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Request IR-1:

Section 4.6 of the Board’s decision in this matter expressed concern about implementing the rate increase through prorating in the context of the potential for prorating over a period that was longer than a single billing period due to the impact of the cybersecurity breach; however, NS Power’s compliance filing did not reference its recent issues with prolonged periods for estimating bills.

(a) Please explain fully whether NS Power’s meter reading and billing processes have returned to their pre-cybersecurity breach state of operation.

(b) If any parts of NS Power’s meter reading and billing processes continue to be impacted in any way by the cybersecurity breach, explain in detail how the proposed pro-rating of the approved rate increase could be in any way affected by these impacts and how these effects could be mitigated.

Response IR-1:

(a) NS Power’s meter reading and billing processes have returned to their pre-cybersecurity incident state of operation. This is based on the following:

- Data connections to AMI meters have been re-established.
- System integrations that support the automated delivery of AMI meter reads to the billing system have been restored.
- Business processes that manage the overall billing function are using the restored technical capabilities.

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- 1 • Billing estimation is performing within the regulated Performance Standard at or
2 below 2 percent.¹

3
4 As a result, subject to the explanation provided in Compliance IR-2 part (d), NS Power is
5 reading meters and billing customers consistent with its practices prior to the cyber
6 incident.

- 7
8 (b) There are no cybersecurity incident impacts to meter reading or billing processes that
9 would affect the proposed proration approach. The cyber incident presented a challenge to
10 the proration process; however, with the passage of time and NS Power's success in
11 restoring meter reads, this challenge has been addressed and potential impacts have been
12 mitigated. Please see Compliance IR-2 and IR-5.

¹ Performance Standard 11 – Customer Bills Estimated: As a percentage of total bills, no more than 2 percent of customer bills shall be estimated annually. This benchmark shall be fixed for the 2022 to 2026 period (M12784).

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1 **Request IR-2:**

2
3 **On March 31, 2026, NS Power announced that:**

4
5 **Meter connections to our billing system have been restored and customer billing is**
6 **returning to normal. The number of customer bills we have to estimate has also**
7 **returned to normal at around 2% or less. As part of normal operations, estimated**
8 **bills are sometimes required for meters that are not connected to our billing system.**
9 **For example, if a customer has opted out of smart meters and we have issues accessing**
10 **their meter to read it, they may receive an estimated bill.**

11 **[\[Cyber | Nova Scotia Power\]](#)**

12
13 **(a) Please explain why, having restored meter connections to its billing system, customer**
14 **billing is “returning” to normal but has not “returned” to normal.**

15
16 **(b) What is needed for customer billing to have fully returned to normal?**

17
18 **(c) When is it estimated that customer billing will fully return to normal?**

19
20 **(d) For the bills that NS Power will send to customers in April that are no longer being**
21 **estimated, please confirm that the amount of energy consumed is limited to energy**
22 **consumed in the billing period, as measured by an actual reading at the start of the**
23 **billing period and an actual reading at the end of the billing period. If not confirmed:**

24
25 **(i) Please explain in detail why not?**

26
27 **(ii) Please confirm the number of customer accounts (and the percentage) that will**
28 **be billed in April that can now limit the energy consumption to that used in**
29 **the billing period.**

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1 **(iii) Please explain when NS Power's bills will return to being based on actual reads**
2 **at the start and end of the billing period.**

3
4 **(iv) For bills to be sent in April that have no actual read at the start of the billing**
5 **period, but an actual read at the end of the billing period, please provide the**
6 **longest and average times between the starting actual read and the actual read**
7 **at the end of the billing period.**

8
9 **(e) For bills to be sent in April that continue to be estimated, please provide the longest**
10 **and average time since the customer meters were actually read.**

11
12 Response IR-2:

13
14 (a-c) Billing has returned to normal. Please refer to Compliance IR-1.

15
16 (d) This is confirmed, subject to the following. Approximately 8 percent of customers will
17 receive a bill in the month of April that is not based on an actual reading at the start of the
18 billing period. For the month of May, which is the more likely month when the subject rate
19 increase will first be applicable/effective given the current process timeline, approximately
20 5 percent of customers will receive a bill that is not based on an actual reading at the start
21 of the billing period. For the purposes of this discussion, it is important to understand that
22 anything other than proration would not be possible for the 18,000 opt-out customers. As
23 such, it would be appropriate to exclude those customers from the above numbers. This
24 would bring the May number down to 4.5 percent.

25
26 (i) Domestic customers are billed on bi-monthly cycles with two-month bill periods.
27 Customer bills throughout the month of May will have bill periods beginning
28 throughout the month of March. Meter connections to the billing system were fully
29 restored by March 31.

