

WATAYNIKANEYAP POWER LP

Responses to Supplemental Interrogatories of Board Staff

C-STAFF-62

Reference: Exh C-3-1
Exh J-1-1
Response to C-Staff-8
EB-2018-0267

Preamble: In response to part (b) of C-Staff-8, WPLP states that it will record OM&A costs that it incurs during the temporary period during which the Pikangikum System operates at a distribution voltage, as well as any capital costs that it incurs during that period that are not covered by the \$60.2 million construction funding in the Wataynikaneyap Distribution System Deferral Account that has been established in EB-2018-0267.

In response to part (c) of C-Staff-8, WPLP states that it plans to roll the amounts recorded in the Wataynikaneyap Distribution System Deferral Account (including OM&A costs that WPLP incurs during the temporary period during which the Pikangikum System operates at a distribution voltage) into its initial transmission rates for the Transmission System. If the amounts are material, WPLP may apply to clear the amounts during the interim period when the Pikangikum System is operated at distribution voltage.

Request:

- a) Please explain how rolling the amounts in the Wataynikaneyap Distribution System Deferral Account into its initial transmission rates for the Transmission System is consistent with the principle of “benefits follows costs”.

Response:

Hydro One Remote Communities Inc. (“HORCI”) is the sole customer for, and beneficiary of the services provided by, both the distribution line from Red Lake to Pikangikum (the “Pikangikum System”) and the Remote Connection Lines that will eventually supply electricity at a transmission voltage to the remote communities, including Pikangikum.

As the sole customer for the Pikangikum System, HORCI is responsible for paying WPLP’s cost to serve from the Pikangikum System, which is reflected by the amounts that are recorded in the deferral account. If the amounts are material and WPLP applies to clear the amounts recorded in the deferral account through a distribution rate applicable to HORCI, then HORCI would be

responsible for including that cost in its revenue requirement and socializing that cost through RRRP in accordance with O. Reg. 442/01 under the *Ontario Energy Board Act, 1998*.

In the event that WPLP rolls amounts recorded in the deferral account into its initial transmission rates, then under WPLP's proposed cost recovery framework WPLP would collect its revenue requirement related to the Remote Connection Lines through a charge to HORCI. HORCI would be responsible for paying the entire cost for the Remote Connection Lines and for including that cost of the Remote Connection Lines in its revenue requirement and socializing that cost through RRRP in accordance with O. Reg. 442/01.

Under either scenario, HORCI is responsible for the costs. On this basis, rolling the amounts that are recorded in the Wataynikaneyap Distribution System Deferral Account into WPLP's initial transmission rates for the Transmission System is consistent with the principle of "benefits follows costs" as the same customer that receives the benefit of the service will be responsible for the costs.

As described in Exhibit C, Tab 1, Schedule 1 (Pages 10-11) of the pre-filed evidence, the urgent needs of the Pikangikum community required the Pikangikum System to be constructed on an accelerated basis over a one year time frame. As further described in Exhibit C, Tab 3, Schedule 1 of the pre-filed evidence, the Pikangikum System was constructed at a 115 kV transmission standard so as to be functionally equivalent to transmission as the intent has always been to convert it into part of WPLP's transmission system, comprising the first segment of the Remote Connection Lines running north from Red Lake. The transmission project as a whole has been designated as a priority project under the applicable legislative framework such that the need for the project has been established as being in the public interest. As such, the treatment of the Pikangikum System and the transmission project as a whole under RRRP is consistent with the legislative and regulatory regime that has been established. The costs incurred for operating and constructing that part of the transmission project that connects Pikangikum to the electricity grid at a distribution voltage until such time as it can be connected at a transmission voltage furthers the public interest such that the public interest benefit, reflected in the legislative framework and the Orders-in-Council, appropriately follows the cost.

Finally, WPLP notes that the unique purpose and treatment of amounts to be recorded in the Wataynikaneyap Distribution System Deferral Account was supported by the OEB in its Decision and Order approving the account in EB-2018-0267.

C-STAFF-63

Reference: Exh C-6-1
Response to C-Staff-12
Response to HORCI-8

Preamble: For all connecting communities, upgrades are required to install wholesale metering equipment. In the response to C-Staff-12, WPLP states that the costs are included in WPLP's project cost estimate. HORCI set out a cost of \$5.935 million for wholesale metering in the preamble of HORCI-8.

Request:

- a) Is the amount of \$5.935 million consistent with the wholesale metering cost included in WPLP's project cost estimate? Please explain.

Response:

HORCI's cost estimate of \$5.935 million for wholesale metering equates to approximately \$370k for each of the 16 metering installations.

WPLP can confirm that it included \$125k as a distinct line item for primary metering equipment (i.e. material cost of Potential Transformers and Current Transformers only) in the cost estimates for each of its transformer stations. Additionally, WPLP included costs in each of its substation estimates for 25 kV, low voltage and communication materials generally, such as insulators, enclosures, connectors, wiring, grounding, etc., as well as direct labour costs related to installation and commissioning of 25 kV, low voltage and communications equipment. While these line items were not distinctly allocated between wholesale metering and other 25 kV, low voltage and communication equipment, WPLP estimates that the cost estimate for each of its transformer stations includes approximately \$200k in additional costs related to wholesale metering, resulting in a total estimate of approximately \$325k per installation. The difference between WPLP's estimate and HORCI's estimate, being approximately 15%, is accounted for through contingency amounts that are included in WPLP's total cost estimate.

C-STAFF-64

Reference: Exh C-6-1
Response to C-Staff-12
Response to C-Staff-13
Response to C-Staff-15

Preamble: WPLP states that the distribution systems operated by IPAs have been assessed and any deficiencies identified will be resolved. Parties involved in this work are the IPAs, Opiikapawiin Services Limited Partnership, INAC, HORCI and ESA.

In response to C-Staff-13, WPLP confirmed that, with the exception of Pikangikum, IPA system upgrades are not included in the estimate for the transmission facilities. WPLP advised that the forecast upgrade cost of \$3.8 million for Pikangikum is included in the overall cost for the Pikangikum system, and is being paid for through INAC funding for the Pikangikum System.

Request:

- a) Please confirm, as noted in Exh J-1-2, that the total funding provided by INAC for Pikangikum (which includes costs for the Pikangikum IPA system upgrades) is considered to be part of the funding INAC provides for substantial completion of the transmission project.
- b) Will INAC fund the cost of the assessments and resolution of deficiencies for the other six IPA systems? If yes, please advise whether the INAC funding is separate from the INAC funding described in Exh J-1-2. If no, please advise as to how the assessments and resolution of deficiencies for the other six IPA systems will be funded.
- c) No estimates were provided for the cost of the assessments and resolution of deficiencies for the other six IPA systems. Is it reasonable to assume \$3.8 million as an estimated cost for the other six IPA communities? If not, what is a reasonable amount?

Response:

- a) WPLP confirms that the total funding provided by Indigenous Services Canada (“ISC”, formerly INAC) for Pikangikum (which includes costs for the Pikangikum IPA system upgrades) is considered to be part of the funding Canada provides for substantial completion of the transmission project.
- b) ISC will fund the costs of the assessments and resolution of deficiencies for the other six IPA systems. This ISC funding is separate from the funding described in Exh J-1-2. Please refer to WPLP’s responses to HORCI Supplemental IRs 2 (a) and (c) for additional information.

- c) The Project Approval Request (“PAR”) funding application to ISC is currently being prepared by Opiikapawiin Services LP (“OSLP”), ISC and the corresponding First Nations. While there are similarities between the upgrades required for Pikangikum (i.e. the need for HORCI accommodation and compound), the upgrades to the IPA distribution systems will be unique to each community and will be dependent on the number and nature of the deficiencies identified and the work required to address the deficiencies. As such WPLP is not in a position to confirm \$3.8 million as a reasonable estimated cost for each of the other six IPA communities. However, given Canada’s commitment to funding the required upgrades through ISC, WPLP does not believe that the costs of those upgrades are relevant to its application for leave to construct. Please refer to WPLP’s responses to HORCI Supplemental IRs 2 (a) and (b) for additional information.

C-STAFF-65

Reference: Exh B-1-1 page 5
Exh C-8-1
Exh D-1-2
Response to C-Staff-2
Response to C-Staff-13
Response to C-Staff-16
Response to E-Staff-30
Response to HORCI-5
OPA/IESO Business Case Report, page 50

Preamble: The above references identify costs that will be necessary for the implementation of the WPLP proposal, but which are not included in WPLP's project costs (i.e. at C-8-1). These include:

- Bringing applicable communities to ESA standards (e.g. OEB Staff 13, OPA/IESO Business Case Report)
- Securing backup generation (e.g. HORCI 5, C-Staff-16)
- Wholesale metering to facilitate community distribution system connections (e.g. HORCI 8)
- Establishing a control room from which operators will remotely monitor the configuration and status of WPLP's transmission system (e.g. OEB staff 30)
- Transitioning IPAs to being served by Hydro One Remotes (e.g. OEB Staff 13)

Request:

- a) Please provide cost estimates for each, an explanation of who is responsible and who will pay for the above noted items, in order to provide the OEB with a full understanding of the costs required to make the project used and useful.
- b) Please also provide the same information for any additional work, beyond the above noted items, that WPLP is aware will be required to complete the overall project and make it used and useful.
- c) WPLP is not requesting leave to construct (LTC) for the control room. WPLP states that it will include the costs of the control room in its first transmission rate application. As such, the absence of the control room from this LTC application seems to suggest to OEB staff that the control room is a 'discretionary' investment in terms of this overall transmission project. Is this correct? Please explain.

- d) What would be the implications to the project if the OEB were to deny the cost recovery of the control room in WPLP's first transmission rate application?

Response:

Many of the items listed in the preamble are beyond the scope of Section 92 and are not subject to the requirement for leave to construct the transmission lines. WPLP acknowledges that it will incur certain costs as a new transmitter, but is of the view that any such costs that are not directly related to the construction of its transmission system would be appropriately considered in a future application for transmission rates. Further, the costs of many items listed in the preamble will be funded by non-regulated parties, and therefore are not recovered through rates, as identified below.

Additionally, Board staff has suggested that the test by which the OEB considers whether capital additions are in-service is "used and useful". In WPLP's view this is incorrect, as the Board has previously clarified that the appropriate test is "used or useful".¹ The premise to part a) of the question is therefore incorrect, since the project would be able to provide service to the connecting communities, and thereby be "useful", irrespective of whether most of the items listed in the preamble are complete.

- a) Notwithstanding the above clarifications, the following table provides information on responsibility for completion, and cost responsibility, for items listed in the preamble. Cost estimates for each item are unknown at this time as these items are subject to both further definition of scope and future procurement processes. The cost of wholesale metering is included in WPLP's project costs, as described in response to HORCI IR 8 and Board Staff Supplemental IR 63, and as such is not included in this table.

Description	Cost Estimate	Responsibility for Completion	Cost Responsibility
IPA distribution system upgrades to ESA standards and transitioning IPAs to HORCI	Not available at this time – the PAR application process currently underway will determine estimated costs – please refer to the response to Board Staff Supplemental IR 64 (c)	Each IPA community to be connected by the project. See response to HORCI Supplemental IR 3(a)	Canada
Securing backup generation	Not available – a process is underway for Canada and First Nation Limited Partnership ("FNLP") to	Canada, FNLP and each of the Connecting Communities. Please refer to the response to	To be determined

¹ EB-2012-0064; Partial Decision and Order; Ontario Energy Board; April 2, 2013; pp.13-14.

Description	Cost Estimate	Responsibility for Completion	Cost Responsibility
	identify the appropriate solution for each community – please refer to the response to Board Staff Supplemental IR 67	Board Staff Supplemental IR 67	between Ontario and Canada
Establishing a control room, including cost of SCADA system	Not available at this time – please refer to the response to part (c), below	WPLP	WPLP

- b) Subject to WPLP's preamble to its response, above, WPLP is not aware of any other costs required to complete the overall transmission project or to make it used or useful. However, WPLP notes that it anticipates making additional capital investments to support ongoing operation of its transmission system, including with respect to fleet, operating centres, business systems and inventory.
- c) Please refer to WPLP's response to Board Staff IR 30 (a). WPLP does not view control room functionality as discretionary, but acknowledges that there is discretion in how this is accomplished (i.e. stand-alone control room, contracting to a third party, or some combination of both). While WPLP's current intention is to establish a stand-alone control room, it has not precluded other possibilities. As such, the control room scope, as well as the quantum and nature of associated costs (i.e. capital vs. O&M), will be included in a future application to establish transmission rates.
- d) As described in response to part c), above, WPLP will seek to establish a prudent investment choice with respect to control of its transmission system, including the consideration of other options related to control room functionality. As such, WPLP sees no reason why the OEB would deny its prudently incurred costs related to control room functionality at the time of its first rate application. In the hypothetical context of the OEB denying cost recovery for the control room (or other arrangements related to the appropriate control of WPLP's system), then WPLP's financial performance would be negatively impacted as a result of that decision.

