DECISION

2020 NSUARB 44
M09420

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF an application by **NOVA SCOTIA POWER INCORPORATED** for approval of an Extra Large Industrial Active Demand Control (ELIADC) Tariff, under which **Port Hawkesbury Paper LP** will take electric service from NS Power

BEFORE:
Peter W. Gurnham, Q.C., Chair
Roland A. Deveau, Q.C., Vice Chair
Roberta J. Clarke, Q.C., Member

PARTICIPANTS:

NOVA SCOTIA POWER INCORPORATED
Brian Curry, Counsel
Blake Williams, Counsel

CONSUMER ADVOCATE
William L. Mahody, Q.C.
Emily Mason, Counsel

SMALL BUSINESS ADVOCATE
Nelson E. Blackburn, Q.C.
Melissa MacAdam, Counsel

INDUSTRIAL GROUP
Nancy G. Rubin, Q.C.
Brianne Rudderham, Counsel

PORT HAWKESBURY PAPER LP
David MacDougall, Counsel
James MacDuff, Counsel
Melanie Gillis, Counsel

BOARD COUNSEL: S. Bruce Outhouse, Q.C.

HEARING DATES: February 11-12, 2020

FINAL SUBMISSIONS: March 13, 2020

DECISION DATE: **March 26, 2020**

DECISION: **The ELIADC Tariff and Rate is approved, as amended in this Decision. It is effective January 1, 2020.**

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1.0 INTRODUCTION

[1] NS Power applied to the Nova Scotia Utility and Review Board, on September 27, 2019, for approval of a proposed new tariff, the Extra Large Industrial Active Demand Control (ELIADC) Tariff and Rate, under which Port Hawkesbury Paper would take electric service from NS Power.

[2] Port Hawkesbury Paper previously took power under the Load Retention Tariff, which expired on December 31, 2019. The ELIADC is a new rate design which is an annually adjusted tariff that is to have an initial term from 2020-2023.

[3] The main feature of the new Tariff is described as Active Demand Control (ADC) service. Under ADC, NS Power will be able to direct Port Hawkesbury Paper to decrease or increase its load in response to system conditions and costs, to the benefit of the system and therefore to all customers. Any savings achieved from ADC will be shared through the ADC Load Shifting Credit, with 25% of any savings credited to Port Hawkesbury Paper, and the remaining 75% of savings credited to NS Power customers. The new Tariff must provide a minimum of $4/MWh towards fixed costs of the NS Power system. The ADC benefit combined with a forecast price adder is estimated to provide total value for NS Power customers of between $6 million and $13 million annually over the initial tariff period (2020-2023); an average of $10 million annually.

[4] The ADC process is administered between NS Power and Port Hawkesbury Paper through specific protocols which provide direction for communication and response between the parties.

[5] The Board approves the ELIADC Tariff and Rate, with some amendments noted in this Decision. It shall be effective as of January 1, 2020. NS Power must report on the service provided under the Tariff in its quarterly and monthly FAM Reports.

2.0 BACKGROUND

[6] Nova Scotia Power Incorporated (NS Power) applied to the Board on September 27, 2019, for approval of the proposed ELIADC Tariff and Rate, under which Port Hawkesbury Paper LP (PHP) would take electric service from NS Power. PHP is NS Power's largest customer, accounting for approximately 10% of the total NS Power system load. PHP previously took power under the Load Retention Tariff (LRT), which expired on December 31, 2019. The proposed ELIADC Tariff is an annually adjusted, below-the-line (BTL), tariff that is proposed to have an initial term from 2020-2023.

[7] NS Power requested that, in the event the Board was unable to render a Decision prior to January 1, 2020, the Board grant interim approval effective January 1, 2020 until the Board was able to render its final Decision. A Preliminary Hearing was held on October 8, 2019, respecting the interim approval. NS Power and PHP both confirmed their understanding that the Board could, following the hearing, retroactively adjust the tariff, rate and charges paid by PHP effective January 1, 2020. The Board issued an Order on October 8, 2019, under s. 69 of the *Public Utilities Act*, R.S.N.S. 1989, c. 380, granting NS Power interim approval for the ELIADC, effective January 1, 2020.

[8] The hearing into this matter was held on February 11 – 12, 2020, at the Board's offices in Halifax, Nova Scotia. Both NS Power and PHP filed evidence in support of the proposed ELIADC. Evidence was also filed by the Consumer Advocate (CA), Small Business Advocate (SBA) and Synapse Energy Economics, Inc. (Synapse), Board Counsel's consultant.

3.0 ANALYSIS AND FINDINGS

3.1 Approval of tariff

3.1.1 Rate design

[9] PHP and NS Power worked together to develop the ELIADC. They have described it as a unique and innovative tariff. The proposed ELIADC Tariff is an annually adjusted, below-the-line (BTL) tariff that is proposed to have an initial term from 2020-2023.

[10] The pricing components of the ELIADC Tariff are the ELIADC Energy Charge and the ADC Load Shifting Credit.

[11] The ELIADC Energy Charge is the per megawatt-hour charge to be used to bill PHP through the year. It is the sum of three rate elements: the Customer Baseline Load (CBL) Energy Charge, the CBL Adder and the Variable Capital Charge (VCC).

[12] In its application, NS Power described the main feature of the new Tariff as having demand response control:

> Specifically, the proposed new tariff framework includes the introduction of Active Demand Control (ADC) service, which will be provided by PHP to NS Power as a condition of taking service under the ELIADC Tariff. Under the ADC service, NS Power, subject to specific protocols that will be approved in conjunction with the ELIADC Tariff, will be able to direct PHP to decrease or increase its load in response to system conditions and costs, to the benefit of the system and therefore to all customers. Under this Tariff, PHP will continue to take service as a Priority Interruptible customer. The ADC benefit combined with a forecast price adder is estimated to provide total value for NS Power customers of between $6 million and $13 million annually over the initial Tariff period (2020-2023); an average of $10 million annually.
>
> [Exhibit N-1, p. 4]

[13] Another important component of the proposed Tariff is the ADC Load Shifting Credit (ADC Credit). The ELIADC Tariff will provide a credit to PHP equal to 25% of the cost differential between the CBL Energy Charge and the actual annual cost to serve PHP, with the remaining 75% allocated to other NS Power customers. The ADC

Credit is intended to promote alignment between NS Power and PHP to maximize the value that can be achieved from the ADC service to the benefit of all customers.

[14] NS Power and PHP indicate that any resultant change from PHP's current operational profile, which was driven by marginal pricing signals under the LRT regime, to one in which the NS Power System Operator (NSPSO) controls PHP's load on the basis of a system-wide view, will deliver greater system savings than that which could be obtained by PHP in its individual response to price signals under the LRT. The value of the ADC Credit will be calculated after the end of each calendar year and credited to PHP and the other customers at that time.

[15] The individual components of the ELIADC, including the Energy Charge, ADC Credit and VCC will be reviewed in greater detail later in this Decision.

[16] However, the Industrial Group submits that the Tariff is, in effect, a load retention rate or economic incentive rate. Accordingly, it submits that further evidentiary support is required for the proposed tariff before the Board can consider whether it should be approved.

[17] In its Closing Submissions, Ms. Rubin provided a comprehensive review of the Board's prior consideration of load retention rates and submitted that the proposed ELIADC is similar in character. The Industrial Group concluded:

> That [the greater contribution towards fixed costs] this may be an improvement over the previous LRT does not take away from the fact that this is an alternate form of load retention rate or other economic incentive rate, in consideration of its fundamental purpose of ensuring sustainability of PHP. Explicitly recognizing it as such is important for transparency and carries certain checks and balances for other customers, as further discussed below.
>
> In addition, despite asserting it to be a cost-based rate, NSPI did not submit evidence regarding the revenue/cost ratio as it did in seeking approval of the BTL ELIIR replacement, the ELI-2PRTP. Without that evidence, the Board cannot be satisfied that there is no cross-subsidy.

