 3, the Company said it is on track to reconnect customer meters with the billing systems, beginning in December 2025, with all meters expected to be reconnected by the end of March 2026.

(a) What percentage of the work has been completed to confirm that all meters are expected to be reconnected by the end of March 2026?

(i) Are there any risks currently identified that could potentially extend this timeline?

(b) How did NS Power determine which meters were read more than once?

(c) Since the cybersecurity incident to date, please provide a monthly breakdown of the total number of customer bills generated based on actual meter readings.

(d) Please provide a breakdown of the bills sent in November, providing the following information:

(i) How may bills were based on actual readings of the meters associated with those bills in the current billing period and how many were based on estimates.

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1 **(ii) For those bills that were estimated, please provide a breakdown based on the**
2 **number of months since the meters associated with those bills were actually**
3 **read.**

4
5 **(e) Were the bills all based on the same number of estimated months of usage? If not,**
6 **why was a different number of estimated months used for different customers?**

7
8 **(f) Since the cybersecurity incident to date, please provide a monthly breakdown of the**
9 **total number of customers who submitted photo meter reads. Were the photo meter**
10 **reads used in all cases? If not, why not?**

11
12 **(g) Is an overpayment by a customer refunded or applied on account, with interest?**

13
14 Response IR-14:

15
16 (a) Approximately 70 percent of the work to reconnect smart meters to NS Power systems has
17 been completed. This work has primarily been the restoration of the Itron headend
18 technology needed to securely connect to the field network devices through which data is
19 retrieved from meters. The remaining 30 percent of work consists of continued technology
20 restoration and the reconfiguration of field network devices (i.e., Connected Grid Routers)
21 to communicate to the restored headend system.

22
23 (i) The risks that could potentially extend this timeline are:

- 24
- 25 • A significant weather event that requires internal resources to pivot to storm
26 response duties. This risk is being mitigated by organizing storm response
27 rosters to minimize the use of project team resources.
 - 28
 - 29 • Unforeseen delays in the restoration or availability of supporting
30 technologies such as integration platforms or user access management
-

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systems. This risk is being mitigated through joint planning and work status update processes that have been put in place to identify and resolve timeline challenges should they arise.

(b) Meter reading is being executed through the dispatching of service orders to field resources. Service orders are created for all active customer locations and dispatched following the normal customer billing schedule. NS Power is tracking the completion of these service orders by meter by cycle. If a meter was not read when a bill was issued, the bill would be estimated, and the next read attempt would be made in the billing schedule in advance of the next bill being due. Meters may not have been read due to access issues and NS Power attempting to maximize the number of daily meter reads against resource availability.

(c) Monthly breakdown of the total number of bills generated based on estimates is set out in the table below. All other bills would be based on true reads.

Period	Bills Issued	Estimates	% Estimates
Pre-Cyber Incident	1,282,027	6,939	0.54%
Post-Cyber Incident	2,401,874	1,357,559	56.52%
Apr	62,948	1,292	2.05%
May	316,453	239,371	75.64%
Jun	314,579	254,029	80.75%
Jul	352,100	206,693	58.70%
Aug	332,919	136,372	40.96%
Sep	343,778	180,224	52.42%
Oct	337,390	160,538	47.58%
Nov	341,707	179,040	52.40%
Year-to-Date	3,683,901	1,364,498	37.04%

(d)

(i) Please refer to part (c).

(ii) NS Power does not have readily available the specific breakdown requested; however, nearing eight months since the cyber incident, residential customers have received an average of 4 bills with half being estimated. To further assist the Board

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1 in understanding the breakdown, the following distribution of accounts by % True
2 Read is below.

3
4 (e) The estimation subroutine uses bills for a property in the last 12 months that fall in the
5 same season as the current bill month. The number of bills used in the subroutine depends
6 on how much seasonal usage history is available for the property being billed.

7
8 (f) Photo reads would be used whenever possible but would depend on whether the image
9 provided was satisfactory and whether the bill was estimated. Approximately 80 percent
10 of photo reads received have been used to adjust bills. If a photo cannot be used, the
11 customer is informed of the reason why. For example, customers can resubmit the photos
12 with a higher image quality.