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- 1 (ii) 339,284 customer accounts, which equates to 95 percent of accounts to be billed in
2 May will have true reads at the start and end of their May bill. For April, this would
3 be 310,780 (92 percent).
4
- 5 (iii) Meter reading began in July 2025 so this experience has already begun for many
6 customers. The majority of bills issued since December have had a true read at the
7 end of that billing period. This read becomes the opening read for the next bill,
8 which for customers billed in January and early February, will already have been
9 issued. The closing read on these latest bills would also be true reads, as AMI has
10 returned to pre-cyber incident Over-The-Air levels (April month to date estimation
11 is running below the 2 percent performance standard). Including opt-out
12 customers, 85 percent of accounts that were billed in January (i.e., the subset billed
13 using a true read in January) had true reads at the start and end of their March bill,
14 92 percent of accounts that were billed in February will have true reads at the start
15 and end of their April bill, and 95 percent of accounts that were billed in March
16 will have true reads at the start and end of their May bill.
17
- 18 (iv) Including opt-out customers, 5 percent of bills sent in May will have an estimated
19 start read. For these customers, the average amount of time since an actual read is
20 208 days. The longest instance since an actual read is 368 days.
21
- 22 (e) Given that AMI communication has now reached pre-cyber incident levels, estimated
23 billing in April is the result of normal one-off and unexpected meter communication issues.
24 As result, NS Power is now in a position to implement the Board's GRA Decision in
25 accordance with its established proration practice, including bills which are based on actual
26 start and end reads approaching normal levels (i.e. 5 percent vs. 2 percent).

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Request IR-3:

In its compliance filing, NS Power suggested that the problem with precisely allocating the amount of energy on a bill to pre-rate increase and post-rate increase use was due to limitations on its “legacy Customer Information System (CIS)”. It said, “While the CIS utilizes the time differentiated data compiled within the AMI system, the CIS relies on a single starting meter read and a single ending meter read to calculate a customer’s bill.”

(a) If NS Power’s CIS operates as described, please explain how the CIS appropriately allocates energy in time differentiated rate structures, such as its residential time of day rate.

(b) Please fully explain the “numerous systems and processes that rely on the current structure of bill periods” that NS Power suggests preclude it from creating an irregular billing period.

(c) Please explain why the detailed coding requirements suggested by NS Power are necessary just to create an irregular end date for a bill.

(d) Please explain how NS Power’s CIS manages an irregular end date for a bill when a customer moves or closes an account given its CIS limitations, and why this method could not be used to implement the rate increase.

Response IR-3:

(a) For all time-differentiated tariffs, the total energy for each of the rate blocks for the entire billing period is sent to CIS for billing at the different energy rates. As a result, to address rate changes, these tariffs require proration in the same manner as non-time-differentiated tariffs.

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1 More specifically, for customers with electric thermal storage (ETS) heating systems, the
2 Time-of-Day rate uses meters programmed with three separate meter reading channels to
3 capture a single meter reading for each block (Peak, Off-Peak, Mid). Time-Varying Pricing
4 rates (Time-of-Use and Critical Peak Pricing) use meters programmed with one meter
5 reading channel to capture a single meter reading. Additionally, the energy usage (as
6 opposed to a meter reading) for each 15-minute interval of each rate block (Peak vs. Off-
7 Peak) within the billing period is summed.

8
9 (b) NS Power's Customer Information System (CIS) billing system is a legacy platform.
10 Modifications to CIS to accommodate new and innovative rate options introduce multiple
11 layers of complexity in billing logic and system configuration. The following are examples
12 of processes and systems that could be impacted by an additional and irregular billing
13 period:

- 14
15 • **Billing:** Processes and staffing are built on a daily schedule of levelized volumes
16 spread across two months of billing cycles. An additional 540,000 billing records
17 would double the volume of work. Additionally, the Group (Consolidated) Billing
18 program within CIS generates a weekly summary invoice for each of the 24,000
19 Group Billing program accounts bills from the previous week that is then mailed.
20 An additional bill in a billing period for each of these 24,000 Group Billing
21 accounts would trigger a significant number of additional weekly summary
22 invoices, potentially leading to customer confusion and inconvenience. Doubling
23 the volume of bills generated would require consultation with the Company's bill
24 print partner (Kubra) to determine any impacts, restrictions, and overall ability to
25 make such a change. Doubling the processing burden on these systems is likely to
26 require system hardware or other upgrades to handle the additional processing load.
27
28 • **Payments:** Pre-Authorized Payments are automatically triggered from bills. This
29 would create an additional extraction for the 120,000 customers currently enrolled
30 in this payment method. Timing of the off-cycle bills will create multiple payment

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extractions in short periods of time for customers, potentially leading to customer confusion and inconvenience. Doubling the volume of pre-authorized payments would require consultation with the Company's payment processing partners (CIBC and Kubra) to determine any impacts, restrictions, and overall ability to make such a change. Doubling the processing burden on these systems is likely to require system hardware or other upgrades to handle the additional processing load.