> Therefore, there are two choices:
>
> Either the Board accepts the submissions of NSPI and PHP that this is not a form of LRT, and if so, it is respectfully submitted that the Board should not explicitly consider the sustainability of PHP in setting the rate and there should be evidence of the R/C ratio so the Board can be satisfied there is no cross-subsidy.
>
> Or the Board accepts that this is a form of load retention rate, as submitted by the Industrial Group, in which case it is reasonable to consider the financial circumstances of PHP. And, in addition, there are additional considerations to ensure that the rate passes the due discrimination test and other customers are protected.
>
> Under the ELIADC Tariff, as drafted, PHP is receiving the benefit of both a reduced rate and a credit for the ADC, without the qualifications and oversight required under the previous load retention rate.
>
> Fundamentally, to pass the non-discrimination test for a non-cost-based rate, there should be evidence of the "with and without" scenarios to test the impact to other customers. In this case, NSPI acknowledged that it had not done the analysis of whether other customers are better off with the PHP load at the negotiated rate or without the PHP load similar to what was presented to qualify PHP for the LRT, offering only the variable capital cost adder. NSPI instead maintains that we are to accept that other customers are better off with the load because of the minimum $4/MWh contribution to fixed costs above the incremental costs to serve, which is an improvement over the prior LRT.
>
> If all else were equal from seven years ago, then this may be accepted at face value. However, there have been significant changes to the system, including a change in the must-run designation of the biomass plant, changes to the generation mix, the anticipated and long-awaited Muskrat energy and the loss of local gas resources. The analysis should have been submitted.
>
> Of additional concern is there is no mechanism in the ELIADC that allows the Board to assess during the term whether economic conditions still require energy costs at the level proposed in the TD Securities Report.
>
> [Exhibit N-37, pp. 10-11]

[18] NS Power and PHP both oppose the proposed Tariff's characterization as a load retention rate.

[19] In its Closing Submissions, NS Power stated:

> The ELIADC Tariff is not, and was not developed or designed to be, a load retention tariff. In the opening statement of the Industrial Group (IG), counsel for the IG makes statements comparing the ELIADC Tariff to a load retention tariff; however, there is no evidence to support the position being advanced by the IG.
>
> …
>
> To the contrary, the only evidence on the record that speaks to this matter reinforces NS Power's position that the ELIADC Tariff is not a load retention tariff. Dr. Ahmad Faruqui of The Brattle Group provided independent expert evidence in this proceeding with regard to "utility rate design". Dr. Faruqui was asked directly by Board Member Ms. Clarke for his

views on whether the ELIADC Tariff is a load retention tariff. In response, Dr. Faruqui stated:

> I was brought in to review the terms of the tariff, and also had a chance to look at the previous tariff, the Load Retention Tariff, and based on my understanding of what the proposal is, I believe this tariff is designed to take a lot of the load that PHP has and allow the company to control that load to allow this advanced demand management, or ADC, to be created. I think that is a new feature, and it's a feature that distinguishes it from the Load Retention Tariff, which did not allow any active control by the utility on the customer's operations.
>
> I think it is definitely a needed development because as we go towards the renewable energy resources that'll be more and more coming on the grid just about everywhere in North America, they will be intermittent, and they'll require rapid ramping up and ramping down, and the ability on the part of Nova Scotia Power to count on this large customer's load being under their control, so to speak, is going to be a major asset which certainly was not there in the Load Retention Tariff.
>
> I also believe that this new rearrangement that is part of this tariff would allow the benefits created with the system as a whole to be shared between PHP and all the other customers, the split of 25/75 percent. I think those are unique features of this new tariff, which at least in my mind, distinguish it from the Load Retention Tariff.

When questioned by counsel for the IG, regarding this response, Dr. Faruqui reiterated that the ADC, as well as the magnitude of the fixed cost contribution and additional system benefits being provided under the ELIADC Tariff distinguish it from a load retention tariff.

[Exhibit N-39, pp. 6-8]

[20] At the hearing, Mr. Ferguson, of NS Power, testified:

I don't think -- for me it's less about the form than the nature of the relationship with – between the customer and the utility.

This is materially different. This is a resource, like a power plant, that we will be dispatching, to the benefit of all customers.

I think it's interesting, given the changes that have been undertaken across our system over the past decade. It's timely. I think that we start to seek the opportunities to locate these tools on our power system and add them to our resource portfolio.

...

So it does have an element of sustainability. We were certainly conscious that this is a customer that's coming off seven years operating under a Load Retention Tariff due to economic distress, but in my view, the nature of the relationship with utility has changed so fundamentally, and the benefits for all customers have increased so significantly that, to my mind, I characterize it less as Load Retention Tariff and more as demand response tool to be used to reduce costs for the entire system.

[Transcript, pp. 91-92]

[21] PHP also dismissed the Industrial Group's submission that the proposed Tariff is a load retention rate:

> ...The ELIADC Tariff is simply not an LRT. It was neither developed nor structured as an LRT. Rather, the ELIADC Tariff trades value for value: that is, PHP is ceding control of its operations in exchange for a unique rate that acknowledges the value that brings to the system. During questioning by Commissioner Clarke, Mr. Stern emphasized this fundamental difference between the two types of rate forms:
>
> > "I'll be honest with you, I would be more comfortable if we were continuing under the Load Retention Tariff, in which we did retain control of our own operation."
>
> In response to NSUARB IR-2(e), where PHP was requested to explain why the proposed rate is not an LRT and the differences between an LRT and the proposed ELIADC Tariff, PHP responded as follows:
>
> > "Although the LRT and the proposed ELIADC tariff each recover marginal costs and contribute to the fixed costs of the NS Power system, they are fundamentally different in nature. Under the LRT, PHP had complete discretion in terms of the timing and magnitude of all electricity purchases. The LRT was designed to ensure that PHP paid the incremental costs to serve its load and a contribution to fixed costs of between $2/MWh and $4/MWh. NS Power did not consider PHP in its planning considerations or in optimizing dispatch of its electricity system for other customers.
> >
> > In contrast, under the proposed ELIADC tariff and protocol, PHP's load will be made available to NS Power as a demand response service. PHP's load will be integrated into NS Power's planning and dispatch decisions and used to maximize the benefit to all customers. To achieve this objective, the ELIADC tariff needs to be priced appropriately to provide PHP (the demand response customer) with both the incentive to "turn over the keys" and the opportunity to operate its business on a sustainable basis so that the demand response resource remains available. PHP's historic and forecast financial information is relevant to confirm the pricing that is appropriate for the proposed ELIADC tariff, but unlike the LRT, such information is not the basis for a customer's eligibility to take service under the tariff."
>
> [Exhibit N-38, pp. 8-9]

[22] Moreover, Mr. Athas, an expert consultant engaged by the SBA, also took the view that the ELIADC is not a load retention tariff:

> … I do not consider the ELIADC a Load Retention Tariff. I would consider the ELIADC as a <u>characteristic of the service being supplied by and to NSPI</u> under this tariff at a competitively derived price level. [Emphasis added]
>
> [Exhibit N-15, Synapse IR-4]

[23] Another important issue canvassed at the hearing relates to the actual operation of the ELIADC "on the ground". The proposed Tariff requires a high level of cooperation in order to function. The ADC load shifting process is administered between NS Power and PHP through specific written protocols which provide direction for communication and response between the parties. The ADC protocols are set out in Schedule 1 of the ELIADC Tariff.