C-STAFF-66

Reference: Exh C-8-1
Exh E-1-1
Response to E-Staff-30

Preamble: The response to D-Staff-29 discusses the costs of the Hydro One investments that the application identifies are necessary to make WPLP's transmission project viable and the agreement under which WPLP will compensate Hydro One for any amounts if the OEB were to deny Hydro One recovery in rates. According to the response, Hydro One estimates those investments will cost about \$30.5M and would result in a \$0.01 increase in the Network Service Rate and a residential customer bill increase of \$0.01 per month. However, WPLP notes those impacts are "*not incremental to the ratepayer impacts presented by WPLP*" because they are already included in the cost estimates set out in the application. OEB staff seeks clarification in relation to this interrogatory response.

Request:

- a) Are those costs (i.e., \$30.5M) included in the \$1.26B associated with the Remote Connection project?
- b) If so, please clarify why WPLP would include the costs associated with investments it will not make in its own project cost.
- c) Please also clarify why WPLP believes it would be appropriate to include costs in its own project cost for recovery from ratepayers if the OEB were to deny Hydro One cost recovery in relation to the same costs.

Response:

- a) No. The \$1.26B refers to the estimated capital cost attributable to the Remote Connection Lines. The costs estimated by Hydro One are included in WPLP's cost estimates associated with the Line to Pickle Lake, and not the Remote Connection Lines. At Exh D-1-2, pages 2-3, the pre-filed evidence describes the station and line facilities that Hydro One intends to construct at each of Dinorwic, Pickle Lake and Red Lake for the purposes of interconnecting WPLP's project to Hydro One's existing transmission facilities. WPLP notes that the scope of work at the Red Lake connection point (no station work and a line tap of less than 100 m) is minimal in comparison to the scope of work at Dinorwic and Pickle Lake (which require a station at each location and multiple line connections). On pages 5-6 of Exh D-1-2, the pre-filed evidence describes how all of these facilities would be classified by Hydro One as Network assets. In the event WPLP is required to make payments to Hydro One in respect of these costs (for reasons described in (c), below), it would consider those payments as capital

contributions paid to Hydro One, which would then be included in WPLP's rate base. Since the assets in question are Network assets, WPLP would include these costs along with the Line to Pickle Lake costs for recovery through the Network UTR.

- b) If WPLP is required to make a capital contribution to HONI towards the work HONI needs to undertake to enable connection of the Line to Pickle Lake, then WPLP's agreement with Hydro One requires WPLP to pay Hydro One any costs that the OEB determines should have been allocated to, or paid by WPLP. In that case, WPLP would record the amount of the contribution in its own rate base associated with the Line to Pickle Lake, and Hydro One would record the contribution as an offset to its cost of the work. In the event that the OEB determines that Hydro One can recover all or a portion of these costs through its rates, then WPLP has stated that it expects its own costs to be correspondingly lower. In either case, by including the total costs in WPLP's own project cost estimate, the costs are appropriately and conservatively included in the rate impacts presented in the application.
- c) WPLP assumes that all costs will be prudently incurred, and therefore expects that if the OEB were to deny cost recovery to Hydro One, it would be on the basis of a determination that all or a portion of the prudently incurred costs should be allocated to WPLP. In that case, the costs would be a capital contribution paid by WPLP to Hydro One. Hydro One would retain ownership of the assets, and would apply any contribution from WPLP as an offset to its rate base. Correspondingly, WPLP would include any contribution paid to Hydro One in its own rate base, and recover these costs over time through the Network UTR.

C-STAFF-67

Reference: Exh C-5-1, pages 7-8
Exh B-2-1
Exh B-4-1, Appendix D, page 4
Response to C-Staff-16

Preamble: WPLP's response to OEB Staff IR 16 confirms that "all of the Remote Communities being connected to the proposed Transmission Project will require backup power". WPLP's response further references WPLP's obligation under the IESO Scope Report to facilitate the arrangement of backup supply. WPLP's response also indicates that the BBA Backup Power Report obtained by WPLP is to provide a "basis for informed discussion between the appropriate parties" and that "discussions between these parties are ongoing".

Request:

- a) Is WPLP able to confirm that all necessary back-up generation will be available within the timelines set out by WPLP for the connection of remote communities?
- b) Would WPLP agree that its responsibility to facilitate the arrangement of backup supply includes ensuring that backup supply is available on or before the date of grid connection?

Response:

- a) As part of finalizing the definitive documents for the Government Funding Framework, Canada, Ontario, WPLP and First Nation LP have agreed to enter into a Parallel Process Agreement which outlines the process for addressing backup power needs. As part of the Parallel Process Agreement, Canada and First Nation LP agree that they will continue to work together (including with the Connecting Communities) and will involve other interested parties as appropriate (including Ontario, WPLP, the IESO and HORCI) to develop a backup power plan and commitments for the Connecting Communities that can be put into service following the Completion Date, including giving consideration to appropriate reliability and service standards, and which may include the utilization of existing generation facilities that are in a condition to be safely operated for such purposes in accordance with good utility practice.

ISC has committed to working with the Connecting Communities, the Ontario Ministry of Energy, Northern Development and Mines and HORCI to define the process to establish a backup power implementation plan and finalize an implementation plan in calendar year 2019. Following negotiation of its EPC contract(s), WPLP will communicate the expected timing of the connection date for each Connecting Community to all parties for use in developing the implementation plan. WPLP is therefore confident that the process and commitments made

within the Parallel Process Agreements will result in the necessary back-up generation being available within the timelines set out by WPLP for the connection of remote communities.

As noted in response to HORCI Supplemental IR 2(a), WPLP is a contractual party to the Parallel Process Agreement and will facilitate the backup generation planning and provide assistance to ensure that the backup generation plan is implemented.

- b) WPLP's responsibility with respect to backup power as outlined in the IESO Scope Document, is to facilitate the arrangement of backup supply resources for connecting communities where such facilities do not already exist, other arrangements have not been made, or the community has not specifically requested an exemption. The BBA report commissioned by WPLP recommends the use of existing generating facilities in each community as a viable option for meeting backup power needs. Following receipt of the BBA report, HORCI was engaged to complete a further report to assess the requirements for conversion of existing generating facilities to a backup power capacity (including appropriate reliability and service standards), and to assess the requirements to implement and maintain this solution in each community, including the consideration of any impacts resulting from forecasted load growth. The BBA and HORCI reports were provided to Canada and First Nations LP, and are referenced in the Parallel Process Agreement to inform the selection of an appropriate backup power solution for each community. In WPLP's view, a viable solution that leverages investments in existing generation and fuel storage assets has been put forward as the preferred approach, with cost responsibility to be determined between Ontario and Canada as indicated in response to Board Staff Supplemental IR 65. As such, WPLP considers that its responsibility to facilitate a backup power solution, as identified in the IESO Scope Document, is being met.

Canada and First Nations LP are the parties that are responsible for development and implementation of the backup power plan, including identifying costs, and are thus the parties in control of the timeline for completion. WPLP is a contractual party to the Parallel Process Agreement and will continue with ongoing facilitation during both the planning and implementation stages, as described in part (a), above.

C-STAFF-68

Reference: Exh C-5-1
Exh D-1-2
Response to C-Staff-17
Response to D-Staff-28
Response to D-Staff 29

Preamble: The response to C-Staff-17 refers to HORCI and HONI infrastructure elements and work that is outside the direct control of WPLP.

The response to C-Staff-29 states that an estimated cost of \$30.5 million for HONI investments to connect WPLP has been included in the WPLP project estimate.

Request:

- a) What is the estimate of the costs related to HORCI infrastructure to connect WPLP?
- b) Are costs in (a) included in the WPLP project estimate?

Response:

- a) HORCI has estimated a total cost of \$5.935 million related to wholesale metering for all communities. To avoid confusion, please note that this is distinct from HONI's estimate that it will incur costs of \$30.5 million for the infrastructure it needs to connect WPLP, as described in response to Board Staff Supplemental IR 66.
- b) Please see response to Board Staff Supplemental IR 63.

C-STAFF-69

Reference: Exh I-1-1 pages 1-10
Exh KP1
Response to I-Staff-37

Preamble: WPLP states that the Ministry of the Environment, Conservation and Parks (MECP) received a request for hearing on WPLP's Environmental Assessment (EA) for the line to Pickle Lake. WPLP has filed a submission in the matter.

Request:

- a) Has the MECP issued a decision in the matter? If so, please briefly describe the outcome and any potential impact on the project schedule and budget. If not, when is the decision expected?

Response:

MECP has not issued a decision in the matter. The decision is expected in Q1 2019 when a final decision is made regarding the individual environmental assessment for the Line to Pickle Lake.

C-STAFF-70

Reference: Exh J-3-1 page 1
Exh B-1-1 page 10
Response to J-Staff-42
KP1

Preamble: OEB staff finds the response to J-Staff-42 somewhat confusing. Regardless of the manner in which the Federal funding is provided, OEB staff's understanding from the application is the Federal Government is providing funding of \$1.55B towards the costs of the transmission project. That, in turn, amounts to \$1.55B that will not ultimately be recovered from ratepayers since it would already be provided by taxpayers. Staff's understanding is the increase in RRRP is an "interim" approach to help cover the capital and operating cost of the project because Federal Funding is being provided in two lump sum payments, with half provided once the project is completed (i.e., offset the increase in RRRP and a capital contribution to WPLP).

Request:

- a) If staff's understanding is not correct, please explain the purpose of the RRRP increase (that the Federal Government will provide funding to offset) if it is not to pay for the Remote Connection Line project.
- b) Given a number of IR responses note that none of the Federal funding will be used to cover any of the cost of the Line to Pickle Lake, please provide a table showing how the cost of the Remote Connection Line project would meet or exceed the \$1.55B that the Federal Government has committed to provide.
- c) The response to J-Staff-42 also only discusses how RRRP and the Federal Capital Contribution will be used to fund the Remote Connection project (where the increase in RRRP would offset the rate WPLP proposes to charge HORCI to recover capital and operating costs). However, WPLP's presentation (KP1) indicates that the "Revenue requirement impact" associated with "part of Remotes" will be "recovered via UTR". Please clarify why the UTR would be used to recover WPLP's revenue requirement associated with the Remote Connection project and identify the annual amount WPLP expects to recover through the UTR. Please also clarify where that is explained in the application.

Response:

- a) Staff's understanding, as demonstrated by the preamble and the question asked, is not correct. To understand the RRRP impacts of the project, it is necessary to understand the overall proposed rate framework, as well as the funding framework contemplated for the project.

As discussed in Exh. J-1-1 and J-1-2 of the pre-filed evidence, on slides 28, 30 and 32 of Exh. KP1, as well as in prior interrogatory responses (See for example Board Staff IR 43(e)), the proposed cost recovery and rate framework is critical to enabling the financial viability of WPLP and the proposed transmission project. Moreover, the government funding arrangements have been designed to work with the proposed cost recovery and rate framework. If the proposed cost recovery and rate framework is not accepted, then the transmission project would be unlikely to proceed and third party financing would be jeopardized. Furthermore, the government funding arrangement would be inconsistent with the rate framework and may cause the government funding arrangement to be ineffective.

The basis for the funding framework is the Funding MOU between Canada, Ontario and WPLP, which is described in Exh J-1-2. Ultimately, the funding will be provided pursuant to the definitive documents, which are being finalized in Q1 2019 so as to give effect to the funding arrangements contemplated in the Funding MOU. Under the funding framework, the Federal Government has committed a total of \$1.55B in funds in support of Ontario's efforts to connect the remote communities to the provincial electricity grid.

