Deloitte.

Power Purchase Agreement Review

March 12, 2021

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Glossary of Terms

Act	The Electric Utilities Act (1995)
AESO	Alberta Electric Systems Operator
AltaGas	Altagas Pipeline Partnership or Altagas Power
ATCO	ATCO Electric Ltd.
ASTC	ASTC Power Partnership is a joint venture between AltaGas Pipeline Partnership and TransCanada Energy Ltd.
AUC	Alberta Utilities Commission
BP	Balancing Pool
BP Regulation	Regulations in the Electric Utilities Act that is specific to the Balancing Pool
Capital Power	Capital Power PPA Management Inc.
Cash Settlement Received	Cash received as a result of negotiated settlements
Client / Ministry	Government of Alberta, Department of Energy
Consumer Allocation	The annualized amount that will be paid or “allocated” to electricity consumers or collected from or “charged” to electricity consumers by the BP
Cost of Sales	Cost of sales is comprised of capacity payments, variable operating costs, and transmission charges related to the PPAs
Deloitte	Deloitte LLP
ENMAX	ENMAX PPA Management or ENMAX Energy Corporation
Emission Credits Received	Emission credits received as part of the negotiated settlement between the former PPA Buyers and the Government
EPCOR	EPCOR Utilities Inc.
Financial Loss	Financial loss is defined as the net cash outflows relating to the Returned PPAs incurred by the BP during the Review Period. The net cash outflows include consideration of emission credits related to the Returned PPAs as emission credits can be used in lieu of cash payments to offset the carbon levy charges
G&A	General and administrative costs
GWh	Gigawatts per hour (1 gigawatt hour (GWh) = 1,000 megawatt hours (MWh))
IFRS 16	International Financial Reporting Standards 16, Leases
Minister	Minister of Energy, Government of Alberta
MW	Megawatts
MWh	Megawatts per hour
Power Pool	A competitive market for electricity generation in Alberta
PPA	Power Purchase Agreement developed by the Province in conjunction with the transition to the full deregulation of electrical generation under the Electric Utilities Act (1995). Under such agreement, the buyer compensates the owner of the power generation facility for its fixed and variable costs based on a formula, in exchange for the right to a specified electricity generation capacity and related electricity by the facility generated
PPA Buyer	Party to the PPA having the right to a specified electricity generation capacity from a specified electricity generating facility in exchange for fixed and variable payments to the Owner
PPA Owner / Owner	Owner of an electricity generation facility subject to a PPA

PPA Review	As defined in Section 4 - Methodology and Approach
Province/Government	Government of the Province of Alberta
SGER	Specified Gas Emitter Regulation
Returned PPAs	PPAs terminated by PPA Buyers deemed to be held thereafter by the Balancing Pool as a Buyer. The PPAs returned in 2016 were Keephills PPA, Sundance A PPA, Sundance B PPA, Sundance C PPA, Sheerness PPA and Battle River 5 PPA
Report	Deloitte's Report to Counsel
Revenue	Revenue earned at the BP from the sale of electricity and ancillary services
Review Period	May 1, 2015 to April 1, 2019
TransAlta	TransAlta Utilities Corporation
TransCanada	TransCanada Energy Ltd. or TransCanada Corporation

1. Mandate

1. Deloitte LLP ("Deloitte", "we" or "us") was retained to perform a financial review on the Power Purchase Agreements ("**PPAs**") held through the Balancing Pool ("**BP**") based on publicly available information, for the period from May 1, 2015 to April 1, 2019 (the "**Review Period**").

2. More specifically, we have been asked to conduct a quantification of the financial loss incurred by the BP as a result of the six PPAs which were returned to the BP ("**Returned PPAs**") and the subsequent termination of three of these six PPAs during the Review Period. Our quantification focuses on the BP and does not incorporate broader consideration to the Government of Alberta ("**Government**") as a whole.

3. For the purpose of this quantification, financial loss ("**Financial Loss**") is defined as:

   > "the net cash outflows relating to the Returned PPAs incurred by the BP during the Review Period, including the impact of the offset emission credits. The net cash outflows include consideration of emission credits related to the Returned PPAs, as emission credits can be used in lieu of cash payments to offset the carbon levy charges."

4. Our review is limited publicly available information. Where necessary, we have described our methodology in this report ("**Report**"). In preparing this Report, we specifically reviewed and/or relied upon the information in Appendix A.

NOTICE

Deloitte LLP ("Deloitte") prepared this report for to the Province of Alberta using the retained expertise of Deloitte. Deloitte did not perform its services on behalf of or to serve the needs of any other person or entity. Accordingly, Deloitte expressly disclaims any duties or obligations to any other person or entity based on its use of the attached report. While Deloitte undertook a review of financial loss incurred by the Balancing Pool associated with the Returned PPAs during the Review Period, the scope of our review was limited to public available information. Deloitte did not perform an audit or review (as those terms are identified by the CPA Canada Handbook – Assurance) or otherwise verify the completeness of any information obtained from public sources. Accordingly, Deloitte did not express any form of assurance on accounting matters, financial statements, any financial or other information. Deloitte did not conclude on the appropriateness of the amounts reported by the BP, the Government of Alberta, or any other party. The observations and quantifications relating to all matters that Deloitte provided to Counsel were designed to assist Counsel in reaching its own conclusions.

2. Executive Summary

5. We have been tasked to quantify the Financial Loss incurred by the BP relating to the Returned PPAs from publicly available information. We identified the following items in quantifying the Financial Loss:

- Revenue earned from sale of electricity and ancillary services ("**Revenue**");
- Gain on emissions credits;
- Value of emission credits received as part of settlement with certain PPA Buyers ("**Emission Credits Received**")
- Cash received as a result of negotiated settlements ("**Cash Settlement Received**");
- Cost of power purchase agreements and power marketing charges ("**Cost of Sales**");
- Termination payments; and
- Interest expense on related party loans.

6. Based upon the mandate from Counsel, the scope of review, which is reflected in Appendix A, and subject to the restrictions and scope limitations as outlined in Appendix B and Appendix C, we quantified a Financial Loss of $1.34 billion relating to the Returned PPAs from May 1, 2015 to April 1, 2019. See Table 1 and Graph 1 below.

Graph 1 – Summary of Financial Loss incurred by the BP from May 1, 2015 to April 1, 2019 associated with the Returned PPAs.

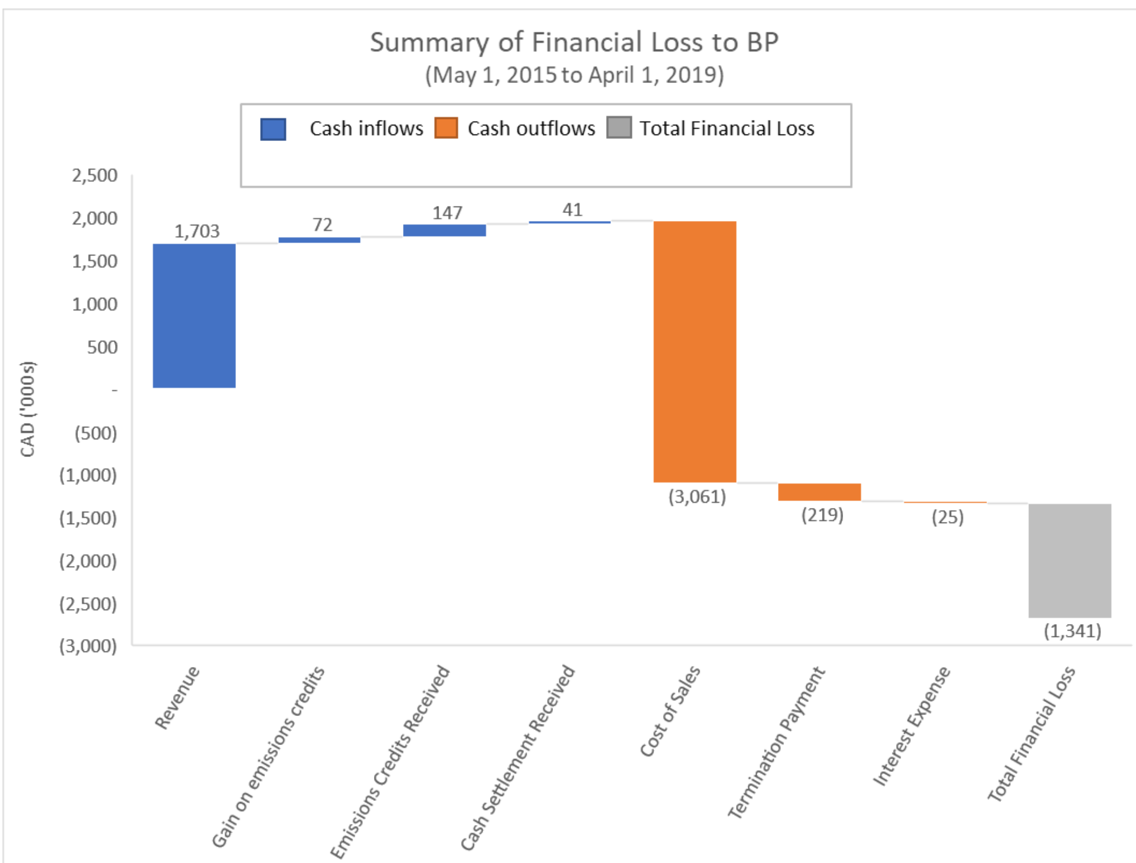

Table 1 – Summary of Total Financial Loss to the BP from May 1, 2015 to April 1, 2019.

