ONTARIO POWER GENERATION

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BY RESS

March 25, 2024

Ms. Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario
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Dear Ms. Marconi:

Re: EB-2023-0336 – An Application by Ontario Power Generation Inc. ("OPG") for an order or orders relating to impacts from the Market Renewal Program on prescribed generating facilities, and the disposition of balances in its deferral and variance accounts as of December 31, 2022 (the "Application")
Updated Evidence

Enclosed are amendments to OPG's pre-filed evidence, as set out below. OPG has submitted these documents through the Regulatory Electronic Submissions System. This material will also be made available on OPG's website at www.opg.com. Appended to this letter is an updated Exhibits List with the date of updates as well as all exhibits with amendments.

These amendments are corrections and clarifications that do not have an impact on approvals sought in the application. A number of these corrections were previously identified and addressed during interrogatory responses, and are now reflected in the original evidence through these corrections.

Corrections to Pre-filed Evidence

Exhibit	Description of Change
Ex. A1-2-1	Page 2, paragraph 3: corrected proposed start date for nuclear payment rider to July 1, 2024, consistent with the response in Ex. L-H-Staff-24.
Ex. H1-1-1, Table 7b	Note 4, lines 2b, 7b, 9b, 13b and 14b: corrected amounts in col. (c) to reflect first partial execution business case rather than full execution business case as previously reported, consistent with the response in Ex. L-H-SEC-1.
Ex. H1-1-1, Table 17	Table to Note 2, Note +: corrected to reference in-service additions at line 2b rather than line 2a.
Ex. H1-1-1, p. 50	Line 9: corrected 2022 after-tax gain on sale from $110.8M to $110.1M; and 23% of that amount from $25.5M to $25.3M. Line 14-15: corrected 2023 after-tax gain on sale from $23.2M to $21.5M; and 23% of that amount from $5.3M to $5.0M. All changes are consistent with the calculation presented in Ex. L-H-SEC-2.

Ex. H1-1-1, Att. 4	Page 2: corrected First Execution Business Case estimate for Sir Adam Beck Pump Generating Station PG1 Overhaul; Page 3: corrected First Execution Business Case estimate for Otter Rapids Generating Station – T1, T2 Transformer Replacement; Page 4: corrected First Execution Business Case estimate for Sir Adam Beck I Generating Station – Unit G5 Major Overhaul; Page 5: corrected First Execution Business Case estimate for Whitedog Falls Generating Station – Auto Sluice System Replacement; Page 6: corrected First Execution Business Case estimate for Aguasabon Generating Station – Surge Tank Replacement. All corrections in Ex. H1-1-1, Att. 4 are consistent with the response in Ex. L-H-SEC-1.
Ex. H1-1-1, Att. 3	OPG identified 107 hours between 2018 and 2021 that were incorrectly categorized as “uneconomic” and should not have been included in the attachment, consistent with the response in Ex. L-M-SEC-04.

Respectfully submitted,

M Kirk

Matt Kirk

cc: Peter Cuff, OPG
Charles Keizer, Torys LLP

EXHIBIT LIST					
Exhibits	**Tab**	**Schedule**	**Attachment**	**Contents**	**Filed (F) Updated (U)**
A				**ADMINISTRATIVE DOCUMENTS**	
A1	1	1		Exhibit List	U_2024-03-25
A1	1	2		List of Tables	2023-12-13
A1	2	1		Application	U_2024-03-25
A1	2	2		Approvals	2023-12-13
A1	2	3		Draft Issues List	2023-12-13
A2	1	1		Stakeholder Consultation	2023-12-13
H				**DEFERRAL AND VARIANCE ACCOUNTS**	
H1	1	1		Deferral and Variance Accounts	U_2024-03-25
H1	2	1		Clearance of Deferral and Variance Accounts	2023-12-13
I				**DETERMINATION OF PAYMENT AMOUNTS**	
I1	1	1		Regulated Hydroelectric and Nuclear Rate Riders	2023-12-13
I1	1	2		Consumer Impact	2023-12-13
M				**MARKET RENEWAL PROGRAM**	
M1	1	1		Market Renewal Program	2023-12-13

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998;*

AND IN THE MATTER OF an Application by Ontario Power Generation Inc. for an order or orders relating to impacts from the Market Renewal Program on prescribed generating facilities, and the disposition of balances in its deferral and variance accounts as of December 31, 2022.

APPLICATION

1. The applicant, Ontario Power Generation Inc. ("OPG") is a corporation, incorporated under the *Ontario Business Corporations Act*, with its head office in the City of Toronto. The principal business of OPG is the generation and sale of electricity in Ontario.

2. In this Application, OPG applies to the Ontario Energy Board ("OEB") pursuant to section 78.1 of the *Ontario Energy Board Act, 1998* (the "Act"), for:

   (i) an order or orders approving changes to the calculation of amounts for the Hydroelectric Surplus Baseload Generation Variance Account ("SBGVA") and the Hydroelectric Incentive Mechanism ("HIM"), and approving the treatment of real-time make whole payments, resulting from the implementation of the Independent Electricity System Operator's ("IESO") Market Renewal Program ("MRP"); and

   (ii) an order or orders approving the disposition of audited December 31, 2022 deferral and variance account balances less amortization amounts previously approved by the OEB in EB-2020-0290 for the 2023-2026 period, together with the income tax impacts associated with the recovery of the Pension & OPEB Cash Versus Accrual Differential Deferral Account, as set out in Ex. H1-1-1 and Ex. H1-2-1. To recover these amounts, OPG seeks two separate payment riders for the regulated hydroelectric and nuclear generating facilities prescribed under *Ontario Regulation*

(iii) *53/05* ("O. Reg. 53/05"). OPG seeks to recover the amounts described above over a 30-month period from July 1, 2024 through December 31, 2026.

3. To disposition the balances in the deferral and variance accounts, and income tax impacts associated with the recovery of the balance in the Pension & OPEB Cash versus Accrual Differential Deferral Account, as described above, OPG is seeking payment riders for the output of the regulated hydroelectric facilities of $2.75/MWh for the period from July 1, 2024 to December 31, 2026; and for the output of the nuclear facilities of $3.25/MWh for the period from July 1, 2024 to December 31, 2024, $3.55/MWh for the period from January 1, 2025 to December 31, 2025, and $5.04/MWh for the period from January 1, 2026 to December 31, 2026.

4. The specific approvals sought in this Application are set out in Ex. A1-2-2.

5. The Application will be supported by written evidence. The written evidence filed by OPG may be supplemented or amended from time to time by OPG prior to the OEB's final decision on the Application.

6. OPG further applies to the OEB pursuant to the provisions of the Act and the OEB Rules of Practice and Procedure for such orders and directions as may be necessary in relation to the Application and the proper conduct of this proceeding.

7. OPG requests that pursuant to section 32.01 of the OEB "Rules of Practice and Procedure", this proceeding be conducted by way of a written hearing.

8. The persons affected by this Application are all electricity consumers in Ontario. It is impractical to set out the names and addresses of the consumers because they are too numerous.

9. OPG requests that copies of all documents filed with the OEB by each party to this Application along with copies of all comments filed with the OEB in accordance with Rule 24 of the OEB Rules of Practice and Procedure be served on the applicant and the applicant's counsel as follows:

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Dated at Toronto, Ontario, this 13th day of December, 2023.

Ontario Power Generation Inc.

Charles Keizer
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DEFERRAL AND VARIANCE ACCOUNTS

1.0 PURPOSE

This evidence describes OPG's deferral and variance accounts and presents the amounts recorded in these accounts as of December 31, 2022 that are proposed for clearance in this application. These accounts were established pursuant to O. Reg. 53/05 and past OEB decisions and orders, as most recently set out by the OEB in the EB-2020-0290 Payment Amounts Order ("EB-2020-0290 PAO").

2.0 OVERVIEW

OPG proposes to clear the audited balances in all deferral and variance accounts as at December 31, 2022, less amortization amounts previously approved by the OEB in EB-2020-0290 for the 2023-2026 period, with the exceptions noted below. OPG is not seeking clearance of the following balances in the accounts: the Darlington Refurbishment Program ("DRP")[1], the Pickering B Refurbishment Feasibility Assessment, and the Optimization of Pickering Shutdown components of the nuclear portion of the Capacity Refurbishment Variance Account ("CRVA"), the 2022 additions to the hydroelectric portion of the CRVA, the Fitness for Duty Deferral Account, the Rate Smoothing Deferral Account, the Pickering Closure Costs Deferral Account, and Sale of the Unprescribed Kipling Site Deferral Account.[2] OPG proposes to defer the clearance of most of these accounts to a future application for the reasons discussed later in this exhibit.[3] OPG's proposal to clear the remaining account balances is consistent with the terms of the OEB-approved settlement proposal reached between OPG and intervenors in EB-2020-0290 ("Settlement Agreement") as detailed in the EB-2020-0290 OEB Decision and Order, where it is acknowledged that "in conjunction with [the MRP] application, or separately during the IR term, OPG may also file an application to clear deferral and variance accounts."[4]

[1] Consistent with EB-2020-0290, OPG proposes to clear the CRVA balances related to the Heavy Water Storage and Drum Handling Facility ("D2O Storage Project") and the impact of accelerated investment incentive property rules on DRP-related capital cost allowance ("CCA") amounts in this application.
[2] The following deferral and variance accounts have a zero balance as at December 31, 2022: Gross Revenue Charge Variance Account, Hydroelectric Incentive Mechanism Variance Account, Clarington Corporate Campus Deferral Account, Earnings Sharing Deferral Account, and Impact for IFRS Deferral Account.
[3] OPG does not seek to clear the Unprescribed Kipling Site Deferral Account for the reasons set out in Section 5.25.
[4] EB-2020-0290 Decision and Order, November 15, 2021 ("EB-2020-0290 Decision"), Schedule A, Ex. 0, p. 19.

Adjusted for 2023-2026 amortization amounts approved in EB-2020-0290, the proposed year-end 2022 account balances recoverable in this application are a net debit balance of $217.0M[5] for the regulated hydroelectric facilities and a net debit balance of $221.2M[6] for the nuclear facilities.[7]

Details regarding proposed account clearance and riders are presented in Ex. H1-2-1. The audited balances in each of the deferral and variance accounts are shown in Ex. H1-1-1, Table 1. The unqualified Independent Auditors' Report prepared by Ernst & Young LLP on the Schedule of Regulatory Balances as at December 31, 2022 is presented as Attachment 1. The Schedule of Regulatory Balances as at December 31, 2022 is presented as Attachment 2.

In this application, OPG is not proposing any changes to the deferral and variance accounts approved in the EB-2020-0290 PAO, including the descriptions of the accounts and the methodologies used to determine additions to the accounts, with one exception. As discussed in Ex. M1-1-1, Section 2.3.2, OPG is proposing changes to the spill calculation methodology used to determine entries into the Hydroelectric Surplus Baseload Generation Variance Account as of the implementation date of the Independent Electricity System Operator's ("IESO") Market Renewal Program ("MRP").

The following information is provided in this exhibit:

- Section 3.0 lists OPG's existing deferral and variance accounts as at December 31, 2022.
- Section 4.0 describes the process by which the December 31, 2022 balances in the deferral and variance accounts were determined.
- Section 5.0 describes the existing deferral and variance accounts and how additions to each of the accounts were determined. This includes proposed prospective changes to the calculation methodology that underpins the additions to the Hydroelectric Surplus Baseload Generation Variance Account.

[5] Ex. H1-2-1, Table 1, col. (e), line 16.
[6] Ex. H1-2-1, Table 2, col. (e), line 26.
[7] A debit entry or balance is an amount to be collected from ratepayers. A credit entry or balance is an amount to be returned to ratepayers.

- Section 6.0 discusses the application of interest to the balances in the accounts.

3.0 LISTING OF EXISTING ACCOUNTS

The authorized deferral and variance accounts for OPG are listed below. For the January 1, 2020 to December 31, 2021 period, accounts were authorized by the OEB pursuant to the EB-2016-0152 Payment Amounts Order ("EB-2016-0152 PAO") and EB-2018-0002 Decision and Order.[8] Effective January 1, 2022, pre-existing accounts were continued and new accounts were authorized by the OEB pursuant to Appendix E and Appendix F of the EB-2020-0290 PAO.[9]

Pre-existing accounts continued in the EB-2020-0290 PAO were as follows:

- Hydroelectric Water Conditions Variance Account
- Ancillary Services Net Revenue Variance Account – Hydroelectric and Nuclear Sub-Accounts
- Hydroelectric Incentive Mechanism Variance Account
- Hydroelectric Surplus Baseload Generation Variance Account
- Income and Other Taxes Variance Account
- Capacity Refurbishment Variance Account
- Pension and OPEB Cost Variance Account
- Pension & OPEB Cash Payment Variance Account
- Pension & OPEB Cash Versus Accrual Differential Deferral Account
- Hydroelectric Deferral and Variance Over/Under Recovery Variance Account
- Gross Revenue Charge Variance Account
- Niagara Tunnel Project Pre-December 2008 Disallowance Variance Account

[8] The 2021 Overearnings Variance Account established in the EB-2020-0248 proceeding was subsequently determined to have a zero balance and closed pursuant to the OEB's letter dated February 7, 2023. The Impacts Arising from the COVID-19 Emergency Deferral Account, the Impact Resulting from Changes in Station End-of-life Dates (December 31, 2015) Deferral Account and the Derivative Sub-Account of the Bruce Lease Net Revenues Variance Account were terminated pursuant to the EB-2020-0290 PAO. These accounts are therefore not discussed in this application.

[9] In addition, the Pickering B Extension Variance Account was established by O. Reg. 53/05 effective January 1, 2023, in connection with a plan to operate Units 5-8 at the Pickering Nuclear Generating Station to September 2026 subject to regulatory approval by the Canadian Nuclear Safety Commission ("CNSC"), as announced by the Government of Ontario in September 2022. As this account was not in effect as of December 31, 2022, it is not discussed in this application.

- Nuclear Liability Deferral Account
- Nuclear Development Variance Account
- Bruce Lease Net Revenues Variance Account
- Nuclear Deferral and Variance Over/Under Recovery Variance Account
- Rate Smoothing Deferral Account
- Fitness for Duty Deferral Account
- SR&ED ITC Variance Account
- Impact Resulting from Changes to Pickering Station End-of-Life Dates (December 31, 2017) Deferral Account
- Pension & OPEB Forecast Accrual versus Actual Cash Payment Differential Variance Account – Primary and Contra Sub-Accounts, and Carrying Charges Sub-Account
- Pickering Closure Costs Deferral Account.

Newly authorized accounts in the EB-2020-0290 PAO were as follows:[10]

- Impact Resulting from Optimization of Pickering Station End-of-Life Dates Deferral Account, effective January 1, 2021
- Clarington Corporate Campus Deferral Account, effective January 1, 2022
- Sale of Unprescribed Kipling Site Deferral Account, effective January 1, 2022[11]
- Earnings Sharing Deferral Account, effective January 1, 2022
- Impact for IFRS Deferral Account, effective January 1, 2022.

4.0 ACCOUNT BALANCES

This section describes the process by which the December 31, 2022 account balances were determined.

The 2019 audited balances set out in the EB-2020-0290 PAO are the starting point for the account continuity tables provided at Ex. H1-1-1, Table 1a (2020), Table 1b (2021) and Table 1c (2022). The 2019 audited balances for the applicable deferral and variance accounts listed

[10] EB-2020-0290 PAO, p. 7.
[11] No accounting entries are recorded for this account as it is a tracking account only. Refer to EB-2020-0290 PAO, Appendix F, p. 6.

in Section 3.0 above were approved by the OEB for disposition as provided in the EB-2020-0290 PAO, Appendix C, Table 1, col. (a) for the regulated hydroelectric facilities and EB-2020-0290 PAO, Appendix D, Table 1, col. (a) for the nuclear facilities. The continuity tables show, for each account, the closing balance for the prior period, additions (labelled "Transactions"), amortization subtracted and interest added, any transfers between accounts during the period, and the closing account balances. Exhibit H1-1-1 Tables 2 through 20 provide supporting calculations showing the derivation of additions to the accounts that OPG proposes to clear in this application.

In accordance with the EB-2016-0152 PAO and EB-2020-0290 PAO, additions to the regulated hydroelectric accounts are calculated with reference to amounts underpinning the hydroelectric payment amounts approved in EB-2013-0321 and additions to the nuclear accounts are calculated with reference to amounts underpinning the corresponding nuclear revenue requirements approved in EB-2016-0152 for 2020 and 2021 and EB-2020-0290 for 2022, unless otherwise specified in an account's description.

The amortization presented for 2020 in Ex. H1-1-1 Table 1a, cols. (e) and (f) is per the EB-2016-0152 PAO and the EB-2018-0243 Decision and Payment Amounts Order ("EB-2018-0243 PAO").[12] The amortization presented for 2021 in Ex. H1-1-1 Table 1b, col. (c) is per the EB-2018-0243 PAO. The amortization presented for 2022 in Ex. H1-1-1 Table 1c, col. (c) is per the EB-2020-0290 PAO.

Unless otherwise specified in an account's description, interest has been applied to the monthly opening balances of the accounts at the OEB-prescribed interest rates of 2.18% per annum for January 1, 2020 through June 30, 2020, 0.57% per annum for July 1, 2020 through March 31, 2022, 1.02% per annum for April 1, 2022 through June 30, 2022, 2.20% per annum for July 1, 2022 through September 30, 2022, and 3.87% per annum for October 1, 2022 through December 31, 2022, pursuant to the applicable orders of the OEB.

[12] EB-2018-0243 Settlement Proposal, Attachment A formed the basis of the payment amounts approved in the EB-2018-0243 PAO.

5.0 ACCOUNT DESCRIPTIONS AND ENTRIES

This section provides a description and summarizes the purpose for OPG's deferral and variance accounts, outlines how additions to the accounts are determined, and the reasons for the credits and debits recorded to the accounts in the years that OPG seeks to clear in this application. The methodologies used to record these entries to the accounts are those approved by the OEB in EB-2016-0152 and EB-2020-0290, as applicable.

5.1 Hydroelectric Water Conditions Variance Account

The Hydroelectric Water Conditions Variance Account was originally established by O. Reg. 53/05. It was subsequently approved by the OEB in EB-2007-0905 and all subsequent OPG applications in recognition of the fact that water conditions are subject to a high degree of forecast risk due to factors that are beyond OPG's ability to manage or control, such as weather.

This account records the financial impact of differences, including changes in gross revenue charge ("GRC") costs, between the actual production amount for the regulated hydroelectric facilities and the reference production amount, arising from changes in actual water conditions. The account applies to the five hydroelectric generating stations subject to rate regulation by the OEB since 2008 ("previously regulated hydroelectric facilities") and 21 of the 48 hydroelectric generating stations that became subject to OEB rate regulation effective July 1, 2014 ("newly regulated hydroelectric facilities"). These 21 facilities are as listed in EB-2020-0290, Ex. H1-1-1, Attachment 3.

The account additions for January 1, 2020 through December 31, 2022 are based on the production forecast methodology approved in EB-2013-0321 and EB-2014-0370 and continued in the EB-2016-0152 PAO (Appendix G, pp. 3-4) and the EB-2020-0290 PAO (Appendix E, pp. 3-4).

Due to favourable water supply conditions in 2020, the calculated actual hydroelectric production was higher than the reference forecast production by 2,285 GWh for the Niagara and R.H. Saunders facilities. This was partially offset by lower calculated actual production for

the remaining regulated hydroelectric facilities of 58 GWh. These variances resulted in a net credit addition of $62.6M to the account in 2020. Due to unfavourable water supply conditions in 2021, particularly in the Northwestern region of the province, calculated actual production was less than the reference forecast production by 2,732 GWh for the newly regulated hydroelectric facilities. This was partially offset by 1,982 GWh due to higher than the reference forecast production at the Niagara and R.H. Saunders facilities from favourable water supply conditions. These variances resulted in a net debit entry of $40.8M to the account in 2021. Due to favourable water supply conditions in 2022, the calculated actual hydroelectric production was higher than the reference forecast production by 1,764 GWh for the Niagara and R.H. Saunders facilities and by 620 GWh for the remaining regulated hydroelectric facilities. These variances resulted in a credit entry of $71.0M to the account in 2022. The derivation of the variances is shown in Ex. H1-1-1, Table 2.

5.2 Ancillary Services Net Revenue Variance Account – Hydroelectric and Nuclear Sub Accounts

The Ancillary Services Net Revenue Variance Account was originally established by O. Reg. 53/05. It was subsequently approved by the OEB in EB-2007-0905 and has been approved in all subsequent OPG applications. This account recognizes that ancillary services revenues are difficult to forecast accurately, with variability in actual ancillary revenues reflecting changing demand and system operating requirements.

The account is divided into the Ancillary Services Net Revenue Variance Account – Hydroelectric and Ancillary Services Net Revenue Variance Account – Nuclear sub-accounts. Ancillary services for regulated hydroelectric operations include black start capability, operating reserve, regulation service, and reactive support/voltage control service. Ancillary services for nuclear operations include reactive support/voltage control service.

The derivation of account entries for 2020, 2021 and 2022 is shown in Ex. H1-1-1, Table 3.

Hydroelectric ancillary revenues in 2020 were virtually the same as the reference amount that reflects the forecasts underpinning the revenue requirements approved in EB-2013-0321.

Hydroelectric ancillary revenues in 2021 were lower than such reference amount, primarily due to lower operating reserve and regulation service revenues, partially offset by higher reactive support revenue. Hydroelectric ancillary revenues in 2022 were higher than the reference amount because of higher operating reserve and regulation service revenues, partially offset by lower reactive support revenue. These factors resulted in debit entries to the Hydroelectric Sub Account of $0.1M in 2020 and $5.4M in 2021, and a credit entry of $16.1M in 2022.