13

Photo Reads									
Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec (to Dec 4)	Total
Submitted	1	8	39	27	60	32	310	298	775

14
15

16 (g) Interest is not paid on utility payments above actual usage charges. This is consistent with
17 the approach taken with equal billing arrangements where credits are provided. Where true
18 reads do result in a credit on the account, there is a process in place for customers to request
19 a refund if they prefer, rather than keeping a credit on the account. Since the cyber incident,
20 no late charges or collections consequences have been in effect and, in cases where
21 estimated usage is disputed, customers have been encouraged to pay an amount they
22 believe is reasonable. More recently, photo meter readings are being encouraged with the
23 November 21 launch of an online form for photo submissions. Through normal business,
24 payments above usage are not unprecedented: equal billed account payments will
25 sometimes temporarily pace ahead of usage, while some customers opt to carry credit
26 balances on their NSP account.

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Request IR-15:

During his November 23, 2025, appearance before the Nova Scotia House of Assembly Standing Committee on Natural Resources and Economic Development, Mr. Lanteigne said:

... I know what I mentioned earlier is that over the course of the past few weeks, as we've entered into November, we have noticed that half the bills are similar to the previous winter. We can see the increase on half. When we've actually been trueing up meter reads, as Mr. Gregg mentioned earlier, 75 percent of our customers have had a meter read actually occurring. I don't have the full distribution of it, but up until probably the last month or so, the meter readings have been fairly close. That said, they're estimates. There are always going to be customers who are on the extremes of those.

Please explain why half of NS Power's bills in November would be higher than the previous winter.

In the last month or so when NS Power's actual meter readings were no longer "fairly close" to its estimated readings, please indicate the proportion of actual meter readings that confirmed that previous bills had been overestimated.

Response IR-15:

(a) November bills would align to the previous winter's average usage at the same property, but that is likely to be higher than actual November usage. The CIS estimation subroutine, by using average seasonal usage, is likely to over-estimate usage at the start and end of winter and under-estimate usage throughout peak winter months. Warmer temperatures year over year throughout both September and October, billed in November, would have exacerbated the variance attributable to averaging.

(b) Estimates are only generated when meter readings are missing. Understanding the accuracy of these estimates relative to true readings at the same time at that property isn't possible. However, 48 percent of bills issued in November used actual meter reads.

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1 Manually comparing the year-over-year usage for a sample within this 48 percent to the
2 year-over-year usage for a sample of bills in the estimated population provided a gauge as
3 to how accurately estimates were reflecting usage, and informed the tuning previously
4 referenced. Recognizing that colder temperatures increase usage in customer's homes, NS
5 Power launched the ability to submit a photo meter read online on November 21. We have
6 been sharing this process via our website, nspower.ca/billing, Customer Care and in
7 community sessions.

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Request IR-16:

Since becoming aware of the cyber incident, has NS Power deployed additional resources specifically to assist with the estimated billing process, including responses to customer complaints about estimated bills?

Response IR-16:

Although talent acquisition systems were initially impacted by the cyber incident, delaying scheduled contact centre hiring, Customer Care has since onboarded multiple new hire classes totaling 40 incremental resources to support heightened customer call volumes. With the reduction of collections activity, these resources have been seconded to support either billing processes or call volume. Temporary meter reading resources have been hired internally and contracted to expand the capacity to collect true meter reads for billing and to reduce the estimated billing process.

NS Power also leveraged TransUnion Contact Centres to manage calls about the cyber incident when letters were issued to affected customers in the spring and fall, and this TransUnion centre remains open to help mitigate call volumes to NS Power.

Other employees from across NS Power have also assisted with customer service-related matters since April 25, allowing Customer Care to increase capacity to handle customer inquiries into the Customer Care Centre.

Most recently, in December, over a dozen employees have been supporting customer support sessions planned for communities across the province to answer questions and help our customers understand the options related to their bills. A list of upcoming dates can be found at nspower.ca/billing.

Board Inquiry into Nova Scotia Power's Cybersecurity Incident (NSEB M12273)
NSPI Responses to NSEB Information Requests

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- 1 Finally, employees in Customer Care and Billing, like many areas across NS Power, have worked
- 2 extra hours to demonstrate their commitment to supporting customers since the cyber incident.