[24] These protocols were discussed at the hearing, given the experience of NS Power and PHP in working with them since the Tariff has been used on an interim basis starting January 1, 2020. NS Power witnesses stated that the NS Power Marketing Group works with the NSPSO to ensure the ADC is being optimized from a reliability perspective and an economic perspective to ensure it is working in the best interests of customers. In the event of any conflict, the reliability issue takes precedence to ensure the overall security of the system. Both NS Power and PHP testified that the ADC protocols have been working efficiently and effectively during the interim approval period.

[25] Bevan Lock, PHP's Co-Manager at the mill, described the operation of the ADC as a success:

> …And I can say that I'm extremely proud of both parties, and having been there from the beginning of the negotiations, that how closely our power use has followed the demand, that the only deviations within that, January, were for the benefit of the ratepayers, in that we were able to avoid the start-up, as they told us, a gas plant, when wind was one morning coming off quicker than had been scheduled.
>
> So it's a very dynamic arrangement between the parties, with ourselves being on one side of the triangle, marketing who are providing the optimized, as was described, the economic fully optimized schedule, and then the real time operators on the energy control desk, or the system operator.
>
> So it really takes advantage of both the longer vision optimization, as well as the real time response, which is what we can offer in an extremely flexible way.
>
> [Transcript, pp. 313-314]

[26] NS Power does not anticipate a need for the protocols to be revised. However, it was confirmed by NS Power that if any proposed changes to the protocols are needed, they would be brought back to the Board for approval.

Findings

[27] The ELIADC rate design as primarily a demand response tariff was supported by all parties in this proceeding, except for the Industrial Group. NS Power, PHP, the CA and SBA all support the Board's approval of the ELIADC as a new tariff. The proposed Tariff is also supported by Synapse, Board Counsel's consultant. Nevertheless, the CA requested that certain terms of the ELIADC be amended, or conditions imposed, in order to better protect the interests of other ratepayers. The SBA's consultant identified a point which is addressed later in this Decision.

[28] As described earlier in this Decision, the Industrial Group says that the proposed Tariff is, in effect, a load retention rate, requiring further evidentiary support before the Board can consider its approval.

[29] The Board considers it would be unreasonable to deny that the proposed Tariff does not possess certain characteristics of a load retention rate or economic incentive rate. This was not challenged by Dr. Ahmad Faruqui, an expert witness called by NS Power. The calculation of the ELIADC Energy Charge based, at least in part, on what may be required to keep PHP on the system, and a partial contribution towards fixed costs, are features that do resemble elements of a load retention rate.

[30] However, in the Board's view, the primary element of the proposed ELIADC Tariff is its functionality as a demand response rate. In other words, the fundamental behaviour of the Tariff serves to provide NS Power with a significant tool in the

management of its entire system load. While PHP will undoubtedly benefit from the proposed Tariff, compared to a fully allocated cost rate, the greater benefit is that which it can provide NS Power's customers. To be clear, this is potentially a significant benefit, which was equated at the hearing to acting like a 14th generator in NS Power's generation fleet. As such, the NSPSO can use the ADC component of the Tariff to more effectively manage NS Power's system load, thereby avoiding higher variable costs being passed on to other customers. The Board accepts NS Power's evidence that this benefit is significant in terms of today's more complex generation mix, including significant renewable energy on the system.

[31] Moreover, the Board is satisfied that the proposed ELIADC Tariff will provide a meaningful contribution towards the system's fixed costs. Unlike the prior LRT, the new Tariff will provide a minimum of $4/MWh towards fixed costs, and is estimated to provide total value for NS Power customers of between $6 million and $13 million annually over the initial Tariff period (2020-2023); an average of $10 million annually.

[32] The Board also accepts the evidence of NS Power and PHP that the ADC protocols have been working well between these two parties. This is indeed encouraging as it will maximize the savings achieved under the ADC to the benefit of all parties. The Board notes that any issues which may arise in the future can be referred to the Board for its review, as confirmed by NS Power in its Closing Submissions.

[33] Taking all of the above into account, the Board finds that the proposed ELIADC Tariff (including the protocols) and Rate should be approved, subject to other findings of the Board in this Decision. The ELIADC Tariff and Rate shall be effective as of January 1, 2020. The Tariff shall have a four-year term (2020-2023).

[34] Finally, in advance of the hearing, Mr. Athas, the SBA's consultant, identified a hypothetical scenario in which the actual energy costs, factoring in savings from the active control management, could be greater than the forecast CBL Energy Charge. Following extensive discussions with NS Power and PHP, the SBA filed Mr. Athas' amended evidence explaining the risk and the way to address it in the event that it occurred. In that eventuality, NS Power would take the additional step of ensuring that any difference between the Price Point of $61.75/MWh and the actual cost to serve is shared 75% by NS Power and 25% by PHP. Subsequent to the filing of Mr. Athas' evidence, both NS Power and PHP filed responses indicating that they were agreeable to undertaking the additional reconciliation step proposed by Mr. Athas, in the event that occurred.

[35] The Board endorses Mr. Athas' evidence on this point and notes NS Power and PHP's undertaking in this regard.

3.2 Approval of 2020 ELIADC Energy Charge

[36] The price point of the ELIADC Tariff is $61.75/MWh. NS Power advised that this is a rate which, taking into account forecast fuel costs and ADC Benefits, will result in a forecast average price to PHP over the four-year term of $61.14/MWh.

[37] The price point was negotiated by PHP and NS Power taking into account a review of the PHP financial forecast by TD Securities, who was retained by NS Power, to advise on those forecasts. TD also advised NS Power with respect to due diligence in the 2012 LRT process. NS Power briefly described the role of TD in Exhibit N-1:

> The TD Securities Report provided in Confidential **Appendix C** provides third-party forecasts of PHP's financial performance under various scenarios. The TD Securities Report Executive Summary confirms that the forecast net cost to PHP of $61.14/MWh provided by the ELIADC Tariff is in the range that:

> " ...under the ADC agreement, would position PHP to weather volatility in variable production costs, exchange rates, and SC [supercalendered paper] pricing."
>
> In light of this, and the substantial increased value enabled by PHP's provision of ADC service to NS Power (an average annual forecast value of $10 million), the Company submits the forecast cost to PHP of $61.14 over the initial Tariff period (2020-2023) is reasonable and in the interests of customers.
>
> [Exhibit N-1, p. 15]

[38] TD provided a financial assessment relevant to the entire four-year term of the ELIADC.

[39] In addition to that, PHP filed an opinion by Duncanson Investment Research Inc. to the effect that the financial projections in PHP's business outlook are credible and the profitability levels outlined in the materials filed with Duncanson and TD are reasonable.

[40] As noted elsewhere in this Decision, components of the ELIADC Tariff are reset as of January 1st in each of the four years.

[41] On November 28, 2019, NS Power filed Supplemental Evidence in Exhibit N-11, which outlined the calculation for the CBL Adder for 2020 and the 2020 Energy Charge calculation. They are as follows:

Figure 1. CBL Adder for 2020

CBL Adder Calculation ($/MWh)	
CBL Energy Charge	$59.99
75 percent of the difference between the forecast CBL and $61.75/MWh	1.32
Constant	1.00
CBL Adder	$2.32

In addition to the CBL Energy Charge and CBLA, PHP will pay a Variable Capital Charge (VCC) for NS Power's incremental generation and delivery of electricity to PHP in the amount of $1.13/MWh.[7]

Figure 2 below presents the calculation of the 2020 ELIADC Energy Charge.