Nuclear ancillary revenues from January 1, 2020 through December 31, 2021 were higher than the reference amounts that reflected the forecasts underpinning the corresponding revenue requirements approved in EB-2016-0152, driven by higher reactive support revenue. Nuclear ancillary revenues in 2022 were higher than the reference amount that reflected the forecast underpinning the revenue requirement approved for the year in EB-2020-0290, also due to higher reactive support revenue. These factors resulted in credit entries to the Nuclear Sub Account of $4.8M in 2020, $4.6M in 2021 and $1.5M in 2022.

5.3 Hydroelectric Incentive Mechanism Variance Account

The Hydroelectric Incentive Mechanism Variance Account was originally approved in EB-2010-0008 along with OPG's hydroelectric incentive mechanism ("HIM") and has been approved in all subsequent OPG applications. The account records a credit to ratepayers of 50% of OPG's HIM revenues above an OEB-specified threshold, currently set at $54.5M based on the forecast of HIM revenues reflected in the hydroelectric payment amounts approved in EB-2013-0321.

There were no additions to the account in 2020, 2021 and 2022 as actual HIM revenues of $5.1M in 2020, $16.8M in 2021 and $14.3M in 2022 were significantly below the threshold, as shown in Ex. H1-1-1, Table 4.

5.4 Hydroelectric Surplus Baseload Generation Variance Account

The Hydroelectric Surplus Baseload Generation Variance Account was originally approved in EB-2010-0008 and has been approved in all subsequent OPG applications. This account records the financial impact of foregone production at the previously regulated hydroelectric

facilities and the 21 newly regulated hydroelectric facilities identified in EB-2020-0290 Ex. H1-1-1, Attachment 3 due to surplus baseload generation ("SBG") conditions. The amounts recorded in the account are net of avoided GRC costs. In EB-2010-0008, the OEB concluded that the approach used to address the impact of SBG conditions on OPG's hydroelectric production forecast would be to "capture the impacts of all SBG through a variance account, with no allowance built into the [hydroelectric production] forecast."[13]

The derivation of account entries for 2020, 2021 and 2022 is shown in Ex. H1-1-1, Table 5.[14] Actual foregone production due to SBG conditions was approximately 4,315 GWh in 2020, 1,882 GWh in 2021, and 1,592 GWh in 2022. Net of avoided GRC costs, the resulting debit entries in the account were $130.4M in 2020, $56.4M in 2021 and $47.9M in 2022. Foregone production due to SBG conditions was calculated using the methodology reviewed in EB-2013-0321 and continued in the EB-2016-0152 PAO and the EB-2020-0290 PAO.

As part of the EB-2020-0290 Settlement Agreement, the parties agreed in connection with the account:

> that in the future in seeking clearance of the Hydroelectric Surplus Baseload Generation Variance Account, OPG shall demonstrate that it operates its regulated fleet based on the standard of minimizing total electricity supply costs (including market and regulated payments while avoiding economic loss) to customers, subject to unavoidable considerations for the safety of any persons, equipment damage, or the violation of any applicable law ("SEAL") and unavoidable physical constraints. OPG will report on how it has met this standard each time it seeks clearance of the Hydroelectric Surplus Baseload Generation Variance Account. OPG's report will identify each time that OPG did not operate its regulated fleet to minimize total electricity supply costs during hours when OPG is booking additions to this variance account because doing so would cause OPG to experience an economic loss, and explain why operating to minimize total electricity supply costs would have caused economic loss in each case.[15]

The above requirements are addressed below and supported by Attachment 3 to this exhibit.

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[13] EB-2010-0008 Decision with Reasons, March 10, 2011, p. 22.
[14] In addition to account additions for the 2020-2022 period, OPG is seeking disposition of the remaining $40.0M of the year-end 2019 debit account balance, plus interest, the clearance of which was deferred to this proceeding pursuant to the Settlement Agreement (EB-2020-0290 Decision, Schedule A, Ex. 0, p. 47).
[15] EB-2020-0290 Decision, Schedule A, Ex. 0, p. 48.

Per IESO Market Rules, the objective of the IESO's dispatch scheduling and optimization ("DSO") algorithm is to maximize the gains from trade to ensure consumers of electricity receive the highest value based on electricity supply offers.[16] OPG's hydroelectric fleet supports this market objective by maximizing its availability to the market through its offers according to market signals and following dispatch instructions. OPG maximizes its availability to the market through the use of cost-based offers for hydroelectric facilities that are not must-run or where forebay storage capability has been utilized. OPG's variable cost is the GRC when OPG generates at its hydroelectric stations or its opportunity cost when incremental hydroelectric storage is available. These offers allow the IESO's DSO algorithm to consider OPG's energy offers in relation to all other energy offers. In this way, OPG supports maximizing the economic gain from trade in the market and minimizing total electricity supply cost. The operational result for OPG's hydroelectric facilities is that those with storage capability will follow the IESO dispatches such that storage is maximized until spill is initiated. The above is further discussed in OPG's surplus baseload generation study found at Ex. M1-1-1, Attachment 1.

The only facility where OPG has the opportunity to take additional action to minimize supply costs during SBG events is the Sir Adam Beck Pump Generating Station ("PGS"). For this reason, the analysis of OPG's operations to minimize total supply costs focuses on the operational decisions for the PGS. As discussed in EB-2020-0290, there are a variety of reasons why the PGS may not pump during SBG conditions, including the safety of any person, equipment damage, or the violation of any applicable law ("SEAL"), physical limitations, and uneconomic operations.[17] In the case of uneconomic operations, OPG has prepared Attachment 3 to address the Settlement Agreement's requirement to provide the reason why OPG would have experienced an economic loss for hours when OPG recorded additions to

[16] IESO Market Rules Chapter 7, ss 4.3.2.
[17] EB-2020-0290, Undertaking JT2.22. This information is also provided in OPG's annual SBG-related reporting to the OEB established in EB-2020-0290.

the Hydroelectric Surplus Baseload Generation Variance Account, but did not pump water at the PGS.[18]

5.5 Income and Other Taxes Variance Account

The Income and Other Taxes Variance Account was originally approved in EB-2007-0905 and has been approved in all subsequent OPG applications. This account records the financial impact on the revenue requirement of the following:

- Any differences in payments in lieu of corporate income or capital taxes that result from a legislative or regulatory change to the tax rates or rules of the *Income Tax Act* (Canada) and the *Taxation Act*, 2007 (Ontario) (formerly the *Corporations Tax Act* (Ontario), as modified by the regulations under the *Electricity Act, 1998*, and any differences in payments in lieu of property tax to the Ontario Electricity Financial Corporation that result from changes to the regulations under the *Electricity Act, 1998*;
- Any differences in municipal property taxes that result from a legislative or regulatory change to the tax rates or rules for OPG's prescribed assets under the *Assessment Act, 1990*;
- Any differences in payments in lieu of corporate income or capital taxes that result from a change in, or a disclosure of, a new assessing or administrative policy that is published in the public tax administration or interpretation bulletins by relevant federal or provincial tax authorities, or court decisions on other taxpayers; and,
- Any differences in payments in lieu of income or capital taxes that result from assessments or re-assessments (including re-assessments associated with the application of the tax rates and rules to OPG's regulated operations or changes in assessing or administrative policy including those arising from court decisions on other taxpayers).

OPG recorded four entries to the variance account in 2020, 2021 and 2022, as follows:

[18] The 2018 and 2019 data in Attachment 3 reflects enhancements to the PGS utilization assessment methodology made subsequent to EB-2020-0290; these are also reflected in OPG's annual SBG-related reporting requirements to the OEB established in EB-2020-0290.

1) Credit entries in 2020, 2021 and 2022 related to a CCA rule change pursuant to the passing of Bill C-97, the *Budget Implementation Act, 2019, No. 1* in 2019, which provides for a first-year increase in CCA deductions on eligible capital assets acquired after November 20, 2018, referred to as accelerated investment incentive property ("AIIP").[19] In 2022, the entry was applicable to the regulated hydroelectric facilities only, since the impact of this change for the nuclear facilities was reflected in the EB-2020-0290 nuclear revenue requirements;
2) As identified by OPG in EB-2020-0290, a credit entry in 2020 to correct a transcribing error, wherein the increase in the recognition of Scientific Research and Experimental Development investment tax credits ("SR&ED ITCs") for the 2014 taxation year from 75% to 100% was incorrectly reported in 2018 as a debit entry, rather than a credit entry;[20]
3) A credit entry related to an increase in the recognition of SR&ED ITCs for the 2016 taxation year from 75% to 100%, based on the resolution of the 2016 income tax audit in 2021; and
4) A debit entry related to a reduction to the rate for the Ontario Research and Development Tax Credit from 4.5% to 3.5% of qualifying expenditures, effective June 1, 2016. This entry applies to the regulated hydroelectric facilities only, as the impact of this change for the nuclear facilities was reflected in the nuclear revenue requirements from EB-2016-0152 onwards.

As shown in the derivations at Ex. H1-1-1, Table 6:

- Entry 1 is a credit of $5.8M in 2020 ($3.4M credit for nuclear and $2.4M credit for regulated hydroelectric), a credit of $7.6M in 2021 ($2.7M credit for nuclear and $4.9M credit for regulated hydroelectric) and a credit of $3.6M in 2022 for regulated hydroelectric.
- Entry 2 is a credit of $0.1M in 2020 for regulated hydroelectric.
- Entry 3 is a credit of $2.6M in 2021 ($2.4M credit for nuclear and $0.2M credit for regulated hydroelectric).

[19] The entries do not include the impacts on projects subject to the Capacity Refurbishment Variance Account, which are recorded in the Capacity Refurbishment Variance Account as part of the total CCA variances for those projects.
[20] EB-2020-0290, Ex. L-H1-01-Staff-320, Att. 1, Table 6, note 4. Interest was applied to the original entry date.

- Entry 4 is a debit of less than $0.05M in each of 2020, 2021 and 2022 for regulated hydroelectric.

Entries 1, 3 and 4 are the same in nature and calculation as the equivalent entries previously recorded in the account.

5.6 Capacity Refurbishment Variance Account

The Capacity Refurbishment Variance Account was originally approved in EB-2007-0905 and has been approved in all subsequent OPG applications. This account was established pursuant to Section 6(2)4 of O. Reg. 53/05 to record the financial impacts of variances between the actual capital and non-capital costs and firm financial commitments incurred to increase the output of, refurbish or add operating capacity to a prescribed generation facility referred to in Section 2 of O. Reg. 53/05 and those forecast costs and firm financial commitments underpinning the revenue requirement that was approved by the OEB, including for the DRP. As required by O. Reg. 53/05, Section 6(2)4, the account includes assessment costs and pre-engineering costs and commitments.

5.6.1 Regulated Hydroelectric

The variances recorded in the Capacity Refurbishment Variance Account for the regulated hydroelectric facilities are determined as between the revenue requirement impact of actual capital and non-capital costs for eligible projects and the corresponding forecast amounts included in the regulated hydroelectric revenue requirements approved by the OEB.[21]

In view of the regulated hydroelectric payment amounts transitioning to a price-cap rate-setting methodology, the EB-2016-0152 PAO stipulated that, effective June 1, 2017, the CRVA was to record entries for the regulated hydroelectric facilities relative to the annual reference amount of $0.9M reflected in the revenue requirement for 2014 and 2015 approved by the OEB in EB-2013-0321 as escalated to the corresponding year by the price cap index applied to adjust the hydroelectric payment amounts approved by the OEB for 2018 to 2021.

[21] EB-2013-0321 Payment Amounts Order, Appendix G, p. 10; EB-2014-0370 Payment Amounts Order, Appendix B, p. 12.

Additionally, the EB-2016-0152 PAO stipulated that OPG is entitled to recover amounts recorded in the CRVA in relation to the regulated hydroelectric facilities effective June 1, 2017 to the extent that total capital in-service capital additions for these facilities (including any CRVA-eligible projects) exceed the funding available for capital expenditures through the regulated hydroelectric payment amounts. The EB-2016-0152 PAO prescribed that such annual capital funding implicit in the regulated hydroelectric payment amounts be determined by escalating the average of 2014 and 2015 OEB-approved depreciation for the regulated hydroelectric facilities of $143.3M in EB-2013-0321 to the corresponding year by the price cap index applied to adjust the hydroelectric payment amounts approved by the OEB for 2018 to 2021.[22] This process is summarized in Chart 1 below, which is the same as in EB-2016-0152, Ex. H1-1-1, Table 3, as updated for the known price cap indices applicable to these years.

Chart 1[23]

Total Hydroelectric In-Service Additions Funded Through 2017-2021 Payment Amounts

Line No.	Description	EB-2013-0152 Average	2017	2018	2019	2020	2021	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Funding Available for Capital Expenditures[1,2]	143.3	145.3	146.6	148.2	150.5	153.0	743.6

Notes:

1 Average of 2014 and 2015 OEB Approved depreciation calculated as the sum of EB-2013-0321 Payment Amounts Order Table 1 line 17 cols. (c) and (f), and Table 2 line 17 cols. (c) and (f), divided by two.

2 Escalated at OEB-approved I-X rates of 1.4% in 2017, 0.9% in 2018, 1.1% in 2019, 1.5% in 2020, and 1.7% in 2021.

Similarly, the EB-2020-0290 PAO stipulates that, effective January 1, 2022, the CRVA records entries for the regulated hydroelectric facilities relative to the annual reference amount of $1.0M, being the $0.9M reflected in the revenue requirement for 2014 and 2015 approved by the OEB in EB-2013-0321 as escalated by the price cap index applied to adjust the hydroelectric payment amounts approved by the OEB for 2018 to 2021. Additionally, the EB-2020-0290 PAO stipulates that OPG is entitled to recover amounts recorded in the CRVA in

[22] EB-2016-0152 PAO, Appendix G, pp. 9-10.
[23] As set out in EB-2020-0290, Ex. H1-1-1, Chart 1.

relation to the regulated hydroelectric facilities effective January 1, 2022 to the extent that total capital in-service capital additions for these facilities (including any CRVA-eligible projects) exceed the funding available for capital expenditures through the regulated hydroelectric payment amounts. The EB-2020-0290 PAO prescribes that such annual capital funding implicit in the regulated hydroelectric payment amounts effective January 1, 2022 is $153.0M, which was determined by escalating the average of 2014 and 2015 OEB-approved depreciation for the regulated hydroelectric facilities of $143.3M in EB-2013-0321 by the price cap index applied to adjust the hydroelectric payment amounts approved by the OEB for 2018 to 2021.[24]

In this application, OPG seeks to clear the year-end 2021 regulated hydroelectric balance of the CRVA totaling a debit of $56.5M (inclusive of interest), as the completion of the June 1, 2017 to December 31, 2021 IR period provides the basis for assessing the recoverability of the applicable amounts recorded during this period based on the thresholds set out in the EB-2016-0152 PAO.[25] OPG proposes to defer the clearance of the regulated hydroelectric additions to the CRVA during 2022 to a future application, which would provide the necessary details for assessing the recoverability of amounts recorded over the full 2022-2026 IR period based on the thresholds set out in the EB-2020-0290 PAO.[26]

The year-end 2021 regulated hydroelectric balance of the CRVA comprises the following additions recorded over the 2016-2021 period:[27]

- For the capital portion related to projects placed in service prior to June 1, 2017, net debit additions totaling $24.4M;[28]
- For the non-capital portion, net debit additions totaling $22.5M;[29] and

[24] EB-2020-0290 PAO, Appendix E, pp. 8-9.
[25] Ex. H1-1-1, Table 1, line 6, col. (c).
[26] For the same reason, OPG did not seek clearance of the regulated hydroelectric balances in the CRVA in EB-2018-0243 and EB-2020-0290.
[27] Prior to this application, the regulated hydroelectric portion of the CRVA was most recently cleared in EB-2016-0152, based on the year-end 2015 balances.
[28] Ex. H1-1-1, Table 7, line 17, col. (i).
[29] Ex. H1-1-1, Table 7, line 22, col. (i). Non-capital amounts recorded as of year-end 2021 are in relation to projects placed in service up to December 31, 2021. Non-capital amounts related to projects placed in service during the 2022-2026 period will be captured in the 2022-2026 period, along with the capital-related revenue requirement impacts of such projects.

- For the capital portion related to projects placed in service during the June 1, 2017 to December 31, 2021 IR period and upon application of the capital-related recoverability thresholds stipulated in the EB-2016-0152 PAO, net debit additions totaling $8.2M.[30]

Capital Projects Placed In Service Prior to June 1, 2017 and Non-Capital Costs

For the regulated hydroelectric projects placed in service prior to June 1, 2017, the capital-related entries were determined by comparing the actual revenue requirement impacts to such forecasts reflected in the revenue requirement approved in EB-2013-0321. The majority of these additions relate to the Sir Adam Beck Pump Generating Station – Reservoir Refurbishment project placed in service in February 2017, for which no forecasts were included in the EB-2013-0321 revenue requirement set on the basis of 2014 and 2015 planned amounts. Further details on the project can be found in Attachment 4. Additionally, continuing variances were recorded for projects previously identified in EB-2016-0152 as part of the approved year-end 2015 account balance, which was the most recent clearance of the hydroelectric portion of the CRVA prior to this application.[31]

The non-capital portion of account additions relates to removal costs for existing assets incurred as part of the capital projects captured by the CRVA. These costs are not eligible for capitalization. The variances for non-capital costs were determined by comparing such actual costs to the forecast amounts reflected in the revenue requirement approved in EB-2013-0321. The single largest project giving rise to the non-capital entries is the Sir Adam Beck I Generating Station – Units G1, G2 Replacement project, discussed further in Attachment 4.

The derivation of the above account entries for the 2016-2021 period is shown in Ex. H1-1-1, Table 7.

[30] Ex. H1-1-1, Table 7d, line 3, col. (h).

[31] The continuing variances comprise the following projects: Otto Holden Generating Station – Replace Headgates and Rehabilitate Gains, Des Joachims Generating Station – Replace Main Output Transformers, Des Joachims Generating Station – Turbine Runner Replacement, Otto Holden Generating Station – Replace Sluicegates and Rehabilitate Sluicegate Systems, and Sir Adam Beck I Generating Station – Unit G10 Major Overhaul and Upgrade. See EB-2016-0152, Ex. H1-1-1, Table 7. The first four of these projects were largely placed in service prior to January 1, 2016, whereas the remaining project was not placed in service until after June 1, 2017.

Capital Projects Placed In-Service During June 1, 2017 to December 31, 2021

Nineteen regulated hydroelectric projects placed in service between June 1, 2017 and December 31, 2021 give rise to capital-related additions recorded to the CRVA during the period.[32] In accordance with the hydroelectric CRVA clearance methodology set out in EB-2016-0152, Ex. H1-1-2, these entries were determined through the steps set out below. The entries were finalized upon completion of the IR period, having regard to actual capital in-service information for the period.

1. For each partial or full year, capital-related revenue requirement impacts were calculated for the CRVA eligible projects, as derived at Ex. H1-1-1, Table 7b, line 10.
2. For each partial or full year, the revenue requirement impacts from step 1 were compared to the reference amounts prescribed in the EB-2016-0152 PAO to determine the account additions prior to the application of the recoverability threshold, as derived at Ex. H1-1-1, Table 7b, line 12.
3. Total actual regulated hydroelectric capital in-service additions during the period were compared to the capital funding implicit in the hydroelectric payment amounts over the period as prescribed in the EB-2016-0152 PAO, as derived at Ex. H1-1-1, Table 7c, lines 1 and 2.
4. For each partial or full year, estimated revenue requirement impacts were determined arising from the difference between the actual regulated hydroelectric capital in-service additions and the capital funding implicit in the regulated hydroelectric payment amounts determined in step 3, as derived at Ex. H1-1-1, Table 7c, line 13.
5. The lesser of the aggregate amount determined in step 2 and step 4 was recorded as recoverable in the account for the period, as derived at Ex. H1-1-1, Table 7d, line 3, with the annual entries corresponding to such lesser aggregate amount.[33]

[32] Inclusive of credit entries for the January 1, 2016 to May 31, 2017 period totaling $0.5M related to income tax deductions for SR&ED qualifying expenditures incurred during that period for the projects placed in service during the June 1, 2017 to December 31, 2021 period.

[33] In the event of an aggregate debit amount determined in step 2, the aggregate amount for the IR period determined in step 5 cannot be less than zero. In the event of an aggregate credit amount determined in step 2, the aggregate amount for the IR period determined in step 5 cannot be a greater credit than the aggregate credit amount determined in step 2.

The projects placed in service during the June 1, 2017 to December 31, 2021 period that give rise to capital-related account additions are identified in Ex. H1-1-1, Table 7b, Note 4. Further details on these projects can be found in Attachment 4.

5.6.2 Nuclear

For the nuclear facilities, the variances recorded in the Capacity Refurbishment Variance Account are determined as between the revenue requirement impact of actual capital and non-capital costs for eligible projects and the corresponding forecast amounts included in the annual nuclear revenue requirements approved by the OEB.

The nuclear portion of the account entries recorded during 2020, 2021 and 2022 relates to variances for the following initiatives:

- Darlington Refurbishment Program
- Pickering Extended Operations
- Fuel Channel Life Extension Project
- Fuel Channel Life Extension Ongoing Costs
- Darlington Steam Generator Primary Moisture Separators Replacement
- Darlington Unit 3 Fuel Channel Component Retrieval Project
- Darlington Annulus Spacer Life Management Project
- Optimization of Pickering Shutdown
- Pickering Units 5-8 (Pickering "B") Refurbishment Feasibility Assessment

Consistent with EB-2018-0243 and EB-2020-0290, OPG proposes to defer the clearance of DRP-related balances other than those related to the D2O Storage Project and the impact of AIIP rules on DRP-related CCA amounts to a future application, which would allow an assessment of these variances, if any, in the context of the overall performance of the four-unit refurbishment. In total, OPG is proposing to defer clearance of a credit balance of $48.5M (inclusive of interest) related to these variances as at December 31, 2022, inclusive of such amounts deferred in previous proceedings.[34]

[34] Ex. H1-2-1, Table 2, line 4, col. (d).