		Year ended December 31,				
('000s)	**May 2015 – December 31, 2015[1]**	**2016**	**2017**	**2018**	**3 months ended April 1, 2019**	**Total**
Revenue	-	$353,567	$522,009	$645,483	$181,522	**$1,702,581**
Gain on emission credits[2]	-	-	-	72,456	-	**72,456**
Emission Credits Received	-	139,837	2,000	5,000	-	**146,837**
Cash Settlements Received	-	39,000	-	2,000	-	**41,000**
Total Cash Inflows	**-**	**$532,404**	**$524,009**	**$724,939**	**$181,522**	**$1,962,874**
Cost of Sales	-	(800,077)	(1,068,620)	(1,026,715)	(165,194)	**(3,060,606)**
Termination payments	-	-	-	(218,633)	-	**(218,633)**
Interest expense on related party loans	-	-	(3,363)	(16,086)	(5,108)	**(24,557)**
Total Cash Outflows	**-**	**$(800,077)**	**$(1,071,983)**	**$(1,261,434)**	**$(170,302)**	**$(3,303,726)**
Financial (Loss)	**-**	**$(267,673)**	**$(547,974)**	**$(536,495)**	**$11,220**	**$(1,340,922)**

7. Our quantification does not include any foregone opportunity costs or revenue, including but not limited to:
    a) The loss of investment income resulting from the liquidation of the BP investment fund in 2017[3], in part to finance the costs associated with the Returned PPAs;
    b) The interest expense associated with the loan amount from the Province of Alberta ("**Province**") to finance the costs associated with the Returned PPAs after April 1, 2019;
    c) The loss of carbon emission revenue to the Government that would have otherwise been collected from the PPA Buyers had the PPAs not been returned to the BP; and
    d) The costs associated with ongoing disputes between the BP, former PPA Buyers, PPA Owners, and the Province as the outcomes of these disputes are unknown as of February 19, 2021, the date of substantial completion of our quantification.

8. The following sections provides the background, approach and quantifications listed above in more detail.

[1] As the PPA's were returned on or after January 1, 2016, the BP assumed responsibilities of the obligations during the time they were returned. Therefore, no portion of the 2015 financial statements is related to the Returned PPAs.
[2] Emission credits can be used in lieu of cash payments to offset the carbon levy charges.
[3] Approximately $680 million was liquidated in 2017 by the BP. http://www.balancingpool.ca/wp-content/uploads/2017/05/BP-Annual-Report-2016_web.pdf - Page 5.

3. Background

Deregulation and creation of Power Purchase Agreements

9. The PPAs were developed in the mid-1990s as part of the Province's strategy to introduce competition in the electricity generation sector of Alberta.[4] At the time, the sector was subject to cost-based utility regulation. Under this previous model, electricity generation facility owners ("**Owners**") recovered operating costs and a specified return on investments through a regulatory approved rate charge to consumers of electricity. [5] At the time, the electricity generation facilities located in the Province were owned by three companies: Edmonton Power Corporation (now Capital Power), Alberta Power (now ATCO Energy), and TransAlta Corporation.[6]

10. As the generation of electricity was concentrated between these three companies, the objective of the deregulation was to attract new entrants (i.e. new market participants) to the electricity generation sector.[7] To achieve this objective, the Province could have forced the three companies to sell their electricity generation facilities so that there could be an increase in the number of market participants thus, increased competition.[8] Instead, the Province created a mechanism to facilitate the entrance of new market participants ("**PPA Buyer(s)**") through the creation and auction of the PPAs. The PPAs were intended to allow the Owners an opportunity to recover certain costs incurred at their electricity generation facility while transferring the electricity generated from the facility to PPA Buyers.[9] Table 2 below illustrates select rights and obligations of the Owners and PPA Buyers under the terms of the PPAs.

Table 2 – Select Rights and Obligations of the Owners and PPA Buyers under the PPAs

Owners[10]	PPA Buyers[11]
• Continue to own and operate the facility.	• Right to a specified capacity and electricity generated by the facility. • Right to dispatch the electricity generation facility every hour and for up to a maximum specified volume.
• Make available to the PPA Buyer, the specified capacity and electricity generated.	• Entitled to the proceeds from the sale of electricity to the Alberta Power Pool. [12]
• Receive set monthly payments (fixed and variable) from the PPA Buyer.	• Compensate the PPA Owner for operating and maintaining the electricity generation facility each month.
• Make available any excess energy to the PPA Buyer.	• Right to sell any excess energy and remit the proceeds to the PPA Owner.
• Required to receive and make payments to the BP in certain circumstances.	• Required to receive and make payments to the BP in certain circumstances.

[4] New Opportunities in Alberta Electricity Market, April 2017, a BLG Overview.
[5] Annual Report, TransAlta December 31, 1999, Page 48.
[6] New Opportunities in Alberta Electricity Market, April 2017, a BLG Overview.
[7] https://www.aeso.ca/aeso/training/guide-to-understanding-albertas-electricity-market/
[8] New Opportunities in Alberta Electricity Market, April 2017, a BLG Overview.
[9] http://www.balancingpool.ca/power-purchase-arrangement-information/
[10] Power Purchase Agreement for Sheerness between ATCO Electric and the Buyer.
[11] Power Purchase Agreement for Sheerness between ATCO Electric and the Buyer.
[12] Power Purchase Agreement for Sheerness between ATCO Electric and the Buyer.

11. Under the terms set in the PPAs, the PPA Buyer assumes the market risks, when selling the electricity into the Alberta Power Pool.[13] More specifically, the PPA Buyer makes a profit if the revenue sold is higher than the payments made to the PPA Owner, and the PPA Buyers incurs a loss when the payments and obligations exceed the revenues earned from selling the electricity to the Alberta Power Pool.[14] Meanwhile, the PPA Owner is exposed to operational risks and can increase its profit by lowering its operational costs, or incur losses when their operational costs are in excess of the compensation received from the PPA Buyer.

PPA Auctions

12. In August 2000, the Province auctioned twelve PPAs. A total of eight[15] PPAs, representing 4,250 MW of capacity were sold for $1.1 billion.[16,17] The unsold PPAs were assigned to the BP who has been acting as the PPA Buyer up to their respective termination dates.[18] These unsold PPAs included (i) HR Milner, (ii) Genesee, (iii) Sheerness and (iv) Clover Bar.[19]

13. In December 2000, a second auction took place whereby the BP sold forward contracts for 2001, 2002 and 2003 on the unsold PPAs for a total additional proceeds of approximately $2.3 billion received from 45 bidders.[20] [21] The proceeds from these auctions were received by the BP and were distributed to consumers through the consumer allocation until 2016.[22]

14. At the beginning of the Review Period, on May 1, 2015, the following PPAs were still in effect (Table 3):

Table 3 – Coal-fired generating facilities subject to PPAs still in effect on May 1, 2015

	PPA	Owner of the Facility	PPA Buyer	PPA Term[23]
1	Battle River 5	ATCO	ENMAX	December 31, 2020
2	Genesee	EPCOR	BP	December 31, 2020
3	Keephills	TransAlta	ENMAX	December 31, 2020
4	Sheerness	ATCO / TransAlta	TransCanada	December 31, 2020
5	Sundance A	TransAlta	TransCanada	December 31, 2017
6	Sundance B	TransAlta	ASTC	December 31, 2020
7	Sundance C	TransAlta	Capital Power	December 31, 2020

Balancing Pool

15. In 1998, the Government created the BP to support the transition to a competitive electricity generation sector.[24] The BP's legislated duties were set as follows (emphasis added):[25]

- *Act as a risk backstop for the PPAs in relation to extraordinary events such as force majeure;*
- *Act as a [PPA Buyer] for the PPAs that were not sold in the public auctions held by the Government of Alberta in 2000, **or that were subsequently terminated by third party [PPA Buyers]**;*
- *Manage the PPAs held by the BP in a commercial manner, and/or **terminate them with the Owners if appropriate**;*