- **Collections:** Every bill creates a receivables record. The additional receivable for customers within a billing period would require customers to make an additional payment within their normal billing period, potentially leading to customer confusion and inconvenience.
- **Customer Care Centre:** Increases in call volume often relate to increases in billing inquiries. An additional 540,000 customer bills in a billing period would have a guaranteed impact in the Company's ability to answer customer calls within service levels.
- **Opt-out Customers:** Having to read all opt-out customers' meters on a specific date, which is what would be required to capture their usage as of a specific effective date, would not be viable.

- (c) Generating off-cycle meter reading service orders would require modification to the coding in this custom program. CIS is designed to handle rate changes through date-based proration. There is no other code in CIS for handling rate changes; therefore, a different approach would require custom code to be developed. Standard processes that result in irregular end date bills, such as customer move-in / move-out service requests, are handled on a one-by-one basis through a CIS service order. These processes are not usable as-is to produce bills. Essentially, any functionality needed that is not already part of standard CIS code base requires custom code.

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1 (d) Closing bills for customers are automatically triggered from service order records in CIS
2 to move or close their account. From a volume perspective, there are approximately 6,000
3 closing bills per month, or 300 per day. In contrast, a bill for each customer on an irregular
4 bill date that is the effective date of a new rate would generate 540,000 additional bills in
5 one day.

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Request IR-4:

Does NS Power consider holding all or part of bill payments associated with the pre-rate estimated billings in escrow until the limitations with the legacy Customer Information System are resolved to be an effective means of addressing the ongoing estimated billing issues? Please explain.

Response IR-4:

No. As provided in NS Power's Monthly Update 7 in M12273 and as further discussed in response to Compliance IR-1 and IR-2, the issues which had been experienced with estimated billing have been addressed and largely resolved, with the number of customer bills being estimated returning to normal levels at or below 2 percent. Furthermore, to elaborate further on what was discussed in detail in NS Power's compliance filing, any change in process would be most effectively and efficiently considered as part of the development and implementation of a new CIS system; however, until that work is undertaken it is not known whether such a change is cost-effective, or even possible. It is not a limitation that can be resolved, or otherwise addressed, in the near term.

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Request IR-5:

What is the estimated cost to comply with the Board's directive to use AMI data to avoid prorating bills to accommodate the rate change?

Response IR-5:

The Company has not completed a detailed analysis or scoping exercise as would be required to provide a quality estimate of design, implementation, and testing costs to comply with the Board's directive. At a high level, the Company estimates the work would require a capital expenditure of a minimum of \$600,000 and \$400,000 in OM&G costs to implement an additional and irregular billing period, as explained in Compliance IR-6. These costs would be comprised of specialized internal and external technical resources, as well as additional costs associated with electronic billing, billing exception management, and payment processing. This estimate does not include impacts and costs that may arise from overtime and Customer Care Centre impacts resulting from a rise in customer inquiries. As a result, the total costs are estimated to be no less than \$1,000,000.

The Company understands the Board's concerns regarding a potential impact of proration to customer bills that have no actual read at the start of the billing period; however, it is important to consider the foregoing costs in context with any potential impact arising from proration for the 5 percent of customers who may not have a true read at the start and end of their billing period.

As a premise to this discussion, consumption is not relevant to the Customer (Base) Charge and therefore the Board's concern regarding proration does not apply to that portion of the bill or rate changes applicable to the Customer Charge. As a result, it is appropriate to focus on the volumetric or Energy Charge. NS Power has conducted the below analysis taking into account the increase to the Energy Charge. The below example focuses on the residential class which has an extended (2 month) billing period and is therefore more sensitive to changes in weather and the Board's concern than other rate classes.

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1 It is important to bear in mind that relative to the costs that would be incurred and ultimately
2 recovered from customers to change the Company's proration methodology, the likely effect of
3 proration on customers is small. For example, using a typical usage and a mid-billing period
4 effective date for new rates of May 1, 2026, (i.e. the billing period is April 1st – May 31st), for a
5 customer that consumed 900 kWh, after the effective date of the rates change and assuming a pro-
6 ration differential of 7.5¹ percent applied to the rate increase of \$0.0094/kWh, this produces a
7 result of \$0.63 on a residential customer's two-month bill. However, it is important to recognize
8 that this analysis does not take into consideration that a portion of these costs are attributed to fuel
9 and DSM costs which are trued up through normal processes and as such will reduce future
10 recovery.

11
12 The Company understands the number would change based on customer usage and the billing
13 period.