OPG also proposes to defer the clearance of balances related to the Optimization of Pickering Shutdown initiative, totaling $2.4M in net credit additions from 2020 to 2022, as large portions of the work required to complete this initiative are ongoing. The aim of the initiative, originally presented in EB-2020-0290, has been to safely optimize the shutdown of the Pickering Nuclear Generating Station ("Pickering") by operating all six operating units until September 2024, five of the six units through 2024 and the remaining four units until December 2025, subject to the approval by the Canadian Nuclear Safety Commission ("CNSC").[35] Subsequently, in September 2022, the Province of Ontario ("Province") announced a plan to extend the operation of Pickering Units 5-8 to September 2026, subject to the CNSC's approval. Deferring clearance of balances related to Optimization of Pickering Shutdown to a future application would allow for an assessment of any variances in the context of the overall performance of the initiative.

Additionally, OPG proposes to defer the clearance of initial non-capital costs related to the refurbishment feasibility assessment for Pickering "B", totaling a debit of $0.2M recorded in 2022, given that the majority of the work on the assessment was carried out subsequently in 2023. This work was undertaken at the Government of Ontario's request, announced in September 2022, for OPG to update its previous feasibility assessment for refurbishing Pickering Units 5-8.

OPG proposes to clear all other entries recorded in the nuclear portion of the account during 2020, 2021 and 2022, which additions total as follows and are further described below:

- For the D2O Storage Project, a debit of $33.4M in 2020 and a debit of $43.9M in 2021;[36]
- For the impact of AIIP rules on DRP-related CCA amounts, a credit of $19.9M in 2020 and a debit of $3.1M in 2021;
- For the non-DRP non-capital portion, a credit of $1.7M in 2020, a debit of $83.9M in 2021 and a debit of $14.0M in 2022;[37] and

[35] EB-2020-0290, Ex. F2-1-1.
[36] Ex. H1-1-1, Table 17, line 12.
[37] Ex. H1-1-1, Table 15, line 29 less line 24 and line 26.

- For the non-DRP capital portion, a debit of $4.1M in 2020, a debit of $10.9M in 2021, and a debit of $5.9M in 2022.[38]

Darlington Refurbishment Program – D2O Storage Project and AIIP CCA Variances

Revenue requirement impacts of the D2O Storage Project were recorded in the account for 2020 and 2021. These impacts reflect the amount and timing of the project costs approved for inclusion in rate base by the OEB's EB-2020-0290 Decision and Order, as reflected in the EB-2020-0290 PAO. There were no such account additions in 2022 as the OEB-approved project costs were reflected in the EB-2020-0290 nuclear revenue requirements. The derivation of the account additions for 2020 and 2021 is shown at Ex. H1-1-1, Table 17, which together with interest on the balance total a debit of $79.3M proposed for recovery in this application.[39]

The net credit balance related to the impact of AIIP rules on DRP-related CCA amounts proposed to be repayable in this application is $18.1M.[40] The underlying account additions for 2020 and 2021 were calculated in the same manner as the equivalent entries previously recorded in the account. There were no such additions in 2022 since the impact of the AIIP rules was reflected in the EB-2020-0290 nuclear revenue requirements.

Pickering Extended Operations

The Pickering Extended Operations initiative, originally presented in EB-2016-0152, was aimed at operating Pickering Units 1 and 4 to 2022 and Pickering Units 5-8 to 2024.[41] As anticipated in EB-2020-0290, work programs related to this initiative were substantially completed in 2021, with continued supply chain delays from the onset of the COVID-19 pandemic resulting in a small amount of residual work executed in 2022 and 2023. The initiative was completed in 2023 within a total cost of $307M, consistent with the forecast presented in EB-2016-0152. The total expenditures over the life the initiative are summarized in Chart 2 below.

[38] Ex. H1-1-1, Table 16, line 16.
[39] Ex. H1-2-1, Table 2, line 7, col. (e).
[40] Ex. H1-2-1, Table 2, line 6, col. (e).
[41] EB-2016-0152, Ex. F2-2-3.

Chart 2

Pickering Extended Operations Costs ($M)*

Description	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual [42]	2021 Actual	2022 Actual [43]	2023 Actual	Total Actual
Base OM&A [44]	9.6	14.9	10.0	12.1	7.2	5.5	0.0	0.0	59.3
Project OM&A [45]	1.2	0.2	6.3	25.4	30.0	19.6	0.9	0.4	84.1
Outage OM&A [46]	-	3.2	9.3	24.7	47.3	26.1	-	-	110.7
Capital Expenditures [47]	-	-	2.8	9.0	19.7	16.9	0.5	0.3	49.2
Minor Fixed Assets [48]	-	-	1.4	0.6	-	0.7	0.4	-	3.1
Total Pickering Extended Operations	**10.8**	**18.4**	**29.9**	**71.9**	**104.1**	**68.7**	**1.9**	**0.7**	**306.3**

* Numbers may not add due to rounding.

As shown at Ex. H1-1-1, Table 15, line 19, actual non-capital expenditures on the initiative gave rise to a credit entry of $21.0M in 2020 and a debit entry of $51.2M in 2021. These variances were primarily due to changes to the scope and timing of outage activities required to meet program requirements over its life, relative to the OEB-approved forecasts established in EB-2016-0152. The non-capital debit entry of $8.6M in 2022 was largely due to the retirement of an algae mitigation bubble curtain system. This proof-of-concept system was initially commissioned in 2021 as part of a strategy to investigate options for reducing algae ingress in the Pickering cooling water intake systems on Lake Ontario in support of ongoing safe and reliable operations. Excessive algae ingress via the water intake systems can reduce the amount and flow of water needed to cool the nuclear reactors, resulting in a forced outage. The bubble curtain system was completed as a capital project, but upon a period operation, did not prove to be sufficiently effective due to degradation of in-water components in Lake Ontario conditions, and its remaining undepreciated book value was charged as a non-capital

[42] Non-capital (OM&A) costs for 2020 differ from Ex. H1-1-1, Table 15, line 10, col. (a), which is presented net of a $1.2M reversal related to a non-CRVA eligible project inadvertently recorded to the account in 2016.
[43] Non-capital (OM&A) costs for 2022 differ from Ex. H1-1-1, Table 15, line 10, col. (c), which is shown inclusive of the retirement of the algae mitigation bubble curtain project, discussed below. Chart 3 shows the full amount of expenditures on the project as capital, in the years incurred.
[44] For 2016-2020, as shown in EB-2020-0290, Ex. L-A1-2-Staff-002, Attachment 1, Table 18, line 11, cols. (a)-(e).
[45] For 2016-2020, as shown in EB-2020-0290, Ex. L-A1-2-Staff-002, Attachment 1, Table 20, line 9, cols. (a)-(e).
[46] For 2016-2020, as shown in EB-2020-0290, Ex. L-A1-2-Staff-002, Attachment 1, Table 21, line 8, cols. (a)-(e).
[47] For 2016-2020, as shown in EB-2020-0290, Ex. L-A1-2-Staff-002, Attachment 1, Table 10, line 10, cols. (a)-(e).
[48] For 2016-2020, as shown in EB-2020-0290, Ex. L-A1-2-Staff-002, Attachment 1, Table 10, note 2.

cost in 2022. The project was informed by industry experience that the use of bubble curtains had achieved some success in other jurisdictions.

Additionally, Pickering Extended Operations costs are the driver of the non-DRP capital portion of the debit entries in the account in 2020, 2021 and 2022.[49] As discussed in EB-2020-0290, while there were no capital expenditures included in the initiative in EB-2016-0152, OPG subsequently determined that certain projects met capitalization eligibility criteria.[50] As such, the full revenue requirement impact of the Pickering Extended Operations capital in-service additions was recorded in the account in 2020 and 2021. The impact of the capital expenditures was offset by lower non-capital costs incurred relative to the OEB-approved forecasts established in EB-2016-0152. Based on the EB-2020-0290 forecasts, variances related to the revenue requirement impacts of the capital in-service additions in 2020 and 2021 partly continued into 2022, and were partially offset by the retirement of the algae mitigation bubble curtain system. The derivation of the resulting debit account additions of $4.1M in 2020, $10.9M in 2021 and $5.9M in 2022 is shown in Ex. H1-1-1, Table 16.

Fuel Channel Life Extension Project

Under this initiative, OPG performs work to update its assessments of degradation mechanisms on fuel channel components through research and development and various technical assessments. Degradation mechanisms on fuel channels may impact OPG's ability to demonstrate their fitness for service and capability to operate until a nuclear station's planned end of life, including ability to operate the Darlington units until their refurbishment dates and the Pickering units until their planned shutdown dates. Since being initiated to support the operation of the Darlington units to 235,000 equivalent full power hours (EFPH) and the Pickering units to 261,000 EFPH, the scope of the work was extended to support the operation of the Pickering units to 295,000 EFPH.[51] Additional research and testing activities related to fuel channel degradation mechanisms were required to be performed in 2020, 2021

[49] The capital debit entries in 2020 and 2021 were partially offset by variances related to the Darlington Spacer Retrieval Project, which was completed under budget in 2017 (EB-2020-0290, Ex. D2-1-3, p. 49, lines 11-12 and Ex. D2-1-2, Table 4a, line 9).
[50] EB-2020-0290, Ex. D2-1-2: p. 12, lines 8-19; p. 16, lines 29-30; p.17, lines 1-11.
[51] EB-2020-0290, Ex. F2-3-1, p. 3, lines 2-11.

and 2022 relative to the forecasts underpinning the respective revenue requirements, giving rise to net debit entries totaling $5.7M for 2020 and 2021 and a debit entry of $2.7M for 2022.[52]

Fuel Channel Life Extension Ongoing Costs

The fuel channel life extension ongoing (consequential) costs represent expenditures incurred for incremental base and outage work required to enable fuel channel and other major component operation until a nuclear station's planned end of life that is beyond original design targets. As noted above, fuel channel life expectancy is a critical factor that can limit station operations. The costs include activities to demonstrate the ongoing fitness for service of the fuel channel assemblies, including pressure tube and spacer surveillance, fuel channel inspection and maintenance, spacer retrieval and analysis, and pressure tube fracture toughness testing, as well as other major component life cycle management scope. The fitness for service process is a CNSC Licence and Canadian Standards Association requirement, and as appropriate, OPG shares costs with other utilities by leveraging joint industry projects and activities.

Additional planned outage scope and additional assessment and analysis work to demonstrate ongoing fitness for service of the pressure tubes and other major components was required in 2020 and 2021 relative to the forecasts underpinning the EB-2016-0152 revenue requirements. As anticipated in EB-2020-0290, this reflected additional requirements and timing for Single Fuel Channel Replacements at Darlington and Pickering units, along with increased fuel channel scrapes and related sample analyses and annulus spacer retrieval and analysis, as well as additional steam generator waterlancing scope, to support fitness for service to the planned refurbishment dates and shutdown dates, respectively.[53] Similar to the Fuel Channel Life Extension project, the original planned scope of the work was expanded to support the extended operation of the Pickering units under the Optimization of Pickering Shutdown initiative. The above factors gave rise to debit entries to the account of $13.7M for

[52] Ex. H1-1-1, Table 15, line 20 less line 28.
[53] EB-2020-0290, Ex. F2-2-2: p. 5, lines 3-5; p. 6, lines 3-4. EB-2020-0290, Ex. F2-4-2: p. 4, line 29 to p. 5, line 2; p. 6, lines 20-22.

2020 and $26.6M for 2021. The costs incurred in 2022 were virtually the same as the forecasts underpinning the EB-2020-0290 revenue requirement.

Darlington Steam Generator Primary Moisture Separators Replacement

As part of refurbishment activities at Darlington Unit 3, an inspection of the steam generators revealed that the primary moisture separators within had deteriorated, causing thinning of the carbon steel from which they were fabricated. Steam generators are a major component of the Darlington station, acting as a heat exchanger during the operation of the plant. They transfer heat from the Primary Heat Transport System to Secondary Side Feedwater to convert it to high pressure dry steam that is delivered to turbine equipment to generate electricity. The primary and secondary moisture separators play an essential role in removing any moisture from the high pressure steam to ensure it is dry, as wet steam carried across pipes risks eroding downstream components, increasing maintenance and reducing the useful lives of critical station assets. Across all four units, there are 1,664 primary moisture separators and 1,664 secondary moisture separators at the Darlington station. Each unit contains four steam generators.

Following the detection of the increased degradation of the primary moisture separators in Unit 3, OPG expanded the inspection scope on Unit 3 and conducted additional inspections on the primary moisture separators in the other Darlington units to quantify the extent of the condition. Further inspections on Unit 3 and Unit 4 showed additional evidence of primary moisture separator degradation. The damage to the primary moisture separators was determined to have been caused by flow-assisted corrosion, which is irreversible and can only be mitigated through replacement of the affected components. Given the magnitude of the deterioration detected on Unit 3 and Unit 4 and the results of routine inspections on Unit 1 and Unit 2, and in view of the substantial risks, disruption and cost that this condition could pose for future operations, OPG has opted to proceed with replacement of all primary moisture separators in the four units at Darlington. Replacement of these components does not form part of the DRP scope. The significant risks posed by operating the units with degraded primary moisture separators include generation of foreign material that could rupture the steam generator tubes,

causing leaks that disrupt the steam generators' performance, compromise nuclear safety and force outages.

During 2022, OPG began a project to replace the primary moisture separators in Unit 3. As part of the project, non-capital costs of $3.3M were incurred during the year in connection with the removal of the 208 primary moisture separators and associated support structure at two steam generators in Unit 3, and were recorded in the CRVA.

Darlington Unit 3 Fuel Channel Component Retrieval and Darlington Annulus Spacer Life Management Projects

The non-capital cost variances related to the Darlington Unit 3 Fuel Channel Component Retrieval Project and the Darlington Annulus Spacer Life Management Project set out at Ex. H1-1-1, Table 15, lines 22 and 23 arose due to the fact that these projects were identified subsequent to EB-2016-0152. As identified in EB-2020-0290, these projects were required in support of demonstrating high confidence in continued fitness for service of Darlington Units 1 and 4 up to their respective refurbishment dates.[54] The Darlington Unit 3 Fuel Channel Component Retrieval Project has been completed within budget, inclusive of minor costs incurred in 2022 and 2023. With additional research and development activities completed in 2022 and 2023 to collect experimental data, the Darlington Annulus Spacer Life Management Project is in the process of being closed out, within budget.

5.7 Pension and OPEB Cost Variance Account

The Pension and OPEB Cost Variance Account was originally approved in EB-2011-0090 and has been continued in subsequent proceedings. This account records the difference between (i) the pension and other post-employment benefit ("OPEB") costs, plus related income tax payments in lieu, reflected in the revenue requirement approved by the OEB; and (ii) OPG's actual pension and OPEB costs, and associated tax impacts, for the prescribed generation facilities. Actual pension and OPEB costs used in the calculation of the difference are calculated on an accrual basis using the same accounting standards as those used to derive the reference amount.

[54] EB-2020-0290, Ex. F2-3-1, p. 4, lines 3-10 and Ex. F2-3-3, p. 2, lines 15-25.

There were no additions to the account in 2020 or 2021 as the nuclear and regulated hydroelectric payment amounts then in effect did not reflect pension and OPEB costs calculated on an accrual basis. As the EB-2020-0290 nuclear revenue requirements reflect pension and OPEB costs calculated on an accrual basis, OPG resumed recording additions to the account for the nuclear facilities effective January 1, 2022, pursuant to the EB-2020-0290 PAO. These additions are identified in the Post-2021 Additions component of the account balance. Pursuant to the EB-2020-0290 PAO, there were no account additions recorded for the regulated hydroelectric facilities in 2022 as the EB-2013-0321 revenue requirements underpinning the regulated hydroelectric payment amounts in effect did not include pension and OPEB costs calculated on an accrual basis.[55]

The derivation of the $122.6M credit entry to the account for the nuclear facilities in 2022 is shown in Ex. H1-1-1, Table 8b. These additions reflect actual pension and OPEB costs for nuclear facilities that are lower than the forecast amounts underpinning the EB-2020-0290 revenue requirement, primarily due to the impact of higher discount rates and higher than expected year-end 2020 and 2021 pension fund asset values, partially offset by the impact of an increase in the inflation rate assumption from 1.75% to 2.0% and a decrease in the expected rate of return assumption on pension fund assets from 6.0% to 5.75%. Further details of the assumptions underpinning OPG's actual pension and OPEB costs for 2022 can be found in Section 5.11 below.

Actual pension and OPEB costs used in the calculation of the account entries were determined using the same accrual accounting method applied in OPG's audited consolidated financial statements for the corresponding years. In calculating the entries, OPG's total pension and OPEB costs were attributed to the nuclear facilities using the same methodology as in previous proceedings. OPG's total pension and OPEB costs for 2022 can be found in Aon's independent actuary's report included as Attachment 5 to this exhibit.[56] The accrual accounting

[55] EB-2020-0290 PAO, Appendix E, pp.10-11.
[56] Attachment 5, p. 4.

methodology used in determining the costs, and the methodology used to attribute them to the nuclear facilities, is described in detail in EB-2020-0290, Ex. F4-3-2, Section 4.0.

Pursuant to the EB-2020-0290 PAO, OPG also continues to maintain the Future Recovery component of the account balance, which was previously approved for recovery.[57] As this component is set to be fully amortized by December 31, 2024 through the rate riders established in EB-2020-0290, no further amortization for this component is included in the clearance proposal in this application.

No interest was recorded on the balance of the account in 2020, 2021 or 2022 pursuant to the EB-2016-0152 PAO and the EB-2020-0290 PAO.

5.8 Hydroelectric Deferral and Variance Over/Under Recovery Variance Account

The Hydroelectric Deferral and Variance Over/Under Recovery Variance Account was originally approved in EB-2009-0174 and has been approved in all subsequent OPG applications. This account records the differences between the amounts approved for recovery in the hydroelectric deferral and variance accounts and the actual amounts recovered based on the actual regulated hydroelectric production and approved riders. Pursuant to the OEB's orders, the account also captures the transfer of the hydroelectric portions of the balances remaining in other accounts as they expire from time to time.

The derivation of the $3.3M, $8.0M and $2.0M debit additions to the account for 2020, 2021 and 2022, respectively, is shown in Ex. H1-1-1, Table 9. There were no transfers from expiring accounts in 2020, 2021 or 2022.

5.9 Gross Revenue Charge Variance Account

The Gross Revenue Charge Variance Account was originally approved in EB-2013-0321 and has been approved in all subsequent OPG applications. It records the cost impact of a gross revenue charge reduction under Ontario Regulation 124/02, once approved by the Ontario

[57] EB-2016-0152 PAO, Appendix G, p. 11; EB-2020-0290 PAO, Appendix E, p. 10.

Ministry of Natural Resources and Forestry, pertaining to production increases at OPG's Sir Adam Beck plants due to the operation of the Niagara tunnel.

As no decision on the GRC reduction has been issued by the Ministry of Natural Resources and Forestry to date, there have been no amounts recorded in the account since its inception.

5.10 Pension & OPEB Cash Payment Variance Account

The Pension & OPEB Cash Payment Variance Account was approved in EB-2013-0321 and has been continued in all subsequent OPG applications. It records the difference between OPG's actual registered pension plan ("RPP") contributions and OPEB plan payments (including the long-term disability benefit plan) attributed to the prescribed generating facilities, and such forecast amounts underpinning the revenue requirement approved by the OEB.

The account recorded the above difference for the nuclear facilities and the regulated hydroelectric facilities in 2020 and 2021 and for the regulated hydroelectric facilities in 2022, as the corresponding payment amounts then in effect reflected pension and OPEB amounts on a cash basis. As the EB-2020-0290 nuclear revenue requirements reflect pension and OPEB costs calculated on an accrual basis, OPG ceased recording additions to the account for the nuclear facilities effective January 1, 2022, pursuant to the EB-2020-0290 PAO.[58]

The derivation of the credit additions of $19.6M in 2020, $15.7M in 2021 and $13.4M in 2022 for the regulated hydroelectric facilities and the credit additions of $121.0M in 2020 and $132.3M in 2021 for the nuclear facilities is shown in Ex. H1-1-1, Table 8. These additions reflect RPP contributions attributed to the prescribed facilities for 2020 and 2021 that were lower than the reference amounts approved in EB-2016-0152, reflecting the results of actuarial valuations of the RPP as of January 1, 2020 and April 1, 2021 filed with the Financial Services Regulatory Authority of Ontario ("FSRA") in September 2020 and December 2021, respectively. The 2020 and 2021 valuations resulted in lower minimum required contributions relative to the projected January 1, 2019 valuation that underpinned the reference amounts for the nuclear facilities, primarily due to no solvency special payments, and relative to the January

[58] EB-2020-0290 PAO, Appendix E, p. 12.

1, 2014 valuation that underpinned the reference amounts for the regulated hydroelectric facilities, primarily due to no going concern special payments.

For 2022, the above additions reflect RPP contributions attributed to the regulated hydroelectric facilities that were lower than the reference amount approved in EB-2020-0290, reflecting the results of the actuarial valuation of the RPP as of January 1, 2022 filed with the FSRA in September 2022. The 2022 valuation resulted in lower minimum required contributions relative to the January 1, 2014 valuation that underpinned the reference amount for the regulated hydroelectric facilities, primarily due to no going concern special payments.

OPEB payments attributed to the nuclear facilities for 2020 and 2021 were lower than the reference amounts, primarily due to changes in claim patterns resulting from the COVID-19 pandemic. OPEB payments attributed to the regulated hydroelectric facilities for 2020 to 2022 were higher than the reference amounts, primarily due to a growing retiree population.

In calculating the above variances, OPG's total RPP contributions and OPEB benefit payments were attributed to the prescribed facilities using the same methodology as in previous proceedings. OPG's total RPP contributions and OPEB benefit payments for the above periods can be found in Aon's independent actuary's report included as Attachment 5 to this exhibit.[59] Additional background information on OPG's RPP contributions and OPEB benefit payments can be found in EB-2020-0290, Ex. F4-3-2, section 5.0.