[13] https://ablawg.ca/2016/03/24/the-termination-of-power-purchase-arrangements-in-alberta-what-is-the-legal-position-and-what-are-the-implications-of-termination/
[14] https://ablawg.ca/2016/03/24/the-termination-of-power-purchase-arrangements-in-alberta-what-is-the-legal-position-and-what-are-the-implications-of-termination/
[15] As at May 1, 2015, only six of the eight PPAs sold were still active.
[16] State of Electricity Deregulation in Alberta and the Alberta Electric System Operators Role by Lewis L. Manning of Lawson Lundell LLP.
[17] Market Surveillance Administrator – Quarterly Report, January – March 2003, April 28, 2003.
[18] https://ablawg.ca/2016/03/24/the-termination-of-power-purchase-arrangements-in-alberta-what-is-the-legal-position-and-what-are-the-implications-of-termination/
[19] Market Surveillance Administrator – Q1/03 Quarterly Report, April 28, 2003.
[20] Market Surveillance Administrator – Quarterly Report, January – March 2003, April 28, 2003.
[21] Market Surveillance Administrator – Quarterly Report, January – March 2003, April 28, 2003.
[22] http://www.balancingpool.ca/power-purchase-arrangement-information/
[23] http://www.balancingpool.ca/power-purchase-arrangement-information/
[24] http://www.balancingpool.ca/ **Section**: Backstopping Risks Related to Power Purchase Arrangements on Behalf of Alberta Consumers.
[25] The Balancing Pool Financial Statements, December 31, 2019.

- *Allocate (or collect) any forecasted cash surplus (or deficit) to (from) electricity consumers in Alberta in annual amounts;*
- *Manage the financial accounts arising from the transition to a competitive generation market on behalf of consumers;*
- *Fund the decommissioning and reclamation costs associated with certain generation facilitates in Alberta;*
- *Hold the Hydro PPA and manage the associated stream of receipts or payments;*
- *Participate in regulatory and dispute resolution processes;*
- *Fund initiatives in the electricity industry at the direction of the Minister of Energy ("**Minister**"); and*
- *Act as the default market participant and provide settlement functions in relation to certain projects developed under the Small Scale Generation Regulation.*

16. To ensure it has an adequate level of resources, the BP is required to forecast the costs and revenue on an annual basis. Based on the forecasts, when a surplus (deficit) is anticipated, consumers of electricity receive a rebate (charge) on their monthly bill based on the MWh consumed through consumer allocations ("**Consumer Allocations**").[26] From 2006 to 2015 the BP estimated a surplus and paid out approximately $2.4 billion to consumers of electricity (Table 4).[27] [28]

Table 4 – Consumer Allocations from 2006 to 2015

Year	$/MWh Rebate/(Charge)	$ million
2006	1.00	54
2007	3.00	162
2008	5.00	271
2009	6.50	344
2010	3.00	162
2011	2.00	110
2012	5.50	307
2013	5.50	314
2014	5.50	325
2015	5.50	324
Total		**$2,373**

17. Starting in 2016, the Returned PPAs in combination with the continuing low electricity price environment in the wholesale electricity market imposed significant financial liabilities on the BP.[29] This resulted in annual deficits which required the BP to collect funds from consumers of electricity to cover the incremental financial liabilities through Consumer Allocations.[30] Table 5 summarizes the Consumer Allocations collected from consumers of electricity from 2017 onwards.

Table 5 – Consumer Allocations from 2016 to 2019

Year[31]	$/MWh Rebate/(Charge)	$ million
2016	3.25	190
2017	(1.10)	(66)
2018	(3.10)	(189)
2019	(2.90)	(~170)

[26] http://www.balancingpool.ca/consumer-allocation/
[27] http://www.balancingpool.ca/consumer-allocation-2001-2019/
[28] http://www.balancingpool.ca/consumer-allocation-2001-2019/
[29] The Balancing Pool Financial Statements, December 31, 2016, Page 5.
[30] http://www.balancingpool.ca/consumer-allocation-2001-2019/
[31] http://www.balancingpool.ca/consumer-allocation-2001-2019/, for all years except 2020.

18. The BP continues to forecast a deficit and will collect from consumers of electricity, an amount of $2.30/MWh for 2021 with a forecast of total collection of $134 million.[32]

The return of PPAs to the BP

19. In late 2015 to early 2016, six PPAs were returned to the BP by the PPA Buyers as shown in Table 6 below. PPA Buyers cited that changes to the Specified Gas Emitter Regulation ("**SGER**")[33,34] as the reason for exercising their right to return the PPA to the BP.[35]

Table 6 – PPA Buyer Terminations from 2015 to 2016 ("Returned PPAs")

PPA	PPA Buyer	PPA Owner (plant owner)	Termination Notice Date
Battle River 5	ENMAX	ATCO	December 11, 2015
Sheerness	TransCanada	ATCO/ TransAlta	March 8, 2016
Sundance A	TransCanada	TransAlta	March 8, 2016
Sundance B	ASTC	TransAlta	March 8, 2016
Sundance C	Capital Power	TransAlta	March 24, 2016
Keephills	ENMAX	TransAlta	May 5, 2016

20. Once returned, the BP was required to assume the obligations and responsibility for ongoing capacity payments and other PPA-related costs, as well as undertaking the responsibility for selling the electricity generated from these PPAs into the wholesale electricity market.[36]

21. The Returned PPAs, in combination with the continuing low electricity price environment in the wholesale electricity market, imposed significant financial obligations on the BP.[37] To meet their financial obligations, on April 1, 2016, the BP divested its investment portfolio by approximately $680 million.[38] By December 31, 2018, the BP no longer held any investments.[39]

22. In addition to the divesting of its investments, in December 2016, between January 1, 2017 to March 31, 2019, the BP borrowed $1,241 million from the Province.[40] Table 7 is a summary of the amounts borrowed from the Province from 2017 to 2019.[41]

[32] http://www.balancingpool.ca/wp-content/uploads/2020/10/2021-Consumer-Allocation.pdf
[33] Announcement ENMAX, May 7, 2016 – ENMAX terminates Keephills Power Purchase Arrangement.
[34] Under SGER, any facility that emits more than 100,000 tonnes of CO2 must reduce their emissions by a prescribed amount. Companies can comply by either reducing their emissions, purchase credits from other facilities that have reduced emission, purchase an offset credit or contribute to the Climate Change and Emissions Management Fund.
https://www.airdberlis.com/insights/blogs/EnergyInsider/post/ei-item/fallout-continues-over-termination-of-alberta-power-purchase-arrangements-with-coal-fired-generators
[35] Termination of Power Purchase Arrangements in Alberta: What is the Legal Position and What are the implications of Termination? By Nigel Bankes, March 24, 2016.
[36] The Balancing Pool Financial Statements, December 31, 2016.
[37] The Balancing Pool Financial Statements, December 31, 2016, Page 5.
[38] The Balancing Pool Financial Statements, December 31, 2016.
[39] The Balancing Pool Financial Statements, December 31, 2018.
[40] The Balancing Pool Financial Statements, December 31, 2017, December 31, 2018, and March 31, 2019.
[41] The Balancing Pool Financial Statements, December 31, 2017, December 31, 2018 and March 31, 2019.

Table 7 – Related Party Loan owed to the Government of Alberta

	Year ended December 31,			
Millions	**2017**	**2018**	**3 months ended April 1, 2019**	**Total Amount Borrowed/(Repaid)**
Opening Balance	-	$566.3	$915.3	
Borrowed Amount	$566.3	349.0	326.2	$1,241.5
Repayment	-	-	(419.6)	(419.6)
Outstanding balance owed as at December 31	**$566.3**	**$915.3**	**$827.0**	

23. The interest costs associated with the loans as well as the repayment of the loans to the Province is expected to be recovered from electricity consumers through the Consumer Allocations.[42]

Litigation associated with the return of PPAs

24. Capital Power, ENMAX, TransCanada, and ASTC issued their respective notice to return the PPA to the BP between December 11, 2015 and May 5, 2016.[43]

25. By the end of January 2016, the BP had verified and confirmed that ENMAX had the right to return the Battle River 5 PPA. For the other PPAs where a notice to terminate was received, the Attorney General of Alberta filed an application on July 25, 2016[44] with the Alberta Court of Queen's Bench seeking to validate certain provisions in the Battle River 5 PPA, Sundance A PPA, Sundance B PPA, Sundance C PPA and Sheerness PPA.[45]

26. On November 24, 2016 and March 8, 2018, the Government reached an agreement with the former PPA Buyers of the Returned PPAs. These settlement agreements include:

    1. **Settlement Agreement for Sundance A PPA and Sheerness PPA**
    On November 24, 2016, a settlement agreement was reached with the former PPA Buyer of the Sundance A PPA and Sheerness PPA. Under the settlement agreement, TransCanada transferred a package of carbon offset credits to the BP. While the specific details of the settlement agreement between TransCanada and the Government is not public, we note that the BP received 7 million tonnes[46] of emission credits as a result of a settlement.