It is important to recognize that the Federal Government has not committed to providing the full amount of the \$1.55B in funding as a capital contribution to WPLP. Rather, it has committed to providing only part of the funding to WPLP. Only this portion of the funding, which will be provided as a capital contribution, will reduce WPLP's rate base. That capital contribution will be made upon completion of the overall project, with the specific amount to be determined in accordance with the definitive documents, but in general increasing as the capital costs of the project increase so as to provide an incentive for cost control and to manage impacts on ratepayers.

The remaining part of the federal funds will be held in an independent Trust, which will use the funds to offset the RRRP impact of the project (described below) arising from WPLP's proposed rate framework. Under that rate framework, HORCI will be charged a rate by WPLP. HORCI will attribute this cost to its revenue requirement, which will trigger increased RRRP payments to HORCI. Using the funds received from the Federal Government, the independent Trust will make payments to the IESO for the purpose of offsetting the RRRP impact of HORCI's increased revenue requirement. This will mitigate the rate impacts of the project for Ontario ratepayers over time until the independent Trust has exhausted its funds.

As indicated in response to Board Staff IR 48, as part of the definitive documents it is expected that an independent Trustee will be established pursuant to a Trust Agreement. WPLP is not and will not be a party to the Trust Agreement. Rather, it is Ontario that will have sole authority to direct the independent Trust in accordance with the Trust Agreement. As such, the portion of the Federal Government funding that is allocated to the Trust under the funding framework will be outside of WPLP's control.

The funding framework therefore provides for the Federal Government funding to be used for two distinct purposes and recipients.² To understand how the federal funding will be used by the independent Trust, and the implications for RRRP, it is necessary to understand the proposed rate framework. To be clear, WPLP will have no control over the portion of funding that will be used by the independent Trust to offset RRRP.

The proposed rate framework contemplates that WPLP would charge a fixed, monthly, OEB-approved transmission rate to its sole customer, HORCI. Pursuant to the RRRP regulation, O. Reg. 442/01, HORCI will include its cost of receiving transmission service from WPLP as part of its revenue requirement. HORCI will from time to time apply to the OEB for approval of its rates to enable it to recover its total revenue requirement for the relevant period. In accordance with the RRRP regulation, a portion of HORCI's revenue requirement (which will include an amount attributable to receiving service from WPLP's system) will be recovered by HORCI through the RRRP mechanism rather than directly from the specific customers that it services in remote communities. To the extent that the amount to be included in the RRRP charge, which is paid for by all Ontario ratepayers, reflects HORCI's cost of receiving service from WPLP's system in a given period, the independent Trust will - based on direction from Ontario and in accordance with the Trust Agreement in furtherance of the initial purpose of the Trust - provide funding to the IESO.

The IESO, in carrying out its settlement function in relation to RRRP, will use the funding from the independent Trust to offset the amount in RRRP that is attributable to HORCI's cost of receiving transmission service from WPLP in the period. It is expected that the independent Trust will provide such funding to offset RRRP for so long as it has funds remaining to do so.³

The RRRP structure will apply whether or not the Federal Government funding is appropriated. This is because the RRRP regulation is designed to subsidize HORCI's revenue requirement, which will include HORCI's cost for receiving transmission service from WPLP based on the fixed, monthly, transmission rates for which WPLP would obtain OEB approval through future rate applications. As such, the increases in RRRP caused by HORCI's revenue requirement, which will include its cost of receiving service from WPLP, are not an "interim measure" as suggested by Board staff in the preamble.

An example of the allocation of the Federal Government contribution to the independent Trust and WPLP can be found on slide 36 of the presentation (Exh KP1). As shown in the example on slide 36 of the presentation, with a project cost of \$1.61 billion, and AFUDC of \$137 million, WPLP's rate base would be \$1.747 billion in the absence of funding. In this case, the terms of the Funding MOU would result in WPLP receiving a Federal Government capital

² In addition, the funding framework contemplates the use of a small portion of the funds up front to facilitate the early connection of Pikangikum in recognition of the particularly urgent needs of that community. Other than the early funding for the Pikangikum connection, the Federal Government funding would be paid in two tranches with part paid out upon substantial completion of the transmission project and the remainder paid out on final completion of the transmission project.

³ See response to Board Staff Supplemental IR 72(c) for additional information.

contribution of \$197 million, leaving WPLP with a rate base of \$1.55 billion. The increase in RRRP costs associated with WPLP's revenue requirement (based on a return on capital and depreciation in relation to its rate base, as well as operating costs and applicable taxes) would be offset by payments from the Trust until such time as the Trust is fully utilized.

- b) The Federal Government has committed \$1.55 billion in funds in support of the project. As explained in response to (a), above, only a small portion of the Federal Government funding is paid to WPLP as a capital contribution. The remainder is used to support Ontario's efforts to connect the remote communities to the provincial electricity system and to mitigate the costs of this for ratepayers. Moreover, the availability of funds from the Federal Government is unrelated to the costs of the Line to Pickle Lake and the Remote Connection Lines. Other than the capital contribution that WPLP will receive for the Remote Connection Lines, the remainder of the federal funding is held in the independent Trust, which is directed by Ontario and outside of WPLP's control, and is to be used for the benefit of Ontario ratepayers by offsetting RRRP. As described in response to (a), WPLP will only receive a small portion of the Federal Government funding. Based on an estimated total project cost of \$1.61 billion, WPLP will receive \$197 million in the form of a capital contribution. This value would change based on the total project costs in accordance with the funding agreements.
- c) The rate framework proposed by WPLP would result in the entire revenue requirement associated with the Remote Connection Lines being charged to HORCI through a fixed, monthly transmission rate, as described in response to Board Staff IR 49(a). To clarify, WPLP expects that this rate would be charged to HORCI in lieu of the Line Connection and Transformation Connection UTRs. Like any other transmission connected customer, HORCI would be expected to pay the Network UTR.

WPLP also proposes that, in the event any other customers were to connect to the Remote Connection Lines, the UTR rates would apply to such customers. As a result, following any such connections of other customers, a small part of WPLP's revenue requirement associated with the Remote Connection Lines would be recovered through the UTR. Please refer to WPLP's response to HORCI IR 19 for illustrative examples of additional customer connections and WPLP's responses to HORCI Supplemental IRs 7 and 8 for further discussion of these examples.

J-STAFF-71

Reference: Exh J-1-1
Response to J-Staff-43

Preamble: a) The response to J-Staff-43(a) states that costs to date, other than costs related to the Pikangikum System, have been financed by WPLP shareholders.

b) The response to J-Staff 43(c) states that the Government of Ontario will provide a loan of \$1.355 billion for construction financing.

c) The response to J-Staff 43(c) states that non-government sources will provide a loan of \$0.295 billion for construction financing.

d) The response to J-Staff 43(c) states that, “Operations financing will be provided by non-government third party sources in the amount of 60% of the OEB approved rate base with the remaining 40% being provided by the shareholders in line with the OEB deemed debt to equity structure and in consideration of any capital contribution that may be made to the project under the funding agreements.”

e) The response to J-Staff 43(d) states that “there are alternative cost recovery frameworks.”

Request:

- a)
- i. Are the costs that have been financed to date limited to the costs that have been recorded in the Wataynikaneyap Transmission Development Deferral Account? If not, what other costs have been financed?
 - ii. Please clarify the financing by WPLP shareholders. Was the financing provided by FNLP and/or Fortis (WP) LP, or other sources? If from other sources, please explain.
- b)
- i. Has the financing arrangement with the Government of Ontario been finalized? If not, what steps need to be completed before finalization?
 - ii. Is the financing an arrangement through Infrastructure Ontario? If not, please explain the source of the Government of Ontario financing.
- c) Given the \$1.355 billion loan from the Government of Ontario, when does WPLP forecast the need to have the non-government loan in place?

- d)
- i. What is “operations financing”? Does “operations financing” include financing for OM&A? Please provide details of what is included in operations financing.
 - ii. Please explain why operations financing would be treated as, or in a manner equivalent to, rate base.
- e) Other than the cost recovery framework based on the Transmission System Code (including the alternative capital contribution installment approach that OEB staff identified in J-Staff-52), what are the other cost recovery frameworks were considered and why were they not used by WPLP?
-

Response:

- a) (i) The costs that have been financed to date are not limited to the amounts recorded in the Wataynikaneyap Transmission Development Deferral Account. Financed costs also include start-up costs and pre-November 2010 development costs that were not allowed to be recorded in the Wataynikaneyap Transmission Development Deferral Account as per the OEB Decision and Order in EB-2016-0262.
- (ii) The financing was provided by FNLP and Fortis (WP) LP. To the extent that WPLP or a shareholder received third party funding, the amounts have been reported in the semi-annual reports that have been filed pursuant to the OEB’s Decision and Order in EB-2016-0262.
- b) (i) The financing arrangement with the Government of Ontario has not been finalized. Upon completion of the MOU definitive documents in Q1 2019, Ontario and WPLP will meet to finalize the Government of Ontario financing arrangement. Once the definitive documents for the Government of Ontario financing arrangement have been finalized, WPLP and Ontario will seek approval from their respective leadership to execute the definitive documents. The definitive documents will need to be in place by approximately the time the Leave to Construct in EB-2018-0190 is approved and prior to the start of construction. Please refer to Board Staff Supplemental IR 71(c) for additional information.
- (ii) The source of the Government of Ontario financing arrangement has not been finalized.
- c) WPLP will require the non-government financing to be in place by approximately the time the Application for Leave to Construct in EB-2018-0190 is approved and prior to the start of construction. The Government of Ontario financing arrangement contemplates the Ontario loan being funded in parallel with the non-government sources.
- d) (i) Operations financing refers to the term loan used to finance capital expenditures (i.e. rate base) once all rate base goes in-service and does not include OM&A.

(ii) Please refer to the response to (i), above.

- e) In answering the question, WPLP has assumed Board Staff meant to refer to J-Staff-43(e) not J-Staff-43(d).

When WPLP was referring to alternative cost recovery frameworks in response to J-Staff-43(e), WPLP was making reference to the various cost recovery frameworks identified in Board Staff IRs 8(b), 45(a) and 52(d) and how such alternative cost recovery frameworks may have a significant negative impact on WPLP's future OEB-approved rate base and resulting revenue requirement. Without certainty that WPLP will be subject to the cost recovery and rate framework that it has applied for, this will impact the ability of WPLP's financiers and shareholders to evaluate the risk profile of the business and, ultimately, will adversely impact WPLP's ability to raise capital for construction of the project and the ongoing viability of the project. In addition, the Funding MOU is based on the cost recovery framework that WPLP has applied for and WPLP has demonstrated how funding from Canada would offset future increases to the RRRP rate. Importantly, WPLP has also demonstrated that the impact to ratepayers remains reasonable even in the unlikely case that this funding is not appropriated by Parliament.

J-STAFF-72

Reference: Exh J-1-2
Exh KP1
Response to J-Staff-41
Response to J-Staff-46

Preamble: The responses to J-Staff-41 and J-Staff-46 refer to the design of the Funding MOU holding ratepayers in a “neutral position” when assessing the avoided costs of diesel fuel vs. the WPLP transmission project, HORCI revenue and other avoided costs.

Request:

- a) Please clarify what “neutral position” means.
- b) Is WPLP aware of the assumptions that underpin the “neutral position” analysis? If so please provide the assumptions, including the assumed WPLP Transmission system reliability, and the assumed costs to maintain backup power supply and diesel storage in the response.
- c) Please explain the “neutral positions” analysis in the context of slide 38 of Exh KP1, which estimates that the Trust would offset RRRP for approximately 13 years. Is the “neutral position” for ratepayers time limited?
- d) WPLP’s response to J-Staff-41(b) explained that “Efforts are being made to finalize the definitive documents [in respect of government funding] in December 2018.” Please provide an update on the status of the definitive documents.

Response:

- a) WPLP’s understanding is that the term “neutral position” in this context means that (i) the net present value of the costs of the WPLP transmission system, including the cost for HORCI to supply 7 additional communities and the cost of backup supply over the life of the project, less (ii) the net present value of the avoided costs of diesel over the life of the project for HORCI communities, the additional revenue earned by HORCI as a result of taking on the ownership and operation of 7 additional communities and any other avoided costs currently incurred by the ratepayers of Ontario, will be less than zero. Thus from a net present value calculation the ratepayer will incur less costs under the proposed WPLP transmission solution than under the current cost of diesel generation over the life of the project (40 years). WPLP further understands that the analysis of this neutral position, carried out by Ontario and the IESO, informed Ontario’s decision to designate the project as a priority project for which need has been established and for which need therefore does not need to be further demonstrated through the leave to construct process.