5.11 Pension & OPEB Cash Versus Accrual Differential Deferral Account

The Pension & OPEB Cash Versus Accrual Differential Deferral Account was approved in EB-2013-0321 and has been continued in all subsequent OPG applications. The account records differences between: (i) OPG's actual pension and OPEB costs for its prescribed generating facilities determined using the accrual accounting method applied in OPG's audited consolidated financial statements; and, (ii) OPG's actual registered pension plan contributions and other post-employment benefit plan payments (including the long-term disability benefit plan) attributed to OPG's prescribed generating facilities.

[59] Attachment 5, pp. 9-11.

This account recorded the above differences for the nuclear facilities and the regulated hydroelectric facilities in 2020 and 2021 and for the regulated hydroelectric facilities in 2022, as the corresponding payment amounts then in effect reflected pension and OPEB amounts on a cash basis. As the EB-2020-0290 nuclear revenue requirements reflect pension and OPEB costs calculated on an accrual basis, OPG ceased recording additions to the account for the nuclear facilities effective January 1, 2022, pursuant to the EB-2020-0290 PAO.[60]

The derivation of debit account additions of $14.9M in 2020 and $16.7M in 2021 and credit additions of $3.5M in 2022 for the regulated hydroelectric facilities and debit additions of $71.8M in 2020 and $93.1M in 2021 for the nuclear facilities is shown in Ex. H1-1-1, Table 8.

Actual pension and OPEB accrual costs used in the calculation of the account entries were determined using the same method as applied in OPG's audited consolidated financial statements for the corresponding years. In calculating the entries, OPG's total pension and OPEB accrual costs were attributed to the prescribed facilities using the same methodology as in previous proceedings. OPG's total pension and OPEB accrual costs for 2020, 2021 and 2022 can be found in Aon's independent actuary's report included as Attachment 5 to this exhibit.[61] The accrual accounting methodology used in determining the costs, and the methodology used to attribute to the prescribed facilities, is described in detail in EB-2020-0290, Ex. F4-3-2, Section 4.0. OPG's actual RPP contributions and OPEB benefit payments for 2020, 2021 and 2022 are discussed in Section 5.10 above.

Chart 3 below presents the assumptions used to determine the 2020, 2021 and 2022 actual pension and OPEB costs. The process behind developing these assumptions is discussed in EB-2020-0290, Ex. F4-3-2, Section 4.0.

[60] EB-2020-0290 PAO, Appendix E, p. 13.
[61] Attachment 5, p. 4.

Chart 3: Pension and OPEB Accrual Cost Assumptions for 2020, 2021 and 2022 (rate per annum)

	2020 Actual[62]	2021 Actual	2022 Actual
Discount rate for pension[63, 64]	Current service cost – 3.19% Interest cost – 2.91%	Current service cost – 2.86% Interest cost – 2.10%	Current service cost – 3.38% Interest cost – 2.79%
Discount rate for other post-retirement benefits[63, 64]	Current service cost – 3.21% Interest cost – 3.00%	Current service cost – 2.93% Interest cost – 2.29%	Current service cost – 3.43% Interest cost – 2.91%
Discount rate for long-term disability[63, 64, 65]	Current service cost – 2.83% Interest cost – 2.55%	Current service cost – 1.89% Interest cost – 1.28%	Current service cost – 2.69% Interest cost – 2.16%
Expected long-term rate of return on pension fund assets	6.00%	5.75%	5.75%
Inflation rate	1.75%	1.75%	2.00%
Weighted average salary schedule escalation rate[66]	1.7% from Jan 1, 2020 to Dec 31 2026; 2.25% thereafter	1.6% from Jan 1, 2021 to Dec 31 2026; 2.25% thereafter	1.6% from Jan 1, 2022 to Dec 31 2026; 2.50% thereafter

As anticipated, with the exception of the long-term disability costs that are calculated using information as of December 31, 2020, the 2020 actual accrual costs for pension and OPEB

[62] Except for the long-term disability discount rate determined at year-end, these are the same assumptions used to develop the 2020 pension and OPEB cost projections presented in EB-2020-0290 (EB-2020-0290, Ex. F4-3-2, Chart 4).
[63] The rate for current service cost shown represents the single equivalent discount rate implicit in the current service cost calculations under the Full Yield Curve Approach. Under this approach, current service cost is calculated by applying individual spot interest rates along the corresponding bond yield curve to discount each future year's underlying projected benefit payments.
[64] The rates for interest cost shown apply to the projected benefit obligations at the beginning of the year under the Full Yield Curve Approach. Under this approach, a separate rate is used to calculate the interest cost on the current service cost recognized during the year. For 2020-2022, these rates can be found at pp. 6-7 of Attachment 5.
[65] As the long-term disability costs for the year are based on the re-measurement of the benefit obligation at the end of the year in accordance with US GAAP, the total long-term disability costs inclusive of any actuarial gains or losses due to the re-measurement reflect the discount rate used to determine the year-end benefit obligations, notwithstanding the Full Yield Curve Approach. This discount rate was 1.89% for December 31, 2020, 2.69% for December 31, 2021, and 5.21% for December 31, 2022.
[66] The weighted average salary schedule escalation rates reflect assumptions based on existing collective agreements and other short-term salary expectations at the time. The longer term salary schedule escalation is set at the assumed inflation rate plus 0.5%, as in EB-2020-0290 and prior proceedings.

were very close or equal to the 2020 projected costs provided in EB-2020-0290 (total OPG and as attributed to the nuclear facilities), as the projection was determined using actual December 31, 2019 values of the benefit obligations and pension fund assets, and the final assumptions as of December 31, 2019.[67]

The 2021 actual accrual costs for pension and OPEB were lower than projected in EB-2020-0290. This was driven by pension costs being lower than projected, primarily due to the impact of a higher-than-expected year-end 2020 pension fund asset value, partially offset by the impact of lower discount rates and a reduction in the expected rate of return on pension fund assets assumption from 6.0% to 5.75%.

Actual pension accrual costs increased from 2020 to 2021, primarily due to the impact of lower discount rates and a reduction in the expected rate of return on pension fund assets assumption from 6.0% to 5.75%, partially offset by the impact of negative expected net growth in the cost components.[68] Actual pension accrual costs decreased from 2021 to 2022, primarily due to the impact of higher discount rates and a higher-than-expected year-end 2021 pension fund asset value, partially offset by the impact of an increase in the inflation rate assumption from 1.75% to 2.0%.

No interest was recorded on the balance of the account in 2020, 2021 or 2022 pursuant to the EB-2016-0152 PAO and the EB-2020-0290 PAO.

As noted in EB-2020-0290, EB-2018-0243 and prior OPG proceedings, the continued recognition of amounts recorded in the Pension & OPEB Cash Versus Accrual Differential Deferral Account as a regulatory asset in OPG's financial statements in accordance with US GAAP requires that the period of deferring amounts recorded in the account related to OPEB

[67] EB-2020-0290, Ex. F4-3-2, p. 8, lines 13-16 and note 14. Total OPG projected costs for 2020 can be found at EB-2020-0290, Ex. F4-3-2, Attachment 1, p. 5 and p.16, with the corresponding amounts attributed to the nuclear facilities at EB-2020-0290, Ex. F4-3-2, Chart 4.

[68] As in previous proceedings, "expected net growth" (i.e., change) in cost components is used to refer to the net impact of the following: increases in current service costs due to the passage of time in the present value calculation, higher interest costs on a higher benefit obligation due to the passage of time, changes in the pension asset value due to expected earnings and expected unwinding of the market-related value, and related changes in amortization of historical actuarial gains or losses under the corridor approach.

not exceed five years from the time that they were incurred.[69] For example, this means that amounts recorded at the beginning of 2020 must be recovered as of the beginning of 2025 to satisfy US GAAP criteria.

5.12 Pension and OPEB Forecast Accrual versus Actual Cash Payment Differential Variance Account

The Pension and OPEB Forecast Accrual versus Actual Cash Payment Differential Variance Account was established by the OEB on a generic basis in EB-2015-0040. The account has three sub-accounts, as set out in the EB-2020-0290 PAO and described below.

The Primary Sub-Account tracks amortization amounts for the Pension & OPEB Cash Versus Accrual Differential Deferral Account, for both regulated hydroelectric and nuclear facilities. Beginning January 1, 2022, for the nuclear facilities only, the Primary Sub-Account also tracks the difference between actual pension and OPEB costs on an accrual basis[70] and OPG's actual RPP contributions and OPEB plan payments (including the long-term disability benefit plan) (i.e., cash payments). When the cumulative accrual amount (including amortization amounts from the Pension & OPEB Cash Versus Accrual Differential Deferral Account) exceeds the cumulative cash payments, the sub-account holds a credit balance and accrues carrying charges in favour of ratepayers in the Carrying Charges Sub-Account. The Contra Sub-Account records offsetting entries with the Primary Sub-Account to enable book-keeping with offsetting entries. Carrying charges do not apply to this sub-account. The Carrying Charges Sub-Account records interest at the OEB's prescribed Construction Work In Progress rate. As tracking accounts, neither the Primary Sub-Account nor the Contra Sub-Account are subject to disposition. The Carrying Charges Sub-Account is subject to disposition.

For each of 2020 and 2021, the entries to the Primary Sub-Account were a credit of $7.0M for the regulated hydroelectric facilities and $44.1M for the nuclear facilities, representing the

[69] EB-2020-0290, Ex. H1-1-1, Note 45; EB-2018-0243, Ex. F1-1-1, p. 6; EB-2015-0040 OPG Submission on September 22, 2016, p. 18.
[70] The actual amount of pension and OPEB costs on an accrual basis is used as the basis for entries in the Primary Sub-Account in order to account for the interaction of this account with the Pension and OPEB Cost Variance Account.

OEB-approved amortization amounts for the Pension & OPEB Cash versus Accrual Differential Deferral Account. For 2022, the entries to the Primary Sub-Account were a credit of $24.1M for the regulated hydroelectric facilities, representing the OEB-approved amortization amounts for the Pension & OPEB Cash versus Accrual Differential Deferral Account, and a credit of $135.1M for the nuclear facilities, representing the sum of the OEB-approved amortization amounts for the Pension & OPEB Cash versus Accrual Differential Deferral Account and the difference between actual pension and OPEB costs on an accrual basis and the cash payments for the year. The derivation of these entries and associated cumulative balances is set out in Ex. H1-1-1, Table 8a.

The resulting credit additions to the Carrying Charges Sub-Account were $0.2M in 2020, $0.4M in 2021 and $1.3M in 2022 for the regulated hydroelectric facilities, and $1.6M in 2020, $2.4M in 2021 and $8.0M in 2022 for the nuclear facilities.

No interest was recorded on the balance of the Carrying Charges Sub-Account in 2020, 2021 or 2022.

5.13 Niagara Tunnel Project Pre-December 2008 Disallowance Variance Account

The Niagara Tunnel Project Pre-December 2008 Disallowance Variance Account was approved in EB-2014-0369 and continued in all subsequent OPG applications. The account records the difference between the annual revenue requirement impact of the original Niagara Tunnel Project rate base addition disallowance of $28.0M per EB-2013-0321 and the varied disallowance of $6.4M per EB-2014-0369. As the payment amounts for the regulated hydroelectric facilities approved in EB-2016-0152 and EB-2020-0290 reflected the EB-2013-0321 disallowance and not the impact of the varied disallowance, OPG continued to record entries to the account pursuant to the corresponding payment amounts orders.

The derivation of the $1.7M debit additions to the account in each of 2020, 2021 and 2022 is shown in Ex. H1-1-1, Table 10.

5.14 Nuclear Liability Deferral Account

The Nuclear Liability Deferral Account was originally approved in EB-2007-0905 pursuant to O. Reg. 53/05 and has been approved in all subsequent OPG applications. In accordance with section 5.2(1) of O. Reg. 53/05, this account records the revenue requirement impact on the prescribed facilities of any change in OPG's nuclear decommissioning and used fuel and waste management liabilities ("nuclear liabilities") arising from an approved reference plan under the Ontario Nuclear Funds Agreement ("ONFA"), measured against the forecast impact reflected in the revenue requirement approved by the OEB.[71]

No entries were recorded in the account in 2020 or 2021 as the forecasts underpinning the nuclear revenue requirements approved in EB-2016-0152 reflected the nuclear liabilities' impact arising from the 2017-2021 ONFA reference plan effective January 1, 2017 ("2017 ONFA Reference Plan") and its attendant segregated funds contribution schedule ("2017 ONFA Contribution Schedule") approved by the Province. The nuclear revenue requirements approved in EB-2020-0290 also reflected the 2017 ONFA Reference Plan, which was the most recent approved ONFA reference plan at the time of the proceeding.

As required by the ONFA, ONFA reference plans are updated at least once every five years. Subsequent to the EB-2020-0290 proceeding, the Province approved the 2022-2026 ONFA reference plan effective January 1, 2022 ("2022 ONFA Reference Plan") and its attendant contribution schedule ("2022 ONFA Contribution Schedule"). The debit entry of $188.3M to the account in 2022 represents the revenue requirement impact on the prescribed facilities related to changes in the nuclear liabilities arising from this current approved ONFA reference plan. It was determined using the OEB-approved methodology for recovery of OPG's nuclear liabilities as reflected in EB-2020-0290 and prior proceedings. The derivation of these additions is shown at Ex. H1-1-1, Table 18. The OEB-approved methodology for recovery of OPG's nuclear liabilities is described in detail in Ex. C2-1-1, section 4.0. A copy of the letter from the Province approving the 2022 ONFA Reference Plan is provided in Attachment 6, and the 2022 ONFA Contribution Schedule is provided in Attachment 7.

[71] O. Reg. 53/05 also specifies that the balance recorded in the account is to be recovered on a straight-line basis over a period not to exceed three years (subsection 6(2)).

The revenue requirement impact of the 2022 ONFA Reference Plan reflects the accounting impact of the change in the nuclear liabilities on the asset retirement obligation ("ARO") and asset retirement costs ("ARC") for the prescribed facilities recognized in OPG's financial statements at the end of 2021, as well as changes in the station-level segregated fund contributions from the 2022 ONFA Contribution Schedule based on the 2022 ONFA Reference Plan. OPG recorded an increase of $272.6M in the ARO and associated ARC for the prescribed facilities as of year-end 2021 to reflect the 2022 ONFA Reference Plan. The increase in the accounting liabilities was primarily driven by updated station decommissioning estimates and the net impact of a new conceptual long-term disposal strategy for low and intermediate level waste (L&ILW) as a result of the cancellation of the previously planned deep geologic repository in Kincardine, Ontario. The details of the year-end 2021 ARO/ARC adjustment are provided in Ex. H1-1-1, Table 18a.

The revenue requirement impact recorded in the account for 2022 primarily arises from the following:

- Higher ARC depreciation for the prescribed facilities as a result of the increase in the ARC balance;
- Higher return on rate base for the prescribed facilities due to the increase in the ARC balance, calculated using the weighted average accretion rate of 4.89% as per the EB-2020-0290 PAO;[72]
- Higher L&ILW variable expenses for the prescribed facilities due to higher per cubic metre cost rates, primarily reflecting the impact on these costs of a new conceptual long-term disposal strategy for L&ILW as a result of the cancellation of the previously planned deep geologic repository in Kincardine, Ontario; and
- Regulatory income tax impact arising in connection with the recovery of the above three items and a reduction in segregated fund contributions for the prescribed facilities under the 2022 ONFA Contribution Schedule.

[72] EB-2020-0290 PAO, Appendix E, p. 15.

Additionally, the nuclear revenue requirements approved in EB-2020-0290 did not reflect the extension of the accounting station end-of-life ("EOL") date for Pickering Units 1 and 4 to December 31, 2024, effective December 31, 2020. While this extension was anticipated at the time OPG's payment amounts application was filed, the final year-end 2020 information required to calculate the resulting impacts on the ARO/ARC balances was not available and therefore OPG's underlying business plan did not include them.[73] This change was also not anticipated in the 2017 ONFA Reference Plan. The EB-2020-0290 PAO authorized the Impact Resulting from Optimization of Pickering Station End-of-Life Dates Deferral Account to record the revenue requirement impacts for the prescribed facilities arising from this and any other changes to nuclear liabilities and depreciation and amortization expense resulting from changes to the Pickering station EOL dates, effective January 1, 2021.[74] As discussed in Section 5.24 below, this account recorded such impacts resulting during 2021 from the year-end 2020 extension to the station EOL date for Pickering Units 1 and 4 to December 31, 2024 and associated adjustments to the ARO/ARC balances. As the 2022 ONFA Reference Plan incorporates this new station EOL date for Pickering Units 1 and 4, in accordance with O. Reg. 53/05, the nuclear liabilities' impact arising from the year-end 2020 ARO/ARC adjustment is recorded in the Nuclear Liability Deferral Account, rather than the Impact Resulting from Optimization of Pickering Station End-of-Life Dates Deferral Account, beginning in 2022.[75] The derivation of this impact for 2022 is discussed in Section 5.23 below.

No interest was recorded on the balance of the account in 2020, 2021 or 2022 pursuant to the EB-2016-0152 PAO and the EB-2020-0290 PAO.

5.15 Nuclear Development Variance Account

The Nuclear Development Variance Account ("NDVA") was originally approved in EB-2007-0905 in accordance with Section 5.4 of O. Reg. 53/05 and has been approved in all subsequent OPG applications. Following an amendment to O. Reg. 53/05 in November 2021, this account

[73] EB-2020-0290, Ex. F4-1-1, p. 10, lines 1-17.
[74] The revenue requirement impact of changes in nuclear liabilities not reflected in the current approved ONFA reference plan is ineligible to be recorded in the Nuclear Liability Deferral Account until such time as it is so reflected.
[75] As discussed in Section 5.23 below, the non-ARC revenue requirement impact continues to be recorded in the Impact Resulting from Optimization of Pickering Station End of Life Deferral Account in 2022 onwards.

records differences between the revenue requirement impacts arising from the actual non-capital costs and capital costs incurred and firm financial commitments made for proposed new nuclear generation facilities, including but not limited to the costs of planning, preparation, and technology identification for the new facilities, as well as design, development and construction of the new facilities.[76] Prior to the amendment, the stated scope of the account was for non-capital costs and firm financial commitments made in the course of planning and preparation for proposed new nuclear generation facilities.

The EB-2016-0152 and EB-2020-0290 revenue requirements included forecasted non-capital costs to preserve the option to build new nuclear generation at the Darlington new nuclear site, for which OPG has an approved environmental assessment and has held a CNSC Licence to Prepare Site since 2012. In EB-2020-0290, OPG also identified forecasted non-capital preliminary planning and preparation costs in 2020 and 2021 for a new on-grid small modular reactor facility ("SMR") at the Darlington new nuclear site ("Darlington SMR"), to be recorded in the NDVA.[77] This included costs for technology developer selection with the objective of arriving at the selection decision by the end of 2021. In the EB-2020-0290 Decision and Order, the OEB found that these costs were appropriate to be recorded in the NDVA.[78]

Over the 2020-2022 period, OPG recorded debit additions of $105.2M to the account in relation to non-capital preliminary planning and preparation costs for a Darlington SMR, reflecting the planned activities identified in EB-2020-0290.[79] A summary of the actual costs incurred in 2020, 2021 and 2022 is presented in Chart 4 below and the derivation of the account additions is shown in Ex. H1-1-1, Table 20.

[76] O. Reg. 53/05 also specifies that the balance recorded in the account is to be recovered on a straight-line basis over a period not to exceed three years (subsection 6(2)).
[77] EB-2020-0290, Ex. F2-8-1; activities are consistent with the shareholder's concurrence letter on OPG's 2020-2026 Business Plan (EB-2020-0290, Ex. L-A2-02-CCC-014, Attachment 1).
[78] EB-2020-0290 Decision, pp. 8-10.
[79] As noted in EB-2020-0290, Ex. F2-8-1, note 3, OPG also incurred total costs of $0.7M in 2018 and 2019 related to preliminary planning and preparation activities for a Darlington SMR that were recorded in the NDVA. The clearance of this amount was deferred in that proceeding and is included in the amounts sought for recovery in this application.

Chart 4

Non-Capital Preliminary Planning and Preparation Expenditures for Darlington SMR

Description ($M)	2020	2021	2022
Developer Technology Design and Planning	2.5	54.5	2.1
OPG Project Management and Engineering Oversight	4.9	21.2	0.4
Licencing	5.7	8.5	0
OPG Site-Specific and Other Activities	0.0	11.3	(0.1)
Total	**13.1**	**95.4**	**2.4**

The majority of the costs incurred during the period related to selecting an appropriate technology for the Darlington SMR. OPG's key objectives for this process were:

(i) ensuring compatibility with the existing environmental parameters as outlined within the CNSC's Licence to Prepare Site for the Darlington new nuclear site,

(ii) ensuring readiness for submission of the License to Construct application to the CNSC, and

(iii) targeting an in-service date for the first unit by the end of 2028.

Beyond these key objectives, OPG's evaluation process was focused on selecting a technology deployment partnership that would deliver overall value to the province.

During 2020, activities focused on conducting a technology down-selection process to narrow down the pool of potential technology partners, followed by the commencement of a further due diligence assessment toward a final technology selection using a process endorsed by OPG's Board of Directors and overseen by a protocol monitor. Once completed in 2020, the down-selection process reduced the number of SMR technologies under consideration from seven to three.

In 2021, activities with the three down-selected technologies significantly increased, reflecting extensive planning and evaluation that was required to establish requirements and conduct an in-depth examination across 11 key assessment areas with a view to identify developer-

specific benefits, risks, and potential mitigating actions. Based on the three potential technologies, this included progressing design efforts of the nuclear power plant, conducting preliminary safety analysis, developing project business cases, advancing modularization and construction strategies, developing the supplier strategy and economic benefits analysis, enhancing project quality programs, identifying site preparation requirements, assessing waste management and developing a nuclear fuel strategy. In addition to internal labour costs for project management, engineering oversight and related support services, technology selection costs included funding for developers to produce the necessary information and support development of their respective designs, site specific requirements, project deployment models, preliminary cost and schedule estimates, and initial commercial terms, in order to facilitate final selection within the targeted timeline in 2021.