Figure 2. ELIADC Charge

2020 ELIADC Energy Charge Calculation ($/MWh)	
CBL Energy Charge	$59.99
CBL Adder	2.32
Variable Capital Charge	1.13
2020 ELIADC Energy Charge	$63.44

Support for these calculations is provided in **Appendix H**.

[Exhibit N-11, p. 6]

[42] There was no evidence to challenge either the TD Report or the Duncanson Report.

[43] NS Power argued that the price point is supported by multiple sources of evidence and is an integral component of the ELIADC Tariff.

Finding

[44] The Board has reviewed the TD and Duncanson Reports, and the various calculations that NS Power has made, and finds that NS Power's calculation of the price

point appears reasonable and is supported by the financial information that has been filed. The Board approves the price point as set out in Exhibit N-1 of $61.75/MWh and the calculation of the 2020 CBL Adder and ELIADC Energy Charge as noted in Exhibit N-11.

3.3 Accounting Treatment Approval

[45] NS Power proposed that the accounting for revenues under the ELIADC Tariff remain consistent with the process previously established under the LRT. That is: the $4/MWh minimum contribution to utility costs, the Variable Capital Charge, and the operating and maintenance portion of the CBL Energy Charge, be treated as non-fuel revenue to be applied to non-fuel costs and the cost of fuel and all remaining ELIADC Tariff revenues, including the 75% of the ADC benefit and the fixed contribution in excess of $4/MWh minimum, flow through the Fuel Adjustment Mechanism.

[46] NS Power also advised that it anticipated accounting for these revenues and expenses under the ELIADC Tariff will be subject to review at the next general rate application.

[47] No party objected to the accounting treatment proposed by NS Power.

Finding

[48] Accordingly, the Board approves the accounting treatment as detailed in Section 5.0 of Exhibit N-1.

3.4 Annual Setting of Energy Charge

[49] The ELIADC Tariff stipulates that the CBL Energy Charge and associated CBL Adder be submitted to the Board for approval on an annual basis as part of NS

Power's application for annually adjusted rates. Annually adjusted rates are rates that change yearly and those changes are approved by the Board.

[50] NS Power explained that in order to complete these filings NS Power requires forecast information from PHP. In order to allow sufficient time to review the filing before year end, NS Power and PHP were asked whether that filing could take place by October 1st in each year. NS Power advised that to meet the October 1st deadline, forecast information would be required from PHP by September 1st.

[51] PHP's evidence during the hearing was that the accuracy of its load forecast would significantly improve the closer to the new year it could be provided and that only limited book order information would be available prior to September 1st. In the circumstances, in response to Undertaking U-8, NS Power advised that given these concerns about the accuracy of an early PHP forecast, NS Power was not able to confirm that the ELIADC Tariff CBL, and the ELIADC Energy Charge, could be filed by October 1st, but would work with PHP to achieve as early a filing as possible. PHP gave the same undertaking.

Finding

[52] Accordingly, PHP and NS Power are directed to use their best efforts to apply for the ELIADC Energy Charge by October 1st in each year.

3.5 Variable Capital Charge and Variable Operating and Maintenance Cost

[53] One element of the formula for the Tariff is the VCC, set at $1.13/MWh over the four-year term. This amount represents the contribution to system sustaining capital costs, as part of the incremental cost of serving PHP. The VCC is less than the charge

of $1.39/MWh under the LRT. Mr. MacIntosh described how the amount was determined in response to questions from the CA:

> Q. …In determining the VCC, Nova Scotia Power calculates a utilization factor; correct?
>
> A. (MacIntosh) Correct.
>
> Q. And in coming to the utilization factor, you look at four things: Capacity factor, service hours, cycles, and asset health, those four characteristics?
>
> A. (MacIntosh) Correct.
>
> Q. But as you weight – provide weighting between those factors, there's some level of judgment that Nova Scotia Power brings to bear?
>
> A. (MacIntosh) That is correct.
>
> There's engineering judgment from subject matter experts that are deployed across those factors.
>
> Q. Engineering judgment deployed across factors. Okay. Who makes the judgment?
>
> A. (MacIntosh) Nova Scotia Power utilized its internal subject matter experts, as well as corroborates with industry around things like major refurbishment intervals across specific asset classes. So those judgments are made by what we call reliability teams within our organization, which are made up of operations, maintenance, engineers, and external subject matter experts to dictate those weighting factors.
>
> [Transcript, pp. 58-59]

[54] Mr. MacIntosh also confirmed that the method by which the VCC was calculated was the same as that used in the 2012 LRT calculation and refined in the 2017 calculation.

[55] Mr. MacIntosh responded to Synapse's position that the VCC calculation was "imperfect" and "potentially arbitrary" by saying that the operation of NS Power's generation units is complex, and that NS Power believes it is the best model. Mr. MacIntosh saw no benefit in an annual review of the VCC as suggested by Synapse because he did not "…see a major change in the sustaining capital in the next four years that would drive a requirement" to do so. The charge was based on the best information NS Power has.

[56] Mr. MacIntosh stated that the type of material changes which would impact the VCC would be a change in the timing of major refurbishments or unit utilization factors. In response to questions from the Board, he also acknowledged that there would be a change if delivery of the Nova Scotia block from the Maritime Link were "significantly delayed." He further said, in response to questions from the Board:

> … So there are changes that could dictate changes to the variable capital costs based on the output from market conditions, major changes in generation of resource portfolios. So different things that could happen on the system, access to different imports, these large factors.
>
> [Transcript, p. 212]

[57] Board counsel explored the impact of foregoing an annual review further with Mr. MacIntosh:

> Q. …So by doing it, though, and then fixing it for four years and not annually re-evaluating it, basically means, under this rate, if you've estimated it too high, PHP pays more than was intended out of this rate, and customers benefit; if you've estimated it too low, then PHP gets a benefit, and the customers pick up the difference between actual VCC and projected VCC?
>
> A. (MacIntosh) Yes.
>
> [Transcript, pp. 198–199]

[58] In response to Ms. Rubin, Mr. MacIntosh stated that if the VCC remained at the $1.39/MWh level of the LRT, the revenue impact would be $294,000 per year.

[59] Synapse had stated in its evidence "…given the rapidly changing landscape, it would be reasonable for NS Power to recalculate the VCC annually." Synapse did not believe that a reduction in the VCC from the LRT amount was supported; Synapse concluded the $1.39/MWh rate should be continued. Mr. Fagan acknowledged, however, that he was not exactly sure of what the number should be.

[60] Both the CA and the Industrial Group adopted Synapse's position on the VCC. In contrast, both NS Power and PHP submitted that the methodology used to

calculate the VCC was the same as endorsed in the previous LRT hearings. Both noted that the Board had said in those proceedings that NS Power was best placed to "determine the accuracy of its own incremental costs for all the components of the LRT." NS Power also submitted that there was no need for annual review of the VCC, but confirmed that, although no material changes were anticipated, significant delays to the Nova Scotia Block or a requirement for major refurbishment, would impact the VCC.

[61] Mr. MacIntosh testified that the charge for Variable Operating and Maintenance (VOM) costs included two categories: production supplies and maintenance which includes materials and contracts. The factors to support these costs were developed and validated through external guidelines and comparisons.

[62] Mr. Chernick, on behalf of the CA, recommended changes in the way the VOM should be computed. This was not addressed in submissions of the CA, however.