- b) WPLP's understanding is that Ontario worked with the IESO to evaluate the impact the Funding MOU would have on Ontario ratepayers and determined that at a minimum the Federal funding pursuant to the Funding MOU holds ratepayers in a neutral position. The Ontario/IESO analysis was performed on a net present value basis and was based on the OPA/IESO Remote Community Connection Plan with specific assumptions updated to reflect current information, however WPLP is not familiar with the specific methodology used by IESO and/or Ontario.
- c) The neutral position for ratepayers is not time limited, rather it is based on the net present value to ratepayers over the life of the project (40 years). The 13 years only considers the impact of the project on the RRRP rate, and the ability to use the funds allocated to the Trust to offset increases to the RRRP rate. Taking into account any interest earned on funds in the Trust would have the impact of extending the 13 years of offsets. Further, the analysis on slide 38 does not consider the avoided cost of diesel fuel that is inherent in the IESO's comparison between the transmission supply scenario and the scenario involving the continued use of diesel for primary supply.
- d) Negotiations regarding the Funding MOU definitive documents have been completed. Canada, Ontario and WPLP are in the process of receiving final approval of the definitive documents by their respective leadership. The Funding MOU definitive documents are expected to be finalized and signed in Q1 2019.

J-STAFF-73

Reference: Exh J-1-2
Exh KP1
Response to C-Staff-7
Response to J-Staff-46

Preamble: In the response to C-Staff-7 regarding Pikangikum, WPLP states that, “The current forecast for construction differs slightly from the \$60.2 million INAC funding announcement on August 17, 2017. The difference is approximately \$1.6 million (2.7%). Construction is currently being completed and at this stage the costs have not been finalized. WPLP is in discussion with INAC (Indigenous Services Canada) regarding the provision of funding for any prudently incurred final costs in excess of the \$60.2 million that has already been funded.”

In response to J-Staff-46, WPLP states that it has incentives to control the transmission project capital costs, as additions to rate base are subject to OEB review, and WPLP’s equity position goes down as OEB-approved costs go up, per the Funding MOU.

Request:

- a) Please explain why there are different approaches to variances in capital costs between the Pikangikum connection and the Line to Pickle Lake and Remote Community Connection projects.

Response:

In WPLP’s view, there are no differences in the approach to variances in capital costs between the Pikangikum System, the Line to Pickle Lake and the Remote Connection Line components of the Transmission Project.

Based on the preamble, it appears that staff may be under the impression that for variances in capital costs in respect of the Pikangikum System WPLP has an opportunity to seek incremental funding from INAC if those amounts are prudent, but that for variances in capital costs in respect of the Line to Pickle Lake and Remote Connection Line components of the Transmission Project it has no such opportunity and, instead, is subject to potential reductions in its equity position as an incentive to control capital costs.

To clarify, funding of capital costs and the treatment of variances for both the Pikangikum System and the Transmission Project (including the Line to Pickle Lake and the Remote Connection Lines) is established through a single, comprehensive funding framework. Under that framework, Canada has agreed to provide total funding of \$1.55B. As explained in Exh. J-2-1 and confirmed in

response to Board Staff Supplemental IR 64(a), that funding will be provided in two tranches. The first tranche, to be provided upon substantial completion of the Transmission Project, will be \$770M *less funding provided by Canada for connection of Pikangikum*. The second tranche, to be provided upon final completion, will be \$785M. As such, the \$60.2M of funding for the capital costs of constructing the Pikangikum System is effectively an advance of a relatively small portion of the total funding to be provided by Canada.

As described in Exhibit C, Tab 1, Schedule 1 (Pages 10-11) of the pre-filed evidence, the urgent needs of the Pikangikum community required the Pikangikum System to be constructed on an accelerated basis over a one year time frame. To address the unique challenges associated with the Pikangikum community, the parties agreed to accelerate funding to ensure the Pikangikum System could be constructed in 2018 and incorporated the Pikangikum funding into the broader Government Funding Framework.

The discussions with INAC (now ISC) referred to in the preamble may result in Canada agreeing to advance further amounts from the total funding commitment to reflect any variance in the capital cost of the Pikangikum System once those costs are finalized. If there is a \$1.6M final variance and Canada agrees to advance that additional amount, the first tranche payable on substantial completion would be $\$770\text{M} - (\$60.2\text{M} + \$1.6\text{M}) = \708.2M . Consequently, a variance in the capital cost of the Pikangikum System would be part of the calculation of the incentive mechanism used to determine WPLP's equity position for the Transmission Project under the funding framework. Moreover, it is the total cost of the project (including the Pikangikum System) that is used in determining the allocation of Federal Government Funding between WPLP (in the form of a capital contribution) and the independent Trust (for use in offsetting the RRRP impact of the project). This is shown on Slide 36 of Exh. KP1.

Based on the foregoing, WPLP has the same exposure to variances under both components of the project, as well as the same incentives under both components of the project to control capital costs. Additions to WPLP's rate base will be subject to OEB review, and WPLP's equity position will be adjusted downward in accordance with the Government Funding Framework if WPLP's OEB-approved costs exceed the cost contemplated under that framework.

J-STAFF-74

Reference: Exh J-1-2
Exh KP1
Response to J-Staff-48

Preamble: a) In response to J-Staff-48(c), it states that WPLP understands that the recipient of the funds from the Trust will be IESO.

b) In response to J-Staff-48(c), it states that “funding of the Trust does not occur until the entire project is in-service”.

Request:

- a) Is WPLP expecting that there will be future amendments to O. Reg. 442/01 to address the treatment of the funds from the Trust and the responsibilities of the IESO and the OEB with respect to RRRP?
- b)
- i. Please explain this response in the context of the evidence at page 2 of Exh J-1-2, which describes funding in two tranches (substantial completion and completion).
 - ii. Please confirm that all electricity ratepayers in Ontario will pay increasingly higher RRRP, as communities are connected, until the entire transmission project is in-service, at which point the RRRP will drop significantly when the Trust is funded and is then applied to offset RRRP.
 - iii. Will capital contributions from the Government of Canada be provided in two tranches, or only when the entire project is in-service?

Response:

- a) Through discussions WPLP has had on the funding arrangements, it has been acknowledged by Ontario that regulatory amendments may help clarify the application of payments from the independent Trust to the IESO, and that the need for any such amendments will be considered by Ontario in the future.
- b) (i) Canada will provide funding in two tranches (substantial completion and completion), both of which require, among other things, that the OEB has approved all WPLP rate base additions related to the transmission system. The Canada funding will be held in trust until such time as the project reaches substantial completion or completion, as applicable. The portion of funding that will be allocated to WPLP as a Contribution in Aid of Construction will not be released to WPLP until the OEB has approved all WPLP rate base additions related to the transmission

system. Following payment of the Contribution in Aid of Construction to WPLP, and any required amendments to O. Reg. 442/01, funds remaining in the independent Trust can then be released from time to time to the IESO for the purpose of offsetting RRRP amounts.

(ii) Confirmed. Ontario ratepayers will pay increasingly higher RRRP as communities are connected until such time that the OEB has determined WPLP's rate base additions and any necessary changes to O. Reg. 442/01 are made, following which the RRRP will drop when funds are released from the independent Trust and are then applied by the IESO to offset RRRP.

(iii) WPLP assumes that staff is referring to the Contribution in Aid of Construction that would be paid directly from the independent Trust to WPLP as an offset to its rate base. Based on current cost assumptions the capital contribution received by WPLP will be provided in one payment, upon completion of the transmission project, following release by Canada of the first tranche of funding under the funding framework, after the OEB has determined WPLP's rate base additions for the entire project.

J-STAFF-75

Reference: Response to C-Staff-51
Response to C-Staff-52
Notice of Amendment to Codes, December 18, 2018, EB-2016-0003⁴

Preamble: In C-Staff-52, OEB staff asked questions about a proposed TSC amendment that would allow for payment of the capital contribution by HORCI to WPLP in installments over the expected service life (ESL) of the Remote Connection project. WPLP identified the ESL to be 40 years. WPLP also identified that the capital contribution installment (based on the estimated fully allocated cost) would be \$31.5M per year. The response to C-Staff-51 also indicated that WPLP would charge to HORCI \$104M per year based on the average of the expected annual rate under WPLP's proposed approach.

OEB staff notes that the TSC amendment related to the installment approach was made by the OEB on December 18th and therefore now forms part of the current TSC.

WPLP correctly identified that WPLP would charge HORCI interest on the outstanding balance using the OEB's current approved CWIP rate of 3.35%. WPLP assumed it would remain the same over the next 40 years in calculating "incremental interest in the amount of approximately \$844M" that would be paid by HORCI. WPLP also claimed that "Overall, the Annual Installment Option ... would therefore have a negative impact on the ratepayer due to the increased costs associated with financing the capital contribution over a period of 40 years."

In the response to C-Staff-51, WPLP identified that, "Based on straight line depreciation over 40 years and constant cost of capital parameters over that period, WPLP's estimated total return on rate base from 2024-2063 would be \$1,358M, based on an assumed 9% [ROE]".

Request:

- a) Since HORCI is a non-profit entity (i.e., 0% ROE) and WPLP is a for-profit entity (i.e., 9% ROE), please explain how the Annual Installment Option "would therefore have a negative impact on the ratepayer".
- b) Please do the same calculation as WPLP did for the interest costs but also take into account the incremental costs associated with the ROE differential noted above.
- c) Given the above, it would seem HORCI's customers may be better off under the Annual Installment approach at \$35M per year, while they would pay \$110M per year based on

⁴ Notice to Final TSC and DSC Amendments and Supplemental Proposed DSC Amendment

WPLP's proposed rate based on the application. However, it appears WPLP based the \$35M on only the development and capital costs (i.e., not OM&A costs). Since capital contributions also include OM&A costs under the TSC, as set out in Appendix 5 of the TSC, please recalculate the annual installments and show the calculations if OEB staff's understanding is correct that OM&A costs were not taken into account.

Response:

WPLP reiterates its view that, for the reasons set out in response to Board Staff 52, the Annual Installment Option is not viable. In particular, requiring a capital contribution for approximately the entire cost of the Remote Connection Lines would effectively eliminate WPLP's rate base associated with those assets by year 20 because WPLP would be recording both the contribution installments and depreciation as offsets to rate base. The insufficient rate base and resulting revenue stream, in relation to its overall asset base, would adversely impact the financial stability of WPLP and would result in the project not being financially viable.

Further, with Board Staff's scenario of financing the calculated capital contribution over 40 years, even once WPLP's rate base is fully offset, the outstanding balance of the contribution would remain payable from HORCI to WPLP in annual installments up to year 40. At some point, WPLP would effectively be receiving installments but have no rate base against which such installments would be applied. HORCI, on the other hand, would continue adding the installment payments to its own rate base as it makes the annual installment payments. The implication is that ratepayers would be adversely affected because they would be paying depreciation for the first 20 years on both WPLP's rate base and on HORCI's contributions as those contributions are reflected in its rate base, and during the next 20 years they will still be paying depreciation on HORCI's continued contributions, with no offsetting reductions to WPLP's rate base.