Analyses of each of the key assessment areas were conducted by independent assessment teams and subsequently an internal senior leadership team. The results of the assessments were reviewed by OPG's senior executive team, and ultimately presented to OPG's Board of Directors and the Province. Based on the results of the process and as approved by OPG's Board of Directors, in December 2021 OPG announced that it had selected GE Hitachi Nuclear Energy's SMR design, BWRX-300, to move forward with the Darlington New Nuclear Project ("DNNP"). In 2022, the DNNP transitioned to the first phase of a capital project, increasing its efforts and focus on the BWRX-300 design to enable construction in 2028-2029 timeline.[80]

Throughout 2020 and 2021, OPG also advanced CNSC licensing efforts, including submission and hearing support for an application to renew the existing Licence to Prepare Site and, given the significant effort involved, licensing plans and document preparation for a Preliminary Safety Assessment Report and Licence to Construct application. The CNSC renewed OPG's Licence to Prepare Site for a further ten years in October 2021 and, in 2022, OPG submitted the Licence to Construct application. Other project planning activities included: geotechnical surveys, work scope definition and other site preparation readiness, endangered species and other permitting, project governance planning, information technology system planning, and initiating preliminary design for technology-agnostic scope.

[80] Non-capital expenditures in 2022 related primarily to final invoicing and closing out of technology selection costs.

5.16 Bruce Lease Net Revenues Variance Account

The Bruce Lease Net Revenues Variance Account was originally approved in EB-2007-0905 to ensure that the actual difference between OPG's revenues and costs for the Bruce facilities is ultimately reflected in the payment amounts and riders and that OPG recovers its actual costs associated with the Bruce facilities. The account has been approved in all subsequent OPG applications.[81]

This account records differences between (i) the quotient of the annual forecast amount of Bruce lease net revenues reflected in the OEB-approved nuclear revenue requirement and the OEB approved nuclear production forecast ("rate of recovery") for the corresponding year multiplied by OPG's actual nuclear production for the year, and (ii) OPG's actual revenues and costs in respect of the Bruce facilities. This includes the cost impact of any changes in OPG's liabilities for decommissioning the Bruce nuclear generating facilities and the management of nuclear waste and nuclear fuel related to the Bruce stations.

Pursuant to the EB-2016-0152 PAO, rates of recovery of ($0.537)/MWh and ($1.141)/MWh were used to calculate entries to the account for 2020 and 2021, respectively.[82] Pursuant to the EB-2020-0290 PAO, a rate of recovery of ($1.36)/MWh was used to calculate entries to the account for 2022.[83] The derivation of the 2020 credit entry of $11.6M, the 2021 debit entry of $23.6M and the 2022 credit entry of $14.9M to the account is shown in Ex. H1-1-1, Table 11. A comparison of Bruce revenues net of costs is provided in Ex. H1-1-1, Table 11a.

Bruce revenues net of costs for 2020 were higher than the forecasts underpinning the nuclear revenue requirement approved in EB-2016-0152, primarily due to higher earnings from the nuclear segregated funds, lower used fuel expenses and lower interest expense attributed to the Bruce assets, partially offset by higher ARO accretion expense. Higher earnings from the segregated funds were mainly due to lower fund disbursements and a higher portion of the

[81] Prior to January 1, 2022, the account was comprised of the Derivative Sub-Account and the Non-Derivative Sub-Account. Pursuant to the EB-2020-0290 PAO, the Non-Derivative Sub-Account has been terminated effective January 1, 2022. There were no additions to the Derivative Sub-Account in 2020 or 2021.
[82] EB-2016-0152 PAO, Appendix G, p. 16.
[83] EB-2020-0290 PAO, Appendix E, p. 17.

earnings attributable to the Bruce facilities. Used fuel expenses were lower mainly due to a lower than forecasted volume of spent fuel bundles received from Bruce Power L.P. ("Bruce Power"). The lower interest expense was mainly due to a lower than budgeted allocation factor applied to OPG's corporate-wide interest expense to determine the portion attributable to the Bruce assets, based on the ratio of the net book value of the Bruce fixed assets relative to OPG's total fixed assets. The higher ARO accretion expense was primarily due to the impact of the year-end 2017 ARO adjustment related to changes in the Pickering station EOL dates for accounting purposes and lower expenditures against the ARO.

Bruce revenues net of costs for 2021 were lower than the forecasts underpinning the nuclear revenue requirement approved in EB-2016-0152, with higher used fuel expenses being the largest driver. The increase in used fuel expenses mainly reflected the impact of the year-end 2020 ARO adjustment related to changes in the station EOL dates for Pickering Units 1 and 4 for accounting purposes, which resulted in an increase in the per fuel bundle cost rates used to determine these expenses, due to a lower discount rate of 2.01% (compared to 3.20%[84] used to forecast these costs in EB-2016-0152).[85] A higher than forecast ARO accretion expense also contributed to the lower than forecast Bruce revenues net of costs, for the same reasons as in 2020. Additionally, OPG incurred a cost in 2021 as part of a settlement reached with British Energy Limited and British Energy International Holdings Limited (together, "British Energy"), as an initial owner of Bruce Power, regarding their claim of contribution and indemnity from OPG for amounts British Energy was found liable for in an arbitration commenced against it by purchasers of British Energy's interest in Bruce Power. The action and arbitration pertained to corrosion of a steam generator unit, discovered after OPG leased the Bruce nuclear generating stations to Bruce Power. These factors were partially offset by higher services revenue, mainly due to revenues received as an upfront fee for managing non-routine wastes (e.g., steam generators and reactor pressure tubes) generated during the Bruce Unit

[84] EB-2020-0290, Ex. C2-1-1, p. 7, note 4.
[85] As discussed in Ex. EB-2020-0290, Ex. C2-1-1, Section 3.1, used fuel and L&ILW variable expenses represent incremental committed costs for the nuclear liabilities that arise as quantities of spent fuel and L&ILW are produced over time and are added to the ARO. Like other component of the ARO, these costs are expressed in present value terms. In accordance with US GAAP, they are calculated using a credit-adjusted risk-free rate as of the date of the latest ARO adjustment.

6 Major Component Replacement, and a lower interest expense for the same reasons as in 2020.

Bruce revenues net of costs for 2022 were higher than the forecasts underpinning the nuclear revenue requirement approved in EB-2020-0290, primarily due to lower depreciation and ARO accretion expenses combined with higher earnings from the nuclear segregated funds, partially offset by higher used fuel variable fuel expenses and lower services revenue. Depreciation and accretion expenses were lower mainly due to the accounting impact of the 2022 ONFA Reference Plan that resulted in a decrease of $599.9M in the ARO and associated ARC for the Bruce facilities as of year-end 2021, while higher earnings from the segregated funds reflected an adjustment to the accounting value of the funds to reflect the change in funding liabilities as a result of the 2022 ONFA Reference Plan. Higher used fuel variable expenses mainly reflected an increase in the per fuel bundle cost rates used to determine these expenses, due to a lower discount rate of 2.45% applied following the year-end 2021 ARO adjustment (compared to 2.94%[86] used to forecast these costs in EB-2020-0290). Lower services revenue was mainly due to lower waste volumes received from Bruce Power, and a retrospective true-up of the volumetric fees received from Bruce Power for managing such waste since the beginning of 2016 in accordance with the existing agreement, based on the 2022 ONFA Reference Plan cost estimates, recognized in 2022. The decrease in the ARO and associated ARC was primarily driven by lower cost estimates for used fuel disposal accounting liabilities and the net impact of a new conceptual long-term disposal strategy for L&ILW as a result of the cancellation of the previously planned deep geologic repository in Kincardine, Ontario. The details of the year-end 2021 ARO/ARC adjustment are provided in Ex. H1-1-1, Table 18a.

5.17 Nuclear Deferral and Variance Over/Under Recovery Variance Account

The Nuclear Deferral and Variance Over/Under Recovery Variance Account was originally approved in EB-2009-0174 and has been approved in all subsequent OPG applications. This account records the differences between the amounts approved for recovery in the nuclear deferral and variance accounts and the actual amounts recovered based on the actual nuclear

[86] EB-2020-0290, Ex. C2-1-1, sections 4.1.2 and 4.2.2.

production and approved riders. Pursuant to OEB's orders, the account also captures the transfer of the nuclear portions of the balances remaining in other accounts as they expire from time to time.

The derivation of the $27.9M, $25.8M and $1.9M credit additions to the account for 2020, 2021 and 2022, respectively, is shown in Ex. H1-1-1, Table 12. Additionally, the remaining credit balance of $2.4M from the Derivative Sub-Account of the Bruce Lease Net Revenue Variance Account, which was terminated effective January 1, 2022,[87] and its subsequent amortization were transferred to the Nuclear Deferral and Variance Over/Under Recovery Variance Account.[88] There were no other transfers from expiring accounts in 2020, 2021 or 2022.

5.18 Rate Smoothing Deferral Account

The Rate Smoothing Deferral Account was established in accordance with section 5.5 of O. Reg. 53/05 and approved in EB-2016-0152. The account records the difference between: (i) the total annual nuclear revenue requirement approved by the OEB; and, (ii) the portion of that revenue requirement in (i) that is used in connection with setting the nuclear payment amounts in each year ("the annual deferral amount"). According to O. Reg. 53/05, an annual deferral amount as determined by the OEB is recorded in the account from January 1, 2017 until the DRP ends (the "deferral period"). The regulation stipulates that the OEB shall ensure that OPG recovers the balance recorded in the account and shall authorize recovery of the account balance on a straight-line basis over a period not to exceed ten years commencing at the end of the deferral period. The regulation also stipulates that the deferral account shall record interest on the balance of the account at a long-term debt rate reflecting OPG's cost of long-term borrowing, as approved by the OEB, compounded annually. As the deferral period has not yet ended, OPG does not propose to clear the account balance in this application.

5.19 Fitness for Duty Deferral Account

The Fitness for Duty Deferral Account was approved by the OEB in EB-2016-0152 and continued in EB-2020-0290. The account records costs to implement the CNSC Fitness for

[87] EB-2020-0290 PAO, Appendix E, p. 17.
[88] For purposes of account balance continuity, the transfer is shown in Ex. H1-1-1, Table 1b as of year-end 2021.

Duty program, which is a drug, alcohol, psychological and physical testing program for employees in nuclear facilities. The total December 31, 2022 debit balance in the account is $1.6M.[89]

OPG has implemented programmatic changes to comply with certain requirements as set out in the CNSC's regulatory document *REGDOC 2.2.4 – Fitness for Duty, Vol. II: Managing Alcohol and Drug Use (version 3)* ("REGDOC 2.2.4") issued in November 2020 with an effective date of January 22, 2021. However, the implementation of requirements related to pre-placement and random alcohol and drug testing is currently stayed, pending the outcome of the labour unions' appeal of the Federal Court's decision which endorsed these requirements for Safety-Critical Workers at high-security nuclear facilities.

Given the ongoing legal challenges, OPG proposes to defer the clearance of the balance in the account to a future application, which would allow an assessment of the costs to be undertaken after the legal challenges have been resolved.[90]

5.20 SR&ED ITC Variance Account

The SR&ED ITC Variance Account was approved in EB-2016-0152 and continued in EB-2020-0290. The account records the difference between actual SR&ED ITCs attributed to the nuclear facilities as determined after any tax audits and the forecast SR&ED ITCs included in the nuclear revenue requirement approved by the OEB, including the tax on the difference.[91]

Actual SR&ED ITCs net of tax attributed to the nuclear facilities recorded in 2020 and 2021, inclusive of immediately preceding year's true-up adjustments based on income tax return completion, were lower than the forecast amounts reflected in the corresponding revenue requirements approved in EB-2016-0152. Actual SR&ED ITCs net of tax recorded in 2022, inclusive of immediately preceding year's true-up adjustment based on income tax return

[89] Ex. H1-1-1, Table 1, col. (d), line 40.
[90] For similar reasons, OPG did not seek clearance of the Fitness for Duty Deferral Account balance in EB-2020-0290 and EB-2018-0243.
[91] The impact of tax audit resolution related to SRE&ED ITCs for taxation years prior to 2017 (and for 2017, as pro-rated for the period prior to the effective date of the SR&ED ITC Variance Account of June 1, 2017), attributed to the nuclear facilities, is recorded in the Income and Other Taxes Variance Account.

completion, were higher than the forecast amount reflected in the corresponding revenue requirement approved in EB-2020-0290. The derivation of the resulting debit additions of $4.6M and $2.9M in 2020 and 2021, and the credit addition of $7.7M in 2022 is shown in Ex. H1-1-1, Table 14.

5.21 Impact Resulting from Changes to Pickering Station End-of-Life Dates (December 31, 2017) Deferral Account

The Impact Resulting from Changes to Pickering Station End-of-Life Dates (December 31, 2017) Deferral Account was approved in EB-2018-0002 and continued in EB-2020-0290. Effective January 1, 2018, this account recorded the revenue requirement impact for the prescribed facilities arising from changes to nuclear liabilities and depreciation and amortization expense resulting from the Pickering station EOL date changes that came into effect on December 31, 2017. These changes extended the accounting station EOL dates for Pickering Units 1 and 4 to December 31, 2022 and for Pickering Units 5-8 to December 31, 2024 from the previous dates of December 31, 2020. Pursuant to the EB-2020-0290 PAO, additions to this account ceased to be recorded effective January 1, 2022, as the impact arising from these EOL date changes was reflected in the revenue requirements approved in that proceeding.[92] The changes to the Pickering station EOL dates are discussed in detail in EB-2020-0290, Ex. F4-2-1, Section 3.3.

The derivation of the $157.1M credit entry in 2020 and the $263.5M debit entry in 2021 is shown in Ex. H1-1-1, Table 13. These entries were calculated in the manner detailed by OPG in EB-2018-0002 and applied in EB-2020-0290 and are very close to the projection of these entries identified in those proceedings.[93] The impacts recorded in the account were determined by applying the revised Pickering station EOL dates that came into effect on December 31, 2017 to recalculate the corresponding OEB-approved values (such as depreciation and amortization expense) reflected in the EB-2016-0152 revenue requirement, holding other variables constant (such as capital in-service amounts). Together with the 2018 and 2019

[92] EB-2020-0290 PAO, Appendix E, p, 18.
[93] EB-2018-0002, OPG's response to Board Staff Interrogatory #1, Attachment 1, Table 1 projected a credit entry of $156.7M in 2020 and a debit entry of $264.1M in 2021. EB-2020-0290, Ex. H1-1-1, Table 13 projected a credit entry of $157.1M for 2020 and a debit entry of $263.6M in 2021.

account additions approved for disposition in EB-2020-0290, the entries over the period combine to a net credit amount of approximately $140M.

The entries in 2020 and 2021 comprise debit additions for revenue requirement impacts arising from changes to nuclear liabilities of $24.2M for 2020 and $109.6M for 2021, and additions from changes to non-ARC depreciation and amortization expense of $181.4M (credit) for 2020 and $154.0M (debit) for 2021. The nuclear liabilities' impact reflects the increase in the ARO and associated ARC balances of $143.7M for the prescribed facilities recorded at year-end 2017 to reflect the changes in the Pickering station EOL dates, primarily due to the increase in committed costs associated with used fuel disposal activities resulting from the station's extended operating period and resulting additional used fuel.[94] The year-end 2017 nuclear liabilities adjustment is described in further detail in EB-2020-0290, Ex. C2-1-1, Section 6.0.

No interest was recorded on the balance of the account in 2020, 2021 or 2022 pursuant to the EB-2018-0002 Decision and Order and the EB-2020-0290 PAO.

5.22 Pickering Closure Costs Deferral Account

The Pickering Closure Costs Deferral Account was established in accordance with section 5.6 of O. Reg. 53/05. Effective January 1, 2021, this account records any employment-related costs and non-capital costs related to third party service providers incurred by OPG that arise from any Pickering closure activities. The regulation specifies that Pickering closure costs can be incurred before or after the closure of a Pickering unit, but does not include costs that are eligible for reimbursement to OPG under the ONFA.

The account has a debit balance of $2.8M as of December 31, 2022.[95] OPG proposes to defer the clearance of the balance to a future application, which would allow these costs to be considered after the Pickering closure activities have further advanced.

[94] EB-2020-0290, Ex. C2-1-1, Table 4.
[95] Ex. H1-1-1, Table 1, col. (d), line 45.

5.23 Impact Resulting from Optimization of Pickering Station End-of-Life Dates Deferral Account

The Impact Resulting from Optimization of Pickering Station End-of-Life Dates Deferral Account was approved in EB-2020-0290. Effective January 1, 2021, this account records the revenue requirement impact for the prescribed facilities arising from changes to nuclear liabilities and depreciation and amortization expense resulting from changes to the Pickering station EOL dates. Account additions in 2021 and 2022 represent such impacts of extending the accounting station EOL date for Pickering Units 1 and 4 from December 31, 2022 to December 31, 2024, which was implemented as of year-end 2020. This change was not anticipated in the EB-2016-0152 revenue requirements. It also was not reflected in the EB-2020-0290 revenue requirements for the reasons discussed under Section 5.14 above.

The derivation of the $1.0M debit entry in 2021 and $45.9M credit entry in 2022 is shown in Ex. H1-1-1, Table 19. These entries were calculated in the manner set out by OPG in EB-2020-0290 and are very close to the projection of these entries identified in that proceeding.[96] The impacts recorded in the account are determined by applying the revised Pickering station EOL dates that came into effect on December 31, 2020 to recalculate the corresponding OEB-approved values (such as depreciation and amortization expense) reflected in the EB-2020-0290 revenue requirement, holding other variables constant (such as capital in-service amounts).

The entry in 2021 comprises debit additions of $25.6M for revenue requirement impacts arising from changes to nuclear liabilities and credit additions of $24.6M from changes to non-ARC depreciation and amortization expense. The nuclear liabilities' impact reflects the increase in the ARO and associated ARC balances of $51.1M for the prescribed facilities recorded at year-end 2020 to reflect the changes in the Pickering station EOL dates, as well as higher used fuel variable expenses due to an increase in the per bundle cost rates reflecting a lower discount

[96] OPG's responses to interrogatories in EB-2020-0290, which were completed after OPG had finalized the year-end 2020 financial information required to calculate the ARO/ARC impacts, projected a comparable debit entry of $1.0M for 2021 (EB-2020-0290, Ex. L-H1-01-Staff-337, Attachment 1, Table 1, line 19, col. (a)) and a comparable debit entry of $45.8M for 2022 (EB-2020-0290, Ex. L-F4-01-Staff-271, Attachment 1, Table 2, line 18, col. (a)).

rate of 2.01% (compared to 3.20% used to forecast these costs in EB-2016-0152).[97] The entry in 2022 comprises credit additions of $45.9M for revenue requirement impacts from changes to non-ARC depreciation and amortization expense. As discussed under Section 5.14 above, for 2022, debit additions of $24.0M related to the nuclear liabilities' impact were recorded in the Nuclear Liability Deferral Account, rather than the Optimization of Pickering Station's End-of-Life Deferral Account, in accordance with O. Reg. 53/05. The derivation of these nuclear liabilities impacts is included in Ex. H1-1-1, Table 19. The details of the year-end 2020 ARO/ARC adjustment are provided in Ex. H1-1-1 Table 18a.

In calculating the above impacts, OPG applied the same methodologies used to make entries to the Impact Resulting from Changes to Pickering Station End-of-Life Dates (December 31, 2017) Deferral Account and a similar deferral account previously authorized in EB-2015-0374.[98]

No interest was recorded on the balance of the account in 2021 or 2022 pursuant to the EB-2020-0290 PAO.[99]

5.24 Clarington Corporate Campus Deferral Account

The Clarington Corporate Campus Deferral Account was approved in EB-2020-0290, effective January 1, 2022, to record, for the nuclear facilities, the revenue requirement impacts of OPG's capital expenditures and operating costs for its previously planned Clarington Corporate Campus. No entries were recorded in this account for 2022.

5.25 Sale of Unprescribed Kipling Site Deferral Account

The Sale of Unprescribed Kipling Site Deferral Account was established in EB-2020-0290, effective January 1, 2022, to track 23% of the net proceeds arising from any sale of OPG's unprescribed site located at 800 Kipling Avenue (the "Kipling Site") in Toronto during the 2022-

[97] See notes 82 and 83 in Section 5.16.
[98] The Impact Resulting from Changes in Station End-of-life Dates (December 31, 2015) Deferral Account recorded the revenue requirement for the prescribed facilities arising from changes to nuclear liabilities and depreciation and amortization expense resulting from changes to the nuclear station accounting EOL dates implemented effective December 31, 2015, for the period from January 1, 2016 to May 31, 2017.
[99] EB-2020-0290 PAO, Appendix F, p. 2.