    2. **Settlement Agreement Sundance B PPA**
    On December 24, 2016, a deal was announced by AltaGas, that an agreement had been reached whereby the Government agreed to terminate the Sundance B PPA that was previously held by the ASTC Power Partnership, a partnership between TransCanada Energy and AltaGas. Under this settlement, AltaGas will pay $6 million in cash payments over 3 years starting in 2018 and contribute 391,879 of carbon offset credits to the BP.[47]

    3. **Settlement Agreement Sundance C PPA**
    On November 24, 2016, a settlement agreement was reached between the Government, Capital Power and its syndicated partners whereby Capital Power and its partners agreed to pay the BP $39 million in cash.[48]

[42] The Balancing Pool Financial Statements, December 31, 2017, Page 30.
[43] http://www.balancingpool.ca/wp-content/uploads/2017/05/BP-Annual-Report-2016_web.pdf
[44] The Balancing Pool Financial Statements, December 31, 2017, Page 1.
[45] The Balancing Pool Financial Statements, December 31, 2017, Page 9.
[46] The Balancing Pool Financial Statements, December 31, 2016, Page 11.
[47] https://www.altagas.ca/newsroom/news-releases/altagas-and-government-alberta-reach-definitive-agreement-settle-power
[48] https://www.capitalpower.com/media/media_releases/capital-power-reaches-agreement-on-two-issues-with-the-government-of-alberta/

4. **Settlement Agreement for Battle River 5 PPA and Keephills PPA**
   A settlement agreement was reached on March 8, 2018[49] between ENMAX and the Government, whereby, the BP would receive 166,667 carbon offset credits and a payment of equivalent value was made to ENMAX from the BP for previously disputed and unpaid dispatch services and PPA transition matters.[50]

Terminate the PPA with the Owners

27. Under the terms of the PPAs, the BP had the option to (1) hold the PPAs, (2) resell the PPAs or (3) to terminate the PPAs by paying the Owner a termination payment equal to the net book value of the generation facility.[51]

28. Once the PPA returns took effect, between January 1, 2016 to May 5, 2016, the BP started to hold and operate these PPAs. In and around July 2017, the BP performed a review on the consequences of terminating the PPAs. In their review, the BP considered:[52]

    - The financial consequences for the BP in terminating any one or more PPAs;
    - Any significant consequences of the termination for a fair, efficient and openly competitive market; and
    - The consequences of termination(s) on an overall basis for customers related to electricity prices and the BP allocation or charge.

29. Based on its review, the BP advised that it would continue to experience considerable losses if it held certain PPAs until the end of the PPA term[53]. After completing the required consultations with representatives of customers and the Minister regarding the reasonableness of the terminations, the BP announced the termination of the Sundance B and Sundance C PPAs effective April 1, 2018[54] and the termination of Battle River 5 effective October 1, 2018.[55,56]

30. As a result of the termination of Sundance B and Sundance C PPAs, a termination payment of $71.6 million and $85.3 million was paid to TransAlta respectively. TransAlta later disputed the termination payment for the Sundance B and Sundance C PPA, and an additional termination payment of $57.2 million was paid to TransAlta on August 29, 2019.[57]

31. The BP also paid a total of $61.7 million to Alberta Power (2000) Ltd. as a result of the termination of the Battle River 5 PPA. An additional payment of $5.5 million was later paid to Alberta Power (2000) Ltd. in November 2019, as part of a dispute settlement.[58]

32. These termination costs and the financial obligations of the BP to operate the Returned PPAs have resulted in an increase to the cost of electricity to consumers between the period of 2017 to 2020 through Consumer Allocations.[59]

33. The Sundance A PPA had expired on December 31, 2017.[60]

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[49] The Balancing Pool Financial Statements, December 31, 2017, Page 9.
[50] ENMAX 2018 Year End Financial Statements, Page 7.
[51] http://www.balancingpool.ca/power-purchase-arrangement-information/ppa-terminations/
[52] PPA Termination Customer Information Package.
[53] PPA Termination Customer Information Package.
[54] http://www.balancingpool.ca/wp-content/uploads/2017/09/News-Release_2017-Sundance-Terminations.pdf
[55] Sundance A expired on December 31, 2017, from http://www.balancingpool.ca/power-purchase-arrangement-information/
[56] http://www.balancingpool.ca/power-purchase-arrangement-information/battle-river-5-ppa-termination/
[57] The Balancing Pool Financial Statements, December 31, 2019.
[58] The Balancing Pool Financial Statements, December 31, 2019.
[59] http://www.balancingpool.ca/consumer-allocation-2001-2019/
[60] The Balancing Pool Financial Statements, December 31, 2018.

4. Methodology and Approach

Review of Mandate

34. On November 20, 2020, Deloitte was requested to quantify certain matters related to the Returned PPAs to the BP and set out the following terms of reference:
    - Examine publicly available records relating to the Returned PPAs; and
    - Based on this examination, ascertain the total amount of financial losses incurred by the BP related to the Returned PPAs for the period from May 2015 to April 2019.

35. For the purposes of our review and analysis, we have interpreted the term Financial Loss as follows:

"the net cash outflows relating to the Returned PPAs incurred by the BP during the Review Period, including the impact of the offset emission credits. The net cash outflows include consideration of emission credits related to the Returned PPAs as emission credits can be used in lieu of cash payments to offset the carbon levy charges."

Approach

36. To address the objectives of Counsel, we assembled a team of professionals with experience in audit, forensic accounting, and industry.

37. We reviewed the requirements of the PPA obligations including, but not limited to, the rights of the parties, financial impact on the BP, and identified the relevant stakeholders. We conferred with Counsel to confirm our understanding of the regulatory and legal requirements of the PPA Buyers and of the BP.

38. We collected publicly available information relevant to the BP, the PPAs and the Returned PPAs. We used our professional judgement to identify the information sources which included but is not limited to, materials published by the BP, the Government, and purchasers of PPAs. Refer to Appendix A for a complete list of materials used in this Report.

39. We assessed the validity, relevance, and reliability of the available information gathered putting more weight on information that had been subject to independent review. We analyzed the materials collected to identify any information gaps. In some instances, the public information was not sufficiently granular for our purposes, as such, we had to develop a methodology to address the gaps. Please see Appendix C for a list of our assumptions.

40. We quantified the Financial Loss relating to the Returned PPAs in the Review Period using the information gathered.

Which PPAs were returned and when did they impact BP's financial results?

41. PPA Buyers exercised their right to return their PPAs to the BP at various dates following the Government's decision to increase the Province's carbon levy on large industrial emitters, including coal-fired generating facilities. At the time, Alberta's decision established more stringent carbon levies than those found in the federal regulations.[61] The first PPA Buyer notified its intention to exercise its right to return a PPA to the BP on December 11, 2015.

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[61] The federal government announced on October 3, 2016, the price set for carbon emissions was $10 per tonne in 2018, rising by $10 per tonne each year to reach $50 per tonne by 2022. Alberta had announced in November of 2015 that the carbon tax as of January 1, 2017, would be $20 per tonne rising to $30 per tonne by January 1, 2018.
https://www.cbc.ca/news/politics/provinces-with-carbon-pricing-1.3789174

42. The BP was required to assume the role of the PPA Buyers, from the PPAs effective return date until the earlier of (1) the PPA expiry date or (2) the termination of the PPA. The related financial obligations and responsibilities included managing the PPAs in a prudent manner while collecting all proceeds received on the sale of electricity generated by the PPAs and paying all costs and financial obligations associated with these PPAs. The Table 8 below summarizes the key dates of the Returned PPAs.