WPLP's proposed rate framework does not require a contribution from HORCI. The intent of the TSC in requiring a capital contribution in certain circumstances is to hold the existing UTR pools harmless. WPLP's proposed rate framework accomplishes this in a manner that results in the financially viable implementation of a project identified as a priority project by the Government of Ontario, consistent with the Funding MOU which contemplates a mechanism to offset future increases to RRRP resulting from the incremental revenue requirement for HORCI. Even in the absence of funding from the Federal Government under the Funding MOU, WPLP has demonstrated that its proposed cost recovery and rate framework results in reasonable rate impacts to the typical residential customer.⁵

Notwithstanding the above, WPLP provides the information and calculations below in order to be responsive to the question asked. Appendix BS-75 provides annual calculations of the total annual

⁵ See response to Board Staff Supplemental IR 77, which indicates that the highest estimated bill impact for a typical residential customer, without funding, and with a reduced Ontario energy forecast, is 0.8%. This is more than an order of magnitude below the OEB's typical threshold of 10%, above which mitigation is required.

revenue requirement that would ultimately be collected from Ontario ratepayers through RRRP for both WPLP's proposed rate framework and for the Annual Installment Option scenario that is of interest to Board Staff. In order to provide realistic calculations that avoid the depreciation issue above, WPLP has made a number of simplifying assumptions, as follows:

- in any given year, the combined depreciation expense included in the revenue requirements of WPLP and HORCI under the Annual Installment Option are equal to the depreciation expense that would be included in WPLP's revenue requirement for WPLP's proposed rate framework, as set out in the pre-filed evidence (i.e. no capital contribution required from HORCI, and the impact of federal funding is not included);
- the total contribution that HORCI is required to pay to WPLP is equal to the total capital cost of the Remote Connection Lines (approximately \$1.26B);
- the required contribution is paid in equal annual installments of approximately \$31.5M over the 40 year period, and interest is payable at the OEB-prescribed CWIP rate of 3.35% on the average outstanding balance each year;⁶
- a total rate base is calculated for each year, using straight-line depreciation over 40 years (for WPLP's proposed rate framework, 100% of this rate base is attributable to WPLP; for the Annual Installment Option, the proportion of this same total rate base is allocated away from WPLP to HORCI at a rate of 2.5% per year as the annual contribution installments are paid);⁷
- WPLP's WACC is 5.28%, as detailed in response to Board Staff Supplemental IR 76;
- WPLP assumed that HORCI would be able to finance its incremental rate base at the same cost of debt as WPLP (i.e. 2.83% long-term and 2.29% short-term), and therefore calculated HORCI's WACC as $(0.96 \times 2.83\% + 0.04 \times 2.29\% = 2.81\%)$;⁸
- for each year, a weighted-average return on rate base is calculated based on the % of rate base attributable to each of WPLP and HORCI, using the WACC rates applicable to WPLP and to HORCI, as described above;
- for each year, the grossed-up income taxes that would be payable by WPLP under its proposed rate framework are reduced in the Annual Installment Option in proportion to the amount of rate base that remains attributable to WPLP (i.e. WPLP assumes that any return

⁶ Board Staff notes in the preamble that "WPLP correctly identified that WPLP would charge HORCI interest on the outstanding balance using the OEB's current approved CWIP rate of 3.35%." The difference between the \$844M calculated in response to Board Staff IR 52 and the \$845M presented in this response is due to the rounding.

⁷ WPLP notes that the OEB clarified in the EB-2016-0003 proceeding that under the Annual Installment Option, "only the amount that has been paid in installments will be included in the distributor's rate base. The outstanding balance will remain in the transmitter's rate base until the distributor pays the full cost for which it is responsible, and will continue to attract the full return on rate base. As such, at any point in time, 100% of the total cost will be in rate base (e.g., 40% distributor, 60% transmitter)." [EB-2016-0003; Notice of Revised Proposal to Amend a Code; Ontario Energy Board; August 23, 2018; p.17]-

⁸ For clarity, WPLP takes no position on whether or not HORCI would be in a position to achieve the 2.81% WACC rate, and notes that this rate is materially less than HORCI's current approved WACC of 4.54%. The purpose of making this conservative assumption is to have the WPLP/HORCI WACC differential reflect the ROE differential only, as requested in the question (i.e. by making this assumption, the ROE differential is not reduced as a result of WPLP's lower forecasted cost of debt as compared to HORCI's current cost of debt).

- on rate base attributable to HORCI would not attract incremental income taxes since HORCI does not earn a return on equity and therefore has a net income target of \$0); and
- for the purpose of these calculations, WPLP assumes that there would be no difference in OM&A costs or working capital allowance between WPLP's proposed rate framework and the Annual Installment Option.

- a) Despite HORCI being a non-profit entity, the Annual Installment Option would have a negative impact on ratepayers relative to WPLP's proposed rate framework because, under the Annual Installment Option, significant incremental interest costs would be payable to WPLP from HORCI to finance their capital contribution over a 40-year period. These interest costs would more than offset any savings resulting from the lower regulatory WACC and lower income taxes that would be applicable to HORCI on account of HORCI currently being 100% debt-funded and not earning a return on equity. The net cost to ratepayers resulting from the Annual Installment Option in comparison to WPLP's proposed rate framework is approximately \$531M, as illustrated in the following summary of the detailed calculations in Appendix BS-75:

Total Revenue Requirement (WPLP Proposed Framework):	\$3,270M
WPLP/HORCI WACC (ROE) Differential:	-
	\$222M
WPLP/HORCI Tax Differential:	-\$92M
Total Interest on Outstanding Contribution	\$845M
	<u>\$531M</u>
Net Cost of Annual Installment Option	\$531M
Total Revenue Requirement (Annual Installment Option)	<u>\$3,801M</u>

- b) Please refer to (a), above for a complete comparison of the amounts that would be recovered from ratepayers under the Annual Installment Option as compared to the amounts that would be recovered through ratepayers under WPLP's proposed rate framework. This calculation includes incremental interest costs, as well as consideration of the ROE differential which affects both regulatory WACC⁹ and income taxes.
- c) WPLP disagrees with Board Staff's suggestion that HORCI's customers may be better off under the Annual Installment approach.

⁹ As noted in the list of assumptions underpinning the calculation, WPLP conservatively used the same cost of debt parameters for both WPLP and HORCI to ensure that the only impact on regulatory WACC is the ROE differential described in the question. Substituting the 2.81% assumption for HORCI's cost of debt/WACC with the most recently approved rate of 4.54% would reduce the savings from the WACC differential from \$222M to \$66M, which would increase the net cost of the annual installment option from \$531M to \$687M.

WPLP notes that the \$35M and \$110M amounts referenced in this question appear to have been rounded up, without explanation, from the \$31.5M and \$104M amounts referred to in the preamble. In any event, it is clear from the detailed revenue requirement calculation in Appendix BS-75, that the comparison of \$31.5M under the Annual Installment Option to \$104M per year based on WPLP's proposed rate framework in the preamble to this question is not a reasonable or useful comparison.

The \$104M per year (which is an average of 2024-2033) includes WPLP's entire annual revenue requirement associated with the Remote Connection Lines. This amount is estimated to be a maximum of approximately \$111M in 2024, declining in each subsequent year, as illustrated in Appendix BS-75. In contrast, the \$31.5M amount includes only the annual capital contribution installment that HORCI would pay to WPLP on the assumption that the entire initial cost of the Remote Connection Lines would be paid as a capital contribution in installments over the ESL (i.e. $\$1.26\text{B} / 40 \text{ years} = \31.5M).

WPLP confirms that a placeholder for annual OM&A costs equal to 1% of initial capital costs is included in the various calculations underpinning Exhibit J of the Application and all of WPLP's IR responses related to the calculation of revenue requirements and rate impacts, including scenarios associated with the Annual Installment Option. The forecasted Line Connection and Transformation Connection UTR revenues from HORCI would likely fall short of WPLP's OM&A costs associated with the Remote Connection Lines, such that if HORCI were required to make a contribution, it would be in excess of \$1.26B, effectively leaving WPLP with negative rate base in respect of the Line and Transformation Connection pools. For slide 30 of Exh KP-1 and any IR responses relating to comparison of hypothetical scenarios requiring a capital contribution, WPLP made a simplifying assumption that the required contribution would be equal to the entire \$1.26B estimated capital cost of the Remote Connection Lines (i.e. leaving WPLP with zero rate base instead of negative rate base in respect of the Line and Transformation Connection pools). Given WPLP's position that the project would not be financially viable under this scenario, and the uncertainty of many parameters over the 40-year period, WPLP did not pursue a more detailed calculation of the contribution.

J-STAFF-76

Reference: Exh J-3-1
Response to J-Staff-59
Response to J-Staff-60

Preamble:

Request:

- a) Please explain why the grossed-up income taxes start in 2029 in the responses to J-Staff-59 and J-Staff-50. Do these taxes reflect the exemption related to First Nations ownership?
- b) Please provide the assumptions underpinning the 5.28% WACC, including debt rates.

Response:

- a) The grossed-up income tax does not start until 2029 as prior to 2029 WPLP will not be subject to tax as the capital cost allowance taken for tax purposes will be sufficient to offset any taxable income. The calculation of grossed-up income taxes reflect the exemption related to First Nations ownership.
- b) The assumptions underpinning the 5.28% WACC are outlined below:

Cost of Equity (Key)	9.00%
Cost of Debt (Kd)	2.83%
Cost of Short Term Debt	2.29%
Equity/Total Capital	40.00%
Debt/Total Capital	56.00%
Short Term Debt/Capital	4.00%
Regulatory WACC	5.28%

J-STAFF-77

Reference: Exh J-3-1, Table 3, page 2

Preamble: Table 3 estimates the RRRP Rate Impact resulting from the revenue requirement increase of \$104 million over the 2024-2033 period. The baseline in Table 3 is the 2018 RRRP Rate, which was based on 131.8 TWh. The estimated Residential Bill Impact in the application is 0.48%. In deriving the estimated RRRP rate and bill impact, 152 TWh was used by WPLP. OEB staff is uncertain how 152 TWh was arrived at based on the IESO's September 2016 Ontario Planning Outlook (OPO) as explained in the associated footnote in the application. However, for 2024, it appears to assume an increase of over 20 TWh relative to 2018.

Request:

- a) Please explain how 152 TWh was determined, as there is a reference to an "average" in the footnote. For example, is it a simple average over the full forecast period (2024-2033) that includes both high demand forecasts (i.e., Outlook "C" and "D") in the IESO's OPO?
- b) Since Outlook A (in the IESO's OPO) was the most accurate in forecasting Ontario energy demand in 2018 and is closest to the IESO's forecast in its more recent October 2018 18-Month Outlook (i.e., overstated the least), please provide a table that shows the estimated impact on the RRRP Rate and the associated Residential Bill Impact using "Outlook A" in the IESO's OPO, for each three-year interval – 2024, 2027, 2030, 2033 (using Ontario demand set out in the table on page 14 of the OPO). For example, for 2024, use the forecast demand of 133.5 TWh to estimate the residential bill impact and RRRP rate impact.

Response:

- a) The average of all four demand outlook scenarios included in the 2016 Ontario Planning Outlook was calculated for each year 2024-2035. The results for each year were then averaged across the 10-year period to arrive at 152 TWh.
- b) The requested updates to the rate impact and bill impact tables from Exh J-3-1 are provided below. As with the calculations presented in the rate and bill impact tables in J-3-1, the present calculations do not reflect the impact of any federal funding contributions. Since the interrogatory requested rate impact calculations for distinct years, the Network UTR rate impacts that were previously averaged over the 2024-2033 period were also updated to provide values specific to each of the requested years. In both the initial application and this response, the revenue requirements and charge determinants for all years for transmitters other than WPLP were held constant at the 2018 approved levels. In order to isolate the rate impact of the project in comparison to existing 2018 rates, only the annual revenue requirements associated

with the Line to Pickle Lake, and the charge determinants associated with the communities being connected by WPLP's project were adjusted in each year.

RRRP Rate Impact (Rounded to nearest thousand) – Updated for “Outlook A” TWh					
	2018 ¹⁰	Remote Connection Line Impact			
		2024	2027	2030	2033
First Nations (O. Reg. 442/01, Schedule 1)	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
Algoma Power Inc.	13,155,000 ¹¹	13,155,000	13,155,000	13,155,000	13,155,000
Hydro One Remotes	35,223,000 ¹²	35,223,000	35,223,000	35,223,000	35,223,000
Hydro One Remotes – Additional	-	110,565,000	105,573,000	101,269,000	97,928,000
<i>Total (\$)</i>	<i>49,978,000</i>	<i>160,543,000</i>	<i>155,551,000</i>	<i>151,247,000</i>	<i>147,906,000</i>
Ontario TWh	131.8 ¹³	133.5	131.2	130.7	131.5
RRRP Rate - \$/kWh	0.0003¹⁴	0.0012	0.0012	0.0012	0.0011

Residential Bill Impact from RRRP Rate Increase – Updated for “Outlook A” TWh					
		2024	2027	2030	2033
A	Typical Monthly Bill (2018)	\$116.55 ¹⁵	\$116.55	\$116.55	\$116.55
B	Portion of bill related to RRRP rate (2018)	\$0.24	\$0.24	\$0.24	\$0.24
C	Increase in RRRP rate (% relative to 2018)	300%	300%	300%	267%
D = B x C	Bill increase resulting from increase in RRRP rate	\$0.73	\$0.73	\$0.73	\$0.65
E = D / A	Bill impact (% relative to 2018)	0.62%	0.62%	0.62%	0.55%

¹⁰ In its December 20, 2017 Decision and Order in EB-2017-0333, the Board included an amount of \$12.3316 million in its total RRRP requirement for 2018, reflecting an estimate of IESO undercollection in 2017. For the consistency in cost comparison, this date-specific variance account balance is omitted from Table 3.