2026 period.[100] The account was established as part of the Settlement Agreement, which provided in connection with any amounts tracked in the account that "[t]he recording of this amount is without prejudice to any position a Party may take as to whether any portion of this amount should be returned to ratepayers at the time of the account's disposition."[101]

In 2022, OPG sold the Kipling Site, receiving overall net proceeds of $196.1M. OPG received $161.8M in partial net proceeds in 2022, resulting in $37.2M being tracked in this tracking account as at December 31, 2022. The after-tax gain on the sale recognized by OPG in 2022 was $110.1M, 23% of which equates to $25.3M. The gain represents the excess of the net proceeds received over the difference between the net book value of the Kipling Site assets of $34.6M and the related asset retirement and environmental liabilities and other balances of $11.1M carried on OPG's balance sheet in connection with the property. The remaining net proceeds of $34.3M were received in 2023, with a corresponding additional after-tax gain on sale of $21.5M recognized at that time. At 23% of these amounts, this equates to $7.9M of additional net proceeds and $5.0M of after-tax gain in 2023. Pursuant to the EB-2020-0290 PAO, no interest is recorded on the balance of the account.[102]

OPG does not propose to clear this tracking account, as OPG's position is that the net proceeds and net gain on the sale of this unregulated property should accrue entirely to OPG. The Kipling Site was not a prescribed facility under O. Reg. 53/05 and, accordingly, has never been included in OPG's rate base. Prior to the sale, the Kipling Site primarily supported OPG's unregulated business and was reported as an unregulated asset in OPG's financial statements. To the extent that OPG has historically used a portion of the Kipling Site to support the company's regulated operations, the revenue requirements have included asset service fees, as an ongoing OM&A expense akin to lease payments, charging the regulated operations for such use.[103] Additionally, ratepayers have not been previously charged for costs related to

[100] The 23% represents the portion of the site attributable to the use by OPG's regulated assets (EB-2020-0290 PAO, Appendix F, p. 6).
[101] EB-2020-0290 Decision, Schedule A, Ex. 0, p. 30.
[102] EB-2020-0290 PAO, Appendix F, p. 6.
[103] EB-2020-0290, Ex. F3-2-1, pp. 2-3. Such asset services fees have been included as an OM&A expense in OPG's revenue requirements since EB-2007-0905.

the asset retirement and environmental liabilities carried on OPG's balance sheet in connection with the Kipling Site.[104]

5.26 Earnings Sharing Deferral Account

The Earnings Sharing Deferral Account was approved in EB-2020-0290, effective January 1, 2022, to record 50% of any regulated earnings for OPG's combined nuclear and regulated hydroelectric business that exceed 100 basis points above the OEB-approved ROE rate, assessed over a cumulative 5-year period from January 1, 2022 to December 31, 2026. No entries will be recorded in this account until following the completion of the above five-year period, if applicable.

5.27 Impact of IFRS Deferral Account

The Impact for IFRS Deferral Account was approved in EB-2020-0290, effective January 1, 2022, to record financial impacts of transition to and implementation of International Financial Reporting Standard ("IFRS") from US GAAP in the event that OPG adopts IFRS for financial reporting purposes to meet the requirements of the *Securities Act* (Ontario). No entries were recorded in this account in 2022 as OPG has continued to apply US GAAP to report its consolidated financial statements. Pursuant to the EB-2020-0290 PAO, no interest is to be recorded on the balance of the account.

6.0 INTEREST

OPG recorded interest on all deferral and variance accounts unless specified otherwise in the account descriptions above. For these accounts, OPG applied interest to the monthly opening balances of these accounts at the interest rate set by the OEB from time to time pursuant to its interest policy for deferral and variance accounts, unless specified otherwise in the account descriptions above.

[104] EB-2020-0290, Ex. L-F3-02-Staff-264, p. 2.

ATTACHMENTS

Attachment 1:	Independent Auditors' Report prepared by Ernst & Young LLP Chartered Professional Accountants
Attachment 2:	Schedule of Regulatory Balances as at December 31, 2022
Attachment 3:	Reasons for Economic Loss when Cycling Sir Adam Beck Pump Generating Station
Attachment 4:	Regulated Hydroelectric Projects – Capacity Refurbishment Variance Account
Attachment 5:	Aon's Report on the Accounting Cost for Post Employment Benefit Plans for Fiscal Years 2020, 2021 and 2022
Attachment 6:	Letter Regarding 2022 Ontario Nuclear Funds Agreement Reference Plan
Attachment 7:	2022 Ontario Nuclear Funds Agreement Contribution Schedule

REASONS FOR ECONOMIC LOSS WHEN CYCLING SIR ADAM BECK PUMP GENERATING STATION

Cycling the Sir Adam Beck Pump Generating Station ("PGS") would result in an economic loss when:

- The forecasted market revenues from PGS generation in the next on-peak period would be insufficient to recover the costs of pumping in the current off-peak period; or
- Such forecasted revenues would not be realized based on a comparison to the cost of replacing water in the PGS reservoir in a subsequent period (i.e., the forecasted costs of pumping in the future off-peak period).

Assessing Opportunity to Recover Pumping Cost

When deciding if it is economic to pump the PGS in the current off-peak period, OPG evaluates its pumping costs against forecasted generation revenues from stored water in the next on-peak period. Forecasted generation revenues include PGS revenues and Sir Adam Beck Generating Station ("SAB") 1 and 2 revenues from the PGS water used at SAB 1 and 2. These revenues are considered net of applicable gross revenue charge ("GRC").

Costs associated with pumping are dependent on whether water pumped by the PGS would reduce water available to generate at SAB 1 and 2, and include:

- Load charges (energy charges, network service charge, others)
- Opportunity cost of SAB 1 and 2 forgone production while the PGS is pumping, if applicable

OPG would incur an economic loss when the forecasted revenues are lower than the pumping costs. In the table below, each hour when OPG recorded additions to the Hydroelectric Surplus Baseload Generation Variance Account and where OPG did not pump the PGS for these reasons is labelled as "Economic Loss due to inability to recover pumping costs."

Assessing Opportunity for Economic Generation

When deciding if it is economic to pump the PGS in the current off-peak period, OPG evaluates the value of generation in the next on-peak period and the likelihood of recovering replacement costs in a future pump cycle, in order to assess whether the forecasted revenues would be realized. This assessment is based on a comparison of forecasted generation revenues in that on-peak period, determined in the manner as set out above, compared to the forecasted costs associated with replacing that water in a subsequent off-peak period.

Costs associated with replacing the water used for generation at the PGS are based on the reduced water available to generate at SAB 1 and 2, and include:

- Load charges (energy charges, network service charge, others)
- Opportunity cost of SAB 1 and 2 forgone production while the PGS is pumping, if applicable.

OPG would incur an economic loss if it does not realize the generation revenues in the next on-peak period based on a comparison to the cost of replacing water in the PGS reservoir in a future period. In the table below, each hour when OPG recorded additions to the Hydroelectric Surplus Baseload Generation Variance Account and where OPG did not pump the PGS for these reasons is labelled as “Economic loss due to inability to economically generate.”