[63] PHP observed in its closing submission that the VOM charge "…is developed as part of the Energy Charge component of the ELIADC Tariff," unlike the VCC which is a separate element. PHP noted that in the previous LRT hearings, the method of determining the VOM was accepted and is the same. The Board notes that the LRT stated the amount of the VOM charge included in the Hourly Incremental Cost component of that tariff and understands that this component is also incorporated within the ELIADC Energy Charge, although not separately stated.

[64] NS Power submitted that there was no evidence presented in the application which challenged this approach or suggested a more appropriate process.

Findings

[65] With respect to the VCC, the Board is persuaded that the methodology used by NS Power is appropriate. The Board has not changed its view that NS Power is in the best position to determine the accuracy of the numbers. The Board also observes that the impact of the lower VCC is a relatively small amount in the context of the overall payments under the Tariff.

[66] The Board is mindful that the proposed Tariff is the result of what Mr. Stern of PHP describes as "a hard negotiation", although the Board is aware that NS Power has stated, in response to Board IR-27, that the VCC itself was not determined through negotiation. The Board is concerned, however, that in light of possible delays in the delivery of the Nova Scotia Block under the Maritime Link, and the potentially resulting requirement for major refurbishment in the generation portfolio, it is advisable that the VCC be reviewed during the term rather than explicitly remaining fixed at $1.17/MWh over the four years, as proposed. Therefore, the Board directs that NS Power's application for approval of the Annual Adjusted Rates for 2021 include a detailed analysis to justify retaining or amending the VCC.

[67] As for the VOM, the Board is satisfied that NS Power has appropriately examined this as part of the Energy Charge. NS Power's evidence on this point was not undermined by any party. In its Compliance Filing, NS Power is to confirm the treatment of the VOM charge.

3.6 ADC Load Shifting Credit

[68] The rate, as proposed, contains a 75/25 percent sharing of ADC benefits. NS Power compared the incremental costs, assuming load shifting, to the original CBL

Energy Charge to determine the ADC Load Shifting Benefit. Seventy-five percent (75%) of the benefit is proposed to be allocated to the rest of NS Power customers and twenty-five percent (25%) is to be allocated to PHP.

[69] The only expert who questioned this split was Synapse. Synapse stated:

> However, there is no particular reason to assume that fully 25 percent of the computed ADC credit must be returned to PHP. While NS Power indicates that the credit to PHP could provide an incentive for PHP to "to seek opportunities to maximise the value of ADC Load-Shifting" and presumes that other parameters would need to be modified if this apportionment was changed, NS Power will already have the ability to manage PHP's load directly, in concert with its optimization and subject to the Schedule 1 Active Demand Control Energy Supply Protocol.
>
> PHP is already obtaining the benefit of not having to bear a sizable portion of fixed costs; a further incentive based on such a portion of the ADC benefit is not necessary because of the presence of the lower tariff rate. …
>
> [Exhibit N-14, p. 7]

[70] Synapse went on to suggest that an ADC Load Shifting Benefit credit to PHP of five percent (5%) and not twenty-five percent (25%) should be considered to ensure maximum contribution to system fixed costs, while still allowing for sustainable operations of the mill.

[71] In cross-examination, Synapse indicated that to the extent PHP can afford contributions in excess of the price point that should be considered, and adjusting the 75/25 split, was one way to get there. It indicated there may be others.

[72] While the CA's consultant Paul Chernick did not speak to this issue, in its Final Submission the CA supported the proposed sharing as recommended by Synapse.

[73] Likewise, the Industrial Group also supported the 95/5 percent split suggested by Synapse, indicating that such an allocation will still allow PHP to operate sustainably.

[74] In its Reply Evidence, PHP stated that the negotiation of a meaningful twenty-five percent (25%) sharing of potential ADC Benefits was crucial to PHP in

negotiating this rate. Mr. Stern testified that the rate adds potential risk to PHP in that PHP is handing over control of its load to NS Power.

[75] PHP noted that the average total forecast load shifting benefit over the course of the term is $6.9 Million per year. PHP argued that if adopted, Synapse's recommendation would have the effect of reducing PHP's annual average forecast credit from $1.73 Million to $345,000 per year, a significant $5.5 Million increase in total costs over the term.

[76] PHP argued that the components of the ELIADC Tariff were not developed in isolation and any attempt to introduce changes only to a portion of the rate design would be fundamentally inconsistent with the overall value proposition PHP accepted, by agreeing to provide NS Power the dispatch of its load for the benefit of all customers. PHP argued, as did NS Power, that the twenty-five percent (25%) sharing was meant to ensure that PHP had a significant economic incentive to work as closely as possible with NS Power to maximize the flexible operation of the benefits.

[77] PHP went on to say that if the 5% sharing suggested by Synapse was utilized in 2020 where PHP, in accordance with Exhibit N-11, is paying an energy charge of $63.44/MWh, the year-end cost to PHP after accounting for the 5% forecast benefit would be $63.23/MWh. It stated that therefore, in the current year, with an already determined energy charge, at a 5% sharing level, PHP would be at the top of the affordability range referenced by Synapse as being reasonable, based on the TD Report.

[78] NS Power emphasized that the 75/25 sharing is not just to provide an incentive for PHP to agree with the ADC concept and protocols; it also relates to incenting

PHP to participate in the ADC as an engaged partner in order to realize and maximize the benefits, for the entire system.

[79] Both Ms. MacLean and Mr. Ferguson commented on the issue on cross-examination. Ms. MacLean stated:

> A. (MacLean) We were looking at all the components of the tariff at the same time. So the components are the CBL, the CBL adder, and the ADC benefit. So it isn't exactly as you characterize it, that we were targeting a point, a price point and then – or pardon me; a rate and then determined the price point. We were looking at all of the moving parts at the same time, and we were looking for the maximum -- or a significant benefit that the rate could yield for other customers, while balancing the risk of the customer.
>
> [Transcript p. 87]

[80] Mr. Ferguson stated:

> A. (Ferguson) The 25 percent sharing mechanism is -- really recognizes that full realization of the potential of this new tariff construct will be a partnership, really, between Nova Scotia Power and Port Hawkesbury Paper. Nova Scotia Power brings its expertise in the management of the system, its broad perspective in total portfolio management. PHP brings its expertise over the past seven years developed under -- operating under the Load Retention Tariff with respect to its ability to respond to price signals. Both are critical elements of realizing the $10 million potential benefit; and therefore, we thought it appropriate as part of the process to provide a significant sharing mechanism.
>
> And it works both ways. It's a sharing of benefits, but it's also sharing of risk if the forecast benefits don't unfold as anticipated. I think given where we are, early days of this tariff, given that it is so innovative, it's important that the two parties to the tariff have a shared significant incentive, in my view, to work not just to find the value that's prescribed in the existing protocols, but work over the next four years to find what other opportunities there are.
>
> Personally, I think we've talked mainly about financial benefits. My hope is that we will meet and exceed those, but I think there's also an important reliability aspect to what -- the service that PHP is providing to Nova Scotia Power...
>
> [Transcript, pp. 54-55]

Findings

[81] The Board understands that this is an innovative rate design and to achieve the most benefit for both NS Power's customers and PHP will require innovation and cooperation.

[82] The Board accepts the evidence of Mr. Stern that there are additional risks to PHP in ceding its load control to NS Power.

[83] While it is open to the Board to change any provision in the rate, the Board understands that the rate was designed through negotiation as a complete package. The Board is reluctant to alter a fundamental term of the rate design. Neither Mr. Chernick nor Mr. Athas recommended a change in the 75/25 split. Indeed, Mr. Athas was very supportive of the overall rate as designed.