¹¹ Decision and Order, EB-2017-0025, December 20, 2017

¹² Final Rate Order, EB-2017-0051, April 12, 2018

¹³ Decision and Order, EB-2017-0333, December 20, 2017

¹⁴ In its December 20, 2017 Decision and Order in EB-2017-0333, the Board maintained the RRRP rate at \$0.0003/kWh. The 2018 rate presented here is consistent with the OEB-approved rate, and is not calculated based on the 2018 costs and load forecasts presented in this table.

¹⁵ Pre-tax amount for a Hydro One Networks Inc. Medium Density (R1) customer, 750 kWh per month, using the OEB Bill Calculator at: <https://www.oeb.ca/consumer-protection/energy-contracts/bill-calculator> (accessed 2018/04/18)

Residential Bill Impact (Network Service Rate) – Updated to Include Specific Years					
		2024	2027	2030	2033
A	Typical Monthly Bill (2018)	\$116.55	\$116.55	\$116.55	\$116.55
B	Portion of bill related to Network Service rate (2018)	\$5.41 ¹⁶	\$5.41	\$5.41	\$5.41
C	Increase in Network Service rate (% relative to 2018)	3.69%	3.50%	3.35%	3.22%
D = B x C	Bill increase resulting from increase in Network Service rate	\$0.20	\$0.19	\$0.18	\$0.17
E = D / A	Bill impact (% relative to 2018)	0.17%	0.16%	0.16%	0.15%

Residential Bill Impact (Total) – Updated for “Outlook A” TWh in RRRP rate calculations					
		2024	2027	2030	2033
A	Typical Monthly Bill (2018)	\$116.55	\$116.55	\$116.55	\$116.55
B	Increase due to Network Service rate impact	\$0.20	\$0.19	\$0.18	\$0.17
C	Increase due to RRRP rate impact	\$0.73	\$0.73	\$0.73	\$0.65
D = B + C	Total bill increase	\$0.93	\$0.92	\$0.91	\$0.82
E = D / A	Bill impact (% relative to 2018)	0.80%	0.79%	0.78%	0.70%

¹⁶ 750 kWh * 1.076 loss factor * \$0.0067/kWh Network Service rate

J-STAFF-78

Reference: Response to HORCI-4

Preamble: HORCI-4 contains a table extracted from the OPA/IESO report called “Draft Technical Report And Business Case For The Connection Of Remote First Nation Communities In Northwest Ontario”. The table is entitled “Table 25: Expected Outage Time Post-Connection by Community”.

WPLP’s response to HORCI-4 includes a copy of the BBA Backup Power Report.

Request:

- a) Please confirm that the expected outage information presented in the OPA/IESO’s Table 25 referenced above reflects outages to transmission facilities only and that it does not account for the use of backup generation. In other words, please confirm the outage figures presented do not reflect estimated outage time that would be experienced by connected customers under a scenario where transmission was coupled with back-up generation.
- b) Please confirm the same for the outage information presented in the table in Appendix D of the BBA Report on Backup Power Supply.

Response:

- a) Confirmed. Table 25 in the OPA/IESO report accounts for transmission outages only, without backup generation.
- b) Confirmed. The table in Appendix D of the BBA report accounts for transmission outages only, without backup generation.

J-STAFF-79

Reference: Response to HORCI-4

Preamble: HORCI IR-4 makes reference to the OPA/IESO report called “Draft Technical Report and Business Case for the Connection of Remote First Nation Communities in Northwest Ontario”.

Request:

- a) Please confirm the OPA/IESO report cited above concludes that the proposed combination of transmission and back-up generation would result in similar or better reliability to remote communities than the continued use of diesel generation only (i.e. with respect to loss of supply performance).
- b) Do the Line to Pickle Lake and Remote Connections contribute to reliability and quality of service in other ways? If so, please describe, including in comparison to the existing reliance on diesel generation alone.

Response:

- a) It is important to note that grid connection of the remote communities will lift capacity restrictions and will avoid the need for significant investments in diesel generation assets to deal with current and new capacity restrictions under the current diesel generation supply.¹⁷ By providing capacity to meet current and future needs, such as new housing, expanded businesses and community infrastructure, the project will contribute to reliability and vastly improve the quality of electricity service to the remote communities and across all of its service area. Therefore, it is not appropriate to consider the loss of supply performance aspect of reliability in isolation as a comparator of the project and the current arrangement. The project is replacing a system which is inherently deficient in meeting the needs of the communities served.

Page 110-111 of the OPA/IESO report states that outage frequency and duration may be improved for all communities with the use of backup generation to mitigate transmission system outages. The expected outage duration for transmission supply alone is estimated to be an improvement for IPA communities, but not generally for the average HORCI

¹⁷ The use of diesel generation assets in a backup power capacity does not need to consider contingencies in which a generator fails since the transmission outage is the first contingency. Additional measures can also be considered based on the low probability of an extended transmission outages coinciding with peak load. As such, the required combined generator capacity for use in a backup power capacity is less than the capacity required where diesel generation is primary source of supply.

community.¹⁸ The improvements to the outage duration resulting from having backup generation will be dependent on maintenance practices (i.e. for both generators and fuel) as well as the capability of the generation facilities. In addition, the OPA/IESO report states on p. 110 that the estimated outage durations and frequencies set out in Table 25 (Expected Outage Time Post-Connection by Community) “does not include any potential additional design features that may be used to improve electricity supply reliability.” Please refer to response to Board Staff Supplemental IR 81 for a discussion of the design features incorporated by WPLP to improve reliability.

- b) It is not clear as to what Board staff is referring to in asking whether WPLP’s transmission project contributes to reliability and quality of service “in other ways”. However, WPLP can confirm that the Transmission Project is in the interests of consumers with respect to the reliability and quality of electricity service. Most significant is that, as discussed below, grid connection of the remote communities will enable existing capacity restrictions to be lifted and will avoid the need for significant investments in diesel generation assets to avoid new capacity restrictions arising under a continued diesel scenario. By providing capacity sufficient to accommodate further connections and anticipated increases in demand, such as from the connection of new housing or the operation of new or expanded businesses, the project will contribute to reliability and vastly improve the quality of electricity service to the remote communities and across all of its service area.

As noted in response to (a), above, the OPA/IESO report concluded that outage duration for transmission supply (without factoring in the use of backup generation) is expected to improve for IPA communities. In addition, with the use of backup generation to mitigate transmission system outages, reliability (based on consideration of frequency and duration of outages) may improve for all of the connecting remote communities.

However, it is important to recognize that outage frequency and duration are not the only ways to measure transmission system reliability. The Transmission System Code defines “reliability”, in relation to electricity service, as meaning “the ability to deliver electricity in accordance with all applicable reliability standards and in the amount desired”. The IESO’s Market Rules define “reliability” as meaning, in respect of electricity service, “the ability to deliver electricity within reliability standards and in the amount desired and means, in respect of . . . a transmission system, the ability of . . . that transmission system to operate within reliability standards in an adequate and secure manner”. WPLP’s transmission project is designed to contribute most significantly to those aspects of reliability that relate to the ability to operate in an “adequate and secure manner” and to deliver electricity “in the amount desired”.

Section C of Exh B-2-1 in WPLP’s pre-filed evidence summarizes the historically poor reliability experienced by customers in the North of Dryden sub-region, and how the Line to

¹⁸ WPLP notes that HORCI’s more recent outage data (5-year average from 2013-2017) suggests that this statement would apply to all HORCI communities to be connected by the project, not just to the average HORCI community.

Pickle Lake is expected to significantly reduce the frequency and duration of outages, improve power quality, decrease transmission system losses and, of particular significance, will greatly increase load meeting capability in the region. This section also summarizes how capacity restrictions in the Connecting Communities can have significant economic and quality of life impacts. Exh C-1-1 of the pre-filed evidence provides further details of challenges resulting from the current system configuration in both the North of Dryden sub-region and in the remote First Nation communities.

The benefits of the Line to Pickle Lake in terms of reliability and quality of service are outlined on pages 5-6 of Exh C-1-1, and include a reduction in planned outages for maintenance, improved restoration from forced outages, improved power quality from increased VAR support, and the ability to accommodate forecasted load growth that could not otherwise be connected due to insufficient capacity.

To elaborate, the IESO's North of Dryden Integrated Regional Resource Plan (IRRP), published in January 2015, describes the reliability issues in the North of Dryden sub-region, assesses the Load Meeting Capability (LMC) of the sub-region relative to current and future demand forecasts, and concluded that a new 230 kV single circuit transmission line to Pickle Lake was needed as soon as possible to meet the needs of the Pickle Lake subsystem. In addition to the other benefits it provides, it is clear that by expanding LMC in the North of Dryden sub-region, the Line to Pickle Lake portion of the project contributes significantly to reliability and quality of service.

For the Remote Connection Lines, the primary benefit of grid-connection from a reliability and quality of service perspective is that any existing capacity restrictions will be lifted upon grid connection, and it will avoid the need to undertake frequent investments in diesel generation assets to avoid new restrictions resulting from load growth in the communities under a continued diesel scenario.¹⁹ Where a community has capacity restrictions, such as described in response to HORCI IR 2, this means that the existing generation capacity is not sufficient to accommodate any further connections or increases in demand, such as from the connection of new housing or the operation of new or expanded businesses. Grid connection through the Remote Connection lines will enable communities to pursue socio-economic and business development opportunities, including connection of new housing to relieve overcrowding, without fear of reaching or exceeding capacity limitations. Moreover, upon achieving grid connection, any potential future development requiring capacity beyond what is provided by WPLP's initial transmission system will benefit from clearly defined and predictable processes and cost implications for acquiring additional capacity.

¹⁹ See Remote Community Connection Plan, 2014, pp. 55-57.

J-STAFF-80

Reference: Response to HORCI-4

Preamble: HORCI IR-4 makes reference to the OPA/IESO report called “Draft Technical Report and Business Case for the Connection of Remote First Nation Communities in Northwest Ontario”.

Request:

- a) Please confirm that the OPA/IESO Business Case accounted for the cost of back-up generation that would be needed to complement the proposed remote connection transmission lines.
- b) If so, please confirm that the OPA/IESO Business Case concluded that the combination of transmission and back-up generation would be more cost effective than continued reliance on diesel generation alone.

Response:

- a) The IESO has confirmed to WPLP that the OPA/IESO Business Case includes backup diesel generation in the costing of the transmission connection scenarios assessed.
- b) The IESO has confirmed to WPLP that the OPA/IESO Business Case found that the transmission connection scenarios, which included backup diesel generation, are more cost effective than continuing to rely on diesel generation alone over the 40 year study period for the communities that were determined to be economic to connect.

J-STAFF-81

Reference: Response to HORCI-4

Preamble: WPLP's response to HORCI-4 includes a copy of the BBA Backup Power Report.

Table 3 on page 13 of the BBA Backup Power Report is called "Key Factors to Limit Outages". The text below Table 3 says: "Knowing that design, construction and O&M considerations clearly have the potential to impact reliability of the network, BBA is convinced, based on its experience, that outages requiring the backup power system can be reduced up to 50% by implementing the good practices described in the table above in design and O&M of the line."

Request:

- a) Please discuss the extent to which WPLP's proposal incorporates the "good practices" outlined by BBA in Table 3 of the Backup Power Report.

Response:

The following table provides a summary how various controls recommended in the BBA report have been incorporated into WPLP's proposal at the design stage.

Recommendation	Implementation Summary
Implement a robust design (e.g. steel cross-arm and steel cross-brace, use glass insulators at 115 kV)	Design specifications for transmission lines require that all cross-arms and braces shall be galvanized structural steel and that all insulators shall be toughened glass
Avoid implementation in permafrost	Areas of likely permafrost were identified during the geomorphological review and routing adjustments were made to avoid challenges such as permafrost and wetlands to the extent possible.
Single-pole switching to clear most of the transient faults (80% approx.) without interrupting the service	WPLP considered that 3-pole switching will still clear most transient faults with only momentary outages, and without the additional cost and complexity associated with single-pole switching.
Selectivity and coordination of the protection settings	Design specifications for substation protection and control incorporate relevant codes, standards, industry best practices, and WPLP's Protection Control Philosophy (as developed by BBA).