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/1/2018	14	Economic loss due to inability to recover pumping costs
1/3/2018	9	Economic loss due to inability to recover pumping costs
1/3/2018	10	Economic loss due to inability to recover pumping costs
1/3/2018	11	Economic loss due to inability to recover pumping costs
1/3/2018	12	Economic loss due to inability to recover pumping costs
1/3/2018	13	Economic loss due to inability to recover pumping costs
1/4/2018	7	Economic loss due to inability to recover pumping costs
1/4/2018	8	Economic loss due to inability to recover pumping costs
1/4/2018	9	Economic loss due to inability to recover pumping costs
1/4/2018	10	Economic loss due to inability to recover pumping costs
1/4/2018	11	Economic loss due to inability to recover pumping costs
1/4/2018	12	Economic loss due to inability to recover pumping costs
1/4/2018	13	Economic loss due to inability to recover pumping costs
1/4/2018	14	Economic loss due to inability to recover pumping costs
1/4/2018	15	Economic loss due to inability to recover pumping costs
1/4/2018	16	Economic loss due to inability to recover pumping costs
1/7/2018	9	Economic loss due to inability to recover pumping costs
1/7/2018	10	Economic loss due to inability to recover pumping costs
1/7/2018	11	Economic loss due to inability to recover pumping costs
1/7/2018	12	Economic loss due to inability to recover pumping costs
1/7/2018	13	Economic loss due to inability to recover pumping costs
1/7/2018	16	Economic loss due to inability to recover pumping costs
1/9/2018	7	Economic loss due to inability to recover pumping costs
1/9/2018	8	Economic loss due to inability to recover pumping costs
1/9/2018	11	Economic loss due to inability to recover pumping costs
1/9/2018	12	Economic loss due to inability to recover pumping costs
1/9/2018	13	Economic loss due to inability to recover pumping costs
1/9/2018	14	Economic loss due to inability to recover pumping costs
1/9/2018	15	Economic loss due to inability to recover pumping costs
1/17/2018	14	Economic loss due to inability to recover pumping costs
1/17/2018	16	Economic loss due to inability to recover pumping costs
1/17/2018	17	Economic loss due to inability to recover pumping costs
1/17/2018	18	Economic loss due to inability to recover pumping costs
1/18/2018	8	Economic loss due to inability to recover pumping costs
1/18/2018	9	Economic loss due to inability to recover pumping costs
1/18/2018	10	Economic loss due to inability to recover pumping costs
1/18/2018	11	Economic loss due to inability to recover pumping costs
1/18/2018	12	Economic loss due to inability to recover pumping costs
1/18/2018	13	Economic loss due to inability to recover pumping costs
1/18/2018	14	Economic loss due to inability to recover pumping costs
1/18/2018	15	Economic loss due to inability to recover pumping costs
1/18/2018	16	Economic loss due to inability to recover pumping costs
1/18/2018	17	Economic loss due to inability to recover pumping costs
1/21/2018	8	Economic loss due to inability to recover pumping costs
1/21/2018	9	Economic loss due to inability to recover pumping costs
1/21/2018	10	Economic loss due to inability to recover pumping costs
1/21/2018	11	Economic loss due to inability to recover pumping costs
1/21/2018	12	Economic loss due to inability to recover pumping costs
1/21/2018	13	Economic loss due to inability to recover pumping costs
1/21/2018	14	Economic loss due to inability to recover pumping costs
1/21/2018	17	Economic loss due to inability to recover pumping costs
1/21/2018	18	Economic loss due to inability to recover pumping costs
1/24/2018	1	Economic loss due to inability to economically generate
1/24/2018	2	Economic loss due to inability to economically generate
1/24/2018	3	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/24/2018	4	Economic loss due to inability to economically generate
1/24/2018	5	Economic loss due to inability to economically generate
1/24/2018	6	Economic loss due to inability to economically generate
1/24/2018	7	Economic loss due to inability to recover pumping costs
1/24/2018	8	Economic loss due to inability to recover pumping costs
1/24/2018	9	Economic loss due to inability to recover pumping costs
1/24/2018	10	Economic loss due to inability to recover pumping costs
1/24/2018	11	Economic loss due to inability to recover pumping costs
1/24/2018	12	Economic loss due to inability to recover pumping costs
1/24/2018	13	Economic loss due to inability to recover pumping costs
1/24/2018	14	Economic loss due to inability to recover pumping costs
1/24/2018	15	Economic loss due to inability to recover pumping costs
1/28/2018	2	Economic loss due to inability to economically generate
1/28/2018	3	Economic loss due to inability to economically generate
1/28/2018	4	Economic loss due to inability to economically generate
1/28/2018	5	Economic loss due to inability to economically generate
1/28/2018	6	Economic loss due to inability to economically generate
1/28/2018	7	Economic loss due to inability to economically generate
1/28/2018	8	Economic loss due to inability to economically generate
1/28/2018	9	Economic loss due to inability to economically generate
1/28/2018	10	Economic loss due to inability to economically generate
1/28/2018	11	Economic loss due to inability to economically generate
1/28/2018	12	Economic loss due to inability to economically generate
1/28/2018	13	Economic loss due to inability to economically generate
1/28/2018	14	Economic loss due to inability to economically generate
1/28/2018	15	Economic loss due to inability to economically generate
1/28/2018	16	Economic loss due to inability to economically generate
1/28/2018	17	Economic loss due to inability to recover pumping costs
1/28/2018	18	Economic loss due to inability to recover pumping costs
1/28/2018	19	Economic loss due to inability to recover pumping costs
1/28/2018	20	Economic loss due to inability to recover pumping costs
1/29/2018	7	Economic loss due to inability to recover pumping costs
1/29/2018	8	Economic loss due to inability to recover pumping costs
1/29/2018	9	Economic loss due to inability to recover pumping costs
1/29/2018	10	Economic loss due to inability to recover pumping costs
1/29/2018	13	Economic loss due to inability to recover pumping costs
1/29/2018	14	Economic loss due to inability to recover pumping costs
1/29/2018	15	Economic loss due to inability to recover pumping costs
1/29/2018	16	Economic loss due to inability to recover pumping costs
1/29/2018	21	Economic loss due to inability to recover pumping costs
1/30/2018	7	Economic loss due to inability to recover pumping costs
1/30/2018	8	Economic loss due to inability to recover pumping costs
1/30/2018	9	Economic loss due to inability to recover pumping costs
1/30/2018	10	Economic loss due to inability to recover pumping costs
1/30/2018	11	Economic loss due to inability to recover pumping costs
1/30/2018	12	Economic loss due to inability to recover pumping costs
2/1/2018	8	Economic loss due to inability to recover pumping costs
2/1/2018	9	Economic loss due to inability to recover pumping costs
2/1/2018	10	Economic loss due to inability to recover pumping costs
2/1/2018	11	Economic loss due to inability to recover pumping costs
2/1/2018	12	Economic loss due to inability to recover pumping costs
2/1/2018	13	Economic loss due to inability to recover pumping costs
2/1/2018	14	Economic loss due to inability to recover pumping costs
2/1/2018	15	Economic loss due to inability to recover pumping costs
2/1/2018	16	Economic loss due to inability to recover pumping costs
2/1/2018	17	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/1/2018	18	Economic loss due to inability to recover pumping costs
2/1/2018	19	Economic loss due to inability to recover pumping costs
2/1/2018	22	Economic loss due to inability to recover pumping costs
2/1/2018	23	Economic loss due to inability to recover pumping costs
2/2/2018	7	Economic loss due to inability to recover pumping costs
2/2/2018	8	Economic loss due to inability to recover pumping costs
2/2/2018	9	Economic loss due to inability to recover pumping costs
2/2/2018	10	Economic loss due to inability to recover pumping costs
2/3/2018	2	Economic loss due to inability to recover pumping costs
2/3/2018	5	Economic loss due to inability to recover pumping costs
2/3/2018	11	Economic loss due to inability to recover pumping costs
2/3/2018	12	Economic loss due to inability to recover pumping costs
2/3/2018	13	Economic loss due to inability to recover pumping costs
2/3/2018	14	Economic loss due to inability to recover pumping costs
2/3/2018	17	Economic loss due to inability to recover pumping costs
2/3/2018	18	Economic loss due to inability to recover pumping costs
2/3/2018	20	Economic loss due to inability to recover pumping costs
2/3/2018	21	Economic loss due to inability to recover pumping costs
2/5/2018	1	Economic loss due to inability to economically generate
2/5/2018	2	Economic loss due to inability to economically generate
2/5/2018	3	Economic loss due to inability to economically generate
2/5/2018	4	Economic loss due to inability to economically generate
2/5/2018	5	Economic loss due to inability to recover pumping costs
2/5/2018	6	Economic loss due to inability to recover pumping costs
2/5/2018	7	Economic loss due to inability to recover pumping costs
2/5/2018	8	Economic loss due to inability to recover pumping costs
2/5/2018	9	Economic loss due to inability to recover pumping costs
2/5/2018	10	Economic loss due to inability to recover pumping costs
2/5/2018	11	Economic loss due to inability to recover pumping costs
2/5/2018	12	Economic loss due to inability to recover pumping costs
2/5/2018	13	Economic loss due to inability to recover pumping costs
2/5/2018	14	Economic loss due to inability to recover pumping costs
2/5/2018	15	Economic loss due to inability to recover pumping costs
2/5/2018	16	Economic loss due to inability to recover pumping costs
2/5/2018	17	Economic loss due to inability to recover pumping costs
2/5/2018	18	Economic loss due to inability to recover pumping costs
2/5/2018	19	Economic loss due to inability to recover pumping costs
2/5/2018	20	Economic loss due to inability to recover pumping costs
2/5/2018	21	Economic loss due to inability to recover pumping costs
2/5/2018	22	Economic loss due to inability to recover pumping costs
2/5/2018	23	Economic loss due to inability to recover pumping costs
2/5/2018	24	Economic loss due to inability to recover pumping costs
2/7/2018	24	Economic loss due to inability to recover pumping costs
2/8/2018	13	Economic loss due to inability to recover pumping costs
2/8/2018	14	Economic loss due to inability to recover pumping costs
2/8/2018	15	Economic loss due to inability to recover pumping costs
2/8/2018	16	Economic loss due to inability to recover pumping costs
2/8/2018	17	Economic loss due to inability to recover pumping costs
2/8/2018	18	Economic loss due to inability to recover pumping costs
2/8/2018	19	Economic loss due to inability to recover pumping costs
2/8/2018	20	Economic loss due to inability to recover pumping costs
2/8/2018	21	Economic loss due to inability to recover pumping costs
2/8/2018	22	Economic loss due to inability to recover pumping costs
2/8/2018	23	Economic loss due to inability to recover pumping costs
2/10/2018	8	Economic loss due to inability to recover pumping costs
2/11/2018	9	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/11/2018	10	Economic loss due to inability to recover pumping costs
2/11/2018	11	Economic loss due to inability to recover pumping costs
2/11/2018	12	Economic loss due to inability to recover pumping costs
2/11/2018	13	Economic loss due to inability to recover pumping costs
2/11/2018	14	Economic loss due to inability to recover pumping costs
2/11/2018	15	Economic loss due to inability to recover pumping costs
2/11/2018	16	Economic loss due to inability to economically generate
2/11/2018	17	Economic loss due to inability to recover pumping costs
2/11/2018	18	Economic loss due to inability to recover pumping costs
2/11/2018	20	Economic loss due to inability to recover pumping costs
2/11/2018	22	Economic loss due to inability to economically generate
2/11/2018	23	Economic loss due to inability to economically generate
2/11/2018	24	Economic loss due to inability to economically generate
2/12/2018	3	Economic loss due to inability to economically generate
2/12/2018	4	Economic loss due to inability to economically generate
2/12/2018	5	Economic loss due to inability to recover pumping costs
2/12/2018	7	Economic loss due to inability to recover pumping costs
2/12/2018	8	Economic loss due to inability to recover pumping costs
2/12/2018	9	Economic loss due to inability to recover pumping costs
2/12/2018	14	Economic loss due to inability to recover pumping costs
2/12/2018	15	Economic loss due to inability to recover pumping costs
2/12/2018	16	Economic loss due to inability to recover pumping costs
2/12/2018	17	Economic loss due to inability to recover pumping costs
2/13/2018	3	Economic loss due to inability to recover pumping costs
2/13/2018	4	Economic loss due to inability to recover pumping costs
2/13/2018	5	Economic loss due to inability to recover pumping costs
2/13/2018	6	Economic loss due to inability to recover pumping costs
2/13/2018	7	Economic loss due to inability to recover pumping costs
2/13/2018	8	Economic loss due to inability to recover pumping costs
2/13/2018	10	Economic loss due to inability to recover pumping costs
2/15/2018	6	Economic loss due to inability to economically generate
2/15/2018	7	Economic loss due to inability to recover pumping costs
2/15/2018	8	Economic loss due to inability to recover pumping costs
2/15/2018	9	Economic loss due to inability to recover pumping costs
2/15/2018	10	Economic loss due to inability to recover pumping costs
2/15/2018	11	Economic loss due to inability to recover pumping costs
2/15/2018	12	Economic loss due to inability to recover pumping costs
2/15/2018	13	Economic loss due to inability to recover pumping costs
2/15/2018	14	Economic loss due to inability to recover pumping costs
2/15/2018	15	Economic loss due to inability to recover pumping costs
2/15/2018	16	Economic loss due to inability to recover pumping costs
2/15/2018	19	Economic loss due to inability to recover pumping costs
2/15/2018	20	Economic loss due to inability to recover pumping costs
2/15/2018	21	Economic loss due to inability to recover pumping costs
2/15/2018	22	Economic loss due to inability to recover pumping costs
2/17/2018	1	Economic loss due to inability to recover pumping costs
2/17/2018	7	Economic loss due to inability to recover pumping costs
2/17/2018	8	Economic loss due to inability to recover pumping costs
2/17/2018	9	Economic loss due to inability to recover pumping costs
2/17/2018	10	Economic loss due to inability to recover pumping costs
2/17/2018	11	Economic loss due to inability to recover pumping costs
2/22/2018	7	Economic loss due to inability to recover pumping costs
2/22/2018	8	Economic loss due to inability to recover pumping costs
2/22/2018	9	Economic loss due to inability to recover pumping costs
2/22/2018	10	Economic loss due to inability to recover pumping costs
2/22/2018	11	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/22/2018	12	Economic loss due to inability to recover pumping costs
2/22/2018	13	Economic loss due to inability to recover pumping costs
2/22/2018	14	Economic loss due to inability to recover pumping costs
2/22/2018	15	Economic loss due to inability to recover pumping costs
2/22/2018	16	Economic loss due to inability to recover pumping costs
2/22/2018	17	Economic loss due to inability to recover pumping costs
2/22/2018	18	Economic loss due to inability to recover pumping costs
2/22/2018	19	Economic loss due to inability to recover pumping costs
2/22/2018	20	Economic loss due to inability to recover pumping costs
2/22/2018	21	Economic loss due to inability to recover pumping costs
2/22/2018	23	Economic loss due to inability to recover pumping costs
3/6/2018	8	Economic loss due to inability to recover pumping costs
3/6/2018	9	Economic loss due to inability to recover pumping costs
3/6/2018	10	Economic loss due to inability to recover pumping costs
3/6/2018	11	Economic loss due to inability to recover pumping costs
3/6/2018	12	Economic loss due to inability to recover pumping costs
3/6/2018	13	Economic loss due to inability to recover pumping costs
3/6/2018	14	Economic loss due to inability to recover pumping costs
3/6/2018	15	Economic loss due to inability to recover pumping costs
3/6/2018	16	Economic loss due to inability to recover pumping costs
3/6/2018	17	Economic loss due to inability to recover pumping costs
3/6/2018	18	Economic loss due to inability to recover pumping costs
3/6/2018	19	Economic loss due to inability to recover pumping costs
3/10/2018	4	Economic loss due to inability to economically generate
3/10/2018	5	Economic loss due to inability to economically generate
3/10/2018	6	Economic loss due to inability to economically generate
3/10/2018	7	Economic loss due to inability to economically generate
3/10/2018	8	Economic loss due to inability to economically generate
3/10/2018	9	Economic loss due to inability to economically generate
3/10/2018	10	Economic loss due to inability to economically generate
3/10/2018	11	Economic loss due to inability to recover pumping costs
3/10/2018	12	Economic loss due to inability to economically generate
3/10/2018	13	Economic loss due to inability to economically generate
3/10/2018	14	Economic loss due to inability to economically generate
3/10/2018	15	Economic loss due to inability to economically generate
3/10/2018	16	Economic loss due to inability to economically generate
3/10/2018	22	Economic loss due to inability to recover pumping costs
3/11/2018	1	Economic loss due to inability to economically generate
3/11/2018	2	Economic loss due to inability to economically generate
3/11/2018	3	Economic loss due to inability to economically generate
3/11/2018	4	Economic loss due to inability to economically generate
3/11/2018	5	Economic loss due to inability to economically generate
3/11/2018	10	Economic loss due to inability to recover pumping costs
3/11/2018	11	Economic loss due to inability to economically generate
3/11/2018	12	Economic loss due to inability to recover pumping costs
3/11/2018	13	Economic loss due to inability to recover pumping costs
3/11/2018	14	Economic loss due to inability to economically generate
3/11/2018	15	Economic loss due to inability to recover pumping costs
3/11/2018	16	Economic loss due to inability to recover pumping costs
3/11/2018	17	Economic loss due to inability to recover pumping costs
3/11/2018	18	Economic loss due to inability to recover pumping costs
3/11/2018	19	Economic loss due to inability to recover pumping costs
3/11/2018	20	Economic loss due to inability to recover pumping costs
3/11/2018	21	Economic loss due to inability to recover pumping costs
3/11/2018	22	Economic loss due to inability to recover pumping costs
3/11/2018	23	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/11/2018	24	Economic loss due to inability to recover pumping costs
3/12/2018	3	Economic loss due to inability to recover pumping costs
3/12/2018	4	Economic loss due to inability to recover pumping costs
3/13/2018	14	Economic loss due to inability to recover pumping costs
3/13/2018	15	Economic loss due to inability to recover pumping costs
3/13/2018	16	Economic loss due to inability to recover pumping costs
3/13/2018	17	Economic loss due to inability to recover pumping costs
3/13/2018	18	Economic loss due to inability to recover pumping costs
3/13/2018	19	Economic loss due to inability to recover pumping costs
3/13/2018	20	Economic loss due to inability to recover pumping costs
3/13/2018	22	Economic loss due to inability to recover pumping costs
3/13/2018	23	Economic loss due to inability to economically generate
3/13/2018	24	Economic loss due to inability to economically generate
3/14/2018	1	Economic loss due to inability to economically generate
3/14/2018	2	Economic loss due to inability to economically generate
3/14/2018	6	Economic loss due to inability to recover pumping costs
3/14/2018	7	Economic loss due to inability to recover pumping costs
3/14/2018	8	Economic loss due to inability to recover pumping costs
3/14/2018	9	Economic loss due to inability to recover pumping costs
3/14/2018	10	Economic loss due to inability to recover pumping costs
3/14/2018	11	Economic loss due to inability to recover pumping costs
3/14/2018	12	Economic loss due to inability to recover pumping costs
3/14/2018	13	Economic loss due to inability to recover pumping costs
3/14/2018	14	Economic loss due to inability to recover pumping costs
3/14/2018	15	Economic loss due to inability to recover pumping costs
3/14/2018	16	Economic loss due to inability to recover pumping costs
3/14/2018	17	Economic loss due to inability to recover pumping costs
3/14/2018	18	Economic loss due to inability to recover pumping costs
3/14/2018	19	Economic loss due to inability to recover pumping costs
3/14/2018	20	Economic loss due to inability to recover pumping costs
3/14/2018	21	Economic loss due to inability to recover pumping costs
3/14/2018	22	Economic loss due to inability to recover pumping costs
3/17/2018	1	Economic loss due to inability to economically generate
3/17/2018	2	Economic loss due to inability to economically generate
3/17/2018	3	Economic loss due to inability to economically generate
3/17/2018	4	Economic loss due to inability to economically generate
3/17/2018	5	Economic loss due to inability to economically generate
3/17/2018	6	Economic loss due to inability to economically generate
3/17/2018	7	Economic loss due to inability to economically generate
3/17/2018	9	Economic loss due to inability to economically generate
3/17/2018	10	Economic loss due to inability to recover pumping costs
3/17/2018	11	Economic loss due to inability to economically generate
3/17/2018	12	Economic loss due to inability to recover pumping costs
3/17/2018	13	Economic loss due to inability to economically generate
3/17/2018	14	Economic loss due to inability to economically generate
3/17/2018	15	Economic loss due to inability to recover pumping costs
3/17/2018	16	Economic loss due to inability to recover pumping costs
3/17/2018	17	Economic loss due to inability to recover pumping costs
3/17/2018	18	Economic loss due to inability to recover pumping costs
3/17/2018	19	Economic loss due to inability to recover pumping costs
3/17/2018	20	Economic loss due to inability to recover pumping costs
3/17/2018	21	Economic loss due to inability to recover pumping costs
3/17/2018	22	Economic loss due to inability to recover pumping costs
3/17/2018	23	Economic loss due to inability to recover pumping costs
3/17/2018	24	Economic loss due to inability to recover pumping costs
3/19/2018	4	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/19/2018	5	Economic loss due to inability to recover pumping costs
3/19/2018	6	Economic loss due to inability to recover pumping costs
3/19/2018	7	Economic loss due to inability to recover pumping costs
3/19/2018	8	Economic loss due to inability to recover pumping costs
3/19/2018	9	Economic loss due to inability to recover pumping costs
3/19/2018	10	Economic loss due to inability to recover pumping costs
3/19/2018	11	Economic loss due to inability to recover pumping costs
3/19/2018	13	Economic loss due to inability to recover pumping costs
3/19/2018	14	Economic loss due to inability to recover pumping costs
3/19/2018	15	Economic loss due to inability to recover pumping costs
3/19/2018	16	Economic loss due to inability to recover pumping costs
3/19/2018	22	Economic loss due to inability to recover pumping costs
3/21/2018	1	Economic loss due to inability to recover pumping costs
3/21/2018	2	Economic loss due to inability to recover pumping costs
3/21/2018	6	Economic loss due to inability to recover pumping costs
3/21/2018	7	Economic loss due to inability to recover pumping costs
3/21/2018	8	Economic loss due to inability to recover pumping costs
3/21/2018	10	Economic loss due to inability to recover pumping costs
3/21/2018	11	Economic loss due to inability to recover pumping costs
3/21/2018	12	Economic loss due to inability to recover pumping costs
3/21/2018	13	Economic loss due to inability to recover pumping costs
3/21/2018	14	Economic loss due to inability to recover pumping costs
3/21/2018	15	Economic loss due to inability to recover pumping costs
3/21/2018	16	Economic loss due to inability to recover pumping costs
3/21/2018	17	Economic loss due to inability to recover pumping costs
3/21/2018	22	Economic loss due to inability to recover pumping costs
3/21/2018	23	Economic loss due to inability to economically generate
4/7/2018	3	Economic loss due to inability to economically generate
4/7/2018	4	Economic loss due to inability to economically generate
4/7/2018	8	Economic loss due to inability to recover pumping costs
4/7/2018	9	Economic loss due to inability to economically generate
4/7/2018	10	Economic loss due to inability to recover pumping costs
4/7/2018	11	Economic loss due to inability to recover pumping costs
4/8/2018	4	Economic loss due to inability to recover pumping costs
4/8/2018	5	Economic loss due to inability to recover pumping costs
4/8/2018	14	Economic loss due to inability to recover pumping costs
4/8/2018	15	Economic loss due to inability to economically generate
4/8/2018	16	Economic loss due to inability to recover pumping costs
4/8/2018	17	Economic loss due to inability to recover pumping costs
4/10/2018	22	Economic loss due to inability to recover pumping costs
4/10/2018	24	Economic loss due to inability to recover pumping costs
4/12/2018	5	Economic loss due to inability to recover pumping costs
4/12/2018	6	Economic loss due to inability to recover pumping costs
4/12/2018	13	Economic loss due to inability to recover pumping costs
4/12/2018	14	Economic loss due to inability to recover pumping costs
4/12/2018	15	Economic loss due to inability to recover pumping costs
4/12/2018	17	Economic loss due to inability to recover pumping costs
4/12/2018	18	Economic loss due to inability to recover pumping costs
4/12/2018	20	Economic loss due to inability to recover pumping costs
4/13/2018	6	Economic loss due to inability to recover pumping costs
4/13/2018	7	Economic loss due to inability to recover pumping costs
4/13/2018	11	Economic loss due to inability to recover pumping costs
4/13/2018	12	Economic loss due to inability to recover pumping costs
4/13/2018	13	Economic loss due to inability to recover pumping costs
4/13/2018	14	Economic loss due to inability to recover pumping costs
4/13/2018	15	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
4/13/2018	19	Economic loss due to inability to recover pumping costs
4/13/2018	20	Economic loss due to inability to recover pumping costs
4/13/2018	21	Economic loss due to inability to recover pumping costs
4/15/2018	7	Economic loss due to inability to economically generate
4/15/2018	12	Economic loss due to inability to recover pumping costs
4/15/2018	13	Economic loss due to inability to recover pumping costs
4/18/2018	3	Economic loss due to inability to economically generate
4/18/2018	4	Economic loss due to inability to economically generate
6/19/2018	6	Economic loss due to inability to recover pumping costs
6/19/2018	7	Economic loss due to inability to recover pumping costs
6/19/2018	8	Economic loss due to inability to recover pumping costs
6/19/2018	9	Economic loss due to inability to recover pumping costs
6/19/2018	10	Economic loss due to inability to recover pumping costs
6/19/2018	11	Economic loss due to inability to recover pumping costs
6/20/2018	8	Economic loss due to inability to recover pumping costs
6/20/2018	9	Economic loss due to inability to recover pumping costs
6/20/2018	11	Economic loss due to inability to recover pumping costs
6/20/2018	12	Economic loss due to inability to recover pumping costs
7/11/2018	13	Economic loss due to inability to recover pumping costs
7/11/2018	14	Economic loss due to inability to recover pumping costs
7/11/2018	15	Economic loss due to inability to recover pumping costs
7/11/2018	17	Economic loss due to inability to recover pumping costs
7/11/2018	18	Economic loss due to inability to recover pumping costs
7/11/2018	21	Economic loss due to inability to recover pumping costs
7/15/2018	4	Economic loss due to inability to economically generate
7/20/2018	7	Economic loss due to inability to recover pumping costs
7/20/2018	8	Economic loss due to inability to recover pumping costs
7/20/2018	11	Economic loss due to inability to recover pumping costs
7/20/2018	12	Economic loss due to inability to recover pumping costs
7/20/2018	13	Economic loss due to inability to recover pumping costs
7/20/2018	14	Economic loss due to inability to recover pumping costs
7/20/2018	20	Economic loss due to inability to recover pumping costs
7/20/2018	21	Economic loss due to inability to recover pumping costs
7/20/2018	22	Economic loss due to inability to recover pumping costs
7/21/2018	8	Economic loss due to inability to recover pumping costs
7/21/2018	9	Economic loss due to inability to recover pumping costs
7/21/2018	10	Economic loss due to inability to recover pumping costs
7/21/2018	11	Economic loss due to inability to recover pumping costs
7/21/2018	12	Economic loss due to inability to recover pumping costs
7/21/2018	13	Economic loss due to inability to recover pumping costs
7/21/2018	14	Economic loss due to inability to recover pumping costs
7/21/2018	19	Economic loss due to inability to recover pumping costs
7/21/2018	20	Economic loss due to inability to recover pumping costs
7/21/2018	21	Economic loss due to inability to recover pumping costs
7/22/2018	9	Economic loss due to inability to economically generate
7/22/2018	10	Economic loss due to inability to economically generate
7/22/2018	11	Economic loss due to inability to recover pumping costs
7/22/2018	12	Economic loss due to inability to recover pumping costs
7/22/2018	13	Economic loss due to inability to economically generate
7/22/2018	14	Economic loss due to inability to economically generate
7/22/2018	15	Economic loss due to inability to economically generate
7/22/2018	16	Economic loss due to inability to recover pumping costs
7/22/2018	17	Economic loss due to inability to recover pumping costs
7/22/2018	18	Economic loss due to inability to recover pumping costs
7/22/2018	19	Economic loss due to inability to recover pumping costs
7/27/2018	5	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
8/2/2018	2	Economic loss due to inability to economically generate
8/2/2018	3	Economic loss due to inability to economically generate
8/2/2018	4	Economic loss due to inability to economically generate
8/2/2018	7	Economic loss due to inability to recover pumping costs
8/2/2018	8	Economic loss due to inability to recover pumping costs
8/2/2018	9	Economic loss due to inability to recover pumping costs
8/2/2018	10	Economic loss due to inability to recover pumping costs
8/2/2018	11	Economic loss due to inability to recover pumping costs
8/2/2018	12	Economic loss due to inability to recover pumping costs
8/3/2018	6	Economic loss due to inability to economically generate
8/5/2018	9	Economic loss due to inability to recover pumping costs
8/5/2018	10	Economic loss due to inability to recover pumping costs
8/5/2018	11	Economic loss due to inability to recover pumping costs
8/5/2018	12	Economic loss due to inability to recover pumping costs
8/5/2018	13	Economic loss due to inability to recover pumping costs
8/5/2018	14	Economic loss due to inability to recover pumping costs
8/5/2018	17	Economic loss due to inability to recover pumping costs
8/5/2018	18	Economic loss due to inability to recover pumping costs
8/5/2018	19	Economic loss due to inability to recover pumping costs
8/5/2018	20	Economic loss due to inability to recover pumping costs
8/8/2018	4	Economic loss due to inability to economically generate
8/9/2018	1	Economic loss due to inability to economically generate
8/9/2018	2	Economic loss due to inability to economically generate
8/10/2018	7	Economic loss due to inability to recover pumping costs
8/11/2018	1	Economic loss due to inability to economically generate
8/11/2018	2	Economic loss due to inability to economically generate