Table 8 – Summary of Dates for Returned PPAs

PPA	Termination Notice Date [62]	PPA Expiry/Termination Date
Battle River 5	December 11, 2015	Terminated September 30, 2018[63]
Sheerness	March 7, 2016	Expired December 31, 2020 [64]
Sundance A	March 7, 2016	Expired December 31, 2017 [65]
Sundance B	March 7, 2016	Terminated March 31, 2018[66]
Sundance C	March 24, 2016	Terminated March 31, 2018[67]
Keephills	May 5, 2016	Expired December 31, 2020[68]

Definition of Financial Loss

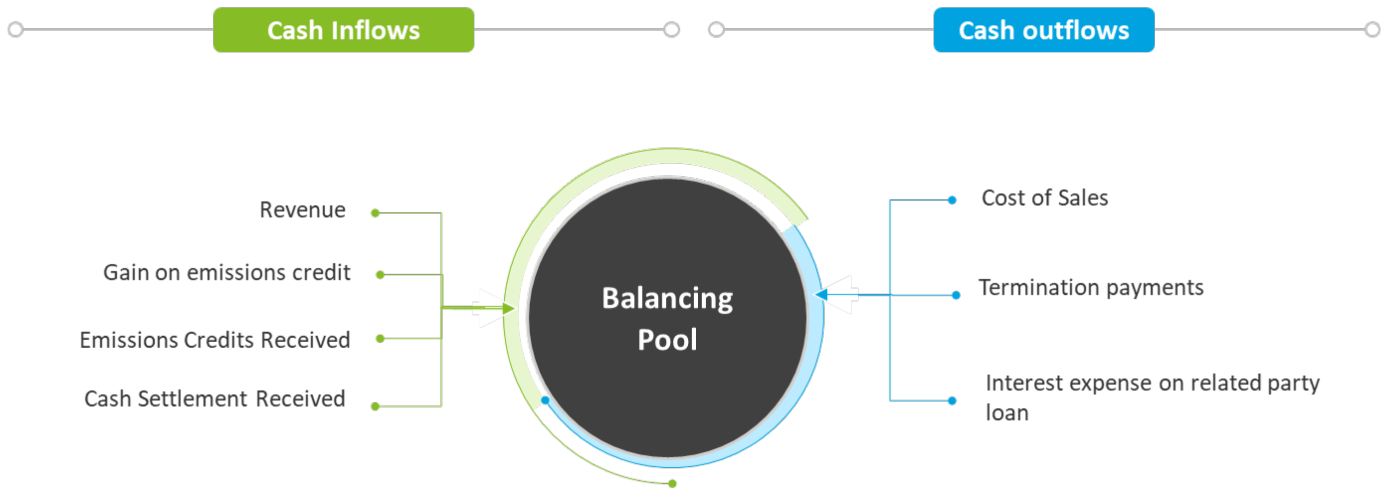
43. For the purpose of this quantification, financial loss ("Financial Loss") is defined as:

"the net cash outflows relating to the Returned PPAs incurred by the BP during the Review Period, including the impact of the offset emission credits. The net cash outflows include consideration of emission credits related to the Returned PPAs as emission credits can be used in lieu of cash payments to offset the carbon levy charges."

44. Through our review of the public information, we identified the following relevant cash inflows and cash outflows relating to the Returned PPAs and categorized them into the following seven categories:
- Revenue;
- Gain on emissions credits;
- Emission Credits Received;
- Cash Settlement Received;
- Cost of Sales;
- Termination payments; and
- Interest expense on related party loans.

[62] http://www.balancingpool.ca/power-purchase-arrangement-information/ppa-terminations/
[63] http://www.balancingpool.ca/power-purchase-arrangement-information/battle-river-5-ppa-termination/
[64] http://www.balancingpool.ca/power-purchase-arrangement-information/
[65] http://www.balancingpool.ca/power-purchase-arrangement-information/
[66] The Balancing Pool, announcement September 18, 2017 "Balancing Pool to Terminate Sundance B and Sundance C Power Purchase Arrangements".
[67] The Balancing Pool, announcement September 18, 2017 "Balancing Pool to Terminate Sundance B and Sundance C Power Purchase Arrangements".
[68] http://www.balancingpool.ca/power-purchase-arrangement-information/

Figure 1 – Cash Inflows and Outflows Related to the Returned PPAs for the Review Period.



45. In the following sections, we will address each of the above cash outflows and inflows and their related quantifications in more details.

5. Analysis

46. We have quantified the total amount of Financial Loss relating to the Returned PPAs incurred by the BP from May 1, 2015 to April 1, 2019 at $1.34 billion. See Table 9 below.

Table 9 – Total Cash Cost to the BP Related to the Returned PPA ('000's)

		Year ended December 31,				
('000s)	**May 2015 – December 31, 2015[69]**	**2016**	**2017**	**2018**	**3 months ended April 1, 2019**	**Total**
Revenue	-	$353,567	$522,009	$645,483	$181,522	**$1,702,581**
Gain on emission credits[70]	-	-	-	72,456	-	**72,456**
Emission Credits Received	-	139,837	2,000	5,000	-	**146,837**
Cash Settlements Received	-	39,000	-	2,000	-	**41,000**
Total Cash Inflows	**-**	**$532,404**	**$524,009**	**$724,939**	**$181,522**	**$1,962,874**
Cost of Sales	-	(800,077)	(1,068,620)	(1,026,715)	(165,194)	**(3,060,606)**
Termination payments	-	-	-	(218,633)	-	**(218,633)**
Interest expense on related party loans	-	-	(3,363)	(16,086)	(5,108)	**(24,557)**
Total Cash Outflows	**-**	**$(800,077)**	**$(1,071,983)**	**$(1,261,434)**	**$(170,302)**	**$(3,303,726)**
Financial (Loss)	**-**	**$(267,673)**	**$(547,974)**	**$(536,495)**	**$11,220**	**$(1,340,922)**

47. Below is a detailed discussion of the identified items that impact our quantification of Financial Loss:
    - Revenue;
    - Gain on emissions credits;
    - Emission Credits Received;
    - Cash Settlement Received;
    - Cost of Sales;
    - Termination payments; and
    - Interest expense on related party loans.

Cash Inflows

Sale of electricity and ancillary services

48. When the PPAs were turned back, the BP assumed the role of the PPA Buyer and controlled the generation and sale of an additional 23,230 GWh of electricity to the Alberta Power Pool (Table 10).[71]

[69] As the PPA's were returned on or after January 1, 2016, the BP assumed responsibilities of the obligations during the time they were returned. Therefore, no portion of the 2015 financial statements is related to the Returned PPAs.
[70] Emission credits can be used in lieu of cash payments to offset the carbon levy charges.
[71] The Balancing Pool Financial Statements, December 31, 2018.

Table 10 – Total generation capacity from Returned PPAs as at December 31, 2017.

PPA	Buyer (Pre-Termination)	GWh
Battle River 5	ENMAX PPA Management	1,563
Sheerness	TransCanada Energy Ltd.	5,432
Sundance A	TransCanada Energy Ltd.	3,230
Sundance B	ASTC Power Partnership	3,748
Sundance C	Capital Power PPA Management Inc.	4,151
Keephills	ENMAX Energy Corporation	5,106
	Total Amount	**23,230**

49. Through this available generation capacity, the BP benefited from the sale of electricity volumes generated from each Returned PPA as shown in Table 11 below.[72]

Table 11 – Gigawatt hour sold from the Returned PPAs.

	For the year ended December 31,[73]			
GwH	**2016**	**2017**	**2018[74]**	**3 months ended April 1, 2019[75]**
Battle River 5	1,610	1,563	1,158	-
Sheerness	4,175	5,432	4,932	1,307
Sundance A[76]	2,611	3,230	-	-
Sundance B	3,032	3,748	786	-
Sundance C	3,904	4,151	892	-
Keephills	3,432	5,106	5,096	1,407
Total GwH	**18,764**	**23,230**	**12,864**	**2,714**

50. We quantify that the BP received a total of $1.7 billion in cash inflows from the sale of electricity and ancillary services associated with the Returned PPAs for the period from January 1, 2016 to April 1, 2019 as summarized in the Table 12 below.

Table 12 – Total Revenue earned from sale of Electricity Related to Returned PPAs.

	Year ended December 31,				
	2016	**2017**	**2018**	**3 months ended April 1, 2019**	**Total[77,78,79]**
Revenue (000's)	$353,567	$522,009	$645,483	$181,522	**$1,702,581**
GWh (sold)	18,764	23,230	12,864	2,714	**57,572**

[72] The Balancing Pool Financial Statements, December 31, 2016, December 31, 2017, December 31, 2018.
[73] There was no revenue associated with the Returned PPA from May 1, 2015 to December 31, 2015.
[74] The gigawatt hour sold from the Returned PPAs include an electricity sold in Battle River 5 PPA, Sundance B PPA and Sundance C PPA up to their termination date of September 30, 2018, March 31, 2018 and March 31, 2018 respectively.
[75] Sundance B, Sundance C and Battle River 5 was terminated by the BP on April 1, 2018, April 1, 2018 and October 1, 2018 respectively.
[76] Sundance A PPA agreement expired on December 31, 2017.
[77] Q1 2016 to Q2 2018, the BP financial statements disclosed the revenue and volume sold by PPA.
[78] The Balancing Pool Financial Statements do not provide a breakdown of revenue by PPA from September 1, 2018 ("Q3") to May 2019. From Q3 2018 onwards,
[79] In order to determine the revenue for the six Returned PPAs from Q3 2018 to April 1, 2019, we assumed that the quarterly average price per MwH was consistent across all PPAs from Q3 2018 to April 1, 2019.