Recommendation	Implementation Summary
Install a counterpoise ground when installing the line as required improving ground resistance and limiting the number of lightning trip events)	Design specifications for transmission line provide maximum ground resistance values and require appropriate mitigation measures, including the use of counterpoise grounding, where higher values are measured.
Standardization of the design, which will facilitate the understanding of the crew during an intervention between substations	Substation configurations and equipment ratings have been standardized to the extent possible. For example, all 115 kV junctions use ring buses for switching, all transformer stations have similar configurations, switching arrangements and protection arrangements, and all transformer stations located at 115 kV junctions are essentially a combination of 115 kV switching stations and 115 kV terminal stations. Further, circuit breaker and switch ratings will be consistent within each voltage class, and transformer MVA ratings have been standardized to the extent practical.
Build transmission stations with ring-bus configurations to allow maintaining equipment on the transmission network without interrupting the service.	The vast majority of 115 kV circuit breakers are arranged in ring bus configurations.
Implement redundant configuration in substation design (transformers, reactive support, etc.).	Every substation supplying a remote community contains two transformers, either of which is capable of supplying the entire load of the community. WPLP's reactive compensation design allows for system restoration and normal operation with any single element out of service.

In addition to the design considerations summarized in the above table, a number of the BBA recommendations relate to the construction and operational phases of the project, for example recommendations relating to construction supervision, initial inspections, right-of-way maintenance, troubleshooting procedures, outage response, etc. WPLP intends to consider these recommendations as it establishes construction contracts, maintenance programs and operating procedures.

J-STAFF-82

Reference: Response to HORCI-5

Preamble: HORCI IR-5 presents a table which provides actual annual percentage of time of supply related outages across all the communities Hydro One Remotes currently serves from 2013 to 2016.

Request:

- a) Please confirm that the estimated outage time presented in the HORCI table referenced above is less than the expected outage time presented in the OPA/IESO's "Table 25: Expected Outage Time Post-Connection by Community". In other words, please confirm the loss of supply performance of a transmission solution without back-up power would be worse than the loss of supply performance of existing generators as shown by Hydro One Remotes in HORCI-5.

Response:

As noted in response to Board Staff Supplemental IR 79(a), it is important to note that grid connection of the remote communities will lift capacity restrictions and will avoid the need for significant investments in diesel generation assets to deal with current and new capacity restrictions under the current diesel generation supply. By providing capacity to meet current and future needs, such as new housing, expanded businesses and community infrastructure, the project will contribute to reliability and vastly improve the quality of electricity service to the remote communities and across all of its service area. Therefore, it is not appropriate to consider the loss of supply performance aspect of reliability in isolation as a comparator of the project and the current arrangement. The project is replacing a system which is inherently deficient in meeting the needs of the communities served.

For purposes of being responsive to the question asked, WPLP confirms the proposition stated in the question. For communities currently supplied by HORCI, reliability of a transmission-only scenario (i.e. grid-connection without backup power) is forecasted to be worse than reliability in the scenario of continued diesel generation. As such, the scope supported by IESO calls for WPLP to facilitate a backup power solution. The response to Board Staff Supplemental IR 67 outlines recent progress and commitments made by a number of parties in support of a backup power solution. Additionally, the response to Board Staff Supplemental IR 79 (a) confirms that the combination of transmission supply and backup generation may improve reliability for all communities, and the response to Board Staff Supplemental IR 79 (b) discusses how both the Line to Pickle Lake and the Remote Connection Lines contribute more broadly to improving reliability and quality of service, including by removing existing capacity constraints and reducing the likelihood of future capacity constraints. Finally, the response to Board Staff Supplemental IR 81 describes design considerations aimed at improving reliability of WPLP's proposed transmission system.

APPENDIX BS-75

		Total 2024-2063	2024	2025	2026	2027	2028
Rate Base	A		\$ 1,258,546,748	\$ 1,227,004,223	\$ 1,195,461,698	\$ 1,163,919,173	\$ 1,132,376,648

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 1,358,076,788	\$ 66,405,961	\$ 64,741,651	\$ 63,077,341	\$ 61,413,031	\$ 59,748,721
Depreciation Expense	C	\$ 1,261,699,050	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
OM&A	D	\$ 504,680,400	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 145,437,770	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Requirement	F	\$ 3,269,894,008	\$ 110,565,496	\$ 108,901,186	\$ 107,236,876	\$ 105,572,566	\$ 103,908,256

Annual Installment Option Assumptions

Opening Unpaid Balance	G		\$ 1,261,701,000	\$ 1,230,158,475	\$ 1,198,615,950	\$ 1,167,073,425	\$ 1,135,530,900
Payment	H = G/40		\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H		\$ 1,230,158,475	\$ 1,198,615,950	\$ 1,167,073,425	\$ 1,135,530,900	\$ 1,103,988,375
Average Outstanding Contribution	J = (G+I)/2		\$ 1,245,929,738	\$ 1,214,387,213	\$ 1,182,844,688	\$ 1,151,302,163	\$ 1,119,759,638
OEB CWIP Rate	K		3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K		\$ 41,738,646	\$ 40,681,972	\$ 39,625,297	\$ 38,568,622	\$ 37,511,948
HORCI % Rate Base	M (0+2.5%/year)		2.50%	5.00%	7.50%	10.00%	12.50%
WPLP % Rate Base	N (100-2.5%/year)		97.50%	95.00%	92.50%	90.00%	87.50%
HORCI WACC	O		2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P		5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 1,136,251,899	\$ 65,629,437	\$ 63,227,528	\$ 60,864,541	\$ 58,540,479	\$ 56,255,339
Depreciation Expense	C	\$ 1,261,699,050	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
OM&A	D	\$ 504,680,400	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 53,413,171	\$ -	\$ -	\$ -	\$ -	\$ -
Interest on Outstanding Contribution	L	\$ 845,339,670	\$ 41,738,646	\$ 40,681,972	\$ 39,625,297	\$ 38,568,622	\$ 37,511,948
Revenue Requirement	S	\$ 3,801,384,190	\$ 151,527,618	\$ 148,069,034	\$ 144,649,373	\$ 141,268,636	\$ 137,926,822

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 221,824,889	-\$ 776,523	-\$ 1,514,123	-\$ 2,212,800	-\$ 2,872,553	-\$ 3,493,382
WPLP/HORCI Tax Differential	U = R-E	-\$ 92,024,599	\$ -	\$ -	\$ -	\$ -	\$ -
Interest on Outstanding Amount	L	\$ 845,339,670	\$ 41,738,646	\$ 40,681,972	\$ 39,625,297	\$ 38,568,622	\$ 37,511,948
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 531,490,182	\$ 40,962,123	\$ 39,167,848	\$ 37,412,497	\$ 35,696,070	\$ 34,018,566

		2029	2030	2031	2032	2033	2034
Rate Base	A	\$ 1,100,834,123	\$ 1,069,291,598	\$ 1,037,749,073	\$ 1,006,206,548	\$ 974,664,023	\$ 943,121,498

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 58,084,412	\$ 56,420,102	\$ 54,755,792	\$ 53,091,482	\$ 51,427,172	\$ 49,762,863
Depreciation Expense	C	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 10,167	\$ 689,572	\$ 1,301,068	\$ 1,850,088	\$ 2,341,631	\$ 2,780,284
Revenue Requirement	F	\$ 102,254,114	\$ 101,269,209	\$ 100,216,395	\$ 99,101,106	\$ 97,928,338	\$ 96,702,617

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 1,103,988,375	\$ 1,072,445,850	\$ 1,040,903,325	\$ 1,009,360,800	\$ 977,818,275	\$ 946,275,750
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 1,072,445,850	\$ 1,040,903,325	\$ 1,009,360,800	\$ 977,818,275	\$ 946,275,750	\$ 914,733,225
Average Outstanding Contribution	J = (G+I)/2	\$ 1,088,217,113	\$ 1,056,674,588	\$ 1,025,132,063	\$ 993,589,538	\$ 962,047,013	\$ 930,504,488
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 36,455,273	\$ 35,398,599	\$ 34,341,924	\$ 33,285,250	\$ 32,228,575	\$ 31,171,900
HORCI % Rate Base	M (0+2.5%/year)	15.00%	17.50%	20.00%	22.50%	25.00%	27.50%
WPLP % Rate Base	N (100-2.5%/year)	85.00%	82.50%	80.00%	77.50%	75.00%	72.50%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 54,009,124	\$ 51,801,831	\$ 49,633,463	\$ 47,504,017	\$ 45,413,495	\$ 43,361,897
Depreciation Expense	C	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 8,642	\$ 568,897	\$ 1,040,854	\$ 1,433,819	\$ 1,756,223	\$ 2,015,706
Interest on Outstanding Contribution	L	\$ 36,455,273	\$ 35,398,599	\$ 34,341,924	\$ 33,285,250	\$ 32,228,575	\$ 31,171,900
Revenue Requirement	S	\$ 134,632,574	\$ 131,928,862	\$ 129,175,776	\$ 126,382,620	\$ 123,557,829	\$ 120,708,974

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 4,075,288	-\$ 4,618,270	-\$ 5,122,329	-\$ 5,587,465	-\$ 6,013,677	-\$ 6,400,966
WPLP/HORCI Tax Differential	U = R-E	-\$ 1,525	-\$ 120,675	-\$ 260,214	-\$ 416,270	-\$ 585,408	-\$ 764,578
Interest on Outstanding Amount	L	\$ 36,455,273	\$ 35,398,599	\$ 34,341,924	\$ 33,285,250	\$ 32,228,575	\$ 31,171,900
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 32,378,460	\$ 30,659,653	\$ 28,959,381	\$ 27,281,515	\$ 25,629,490	\$ 24,006,357

		2035	2036	2037	2038	2039	2040
Rate Base	A	\$ 911,578,973	\$ 880,036,448	\$ 848,493,923	\$ 816,951,398	\$ 785,408,873	\$ 753,866,348

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 48,098,553	\$ 46,434,243	\$ 44,769,933	\$ 43,105,624	\$ 41,441,314	\$ 39,777,004
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 3,170,298	\$ 3,515,555	\$ 3,819,634	\$ 4,085,832	\$ 4,317,177	\$ 4,516,459
Revenue Requirement	F	\$ 95,428,321	\$ 94,109,268	\$ 92,749,038	\$ 91,350,925	\$ 89,917,961	\$ 88,452,933

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 914,733,225	\$ 883,190,700	\$ 851,648,175	\$ 820,105,650	\$ 788,563,125	\$ 757,020,600
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 883,190,700	\$ 851,648,175	\$ 820,105,650	\$ 788,563,125	\$ 757,020,600	\$ 725,478,075
Average Outstanding Contribution	J = (G+I)/2	\$ 898,961,963	\$ 867,419,438	\$ 835,876,913	\$ 804,334,388	\$ 772,791,863	\$ 741,249,338
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 30,115,226	\$ 29,058,551	\$ 28,001,877	\$ 26,945,202	\$ 25,888,527	\$ 24,831,853
HORCI % Rate Base	M (0+2.5%/year)	30.00%	32.50%	35.00%	37.50%	40.00%	42.50%
WPLP % Rate Base	N (100-2.5%/year)	70.00%	67.50%	65.00%	62.50%	60.00%	57.50%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 41,349,222	\$ 39,375,471	\$ 37,440,643	\$ 35,544,738	\$ 33,687,757	\$ 31,869,700
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 2,219,209	\$ 2,372,999	\$ 2,482,762	\$ 2,553,645	\$ 2,590,306	\$ 2,596,964
Interest on Outstanding Contribution	L	\$ 30,115,226	\$ 29,058,551	\$ 28,001,877	\$ 26,945,202	\$ 25,888,527	\$ 24,831,853
Revenue Requirement	S	\$ 117,843,127	\$ 114,966,491	\$ 112,084,752	\$ 109,203,055	\$ 106,326,061	\$ 103,457,986

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 6,749,331	-\$ 7,058,772	-\$ 7,329,291	-\$ 7,560,885	-\$ 7,753,556	-\$ 7,907,304
WPLP/HORCI Tax Differential	U = R-E	-\$ 951,089	-\$ 1,142,555	-\$ 1,336,872	-\$ 1,532,187	-\$ 1,726,871	-\$ 1,919,495
Interest on Outstanding Amount	L	\$ 30,115,226	\$ 29,058,551	\$ 28,001,877	\$ 26,945,202	\$ 25,888,527	\$ 24,831,853
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 22,414,806	\$ 20,857,224	\$ 19,335,714	\$ 17,852,130	\$ 16,408,100	\$ 15,005,054

