



**Balancing Pool Board**

**INFORMATION ITEM  
Termination Financial Analysis**

**Date: February 10<sup>th</sup>, 2017**

**Overview**

As the default Buyer of the PPAs, the Balancing Pool must determine whether it is better to assume the ongoing obligations and responsibilities for the arrangements or to terminate them. The most important aspect of this decision hinges on the relative cost of the two options to the Balancing Pool. Specifically, if the cost of termination is expected to be less than the net present value (NPV) of the future cash flows associated with the PPA, terminating the PPA would be the recommended option.

This Information Item compares the relative costs of holding the various PPAs to the costs of terminating them with their respective Owners.

**Financial Analysis**

In order to estimate the future cash flows associated with the Balancing Pool’s position in each PPA, Power Advisory LLC was retained to provide a forecast of each PPA’s associated generation levels and revenues using a proprietary hourly dispatch model. These revenues and generation volumes were then incorporated into the Balancing Pool’s PPA valuation models to determine forecasted expenses and ultimately net cash flows. The table below provides a summary of those net cash flows together with the net present value associated with each PPA.

<b>Summary of PPA Cash Flows (\$ millions)</b>					
<b>PPA</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>NPV</b>
Battle River 5	(\$80)	(\$96)	(\$98)	(\$82)	(\$350)
Genesee	(\$121)	(\$150)	(\$154)	(\$99)	(\$516)
Keephills	(\$71)	(\$110)	(\$123)	(\$73)	(\$370)
Sheerness	(\$118)	(\$151)	(\$151)	(\$91)	(\$503)
Sundance A	(\$74)				(\$73)
Sundance B	(\$96)	(\$122)	(\$127)	(\$84)	(\$422)
Sundance C	(\$86)	(\$118)	(\$125)	(\$83)	(\$405)
<b>Total</b>	<b>(\$645)</b>	<b>(\$748)</b>	<b>(\$777)</b>	<b>(\$512)</b>	<b>(\$2,640)</b>

As shown above, the future cash flows associated with each PPA are expected to be very negative; the Balancing Pool expects it would lose \$2.6 billion in NPV terms over

its remaining mandate if all the PPAs are held through to 2020 (these costs will ultimately be borne by consumers).

The losses associated with holding each of the PPAs shown above must be compared to the costs of the alternative option of terminating some or all of those PPAs. If the Balancing Pool determines a PPA should be terminated, it is required to provide the Owner six months' notice and to make a termination payment equal to the undepreciated capital of the unit (the "Net Book Value" or "NBV") to the Owner. As such, the total cost of terminating a PPA is equal to its NBV (in mid-2017) plus six months of cash flows associated with that PPA (the time over which the Balancing Pool would continue to hold the PPA as Buyer during the notice period)<sup>1</sup>.

The components of the termination costs and the NPV of those costs (discounted to the beginning of 2017 such that they are comparable to the NPVs of the expected cash flows set out in the previous table) are summarized in the table below.

<b>Summary of Termination Costs (\$ millions)</b>			
<b>PPA</b>	<b>NBV at Mid-2017</b>	<b>Six Months CF Losses</b>	<b>NPV</b>
Battle River 5 <sup>2</sup>	(\$90)	(\$40)	(\$129)
Genesee	(\$538)	(\$61)	(\$592)
Keephills	(\$211)	(\$35)	(\$243)
Sheerness	(\$412)	(\$59)	(\$465)
Sundance A	(\$11)	(\$37)	(\$48)
Sundance B	(\$94)	(\$48)	(\$141)
Sundance C	(\$113)	(\$43)	(\$155)
<b>Total</b>	<b>(\$1,470)</b>	<b>(\$323)</b>	<b>(\$1,772)</b>

The table above provides a reasonable estimate of the total cost associated with the option of terminating one or more of the PPAs. The total cost to the Balancing Pool (and thus to consumers) of terminating all the PPAs would be \$1.8 billion.

The costs associated with the early termination of the PPAs can now be compared with the costs of holding the PPAs through 2020. The table on the next page combines the results of the previous two summary tables and identifies the potential savings to consumers of early termination.

<sup>1</sup> Note that an Owner may agree to terminate a PPA with less than six months' notice.

<sup>2</sup> In addition to the NBV payment, the Battle River PPA has unique provision in its schedules that could obligate the PPA Buyer to make a termination payment related to the mine. As Buyer, the Balancing Pool may be liable for such a payment, however the payments is triggered only if the Owner shuts down all Battle River units. As such, ATCO would need to shut down Battle River 3, 4, and 5 upon the termination of the Battle River 5 PPA. The total payment is estimated to be approximately \$12 million in 2017. Because of the uncertainty around this payment, it has been included in the termination costs but weighted at a 50 percent probability.

<b>Summary of Termination Costs (\$ millions)</b>			
<b>PPA</b>	<b>Cash Flow NPV</b>	<b>Termination Cost</b>	<b>Termination Savings</b>
Battle River 5	(\$350)	(\$129)	\$221
Genesee	(\$516)	(\$592)	(\$76)
Keephills	(\$370)	(\$243)	\$127
Sheerness	(\$503)	(\$465)	\$38
Sundance A	(\$73)	(\$48)	\$25
Sundance B	(\$422)	(\$141)	\$281
Sundance C	(\$405)	(\$155)	\$250
<b>Total</b>	<b>(\$2,640)</b>	<b>(\$1,772)</b>	<b>\$868</b>

The results above suggest that all but the Genesee PPA should be terminated by the Balancing Pool. Using the figures above, moving forward with the terminations (for all of the PPAs except Genesee) would save consumers almost \$1 billion on a net present value basis.

Note that the legitimacy of the Battle River and Keephills PPA terminations by ENMAX is the subject of a court challenge by the government of Alberta. As such, terminating these PPAs with the Owners could not proceed until such time that that ongoing dispute has been resolved.

Following the termination of a PPA, an Owner would be free to determine whether or not to decommission or modify/convert the underlying units. The Balancing Pool does not anticipate potential decommissioning liabilities<sup>3</sup> to materially affect the findings of the analysis above.

Previous analyses conducted by the Balancing Pool in regard to the Battle River and Sundance A PPAs have indicated that these potential decommissioning liabilities would not affect the decision to initiate early terminations for these PPAs. Furthermore, TransAlta has publicly committed to converting Sundance units 3 through 6 and both Keephills units to gas-fired generation in the near future, indicating that the risk of decommissioning is very low for these units. ATCO has indicated similar interest in converting its Sheerness units to gas-fired generation. While Capital Power has not stated its intentions around coal-to-gas conversions, given the age and economics of the Genesee units, early decommissioning of these units also appear unlikely.

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<sup>3</sup> The PPA Owners have been (and continue to be) collecting a decommissioning provision through the PPA capacity payments. Additional decommissioning funds were collected prior to the PPA regime and deregulation. An unfunded decommissioning liability could arise if the costs associated with decommissioning the underlying PPA units exceeded the funds collected from the two sources just described. If such an unfunded liability existed, the Owner has the option to apply for Balancing Pool compensation related to the unfunded decommissioning liabilities. If an Owner elects to make such an application, it is required to do so within one year of a PPA being terminated and before year-end 2018, when the regulation allowing for Balancing Pool compensation for decommissioning expires.