Carbon levy charges and gain on emission credits

51. Throughout the Review Period, the BP was subject to carbon levy charges associated with emissions from coal burning generation facilities used to produce electricity under the Genesee PPA and the Returned PPAs. To offset the carbon levy obligation, the BP could provide (1) emission credits purchased in the open market or (2) cash.[80] We understand the costs associated with the carbon tax levy are reflected with “Cost of Sales” addressed in the next section.

52. From 2016 through to 2018, the BP received emissions credits (7,302 million credits) valued at the time, at $146.8 million as part of the negotiated settlements reached for certain Returned PPAs as shown Table 14. These emission credits in effect reduced the cash needed by the BP to offset carbon levy obligations. Without these emission credits, the BP would be required to pay for the carbon levy obligations in cash.[81]

53. From 2016 to 2017, the value of these emission credits increased from $20 to $30 per unit as shown in Table 13. By holding onto the emission credits until their retirement in 2018, we estimate that the BP was able to further reduce the cash outflows by an additional $72.5 million.[82]

Table 13 – Climate Change and Emissions Management Fund Rates from 2015 to 2018.[83,84]

Year	$/tonne
2015	$15.00
2016	$20.00
2017	$30.00
2018	$30.00

54. In summary, we estimate that the BP was able to reduce the total cash outflows by $219.3 million through the use of the emission credits received from the negotiated settlements between the former PPA Buyers and the Government (refer to Table 14).

Table 14 – Emissions Credits received from Returned PPAs.

	Year ended December 31,				
(‘000s)	**2016**[85]	**2017**[86]	**2018**[87]	**3 months ended April 1, 2019**	**Total**
Value of emission credits received as part of settlement with certain PPA Buyers	$139,800	$2,000	$5,000	-	**$146,800**
Appreciation in value of emission credits	-	-	72,456	-	**$72,456**
Total	**$139,800**	**$2,000**	**$77,456**	**-**	**$219,256**

[80] The Balancing Pool Financial Statements, December 31, 2018.
[81] The Balancing Pool Financial Statements, December 31, 2016 and December 31, 2017, Note 15.
[82] In 2018, the BP realized a $74.6 million gain on the retirement of emission credit. This gain was achieved due to the acquisition of emission credits (either through negotiated settlements with PPA Buyers or acquired from third parties) at a lower cost than the Climate Change and Emissions Management fund rate of $30 per tonne of carbon dioxide equivalent (CO2e). We estimated that approximately $72.5 million of this gain is related to the Returned PPAs calculated using the first in first out costing method.
[83] Alberta Environment and Parks Ministerial Order13/2015 on June 30, 2015.
[84] Alberta Environment and Parks Ministerial Order 58/2017 on December 21, 2017.
[85] The Balancing Pool Financial Statements, December 31, 2016, Page 53.
[86] The Balancing Pool Financial Statements, December 31, 2017, Note 7.
[87] The Balancing Pool Financial Statements, December 31, 2018, Note 7.

Negotiated settlements with PPA Buyers

55. The Returned PPAs triggered a number of disputes for which settlements or a decision was reached. We identified two disputes which resulted in a cash inflow of $41 million during the Review Period (Table 15).

Table 15 – Cash Payments Received for Returned PPAs.

	Year ended December 31,				
('000s)	**2016**[88]	**2017**[89]	**2018**[90]	**3 months ended April 1, 2019**	**Total**
Negotiated Settlement	$39,000	-	$2,000	-	$41,000
Total Payment	**$39,000**	**-**	**$2,000**	**-**	**$41,000**

56. As part of the negotiated settlements with the PPA Buyers of Sundance A, Sundance B, Sundance C and Sheerness, the BP received $39.0 million in cash as of December 31, 2016[91]and $2 million received in December 2018[92] for a total cash payment of $41 million.

Cash Outflows

Cost of Sales

57. The Cost of Sales for the BP is comprised of capacity payments, variable operating costs, and transmission charges related to the PPAs. The electricity marketing charges are cash costs incurred to market and sell the electricity generated under the PPA controlled by the BP (includes both the Genesee PPA and Returned PPAs) and ancillary services.

58. Capacity payments comprise approximately 90% of the cost of PPAs and these payments vary year-over-year as a result of changes in capital cost base, cost indices, interest rates and pass-through charges. Changes to the market price of electricity had a minimal impact on the PPA capacity payments.[93]

59. Prior to the return of the PPAs in 2016, the Cost of Sales was attributable only to the Genesee PPA.[94] After 2015, the Cost of Sales included both the costs associated with the Geneses PPA and the Returned PPAs. To quantify the Cost of Sales relating to the Returned PPAs from January 1, 2016 to April 1, 2019, we subtracted the estimated Cost of Sales relating to the Genesee PPA (estimated using the historical average Cost of Sales per MwH of $32.48/ MwH from 2014 to 2015 adjusted for inflation). Using this method, we calculated a total cash outflow of $3 billion related to the Returned PPAs (as summarized in Table 16 below)

[88] The Balancing Pool Financial Statements, December 31, 2016, Page 53.
[89] The Balancing Pool Financial Statements, December 31, 2017, Page 40.
[90] The Balancing Pool Financial Statements, December 31, 2018, Page 12.
[91] The Balancing Pool Financial Statements, December 31, 2016, Page 53.
[92] The Balancing Pool Financial Statements, December 31, 2018, Page 12.
[93] http://www.balancingpool.ca/wp-content/uploads/2017/05/BP-Annual-Report-2016_web.pdf
[94] "Cost of power purchase arrangements and power marketing charges" reported in BP's audited financial statements does not include costs associated with the Hydro PPA or the Small Power Producer, as the associated costs are reflected with the "Changes in fair value of Hydro power purchase arrangement" and "Changes in fair value of Small Power Producer contracts" presently separately in the BP's financial statements.

Table 16 – Cost of Sales

	Year ended December 31,				
('000s)	2016	2017	2018	3 months ended April 1, 2019[95]	Total[96]
Cost of Sales	$(800,077)	$(1,068,620)	$(1,026,715)	$(165,194)	$(3,060,606)
Total	**$(800,077)**	**$(1,068,620)**	**$(1,026,715)**	**$(165,194)**	**$(3,060,606)**

PPA Owner termination payments

60. Under the terms of the PPAs, the BP has the option to (1) hold the Returned PPAs, (2) to resell these PPAs or (3) to terminate them by paying the PPA Owner a termination payment that approximate the equal to the facility's net book value.

61. After consulting with representatives of customers and the Minister about the reasonableness of the termination(s) as required under Act,[97] it was concluded that the BP should terminate the Sundance B, Sundance C, and Battle River 5 PPAs which resulted in cash outflows of approximately $219 million during the Review Period as summarized in Table 17 below.

Table 17 – Termination Payment made to PPA Owner

PPA	Payment Date to original PPA Owner	Amount[98] (million)
Sundance B	April 2018	$(71.6)
Sundance C	April 2018	(85.3)
Battle River 5	October 2018	(61.7)
Total Amount Paid		**$(218.6)**

Interest expense on the related party loan

62. The Returned PPAs, in combination with the continuing low electricity price environment in the wholesale electricity market, imposed significant financial obligations on the BP.[99] This resulted in a constraint to the BP's ability to discharge its financial obligations.[100] To meet these financial obligations, the BP:

- Divested the assets in its investment portfolio drawing down the investment portfolio by approximately $680 million[101] in 2016; and
- Under Bill 34, the Act was amended in 2016 to allow the Province to lend funds to the BP.[102]

63. As of December 31, 2019, the BP had borrowed $1,241 million in funds from the Province in accordance with the enacted changes to the Act in 2016,[103] which permitted the BP to recover the principal and interest payments from electricity consumers through the Consumer Allocation until 2030.[104]

[95] The total amount of cost of sales reported in the BP's financial statements related to the Returned PPAs have been adjusted for International Financial Reporting Standard 16 – *Leases,* which was adopted by the BP on January 1, 2019. On January 1, 2019, the BP adopted the IFRS 16 – Leases accounting standard. Prior to the adoption of IFRS 16, payments made to the PPA leases relating to the Returned PPAs were recognized under Cost of Sales. After adopting IFRS 16, the BP recategorized the leases to be capital in nature and recognized a lease asset and lease liability on the balance sheet. Any cash payments made by the BP for the leases relating to the Returned PPAs was recognized as a reduction to the lease liability and was no longer included under the Cost of Sales account. We have included all lease payments made for the Returned PPAs, in the Cost of Sales for the three months ended April 1, 2019.
[96] The BP financial statements do not provide a breakdown of the costs of sales by PPA from September 1, 2018 ("Q3") to May 2019. From Q3 2018 onwards, Deloitte has made assumptions to determine the amount of costs related to the Returned PPAs.
[97] http://www.balancingpool.ca/wp-content/uploads/2018/01/BR5-consumer-information-package.pdf
[98] The Balancing Pool Financial Statements, December 31, 2018, Page 51.
[99] The Balancing Pool Financial Statements, December 31, 2016, Page 5.
[100] The Balancing Pool Financial Statements, December 31, 2016, Page 5.
[101] The Balancing Pool Financial Statements, December 31, 2016, Page 5.
[102] https://www.airdberlis.com/insights/blogs/energyinsider/post/ei-item/alberta-announces-changes-to-balancing-pool
[103] Alberta Utilities Act, Section 82.1 – Loans to the Balancing Pool and guarantee, 2016 c 28s2.
[104] The Balancing Pool Financial Statements, December 31, 2019, Page 51.