		2041	2042	2043	2044	2045	2046
Rate Base	A	\$ 722,323,823	\$ 690,781,298	\$ 659,238,773	\$ 627,696,248	\$ 596,153,723	\$ 564,611,198

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 38,112,694	\$ 36,448,384	\$ 34,784,075	\$ 33,119,765	\$ 31,455,455	\$ 29,791,145
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 4,686,241	\$ 4,828,886	\$ 4,946,562	\$ 5,041,268	\$ 5,114,842	\$ 5,168,973
Revenue Requirement	F	\$ 86,958,406	\$ 85,436,740	\$ 83,890,107	\$ 82,320,503	\$ 80,729,767	\$ 79,119,588

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 725,478,075	\$ 693,935,550	\$ 662,393,025	\$ 630,850,500	\$ 599,307,975	\$ 567,765,450
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 693,935,550	\$ 662,393,025	\$ 630,850,500	\$ 599,307,975	\$ 567,765,450	\$ 536,222,925
Average Outstanding Contribution	J = (G+I)/2	\$ 709,706,813	\$ 678,164,288	\$ 646,621,763	\$ 615,079,238	\$ 583,536,713	\$ 551,994,188
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 23,775,178	\$ 22,718,504	\$ 21,661,829	\$ 20,605,154	\$ 19,548,480	\$ 18,491,805
HORCI % Rate Base	M (0+2.5%/year)	45.00%	47.50%	50.00%	52.50%	55.00%	57.50%
WPLP % Rate Base	N (100-2.5%/year)	55.00%	52.50%	50.00%	47.50%	45.00%	42.50%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 30,090,566	\$ 28,350,355	\$ 26,649,068	\$ 24,986,705	\$ 23,363,264	\$ 21,778,748
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 2,577,433	\$ 2,535,165	\$ 2,473,281	\$ 2,394,602	\$ 2,301,679	\$ 2,196,813
Interest on Outstanding Contribution	L	\$ 23,775,178	\$ 22,718,504	\$ 21,661,829	\$ 20,605,154	\$ 19,548,480	\$ 18,491,805
Revenue Requirement	S	\$ 100,602,647	\$ 97,763,494	\$ 94,943,648	\$ 92,145,931	\$ 89,372,893	\$ 86,626,836

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 8,022,128	-\$ 8,098,029	-\$ 8,135,006	-\$ 8,133,060	-\$ 8,092,191	-\$ 8,012,398
WPLP/HORCI Tax Differential	U = R-E	-\$ 2,108,809	-\$ 2,293,721	-\$ 2,473,281	-\$ 2,646,666	-\$ 2,813,163	-\$ 2,972,159
Interest on Outstanding Amount	L	\$ 23,775,178	\$ 22,718,504	\$ 21,661,829	\$ 20,605,154	\$ 19,548,480	\$ 18,491,805
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 13,644,241	\$ 12,326,754	\$ 11,053,542	\$ 9,825,428	\$ 8,643,126	\$ 7,507,248

		2047	2048	2049	2050	2051	2052
Rate Base	A	\$ 533,068,673	\$ 501,526,148	\$ 469,983,623	\$ 438,441,098	\$ 406,898,573	\$ 375,356,048

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 28,126,835	\$ 26,462,526	\$ 24,798,216	\$ 23,133,906	\$ 21,469,596	\$ 19,805,286
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 5,205,218	\$ 5,225,007	\$ 5,229,656	\$ 5,220,378	\$ 5,198,286	\$ 5,164,405
Revenue Requirement	F	\$ 77,491,523	\$ 75,847,002	\$ 74,187,342	\$ 72,513,754	\$ 70,827,352	\$ 69,129,161

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 536,222,925	\$ 504,680,400	\$ 473,137,875	\$ 441,595,350	\$ 410,052,825	\$ 378,510,300
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 504,680,400	\$ 473,137,875	\$ 441,595,350	\$ 410,052,825	\$ 378,510,300	\$ 346,967,775
Average Outstanding Contribution	J = (G+I)/2	\$ 520,451,663	\$ 488,909,138	\$ 457,366,613	\$ 425,824,088	\$ 394,281,563	\$ 362,739,038
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 17,435,131	\$ 16,378,456	\$ 15,321,782	\$ 14,265,107	\$ 13,208,432	\$ 12,151,758
HORCI % Rate Base	M (0+2.5%/year)	60.00%	62.50%	65.00%	67.50%	70.00%	72.50%
WPLP % Rate Base	N (100-2.5%/year)	40.00%	37.50%	35.00%	32.50%	30.00%	27.50%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 20,233,155	\$ 18,726,485	\$ 17,258,739	\$ 15,829,916	\$ 14,440,017	\$ 13,089,041
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 2,082,087	\$ 1,959,378	\$ 1,830,380	\$ 1,696,623	\$ 1,559,486	\$ 1,420,211
Interest on Outstanding Contribution	L	\$ 17,435,131	\$ 16,378,456	\$ 15,321,782	\$ 14,265,107	\$ 13,208,432	\$ 12,151,758
Revenue Requirement	S	\$ 83,909,842	\$ 81,223,788	\$ 78,570,370	\$ 75,951,116	\$ 73,367,405	\$ 70,820,480

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 7,893,681	-\$ 7,736,041	-\$ 7,539,477	-\$ 7,303,990	-\$ 7,029,580	-\$ 6,716,246
WPLP/HORCI Tax Differential	U = R-E	-\$ 3,123,131	-\$ 3,265,629	-\$ 3,399,277	-\$ 3,523,755	-\$ 3,638,800	-\$ 3,744,193
Interest on Outstanding Amount	L	\$ 17,435,131	\$ 16,378,456	\$ 15,321,782	\$ 14,265,107	\$ 13,208,432	\$ 12,151,758
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 6,418,319	\$ 5,376,786	\$ 4,383,028	\$ 3,437,362	\$ 2,540,053	\$ 1,691,319

		2053	2054	2055	2056	2057	2058
Rate Base	A	\$ 343,813,523	\$ 312,270,998	\$ 280,728,473	\$ 249,185,948	\$ 217,643,423	\$ 186,100,898

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 18,140,977	\$ 16,476,667	\$ 14,812,357	\$ 13,148,047	\$ 11,483,738	\$ 9,819,428
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 5,119,678	\$ 5,064,973	\$ 5,001,088	\$ 4,928,758	\$ 4,848,659	\$ 4,761,411
Revenue Requirement	F	\$ 67,420,125	\$ 65,701,110	\$ 63,972,916	\$ 62,236,276	\$ 60,491,866	\$ 58,740,309

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 346,967,775	\$ 315,425,250	\$ 283,882,725	\$ 252,340,200	\$ 220,797,675	\$ 189,255,150
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 315,425,250	\$ 283,882,725	\$ 252,340,200	\$ 220,797,675	\$ 189,255,150	\$ 157,712,625
Average Outstanding Contribution	J = (G+I)/2	\$ 331,196,513	\$ 299,653,988	\$ 268,111,463	\$ 236,568,938	\$ 205,026,413	\$ 173,483,888
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 11,095,083	\$ 10,038,409	\$ 8,981,734	\$ 7,925,059	\$ 6,868,385	\$ 5,811,710
HORCI % Rate Base	M (0+2.5%/year)	75.00%	77.50%	80.00%	82.50%	85.00%	87.50%
WPLP % Rate Base	N (100-2.5%/year)	25.00%	22.50%	20.00%	17.50%	15.00%	12.50%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 11,776,988	\$ 10,503,860	\$ 9,269,654	\$ 8,074,372	\$ 6,918,014	\$ 5,800,579
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 1,279,919	\$ 1,139,619	\$ 1,000,218	\$ 862,533	\$ 727,299	\$ 595,176
Interest on Outstanding Contribution	L	\$ 11,095,083	\$ 10,038,409	\$ 8,981,734	\$ 7,925,059	\$ 6,868,385	\$ 5,811,710
Revenue Requirement	S	\$ 68,311,461	\$ 65,841,357	\$ 63,411,076	\$ 61,021,434	\$ 58,673,167	\$ 56,366,935

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 6,363,988	-\$ 5,972,807	-\$ 5,542,703	-\$ 5,073,675	-\$ 4,565,724	-\$ 4,018,849
WPLP/HORCI Tax Differential	U = R-E	-\$ 3,839,758	-\$ 3,925,354	-\$ 4,000,871	-\$ 4,066,226	-\$ 4,121,360	-\$ 4,166,234
Interest on Outstanding Amount	L	\$ 11,095,083	\$ 10,038,409	\$ 8,981,734	\$ 7,925,059	\$ 6,868,385	\$ 5,811,710
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	\$ 891,337	\$ 140,247	-\$ 561,840	-\$ 1,214,841	-\$ 1,818,699	-\$ 2,373,373

		2059	2060	2061	2062	2063
Rate Base	A	\$ 154,558,373	\$ 123,015,848	\$ 91,473,323	\$ 59,930,798	\$ 28,388,273

Revenue Requirement (WPLP Proposed Rate Framework)

Regulated Return on Rate Base	B = A*P	\$ 8,155,118	\$ 6,490,808	\$ 4,826,498	\$ 3,162,189	\$ 1,497,879
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	E	\$ 4,667,587	\$ 4,567,712	\$ 4,462,271	\$ 4,351,710	\$ 4,236,437
Revenue Requirement	F	\$ 56,982,175	\$ 55,217,990	\$ 53,448,240	\$ 51,673,368	\$ 49,893,786

Annual Installment Option Assumptions

Opening Unpaid Balance	G	\$ 157,712,625	\$ 126,170,100	\$ 94,627,575	\$ 63,085,050	\$ 31,542,525
Payment	H = G/40	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525	\$ 31,542,525
Ending Balance	I = G-H	\$ 126,170,100	\$ 94,627,575	\$ 63,085,050	\$ 31,542,525	\$ -
Average Outstanding Contribution	J = (G+I)/2	\$ 141,941,363	\$ 110,398,838	\$ 78,856,313	\$ 47,313,788	\$ 15,771,263
OEB CWIP Rate	K	3.35%	3.35%	3.35%	3.35%	3.35%
Interest on Outstanding Contribution	L = J*K	\$ 4,755,036	\$ 3,698,361	\$ 2,641,686	\$ 1,585,012	\$ 528,337
HORCI % Rate Base	M (0+2.5%/year)	90.00%	92.50%	95.00%	97.50%	100.00%
WPLP % Rate Base	N (100-2.5%/year)	10.00%	7.50%	5.00%	2.50%	0.00%
HORCI WACC	O	2.81%	2.81%	2.81%	2.81%	2.81%
WPLP WACC	P	5.28%	5.28%	5.28%	5.28%	5.28%

Revenue Requirement (Annual Installment Option)

Regulated Return on Rate Base	Q = A*(M*O + N*P)	\$ 4,722,067	\$ 3,682,479	\$ 2,681,815	\$ 1,720,074	\$ 797,256
Depreciation Expense	C	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460	\$ 31,542,460
OM&A	D	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010	\$ 12,617,010
Grossed up Income Taxes*	R = E*N	\$ 466,759	\$ 342,578	\$ 223,114	\$ 108,793	\$ -
Interest on Outstanding Contribution	L	\$ 4,755,036	\$ 3,698,361	\$ 2,641,686	\$ 1,585,012	\$ 528,337
Revenue Requirement	S	\$ 54,103,332	\$ 51,882,889	\$ 49,706,085	\$ 47,573,348	\$ 45,485,064

Comparison - WPLP Rate Framework vs. Annual Installment Option

WPLP/HORCI ROE Differential	T = Q-B	-\$ 3,433,051	-\$ 2,808,329	-\$ 2,144,684	-\$ 1,442,115	-\$ 700,623
WPLP/HORCI Tax Differential	U = R-E	-\$ 4,200,828	-\$ 4,225,134	-\$ 4,239,158	-\$ 4,242,917	-\$ 4,236,437
Interest on Outstanding Amount	L	\$ 4,755,036	\$ 3,698,361	\$ 2,641,686	\$ 1,585,012	\$ 528,337
Annual Installment Option Net Cost (Savings)	V = T+U+L = S-F	-\$ 2,878,843	-\$ 3,335,101	-\$ 3,742,155	-\$ 4,100,020	-\$ 4,408,722