[84] As noted, the CBL Energy Charge for 2020 is already $63.44/MWh, which is above the originally negotiated price point. The Board generally accepts the evidence of Mr. Ferguson and Ms. MacLean justifying the reasonableness of the 75/25 split.

[85] Accordingly, the Board accepts and confirms that seventy-five percent (75%) of this benefit as proposed is to be allocated to NS Power's customers and the other twenty-five percent (25%) is to be allocated to PHP.

3.7 NS Power Monthly and Quarterly Reporting

[86] During the hearing, NS Power was asked about monthly and quarterly reporting of results regarding operation of the proposed ELIADC tariff. NS Power stated:

> The quantification of the effects of the active demand control will be done internally and actually shared with the FAM Small Working Group on a quarterly basis.
>
> Monthly, there's less correlation between the actual cost to serve and the CBL, which of course is the -- I shouldn't say correlation. The Delta between the actual cost to serve and the CBL energy charge which defines the magnitude of the ADC benefit.
>
> Because the CBL energy charge is an annual number, looking at it on a monthly basis has less meaning. But if you look at it quarterly, at least then any effects of the seasons can be -- will be visible and we can understand better why the ADC would be bigger or smaller over a quarterly basis. So it's definitely our intent to look at it quarterly.
>
> …
>
> We do think that the quarterly will be sufficient to give us the best idea of the benefit that -- that is occurring as the year goes on. However, if we saw deviations or market changes on a monthly basis that caused us concern or pause to want to calculate that more frequently, we certainly will do that.

> The effort and care that's involved with doing the actual modelling for calculating the ADC is such that we wouldn't plan to do that on a monthly basis, but we would have the capability if we noticed anything that would prompt us to want to see any issues.
>
> [Transcript, pp. 171-173]

[87] Upon further questioning, NS Power stated:

> The information that's less practical on a monthly basis is the actual ADC value. Other information is collected on a regular basis, and although we haven't confirmed the details of the monthly and quarterly FAM reports yet, there are some pieces of information that are practical to track on a monthly basis.
>
> [Transcript, p. 174]

[88] In response to Undertaking U-7, NS Power described the information that it anticipated would be included in the FAM monthly and quarterly reports. On a monthly basis, the information will include the CBL Energy Charge, Total Actual Energy, Target Energy, CBL Adder, Variable Capital Adder, and Total Billed Charge, as well as any accruals. In the quarterly reports, the same information would be shown by month, along with a quarterly total, as well as the Incremental Cost to Serve PHP Load and the ADC Load Shifting Benefit as calculated for the quarter, the number of hours per Cause Code, and relevant commentary.

[89] Sample versions of the monthly and quarterly reports were included in the U-7 response. The Board accepts those as appropriate reports.

3.8 Annual Assessment

[90] Regarding assessment of results achieved under the Active Demand Control of PHP's load, the following terms are contained in the proposed ELIADC tariff:

> Annually, NS Power shall report to the Board to confirm the dollar value of system savings that have been achieved through Active Demand Control of PHP's load under the Protocol, taking account of the impacts of any variances by PHP from the dispatch schedules issued to it by NS Power and any adjustments arising from schedule variances if required. NS Power shall endeavor to submit this report no later than 60 days after the end of a tariff year.

> PHP will be entitled to a credit equal to 25 percent of the cost differential between the CBL Energy Charge and the actual annual cost to serve PHP during the given tariff year. Such payments to the Customer will be made via an annual lump sum payment.
>
> [Ex. N-1, Appendix A, p. 4]

[91] In order to gain clarity on the intent of those terms, NS Power was asked by Board Counsel during the hearing to expand on this issue:

> Q. It's a little unclear to me with respect to the allocation of the 75/25 calculation of that and the payment of that, whether it's the intention of the company to seek the Board's approval for that or not.
>
> You've dealt with this in your reply evidence at pages 22 and 23. And it appears to me that you're not saying you're looking for Board approval. Is that correct?
>
> A. (Ferguson) Excuse me, do you mean the year-end reconciliation determination?
>
> Q. Yeah.
>
> A. (Ferguson) Oh. Yes. So at this point, our plan is to file the information to confirm the amount and provide the support for that and the calculation around it. And then we'd really leave it to the Board to determine what process they thought was appropriate for reviewing that,
>
> Q. So ---
>
> A. (Ferguson) --- whether it's a case of accepting the information or actually approving the figure.
>
> Q. So your intention is to file a report within 60 days of year-end ---
>
> A. (Ferguson) Yes.
>
> Q. --- that lays out calculations?
>
> A. (Ferguson) Correct.
>
> Q. Basically then leave it in the Board's hands to decide what it's going to do with it?
>
> A. (Ferguson) Yes.
>
> [Transcript, pp. 190-191]

[92] Further questioning by the Board related to auditing of the Active Demand Control results:

> Q. (Deveau) And then finally -- finally, in relation to the process, you've got the annual review reports that will be filed, the reconciliation of the ADC. My question relates to the performance of Nova Scotia Power in terms of being able to use this tariff to maximize the benefits for the customer, for the customers.

> And you've talked about -- you ran through this with Mr. Outhouse in terms of your reporting to -- whether on the FAM or to the Small Working Group. But I just want to confirm; in terms of Nova Scotia Power's performance in maximizing the benefits, do you agree that this is something that would be subject to FAM audit review?
>
> A. (Landrigan) Yes.
>
> [Transcript, pp. 227-228]

[93] The Board directs NS Power to file the annual assessment results as required under the terms of the ELIADC tariff. Furthermore, the Board notes that Plexos modeling assumptions and final results of the Active Demand Control process may be subject to a FAM audit review, or may be subject to a separate audit review as may be determined by the Board.

3.9 NS Power and PHP Financial Reporting

[94] As noted earlier, on behalf of NS Power, TD Securities provided a financial assessment of PHP covering the entire four-year term of the ELIADC Tariff. That report contained significant information on its operation supplied by PHP. Additionally, PHP filed the opinion by Duncanson Investment Research confirming that the PHP business outlook was credible.

[95] Under the LRT, PHP filed with the Board its annual financial statements. An issue raised in the hearing was whether there should be additional financial reporting through the four-year term.

[96] The CA recommended that the Board require periodic filings to ensure that the projected contribution to fixed costs is reasonable. The Industrial Group argued that by taking the position that the ELIADC Tariff is not a load retention rate, PHP and NS Power are circumventing load retention conditions and criteria and reporting throughout the four-year term. The Industrial Group argued that PHP should continue to provide its

audited statements to ensure that the applied-for rate is and continues to be necessary for the sustainability of the business.

[97] The Industrial Group also argued that five-year projections should, at a minimum, be filed if and when the tariff is re-opened, if either party seeks renewal and at the request of the Board. Likewise, the Industrial Group recommended that a new TD Report be filed mid-term and if renewal is sought.

[98] In response to questioning, Mr. Ferguson noted that the proposed rate is only for a four-year term, not the seven years of the LRT and argued that the outlook should be accepted for the next four years. He advised it is well established ratemaking practice to rely on forecasts and that for the rate to work there would have to be certainty with respect to the benefits to be realized over the term. He noted that, if ongoing financial reporting is to be provided, it should be provided with a purpose "to do something" with respect to the Tariff.

[99] Mr. Fagan, on behalf of Synapse, noted that ongoing financial reporting was not part of their recommendation.

[100] PHP, in its Final Argument, stated that under the LRT there was a potential for upside payment to NS Power based on PHP's actual profitability and, thus, there was a clear requirement for ongoing financial reporting. That requirement does not exist under the ELIADC Tariff and, therefore, annual financial reporting is unnecessary.