64. From the period of January 2017 to March 1, 2019, the BP borrowed and repaid the following amounts with the Government of Alberta.[105] See Table 18 for details.

Table 18 – Total amount borrowed and repaid by the BP

	Year ended December 31,			
Millions	**2017**	**2018**	**3 months ended April 1, 2019**	**Total Amount Borrowed/(Repaid)**
Opening Balance	-	$566.3	$915.3	
Borrowed Amount	566.3	349.0	326.2	$1,241.5
Repayment	-	-	(419.6)	$(419.6)
Outstanding balance owed as at December 31	**$566.3**	**$915.3**	**$827.0**	
Weighted Average Annual Interest Rate	1.35%	2.27%	2.46%	

65. Beginning in 2017, the BP incurred interest expense on the outstanding balance owed to the Government. We estimated the cash outflows associated to the interest expenses during the Review Period attributable to the Returned PPA to be $24.5 million[106] (refer to Table 19).

Table 19 – Interest Expense for Related Party Loans

	Year ended December 31,				
('000s)	**2016**	**2017**	**2018**	**3 months ended April 1, 2019**	**Total[107]**
Interest Expense	-	$(3,363)	$(16,086)	$(5,108)	**$(24,557)**

Beyond the Review Period

66. Although not within the Review Period, we list below other costs identified during our review for your information:

- Additional cash costs related to the Returned PPAs paid by the BP after the Review Period:

  i. A payment of $57.2 million to TransAlta in August 2019 following the decision of an arbitration panel relating to the termination payment relating to Sundance B and C PPA; [108]
  ii. A payment of $5.5 million to Alberta Power (2000) in November 2019 following a negotiated settlement relating to the termination payment of the Battle River 5 PPA; [109] and
  iii. Cash outflows/inflows relating to the operations of the remaining Returned PPAs (Sheerness and Keephills) from May 1, 2019 to their expiry date on December 31, 2020.

[105] The Balancing Pool, Financial Statements, December 31, 2017, December 31, 2018 and March 31, 2019.
[106] In our review of the gross margin for Genesee as well as the overall net cash position of the Hydro PPA and Small Producers PPA, the BP would have been in a loss position in 2015 to 2017 which would have required some of the Investment Fund to be liquidated. We estimate that the BP would have incurred margin loss of $194 million in those three years absent the Returned PPA. The Investment Fund balance (market value) as of December 31, 2015 was $704 million, there would have been sufficient cash equivalents to continue operating the PPA without requiring a loan. Therefore, we believe it is reasonable to assume that the related party loan and interest expense is fully attributed to the Returned PPAs.
[107] Deloitte calculated the overall loss in gross margin for the Genesee PPA in 2016 to be 14% of gross margin. As such, we have attributed the interest expense for the Returned PPAs to be 86% of the interest expense for 2017 to Q1 2019.
[108] The Balancing Pool Financial Statements, December 31, 2019.
[109] The Balancing Pool Financial Statements, December 31, 2019.

Additional expected costs beyond the Review Period which cannot be reasonably quantified at this time, include:

- As of March 31, 2019, the BP had outstanding notes payable of $826.9 million with the Government of Alberta related to the Returned PPAs. Interest may be incurred by the BP on these outstanding amounts until 2030. Absent any relief from the Province, on the debt, the BP is responsible for repaying the loan and any interest incurred.

- In 2005, Milner (a subsidiary of Maxim Power Corp) and part owner of the HR Milner power plant, made a complaint to the Alberta Utilities Commission ("**AUC**"), as a result of the Alberta Electric System Operator ("**AESO**"), change in methodology used to determine the allocation of transmission losses amongst Owners.[110,111] In 2017, the AUC, reached a decision (AUC 790) on the methodology used to calculate transmission line loss adjustments.[112] We understand that the complaint is with respect to the period from January 1, 2006 to December 31, 2016 which overlaps with our Review Period for the Returned PPAs. As of February 19, 2021, the date of substantial completion of our analysis, the settlement amount paid or owed by the BP for the Returned PPAs is unknown.

- As a result of the AUC 790 decision with respect to the Milner Line Losses, we understand that Capital Power was invoiced an amount of $11.1 million related to the electricity generation for Sundance C PPA. The invoiced amount covers the period from January 1, 2014 to December 31, 2016. Capital Power has requested that the BP pay for this invoiced amount pursuant to the terms of the settlement agreement of November 24, 2016. This issue is still outstanding as of February 19, 2021, and therefore we have not been able to quantify the financial impact, if any, to the BP as it relates to the period of January 1, 2016 to December 31, 2016.

- Our quantification does not include any foregone opportunity costs or revenue, such as (1) the loss of investment income resulting from the liquidation of the BP investment fund in 2017[113] which was used in part to finance the costs associated with the Returned PPAs or, (2) the loss of carbon emission credit revenue to the government that would have otherwise been collected from the PPA Buyers had the PPAs not been turnback.

[110] Crossed Wires: The AESO-Milner Transmission Loss Saga, posted June 19, 2014 by Sean Bullen. University of Calgary, Faculty of Law.
[111] When electricity is transmitted along powerlines, some of the electricity is lost as heat. This is referred to as transmission loss.
[112] The Balancing Pool Financial Statements, December 31, 2017.
[113] Approximately $680 million was liquidated in 2017 by the BP, Balancing Pool Financial Statements, December 31, 2016, Page 5.

Appendix A – Scope of Review

In preparing this report, Deloitte has reviewed and/or relied upon the following information:

Financial statements

1. The Balancing Pool Financial Statements, December 31, 2010.
    - The Balancing Pool Financial Statements, December 31, 2011.
    - The Balancing Pool Financial Statements, December 31, 2012.
    - The Balancing Pool Financial Statements, December 31, 2013.
    - The Balancing Pool Financial Statements, December 31, 2014.
    - The Balancing Pool Financial Statements, December 31, 2015.
    - The Balancing Pool Financial Statements, December 31, 2016.
    - The Balancing Pool Financial Statements, December 31, 2017.
    - The Balancing Pool Financial Statements, December 31, 2018.
    - The Balancing Pool Financial Statements, December 31, 2019.
    - The Balancing Pool Financial Statements, Q1 2017.
    - The Balancing Pool Financial Statements, Q2 2017.
    - The Balancing Pool Financial Statements, Q3 2017.
    - The Balancing Pool Financial Statements, Q1 2018.
    - The Balancing Pool Financial Statements, Q2 2018.
    - The Balancing Pool Financial Statements, Q3 2018.
    - The Balancing Pool Financial Statements, Q1 2019.
    - The Balancing Pool Financial Statements, Q1 2020.
    - The Balancing Pool Financial Statements, Q2 2020.
    - The Balancing Pool Financial Statements, Q3 2020.
    - ENMAX Financial Statements, December 31, 2018.

Balancing Pool press release

2. GOA and ENMAX agree to withdraw ENMAX from the PPA legal action, March 12, 2018.
3. October 2, 2019 Balancing Pool press release for 2020 Consumer Allocation.
4. Sheerness, Sundance A and Sundance B PPA – Buyer Termination, March 21, 2016.