14
15 The Company is not aware of any electric utility in Canada that is using AMI data to avoid
16 prorating bills to accommodate a rate change mid-billing period, including those with modern
17 billing systems. However, the Company commits to exploring alternative options to prorating bills
18 to accommodate a rate change as part of a new billing system and the extent to which it may or
19 may not be possible.

¹ A high-level estimate of the differences in energy consumption across the billing period, before and after the effective date, between the amounts developed using the Company's proration methodology and that applied if an actual read could be implemented immediately prior to the effective date.

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Request IR-6:

On page 27 of the compliance filing, NS Power stated: “As 40% of the Company's customers are still receiving paper bills by mail, this translates to approximately \$200,000 in additional OM&G costs for each additional bill period”.

(a) Please explain “each additional bill period”. How many bill periods are anticipated?

(b) Does \$200,000 represent the estimated total mailing cost? Please explain.

Response IR-6:

(a) To apply different prices to actual consumption before and after the effective date of the rate change would require the creation of additional and irregular bill periods within CIS and the application of the old and new rates to these new bill periods. An additional bill period would be required every time there is a change to metered energy charges in the middle of a pre-scheduled bill period. Additional and irregular bill periods would have impacts far beyond postage costs. One additional bill period would create two irregular bill periods as the standard bill period is split. The split bill periods would vary in length by customer as bill cycles are spread across the two-month period with a fixed effective date for new rates. Irregular bill periods for 540,000 customers would drive significant volume of billing exceptions that require manual resolution. Further complications to systems and processes within the areas of billing, payments and collections that are structured around the current billing schedule are explained in Compliance IR-3.

(b) The amount was based on an estimate of \$1.00 postage per additional bill to the 40 percent of customers who receive paper bills. However, the cost of postage in 2026 is confirmed to be \$1.23 per bill mailed. Furthermore, costs per bill go beyond postage, such as costs for electronic billing, paper, billing exception management, and payment processing. The

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1 overall costs associated to generate one additional bill for each customer is better
2 approximated to be \$400,000, plus additional labour and technology costs.

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Request IR-7:

NS Power stated that additional billing periods or split billing periods could impact other systems that rely on the billing data and mentioned that the MyEnergy Insights tool provides personalized energy usage and billing notifications comparing bill periods that are expected to be of equal durations.

(a) Aside from the MyEnergy Insights tool, please identify the other systems that would be impacted by additional billing periods or split billing periods and explain the impacts.

(b) Since billing periods sometimes vary in duration, perhaps ranging from about 58 days to 63 days, is that still considered to be “of equal durations” in the MyEnergy Insights tool or are some adjustments made to estimate equal durations? Please elaborate.

(c) Please explain the anticipated impact that additional billing periods or split billing periods would have on the MyEnergy Insights tool and explain what steps would be required to address that impact.

(d) Please explain whether and how the MyEnergy Insights tool has already been impacted by the cybersecurity breach.

(e) Please confirm that the MyEnergy Insights tool provides customers with the ability to see their average energy usage per day on a monthly basis.

Response IR-7:

(a) In addition to MyEnergy Insights, MyAccount (supported by Kubra) would also be impacted by this change. MyAccount currently allows customers to view and pay their bills online. A change in billing cycle length would affect bill presentation, including

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1 visualization and comparison features, as customers would no longer be able to compare
2 bills on a like-for-like basis.

3
4 (b) Yes. While billing periods may vary by a few days, they are consistently treated as
5 bimonthly for all customers in MyEnergy Insights. In the tool, customers can view bill
6 comparisons that indicate whether a prior billing period was longer or shorter, including
7 the number of days in each period. No adjustments are made to the billing period itself. It
8 should be noted that the My Energy Insights system displays only consumption rates (kWh)
9 and base charge costs calculated from those data points. Other billing components are not
10 shown in My Energy Insights. As a result, the amount displayed in My Energy Insights
11 may differ from the actual bill. My Energy Insights is not the system of record for billing;
12 it is a separate system intended solely to provide an estimate for informational purposes.

13
14 (c) Changing bill periods in My Energy Insights is not a configurable option. It would require
15 costly custom development or simply not be possible as part of the SaaS tool. If possible,
16 adjusting the billing period in MyEnergy Insights would require a redesign of the upstream
17 data integration pipeline to support increased billing data ingestion. In addition, the
18 customer-facing interface and associated business logic would need to be re-engineered to
19 accommodate the new billing cadence, including updates to historical comparisons and
20 related calculation logic.

21
22 (d) My Energy Insights is a third-party SaaS platform and was not affected by the cyber
23 security incident. However, My Energy Insights does require AMI data to function, and
24 the ability of NS Power to deliver AMI data to My Energy Insights was impacted. The
25 restoration of the data integration from NS Power to My Energy Insights is underway with
26 completion forecast for Q3 2026.

27
28 (e) MyEnergy Insights provides customers with their daily energy usage by bill cycle.