Findings

[101] Given that payments under the rate are not directly dependent on the annual financial performance of PHP, the Board does not believe there is a need for the

filing of audited financial statements with the Board, so long as the current rate stays in place and there is no application to renew or re-open the rate.

[102] The TD Report provided a ten-year outlook. Even if a mid-term updated TD Report was ordered, by the time it was prepared, filed and a hearing took place, parties would be well into the second part of the four-year term. So, as long as there is no application to change the rate (i.e., a re-opener or a new application), the Board does not require the filing of a new TD Report.

[103] However, if there is an application to re-open the rate during the four-year term pursuant to its provisions, or at the end of the four-year term a renewal term is applied for, the Board will require full financial information to a level equivalent to the information provided in this application.

3.10 Payment terms and security for payment

[104] The Industrial Group noted that two payment terms were removed from PHP's prior LRT tariff under the proposed ELIADC. It submits that these two terms should be restored respecting PHP's payment for electricity under the ELIADC Tariff. Specifically, it requests that a term be added providing for disconnection of PHP for non-payment upon two business days' notice, and a requirement that any dispute resolution process be submitted directly to the Board, instead of being first referred to NS Power's Dispute Resolution Officer (DRO).

[105] The former LRT tariff provisions provided:

> SECURITY FOR PAYMENT OF ACCOUNT
>
> A customer taking service under this rate must provide security for payment of the customer's account, regardless of payment history. Appropriate security shall be satisfactory to Nova Scotia Power Inc. Acceptable security will be described in the pricing of the rate, and may be revised or updated from time to time upon approval of the UARB.

DISCONNECTION OF ELECTRIC SERVICE

In the event of non-payment, NSPI may disconnect a customer on two business days' notice. In the event of a dispute under the tariff, the complaint will be made directly to the Board for resolution, as opposed to the Dispute Resolution Officer.

[Exhibit N-1, Appendix F, p. 2]

[106] The proposed ELIADC payment clause provides:

SECURITY FOR PAYMENTS

NS Power shall invoice PHP weekly, and PHP shall pay the billed amount net 7 days. As security for payment, PHP shall provide NS Power a letter of credit from time to time. The form, amount, and issuer of the letter of credit will be satisfactory to NS Power. To the extent the letter of credit introduces a lag time and there are additional costs to NS Power, these will be paid by PHP not NS Power or its customers.

[Exhibit N-1, Appendix A, p. 7]

[107] Ms. Rubin submitted:

This was an issue directly addressed by the Board in the 2011 LRT Decision. Given the magnitude of PHP's load and weekly bill, the Board determined that a condition should be inserted allowing NSPI to disconnect PHP on two business days' notice and, to ensure timely adjudication, bypass NSPI's Dispute Resolution Officer ("DRO") for a direct appeal to the Board.

...

Where it is estimated that PHP pays a weekly amount of $1.25M, given that the Regulations preclude disconnection pending determination of an appeal, the amount incurred in a one month delay to simply to get a dispute before the Board under the most optimistic scenarios under the ordinary procedure for disconnection of a customer, would be substantial. As it is not clear that the other ratepayers will not be exposed to risk from such a delay if PHP were to default on payment, protections ought to be afforded under the ELIADC tariff.

...

The Industrial Group is encouraged that PHP has consistently paid its invoices on time, but past payments do not guarantee future payments, particularly where evidence has been presented regarding the need for a "sustainable rate". And, if PHP and NSPI are both confident that this clause permitting the right to disconnect on two days' notice will not be invoked, then it should cause no distress. The reality is that the size of PHP's load and quantum of the bills create a risk that is of an order of magnitude materially and significantly greater than the risk of non-payment by other customers.

[Exhibit N-37, pp. 17-18]

[108] NS Power and PHP opposed the submission to restore the two business days' notice for disconnection of PHP upon non-payment:

> ...the ELIADC Tariff is not a load retention tariff and while the LRT is a relevant part of the context and history regarding PHP on the Nova Scotia system, a direct clause by clause comparison of the ELIADC Tariff and the LRT is not an appropriate exercise.
>
> It is entirely relevant that the LRT was only available to Extra-Large Industrial customers "where the rate was required to respond to the competitive challenge of business closure due to economic distress". In fact, during the course of the original LRT proceeding, PHP's predecessor in ownership of the mill, shutdown and sought creditor protection under the federal *Companies' Creditors Arrangement Act*. The economic stability of PHP and the resulting risk of non-payment is not comparable. Since taking ownership of the mill, PHP has had a perfect payment record over the course of the seven-year LRT term. There is therefore no justification to impose security and disconnection provisions such as those imposed under the LRT.
>
> [Exhibit N-39, p. 12]

[109] Under the ELIADC, PHP has provided NS Power with an irrevocable standby letter of credit, as it did under the LRT. NS Power submits that is appropriate as security for payment.

[110] At the hearing, NS Power indicated it did not object to amending the ELIADC to provide for the direct referral of a billing or disconnection dispute to the Board rather than to the DRO. In its Undertaking U-6, NS Power confirmed this position, stating that it "does not believe that the DRO is the appropriate forum for resolution of a billing dispute under the ... ELIADC".

[111] In its Final Argument, PHP confirmed its agreement with NS Power's view that a billing or disconnection dispute be referred directly to the Board rather than to the DRO. It added that, with this clarification, it supported the proposed ELIADC Security For Payments provision.

Findings

[112] The Board is mindful of the Industrial Group's submission that PHP's load represents a significant part of NS Power's system, and that its non-payment of bills creates a risk that is materially and significantly greater than the risk of non-payment by

other customers. In this respect, the Board notes that, under the proposed terms of the ELIADC, PHP has provided NS Power with an irrevocable standby letter of credit.

[113] Further, NS Power and PHP have agreed with the Industrial Group's submission that the ELIADC be amended to provide for the direct referral of a billing or disconnection dispute to the Board rather than to the DRO. The Board finds it appropriate that such disputes under the ELIADC be referred to it directly, and it so orders. The amended terms of the ELIADC tariff respecting the dispute resolution process are to be addressed in the Compliance Filing.

[114] In the Board's opinion, this direct referral of billing or disconnection disputes to the Board, with the corresponding elimination of the DRO process and the appeal period to the Board, would serve to significantly reduce the number of days that a potential default would remain outstanding. This would reduce the level of risk for other ratepayers. Moreover, the Board expects NS Power to manage any remaining risk to ratepayers through its administration of the irrevocable standby letter of credit. The Board concludes that no further amendment to the ELIADC security for payment provisions is required and otherwise approves them.

3.11 Payment of Lag Costs

[115] In its Closing Submissions, the Industrial Group suggested that the provision of the irrevocable letter of credit to NS Power resulted in a payment lag by PHP. In other words, it submitted that the "change from payable one week in advance to being due seven days after billing at the end of the week introduces a 14 day lag period". Ms. Rubin submitted that if NS Power had been paid on the original schedule, two weeks earlier, it could have invested that money and had a higher income which would have

been credited to above-the-line customers, in the approximate amount of $230,000 annually.