Other external information

5. Climate Change and Emissions Management Act, SA 2003, c. C 16.7, Ministerial Order.
6. https://www.transmissionhub.com/articles/2016/07/capital-power-says-albertas-legal-action-on-power-deals-is-unfair.html
7. https://www.enmax.com/news-events/news/enmax-responds-to-government-allegations
8. New Opportunities in Alberta Electricity Market, April 2017, a BLG Overview.
9. http://www.balancingpool.ca/power-purchase-arrangement-information/
10. ATCO Ltd. 2013, MD&A.
11. PPA Termination Customer Information Package, Balancing Pool.
12. Power Purchase Agreement for Sheerness between ATCO Electric and the Buyer.
13. State of Electricity Deregulation in Alberta and the Alberta Electric System Operators Role by Lewis L. Manning of Lawson Lundell LLP.
14. Market Surveillance Administrator – Q1/03 Quarterly Report, April 28, 2003.
15. https://www.mondaq.com/canada/oil-gas-electricity/535890/the-structure-of-the-alberta-electricity-market
16. http://www.balancingpool.ca/power-purchase-arrangement-information/

17. http://www.balancingpool.ca/ Section: Backstopping Risks Related to Power Purchase Arrangements on Behalf of Alberta Consumers.
18. http://www.balancingpool.ca/consumer-allocation/
19. http://www.balancingpool.ca/consumer-allocation-2001-2019/
20. http://www.balancingpool.ca/wp-content/uploads/2020/10/2021-Consumer-Allocation.pdf
21. Announcement ENMAX, May 7, 2016 – ENMAX terminates Keephills Power Purchase Arrangement.
22. https://ablawg.ca/2016/03/24/the-termination-of-power-purchase-arrangements-in-alberta-what-is-the-legal-position-and-what-are-the-implications-of-termination/
23. Termination of Power Purchase Arrangements in Alberta: What is the Legal Position and What are the implications of Termination? By Nigel Bankes, March 24, 2016.
24. SGER introduced in 2007 requires regulated emitters to improve emissions in their facility or pay into the Climate Change and Emissions Management Fund.
25. Balancing Pool consult with Customer Representative about the Reasonableness of Battle River 5 PPA Termination, January 12, 2018.
26. https://www.enmax.com/news-events/news/enmax-withdrawn-from-ppa-legal-action
27. PPA Termination Customer Information Package.
28. http://www.balancingpool.ca/power-purchase-arrangement-information/sundance-ppa-terminations/
29. https://albertapowermarket.com/2017/07/06/balancing-pool-proposes-to-terminate-sundance-ppas-with-transalta/#:~:text=The%20proposed%20termination%20of%20the%20Sundance%20A%20PPA,according%20to%20its%20terms%20on%20December%2031%2C%202017
30. https://www.osler.com/en/resources/regulations/2019/the-more-things-change-the-more-they-stay-the-same-alberta-revamps-carbon-pricing-regime-for-large
31. https://www.airdberlis.com/insights/blogs/energyinsider/post/ei-item/alberta-announces-changes-to-balancing-pool
32. Alberta Utilities Act, Section 82.1 – Loans to the Balancing Pool and guarantee, 2016 c 28s2.
33. Crossed Wires: The AESO-Milner Transmission Loss Saga, posted June 19, 2014 by Sean Bullen. University of Calgary, Faculty of Law.

Appendix B – Restrictions

1. This Report is not intended for circulation or publication, nor is it to be reproduced for any purpose other than as described herein, without our prior express written permission in each specific instance. We do not assume any responsibility for losses incurred by any party as a result of circulation, publication, or reproduction of this Report that is contrary to the provisions of this paragraph.

2. Our work does not constitute an audit as defined by the Chartered Professional Accountants of Canada ("CPA Canada"). Consequently, said work, and the resulting Report, does not constitute an audit opinion as defined in Canadian Auditing Standards, as set out in the CPA Canada Handbook - Assurance. Further, our work and our Report cannot be used to provide assurance that any or all errors, omissions, or irregularities exist and have been identified.

3. This Report must be considered as a whole. Selecting portions of the Report or the factors noted by us, without considering all factors and analyses together, could create a misleading view of the process underlying this Report. Any attempt to do so could lead to undue emphasis on any particular factor, calculation, or analysis.

4. This Report has been based on information, documents and explanations that have been provided to us and therefore the validity of our conclusions relies on the integrity of such information. The information and documents we reviewed were relied upon inter alia, without audit or verification by us, in the preparation of this Report. We were not under any obligation or agreement to investigate the accuracy of any third-party information, nor have we performed any investigative procedures to independently verify the accuracy of any third-party information. Our conclusions reached could be different if this information or these documents were found to be incomplete or inaccurate.

5. Should any of the information provided to us not be factual or correct, or should we be asked to consider different information or assumptions, our conclusions, as set out in this Report, could be significantly different. We caution the reader in this regard.

6. Deloitte collected publicly available information relevant to the BP, the PPAs and the Returned PPAs. We used our professional judgement to identify the information sources which included but is not limited to, materials published by the BP, the Government of Alberta, the Owners, and PPA Buyers. There may be other information that we have reviewed that another professional may consider to be relevant in determining the amount of Financial Loss to the BP.

7. We reserve the right, but are under no obligation, to review this Report, and if we consider it necessary, to revise this Report in light of any information which becomes known to us after the date of this Report.

Appendix C – Scope Limitations and Assumptions

Scope limitations

1. Our quantification covers the period from May 1, 2015 to April 1, 2019 (the **"Review Period**") and is limited to the issues described in this Report. This period was requested by the Client.

2. Our mandate was limited to the using publicly available information such as financial statements from the BP, PPA Buyers, Plant Owners, news releases, research articles and any statement of claim or defenses as filed in the Queen's Bench of Alberta.

3. In preparing this Report, we specifically reviewed and/or relied upon the information in Appendix A.

4. For the period from July 1, 2018 to March 31, 2019, the quarterly and annual financial statements of the BP did not disclose the Revenue or Costs of Sales by PPA. Information related to the volume of electricity sold by PPA was disclosed in the financial statements on a quarterly and annual basis. We made certain assumptions with respect to our determination of the Financial Loss to the BP in the period from July 1, 2018 to April 1, 2019.

Assumptions

5. We assumed that Revenues were received as cash in the period earned. We also assume that Cost of Sales were paid in cash in the period they were incurred.

6. In some instances, the public information was not sufficiently granular for our purposes, as such, we had to develop a methodology to address the gaps.

7. In order to determine the revenue for the six Returned PPAs from Q3 2018 to April 1, 2019, we assumed that the quarterly average price per MwH was consistent across all PPAs from Q3 2018 to April 1, 2019. We believe this is a reasonable approach as the volumes sold have been consistent in the prior years.

8. Prior to the return of the PPAs in 2016, the Cost of Sales was attributable only to the Genesee PPA.[114] After 2015, the Cost of Sales included both the costs associated with the Geneses PPA and the Returned PPAs. To quantify the Cost of Sales relating to the Returned PPAs from January 1, 2016 to April 1, 2019, we subtracted the estimated Cost of Sales relating to the to the Genesee PPA (estimated using the historical average Cost of Sales per MwH of $32.48/ MwH from 2014 to 2015 adjusted for inflation).

9. We have assumed that the average Cost of Sales per MwH would not change significantly in the Review Period as capacity payments comprise approximately 90% of the cost of power purchase agreements and these payments vary year-over-year as a result of changes in capital cost base, cost indices, interest rates and pass-through charges.[115] Changes to the market price of electricity have a minimal impact on the PPA capacity payments. We have assumed that the average Cost of Sales per MwH would increase by the inflation rate in Alberta in the Review Period and have adjusted the Cost of Sales to reflect this assumption.

[114] "Cost of power purchase arrangements and power marketing charges" reported in BP's audited financial statements does not include costs associated with the Hydro PPA or the Small Power Producer, as the associated costs are reflected with the "Changes in fair value of Hydro power purchase arrangement" and "Changes in fair value of Small Power Producer contracts" presently separately in the BP's financial statements.

[115] Balancing Pool Financial Statements, December 31, 2017, Page 18.

10. In calculating the gain on emission credits, we have assumed a "first-in first-out" costing methodology with respect to the emission credits settled in 2018. The older the emission credits, the early they would be used by the BP. We have assumed that the emission credits received in 2016, 2017 and 2018, from the negotiated settlements, were used by the BP in 2018 to offset their carbon levy. We have also assumed that any emission credits that were purchased during the Review Period by the BP is related to the Genesee PPA.

11. Due to their very nature, general and administrative ("**G&A**") costs are not attributable to operating activities, but nonetheless are necessary to oversee and execute financing, investing, and compliance activities, in addition to its legislative duties as a standalone organization. From public data, we could not identify the G&A expense relating to the Returned PPAs.

12. We have assumed that the related party loan and interest expense is as a direct result of the Returned PPAs and have accounted for this in the quantification of Financial Loss.

Deloitte.