[116] Both NS Power and PHP refuted this submission, stating that there was no payment lag, and that, in any event, this issue was not relevant to the present proceeding for approval of the proposed ELIADC. In its Reply Submissions, PHP stated:

> …However, the Industrial Group neglected to note that in approving the letter of credit option, the Board's Decision letter [dated May 23, 2014] specifically cited NSPI's evidence that:
>
> > "Providing PHP with the letter of credit option would impose no additional costs on other customers."
>
> Clearly there was no contemplation of PHP accounting for the earning of interest on advance payments if a letter of credit was provided. PHP would not have provided a letter of credit if this was the case. Both the advance payments and letter of credit are "security for payment" options, they are not an earnings option. The advance payments were not instituted to allow earlier interest earnings but rather to secure payment. The letter of credit itself comes at a cost to PHP. The Industrial Group's position is simply incorrect.
>
> Importantly, this also has nothing to do with this proceeding. To suggest in a proceeding dealing with a new rate that PHP or NSPI should be somehow liable to account for prior costs which neither it nor NSPI ever contemplated is a remarkable proposition, fully unsupported by the record. It was never contemplated that there would be foregone revenue if PHP paid its bills on time.
>
> [Exhibit N-40, p. 14]

[117] NS Power echoed PHP's Reply Submissions, stating this issue was beyond the scope of the present proceeding. Notwithstanding the foregoing, it added that the provision of the letter of credit did not result in a lag time for payments, nor did it trigger additional costs as all payments were made by PHP.

Findings

[118] The Board accepts the submissions of PHP and NS Power that the issue raised by the Industrial Group is not relevant to the present proceeding, which relates to the approval of a new tariff. In any event, the Board notes that it already indicated in its prior Decision letter that "Providing PHP with the letter of credit option would impose no

additional costs on other customers." The advance payments were not instituted to allow earlier interest earnings, but rather to secure payment. Further, as noted by PHP, this issue was never identified as a concern, or raised as an issue, in the prior LRT audits.

3.12 Administrative Charge

[119] When the Board originally approved the pricing mechanism for the LRT it included an administrative charge of $27,700 per month. Later that was amended to $30,000 per month.

[120] NS Power did not include any administrative charge in the ELIADC Tariff and instead advised administrative costs would be classified as Operating Maintenance and General. NS Power stated that, in light of the new demand relationship, it was inappropriate to attempt to isolate and seek to recover NS Power's administration costs. Other system dispatch costs for administering the ELIADC Tariff will be included in Operating Maintenance and General costs.

[121] The Industrial Group argued that there should continue to be an administrative cost provision under the ELIADC Tariff and that the Board should require NS Power to provide a breakdown of such a customer charge in the Compliance Filing.

[122] In response to Undertaking U-11, NS Power argued that including all costs in Operating Maintenance and General was appropriate, given the nature of the Tariff as an Active Demand Control service being provided by PHP in a similar fashion to the manner in which NS Power's generating units are made available, to help achieve the lowest overall cost to the system. Mr. Ferguson, in testimony, noted that the Tariff was really about a partnership in the management of the PHP load. He advised both parties

will have costs associated with the management of the load and basically it is fair that each party assume responsibility for their own costs associated with the Tariff.

[123] Board Counsel consultant Synapse advised that it was not unreasonable to allow the administrative costs to be rolled into NS Power's overall operating and maintenance dispatching expenses. Synapse stated:

> Moving to direct load dispatch for weekly, daily and even potentially hourly intervals does provide a system-wide benefit because NS Power can fully optimize the scheduling of PHP load (subject to the tariff protocol constraints). Given the tariff construct that will allow for increased benefits to other customers and given the nature of adding directly dispatchable load to NS Power's system, it is not unreasonable to allow these administrative costs to be rolled into NS Power's overall O&M dispatching expenses.
>
> [Exhibit N-14, p. 5]

Findings

[124] The Board accepts the evidence of PHP, NS Power and Synapse that, given the rate design and the relationship between the parties, it is appropriate to allow administrative costs to be rolled into NS Power's overall operating maintenance and dispatching expenses.

[125] Therefore, the Board does not order a separate administrative charge.

3.13 Transmission Revenue

[126] In his Pre-filed Evidence the CA's expert, Mr. Chernick, identified that the ELIADC Tariff does not account for the lost transmission revenues, under a wheeling tariff, that could occur in the event Muskrat Falls energy, which comes through the Maritime Link, is diverted to serve PHP and not exported through Nova Scotia.

[127] In its Reply Evidence, PHP noted that the rate design of the ELIADC Tariff was developed to allow PHP's load to be utilized to maximize overall system benefits inclusive of transmission opportunities. PHP stated it was unclear how such a calculation

of unknown transactions by third parties outside Nova Scotia could be done with any degree of accuracy.

[128] Likewise, NS Power, in its Reply Evidence, noted that the PHP load would be dispatched as a fully integrated system resource and NS Power would optimize its portfolio to achieve the least cost solution to serve all customers.

[129] NS Power stated to the extent total system costs can be lowered by re-dispatching generation to serve all customers, including PHP, while collecting transmission revenue from wheeled energy, NS Power would pursue those opportunities such that the dispatch optimization will reflect the least cost solution, including opportunities to collect transmission revenues. Therefore, it argued, it is not necessary to include an allowance for lost transmission revenues.

[130] Mr. Chard, on behalf of NS Power, noted in cross-examination that NS Power could develop a methodology through optimization of its dispatch that resulted in the least cost solution for all customers inclusive of transmission costs.

Findings

[131] Other than Mr. Chernick, none of the other experts raised this issue.

[132] The Board agrees with PHP that it would be difficult to calculate lost revenue of unknown wheeling transactions by third parties.

[133] NS Power advised, to the extent system costs can be lowered by re-dispatching generation to serve all customers, including PHP, while collecting transmission revenue, that will be done.

[134] The Board accepts that evidence and also notes the evidence of Mr. Chard that NS Power will develop a methodology through optimizing its dispatch so that it results

in the least cost solution for all customers inclusive of transmission costs. The Board expects NS Power to implement such a proposal.

[135] Accordingly, the Board is not prepared to amend the rate to account for notional lost transmission revenues.

4.0 COMPLIANCE FILING

[136] The ELIADC Tariff and Rate approved in this Decision, as amended, is effective as of January 1, 2020.

[137] NS Power is directed to file a Compliance Filing no later than April 9, 2020, with respect to the approved ELIADC, including but not limited to, the setting of the VCC amount, the treatment of the VOM, the requirement to file financial information of PHP in the event the ELIADC tariff is re-opened, and the amendment to the Payment for Security provision to reflect the direct referral of a billing or disconnection dispute to the Board rather than to the DRO.

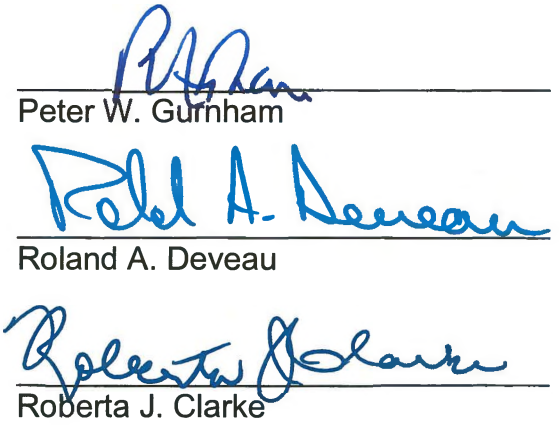
[138] The Formal Intervenors must provide comments, if any, no later than April 16, 2020.

5.0 CONCLUSION

[139] The Board approves the ELIADC Tariff and Rate, with some amendments noted in this Decision. It shall be effective as of January 1, 2020, and have a four-year term (2020-2023). NS Power is directed to report on the service provided under the Tariff in its quarterly and monthly FAM Reports.

[140] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 26th day of March, 2020.



Peter W. Gurnham

Roland A. Deveau

Roberta J. Clarke