8/11/2018	3	Economic loss due to inability to economically generate
8/11/2018	4	Economic loss due to inability to economically generate
8/11/2018	5	Economic loss due to inability to economically generate
8/11/2018	6	Economic loss due to inability to economically generate
8/11/2018	7	Economic loss due to inability to economically generate
8/12/2018	4	Economic loss due to inability to economically generate
8/12/2018	6	Economic loss due to inability to economically generate
8/12/2018	8	Economic loss due to inability to economically generate
8/12/2018	9	Economic loss due to inability to economically generate
8/12/2018	10	Economic loss due to inability to economically generate
8/13/2018	4	Economic loss due to inability to economically generate
8/13/2018	5	Economic loss due to inability to economically generate
8/13/2018	6	Economic loss due to inability to economically generate
8/13/2018	7	Economic loss due to inability to recover pumping costs
8/13/2018	8	Economic loss due to inability to recover pumping costs
8/13/2018	9	Economic loss due to inability to recover pumping costs
8/13/2018	10	Economic loss due to inability to recover pumping costs
8/13/2018	11	Economic loss due to inability to recover pumping costs
8/13/2018	12	Economic loss due to inability to recover pumping costs
8/13/2018	13	Economic loss due to inability to recover pumping costs
8/13/2018	14	Economic loss due to inability to recover pumping costs
8/13/2018	15	Economic loss due to inability to recover pumping costs
8/16/2018	6	Economic loss due to inability to economically generate
8/19/2018	3	Economic loss due to inability to economically generate
8/19/2018	10	Economic loss due to inability to recover pumping costs
8/19/2018	11	Economic loss due to inability to economically generate
8/19/2018	12	Economic loss due to inability to recover pumping costs
8/24/2018	7	Economic loss due to inability to recover pumping costs
8/24/2018	8	Economic loss due to inability to recover pumping costs
8/24/2018	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
8/24/2018	10	Economic loss due to inability to recover pumping costs
8/24/2018	11	Economic loss due to inability to recover pumping costs
8/24/2018	22	Economic loss due to inability to recover pumping costs
8/29/2018	11	Economic loss due to inability to recover pumping costs
8/29/2018	12	Economic loss due to inability to recover pumping costs
8/29/2018	19	Economic loss due to inability to recover pumping costs
9/2/2018	8	Economic loss due to inability to economically generate
9/2/2018	9	Economic loss due to inability to economically generate
9/2/2018	10	Economic loss due to inability to economically generate
9/2/2018	11	Economic loss due to inability to economically generate
9/2/2018	14	Economic loss due to inability to recover pumping costs
9/7/2018	6	Economic loss due to inability to recover pumping costs
9/10/2018	6	Economic loss due to inability to economically generate
9/10/2018	7	Economic loss due to inability to recover pumping costs
9/10/2018	8	Economic loss due to inability to recover pumping costs
9/10/2018	9	Economic loss due to inability to recover pumping costs
9/10/2018	10	Economic loss due to inability to recover pumping costs
9/10/2018	11	Economic loss due to inability to recover pumping costs
9/10/2018	12	Economic loss due to inability to recover pumping costs
9/10/2018	15	Economic loss due to inability to recover pumping costs
9/10/2018	16	Economic loss due to inability to recover pumping costs
9/10/2018	17	Economic loss due to inability to recover pumping costs
9/10/2018	18	Economic loss due to inability to recover pumping costs
9/10/2018	20	Economic loss due to inability to recover pumping costs
9/11/2018	5	Economic loss due to inability to economically generate
9/11/2018	6	Economic loss due to inability to recover pumping costs
9/11/2018	7	Economic loss due to inability to recover pumping costs
9/11/2018	8	Economic loss due to inability to recover pumping costs
9/11/2018	9	Economic loss due to inability to recover pumping costs
9/11/2018	10	Economic loss due to inability to recover pumping costs
9/13/2018	7	Economic loss due to inability to recover pumping costs
10/1/2018	8	Economic loss due to inability to recover pumping costs
10/1/2018	9	Economic loss due to inability to recover pumping costs
10/1/2018	19	Economic loss due to inability to recover pumping costs
10/1/2018	20	Economic loss due to inability to recover pumping costs
10/1/2018	21	Economic loss due to inability to recover pumping costs
10/5/2018	6	Economic loss due to inability to recover pumping costs
10/5/2018	7	Economic loss due to inability to recover pumping costs
10/5/2018	8	Economic loss due to inability to recover pumping costs
10/5/2018	9	Economic loss due to inability to recover pumping costs
10/5/2018	10	Economic loss due to inability to recover pumping costs
10/5/2018	11	Economic loss due to inability to recover pumping costs
10/5/2018	12	Economic loss due to inability to recover pumping costs
10/5/2018	13	Economic loss due to inability to recover pumping costs
10/5/2018	14	Economic loss due to inability to recover pumping costs
10/5/2018	15	Economic loss due to inability to recover pumping costs
10/5/2018	16	Economic loss due to inability to recover pumping costs
10/5/2018	17	Economic loss due to inability to recover pumping costs
10/5/2018	18	Economic loss due to inability to recover pumping costs
10/5/2018	23	Economic loss due to inability to recover pumping costs
10/9/2018	7	Economic loss due to inability to recover pumping costs
10/9/2018	8	Economic loss due to inability to recover pumping costs
10/9/2018	9	Economic loss due to inability to recover pumping costs
10/9/2018	10	Economic loss due to inability to recover pumping costs
10/9/2018	11	Economic loss due to inability to recover pumping costs
10/9/2018	12	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
10/9/2018	13	Economic loss due to inability to recover pumping costs
10/9/2018	14	Economic loss due to inability to recover pumping costs
10/9/2018	15	Economic loss due to inability to recover pumping costs
10/9/2018	16	Economic loss due to inability to recover pumping costs
10/9/2018	17	Economic loss due to inability to recover pumping costs
10/9/2018	18	Economic loss due to inability to recover pumping costs
10/9/2018	19	Economic loss due to inability to recover pumping costs
10/9/2018	20	Economic loss due to inability to recover pumping costs
10/9/2018	21	Economic loss due to inability to recover pumping costs
10/24/2018	7	Economic loss due to inability to recover pumping costs
10/24/2018	19	Economic loss due to inability to recover pumping costs
10/25/2018	6	Economic loss due to inability to recover pumping costs
10/25/2018	7	Economic loss due to inability to recover pumping costs
10/25/2018	8	Economic loss due to inability to recover pumping costs
10/25/2018	9	Economic loss due to inability to recover pumping costs
10/25/2018	10	Economic loss due to inability to recover pumping costs
10/25/2018	11	Economic loss due to inability to recover pumping costs
10/25/2018	12	Economic loss due to inability to recover pumping costs
10/25/2018	13	Economic loss due to inability to recover pumping costs
10/25/2018	14	Economic loss due to inability to recover pumping costs
10/25/2018	15	Economic loss due to inability to recover pumping costs
10/25/2018	16	Economic loss due to inability to recover pumping costs
10/25/2018	17	Economic loss due to inability to recover pumping costs
10/25/2018	18	Economic loss due to inability to recover pumping costs
10/25/2018	19	Economic loss due to inability to recover pumping costs
10/25/2018	20	Economic loss due to inability to recover pumping costs
10/25/2018	21	Economic loss due to inability to recover pumping costs
10/25/2018	22	Economic loss due to inability to recover pumping costs
10/27/2018	5	Economic loss due to inability to economically generate
10/27/2018	6	Economic loss due to inability to economically generate
10/27/2018	8	Economic loss due to inability to economically generate
10/27/2018	15	Economic loss due to inability to recover pumping costs
10/27/2018	16	Economic loss due to inability to recover pumping costs
10/27/2018	17	Economic loss due to inability to recover pumping costs
11/2/2018	7	Economic loss due to inability to recover pumping costs
11/2/2018	8	Economic loss due to inability to recover pumping costs
11/12/2018	7	Economic loss due to inability to recover pumping costs
11/12/2018	8	Economic loss due to inability to recover pumping costs
11/12/2018	12	Economic loss due to inability to recover pumping costs
11/12/2018	13	Economic loss due to inability to recover pumping costs
11/14/2018	7	Economic loss due to inability to recover pumping costs
11/14/2018	8	Economic loss due to inability to recover pumping costs
11/14/2018	9	Economic loss due to inability to recover pumping costs
11/14/2018	10	Economic loss due to inability to recover pumping costs
11/14/2018	11	Economic loss due to inability to recover pumping costs
11/14/2018	13	Economic loss due to inability to recover pumping costs
11/14/2018	14	Economic loss due to inability to recover pumping costs
11/14/2018	18	Economic loss due to inability to recover pumping costs
11/14/2018	19	Economic loss due to inability to recover pumping costs
11/14/2018	20	Economic loss due to inability to recover pumping costs
11/15/2018	8	Economic loss due to inability to recover pumping costs
11/15/2018	9	Economic loss due to inability to recover pumping costs
11/15/2018	10	Economic loss due to inability to recover pumping costs
11/16/2018	7	Economic loss due to inability to recover pumping costs
11/16/2018	8	Economic loss due to inability to recover pumping costs
11/16/2018	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/16/2018	10	Economic loss due to inability to recover pumping costs
11/16/2018	13	Economic loss due to inability to recover pumping costs
11/16/2018	14	Economic loss due to inability to recover pumping costs
11/16/2018	15	Economic loss due to inability to recover pumping costs
11/16/2018	16	Economic loss due to inability to recover pumping costs
11/17/2018	15	Economic loss due to inability to recover pumping costs
11/17/2018	16	Economic loss due to inability to recover pumping costs
11/17/2018	17	Economic loss due to inability to recover pumping costs
11/18/2018	15	Economic loss due to inability to recover pumping costs
11/20/2018	1	Economic loss due to inability to economically generate
11/20/2018	2	Economic loss due to inability to economically generate
11/20/2018	3	Economic loss due to inability to economically generate
11/20/2018	4	Economic loss due to inability to economically generate
11/20/2018	5	Economic loss due to inability to economically generate
11/20/2018	6	Economic loss due to inability to economically generate
11/20/2018	7	Economic loss due to inability to recover pumping costs
11/20/2018	8	Economic loss due to inability to recover pumping costs
11/20/2018	9	Economic loss due to inability to recover pumping costs
11/20/2018	10	Economic loss due to inability to recover pumping costs
11/20/2018	11	Economic loss due to inability to recover pumping costs
11/20/2018	12	Economic loss due to inability to recover pumping costs
11/20/2018	13	Economic loss due to inability to recover pumping costs
11/20/2018	14	Economic loss due to inability to recover pumping costs
11/20/2018	15	Economic loss due to inability to recover pumping costs
11/20/2018	16	Economic loss due to inability to recover pumping costs
11/20/2018	17	Economic loss due to inability to recover pumping costs
11/20/2018	18	Economic loss due to inability to recover pumping costs
11/25/2018	17	Economic loss due to inability to recover pumping costs
11/25/2018	18	Economic loss due to inability to recover pumping costs
11/25/2018	19	Economic loss due to inability to recover pumping costs
11/25/2018	20	Economic loss due to inability to recover pumping costs
11/25/2018	21	Economic loss due to inability to recover pumping costs
11/27/2018	8	Economic loss due to inability to recover pumping costs
11/27/2018	9	Economic loss due to inability to recover pumping costs
11/27/2018	10	Economic loss due to inability to recover pumping costs
11/27/2018	11	Economic loss due to inability to recover pumping costs
11/27/2018	12	Economic loss due to inability to recover pumping costs
11/27/2018	13	Economic loss due to inability to recover pumping costs
11/27/2018	14	Economic loss due to inability to recover pumping costs
11/27/2018	15	Economic loss due to inability to recover pumping costs
11/27/2018	16	Economic loss due to inability to recover pumping costs
11/27/2018	17	Economic loss due to inability to recover pumping costs
11/27/2018	18	Economic loss due to inability to recover pumping costs
11/27/2018	19	Economic loss due to inability to recover pumping costs
11/27/2018	20	Economic loss due to inability to recover pumping costs
11/27/2018	21	Economic loss due to inability to recover pumping costs
11/27/2018	22	Economic loss due to inability to recover pumping costs
11/29/2018	8	Economic loss due to inability to recover pumping costs
11/29/2018	9	Economic loss due to inability to recover pumping costs
12/3/2018	8	Economic loss due to inability to recover pumping costs
12/3/2018	9	Economic loss due to inability to recover pumping costs
12/3/2018	10	Economic loss due to inability to recover pumping costs
12/3/2018	11	Economic loss due to inability to recover pumping costs
12/3/2018	12	Economic loss due to inability to recover pumping costs
12/3/2018	13	Economic loss due to inability to recover pumping costs
12/3/2018	14	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/3/2018	15	Economic loss due to inability to recover pumping costs
12/3/2018	16	Economic loss due to inability to recover pumping costs
12/3/2018	17	Economic loss due to inability to recover pumping costs
12/3/2018	18	Economic loss due to inability to recover pumping costs
12/3/2018	19	Economic loss due to inability to recover pumping costs
12/3/2018	20	Economic loss due to inability to recover pumping costs
12/3/2018	22	Economic loss due to inability to recover pumping costs
12/3/2018	24	Economic loss due to inability to economically generate
12/4/2018	3	Economic loss due to inability to economically generate
12/4/2018	4	Economic loss due to inability to economically generate
12/4/2018	5	Economic loss due to inability to economically generate
12/4/2018	6	Economic loss due to inability to economically generate
12/4/2018	7	Economic loss due to inability to economically generate
12/4/2018	12	Economic loss due to inability to recover pumping costs
12/4/2018	13	Economic loss due to inability to recover pumping costs
12/6/2018	11	Economic loss due to inability to recover pumping costs
12/6/2018	12	Economic loss due to inability to recover pumping costs
12/6/2018	13	Economic loss due to inability to recover pumping costs
12/6/2018	14	Economic loss due to inability to recover pumping costs
12/6/2018	15	Economic loss due to inability to recover pumping costs
12/9/2018	12	Economic loss due to inability to recover pumping costs
12/11/2018	4	Economic loss due to inability to economically generate
12/11/2018	7	Economic loss due to inability to recover pumping costs
12/14/2018	24	Economic loss due to inability to recover pumping costs
12/15/2018	21	Economic loss due to inability to recover pumping costs
12/15/2018	22	Economic loss due to inability to recover pumping costs
12/16/2018	12	Economic loss due to inability to recover pumping costs
12/16/2018	13	Economic loss due to inability to recover pumping costs
12/16/2018	14	Economic loss due to inability to recover pumping costs
12/16/2018	22	Economic loss due to inability to recover pumping costs
12/17/2018	8	Economic loss due to inability to recover pumping costs
12/17/2018	9	Economic loss due to inability to recover pumping costs
12/17/2018	11	Economic loss due to inability to recover pumping costs
12/17/2018	12	Economic loss due to inability to recover pumping costs
12/18/2018	24	Economic loss due to inability to recover pumping costs
12/19/2018	8	Economic loss due to inability to recover pumping costs
12/19/2018	9	Economic loss due to inability to recover pumping costs
12/19/2018	10	Economic loss due to inability to recover pumping costs
12/19/2018	11	Economic loss due to inability to recover pumping costs
12/19/2018	13	Economic loss due to inability to recover pumping costs
12/21/2018	12	Economic loss due to inability to recover pumping costs
12/21/2018	13	Economic loss due to inability to recover pumping costs
12/21/2018	14	Economic loss due to inability to recover pumping costs
12/21/2018	15	Economic loss due to inability to recover pumping costs
12/21/2018	16	Economic loss due to inability to recover pumping costs
12/21/2018	17	Economic loss due to inability to recover pumping costs
12/21/2018	19	Economic loss due to inability to recover pumping costs
12/21/2018	20	Economic loss due to inability to recover pumping costs
12/21/2018	21	Economic loss due to inability to recover pumping costs
12/21/2018	22	Economic loss due to inability to recover pumping costs
12/21/2018	23	Economic loss due to inability to recover pumping costs
12/22/2018	5	Economic loss due to inability to economically generate
12/22/2018	6	Economic loss due to inability to economically generate
12/22/2018	7	Economic loss due to inability to economically generate
12/22/2018	8	Economic loss due to inability to economically generate
12/22/2018	9	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/22/2018	10	Economic loss due to inability to economically generate
12/23/2018	21	Economic loss due to inability to recover pumping costs
12/24/2018	2	Economic loss due to inability to recover pumping costs
12/24/2018	7	Economic loss due to inability to recover pumping costs
12/24/2018	8	Economic loss due to inability to recover pumping costs
12/24/2018	9	Economic loss due to inability to recover pumping costs
12/24/2018	10	Economic loss due to inability to recover pumping costs
12/24/2018	11	Economic loss due to inability to recover pumping costs
12/24/2018	12	Economic loss due to inability to recover pumping costs
12/24/2018	13	Economic loss due to inability to recover pumping costs
12/24/2018	14	Economic loss due to inability to recover pumping costs
12/24/2018	15	Economic loss due to inability to recover pumping costs
12/24/2018	16	Economic loss due to inability to recover pumping costs
12/24/2018	17	Economic loss due to inability to recover pumping costs
12/24/2018	18	Economic loss due to inability to recover pumping costs
12/24/2018	19	Economic loss due to inability to recover pumping costs
12/24/2018	20	Economic loss due to inability to recover pumping costs
12/25/2018	10	Economic loss due to inability to recover pumping costs
12/25/2018	11	Economic loss due to inability to recover pumping costs
12/25/2018	12	Economic loss due to inability to recover pumping costs
12/25/2018	13	Economic loss due to inability to recover pumping costs
12/25/2018	18	Economic loss due to inability to recover pumping costs
12/25/2018	19	Economic loss due to inability to recover pumping costs
12/26/2018	7	Economic loss due to inability to recover pumping costs
12/26/2018	8	Economic loss due to inability to recover pumping costs
12/26/2018	17	Economic loss due to inability to recover pumping costs
12/26/2018	21	Economic loss due to inability to recover pumping costs
12/26/2018	24	Economic loss due to inability to recover pumping costs
12/29/2018	4	Economic loss due to inability to economically generate
12/29/2018	5	Economic loss due to inability to economically generate
12/29/2018	6	Economic loss due to inability to economically generate
12/29/2018	7	Economic loss due to inability to economically generate
12/29/2018	9	Economic loss due to inability to recover pumping costs
12/29/2018	12	Economic loss due to inability to recover pumping costs
12/29/2018	16	Economic loss due to inability to recover pumping costs
12/29/2018	17	Economic loss due to inability to recover pumping costs
12/29/2018	18	Economic loss due to inability to recover pumping costs
12/29/2018	19	Economic loss due to inability to recover pumping costs
12/29/2018	20	Economic loss due to inability to recover pumping costs
12/29/2018	21	Economic loss due to inability to recover pumping costs
12/29/2018	22	Economic loss due to inability to recover pumping costs
12/29/2018	23	Economic loss due to inability to recover pumping costs
12/30/2018	6	Economic loss due to inability to economically generate
12/30/2018	7	Economic loss due to inability to economically generate
12/30/2018	8	Economic loss due to inability to economically generate
12/30/2018	9	Economic loss due to inability to economically generate
12/30/2018	16	Economic loss due to inability to recover pumping costs
12/30/2018	17	Economic loss due to inability to recover pumping costs
12/30/2018	18	Economic loss due to inability to recover pumping costs
12/30/2018	19	Economic loss due to inability to recover pumping costs
12/30/2018	20	Economic loss due to inability to recover pumping costs
12/30/2018	21	Economic loss due to inability to recover pumping costs
12/30/2018	22	Economic loss due to inability to recover pumping costs
12/30/2018	23	Economic loss due to inability to recover pumping costs
12/30/2018	24	Economic loss due to inability to recover pumping costs
12/31/2018	6	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/31/2018	7	Economic loss due to inability to recover pumping costs
12/31/2018	8	Economic loss due to inability to recover pumping costs
12/31/2018	9	Economic loss due to inability to recover pumping costs
12/31/2018	10	Economic loss due to inability to recover pumping costs
12/31/2018	11	Economic loss due to inability to recover pumping costs
12/31/2018	12	Economic loss due to inability to recover pumping costs
12/31/2018	13	Economic loss due to inability to recover pumping costs
12/31/2018	14	Economic loss due to inability to recover pumping costs
12/31/2018	15	Economic loss due to inability to recover pumping costs
12/31/2018	16	Economic loss due to inability to recover pumping costs
12/31/2018	17	Economic loss due to inability to recover pumping costs
12/31/2018	18	Economic loss due to inability to recover pumping costs
12/31/2018	19	Economic loss due to inability to recover pumping costs
12/31/2018	20	Economic loss due to inability to economically generate
12/31/2018	21	Economic loss due to inability to economically generate
12/31/2018	22	Economic loss due to inability to economically generate
12/31/2018	23	Economic loss due to inability to economically generate
12/31/2018	24	Economic loss due to inability to economically generate
1/2/2019	6	Economic loss due to inability to recover pumping costs
1/2/2019	7	Economic loss due to inability to recover pumping costs
1/2/2019	9	Economic loss due to inability to recover pumping costs
1/2/2019	14	Economic loss due to inability to recover pumping costs
1/2/2019	15	Economic loss due to inability to recover pumping costs
1/2/2019	16	Economic loss due to inability to recover pumping costs
1/2/2019	23	Economic loss due to inability to recover pumping costs
1/3/2019	8	Economic loss due to inability to recover pumping costs
1/3/2019	9	Economic loss due to inability to recover pumping costs
1/3/2019	10	Economic loss due to inability to recover pumping costs
1/3/2019	11	Economic loss due to inability to recover pumping costs
1/3/2019	12	Economic loss due to inability to recover pumping costs
1/3/2019	13	Economic loss due to inability to recover pumping costs
1/3/2019	14	Economic loss due to inability to recover pumping costs
1/3/2019	15	Economic loss due to inability to recover pumping costs
1/3/2019	16	Economic loss due to inability to recover pumping costs
1/3/2019	17	Economic loss due to inability to recover pumping costs
1/3/2019	18	Economic loss due to inability to recover pumping costs
1/3/2019	19	Economic loss due to inability to recover pumping costs
1/3/2019	20	Economic loss due to inability to recover pumping costs
1/3/2019	21	Economic loss due to inability to recover pumping costs
1/4/2019	8	Economic loss due to inability to recover pumping costs
1/4/2019	9	Economic loss due to inability to recover pumping costs
1/4/2019	10	Economic loss due to inability to recover pumping costs
1/4/2019	11	Economic loss due to inability to recover pumping costs
1/4/2019	12	Economic loss due to inability to recover pumping costs
1/4/2019	13	Economic loss due to inability to recover pumping costs
1/4/2019	14	Economic loss due to inability to recover pumping costs
1/4/2019	15	Economic loss due to inability to recover pumping costs
1/4/2019	16	Economic loss due to inability to recover pumping costs
1/4/2019	17	Economic loss due to inability to recover pumping costs
1/4/2019	18	Economic loss due to inability to recover pumping costs
1/4/2019	19	Economic loss due to inability to recover pumping costs
1/4/2019	20	Economic loss due to inability to recover pumping costs
1/4/2019	21	Economic loss due to inability to recover pumping costs
1/4/2019	22	Economic loss due to inability to recover pumping costs
1/4/2019	23	Economic loss due to inability to recover pumping costs
1/4/2019	24	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/6/2019	16	Economic loss due to inability to recover pumping costs
1/6/2019	18	Economic loss due to inability to recover pumping costs
1/6/2019	19	Economic loss due to inability to recover pumping costs
1/9/2019	8	Economic loss due to inability to recover pumping costs
1/9/2019	9	Economic loss due to inability to recover pumping costs
1/9/2019	10	Economic loss due to inability to recover pumping costs
1/9/2019	11	Economic loss due to inability to recover pumping costs
1/9/2019	12	Economic loss due to inability to recover pumping costs
1/9/2019	13	Economic loss due to inability to recover pumping costs
1/9/2019	14	Economic loss due to inability to recover pumping costs
1/9/2019	15	Economic loss due to inability to recover pumping costs
1/9/2019	16	Economic loss due to inability to recover pumping costs
1/9/2019	17	Economic loss due to inability to recover pumping costs
1/9/2019	18	Economic loss due to inability to recover pumping costs
1/9/2019	19	Economic loss due to inability to recover pumping costs
1/9/2019	20	Economic loss due to inability to recover pumping costs
1/9/2019	21	Economic loss due to inability economically generate
1/9/2019	22	Economic loss due to inability economically generate
1/9/2019	23	Economic loss due to inability economically generate
1/9/2019	24	Economic loss due to inability economically generate
1/10/2019	1	Economic loss due to inability economically generate
1/10/2019	2	Economic loss due to inability economically generate
1/10/2019	3	Economic loss due to inability economically generate
1/10/2019	4	Economic loss due to inability economically generate
1/10/2019	5	Economic loss due to inability economically generate
1/10/2019	6	Economic loss due to inability economically generate
1/10/2019	7	Economic loss due to inability economically generate
1/10/2019	8	Economic loss due to inability to recover pumping costs
1/10/2019	9	Economic loss due to inability to recover pumping costs
1/10/2019	10	Economic loss due to inability to recover pumping costs
1/10/2019	11	Economic loss due to inability to recover pumping costs
1/10/2019	12	Economic loss due to inability to recover pumping costs
1/10/2019	13	Economic loss due to inability to recover pumping costs
1/10/2019	14	Economic loss due to inability to recover pumping costs
1/10/2019	15	Economic loss due to inability to recover pumping costs
1/10/2019	16	Economic loss due to inability to recover pumping costs
1/10/2019	17	Economic loss due to inability to recover pumping costs
1/10/2019	18	Economic loss due to inability to recover pumping costs
1/10/2019	19	Economic loss due to inability to recover pumping costs
1/10/2019	20	Economic loss due to inability to recover pumping costs
1/10/2019	21	Economic loss due to inability to recover pumping costs
1/10/2019	22	Economic loss due to inability to recover pumping costs
1/11/2019	5	Economic loss due to inability economically generate
1/12/2019	5	Economic loss due to inability to recover pumping costs
1/12/2019	7	Economic loss due to inability to recover pumping costs
1/12/2019	10	Economic loss due to inability to recover pumping costs
1/13/2019	1	Economic loss due to inability to recover pumping costs
1/13/2019	8	Economic loss due to inability economically generate
1/13/2019	9	Economic loss due to inability economically generate
1/13/2019	10	Economic loss due to inability economically generate
1/13/2019	11	Economic loss due to inability economically generate
1/13/2019	12	Economic loss due to inability economically generate
1/13/2019	13	Economic loss due to inability economically generate
1/13/2019	14	Economic loss due to inability economically generate
1/16/2019	8	Economic loss due to inability to recover pumping costs
1/16/2019	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/16/2019	12	Economic loss due to inability to recover pumping costs
1/16/2019	13	Economic loss due to inability to recover pumping costs
1/16/2019	14	Economic loss due to inability to recover pumping costs
1/16/2019	15	Economic loss due to inability to recover pumping costs
1/16/2019	16	Economic loss due to inability to recover pumping costs
1/16/2019	17	Economic loss due to inability to recover pumping costs
1/16/2019	18	Economic loss due to inability to recover pumping costs
1/18/2019	6	Economic loss due to inability to recover pumping costs
1/20/2019	9	Economic loss due to inability economically generate
1/20/2019	11	Economic loss due to inability economically generate
1/20/2019	12	Economic loss due to inability economically generate
1/20/2019	13	Economic loss due to inability economically generate
1/25/2019	2	Economic loss due to inability economically generate
1/25/2019	3	Economic loss due to inability economically generate
1/25/2019	4	Economic loss due to inability economically generate
1/25/2019	5	Economic loss due to inability economically generate
1/25/2019	6	Economic loss due to inability economically generate
1/25/2019	7	Economic loss due to inability economically generate
1/25/2019	8	Economic loss due to inability to recover pumping costs
1/25/2019	9	Economic loss due to inability to recover pumping costs
1/25/2019	10	Economic loss due to inability to recover pumping costs
1/25/2019	11	Economic loss due to inability to recover pumping costs
1/25/2019	12	Economic loss due to inability to recover pumping costs
1/25/2019	13	Economic loss due to inability to recover pumping costs
1/25/2019	14	Economic loss due to inability to recover pumping costs
1/25/2019	16	Economic loss due to inability to recover pumping costs
1/25/2019	21	Economic loss due to inability to recover pumping costs
1/25/2019	23	Economic loss due to inability to recover pumping costs
1/29/2019	2	Economic loss due to inability economically generate
1/29/2019	16	Economic loss due to inability to recover pumping costs
1/29/2019	24	Economic loss due to inability economically generate
2/4/2019	6	Economic loss due to inability to recover pumping costs
2/4/2019	10	Economic loss due to inability to recover pumping costs
2/4/2019	12	Economic loss due to inability to recover pumping costs
2/4/2019	13	Economic loss due to inability to recover pumping costs
2/4/2019	16	Economic loss due to inability to recover pumping costs
2/4/2019	17	Economic loss due to inability to recover pumping costs
2/4/2019	24	Economic loss due to inability economically generate
2/5/2019	1	Economic loss due to inability economically generate
2/5/2019	2	Economic loss due to inability economically generate
2/5/2019	3	Economic loss due to inability economically generate
2/5/2019	4	Economic loss due to inability economically generate
2/5/2019	5	Economic loss due to inability economically generate
2/5/2019	6	Economic loss due to inability economically generate
2/5/2019	7	Economic loss due to inability to recover pumping costs
2/5/2019	8	Economic loss due to inability to recover pumping costs
2/5/2019	9	Economic loss due to inability to recover pumping costs
2/5/2019	10	Economic loss due to inability to recover pumping costs
2/5/2019	11	Economic loss due to inability to recover pumping costs
2/9/2019	2	Economic loss due to inability economically generate
2/9/2019	3	Economic loss due to inability economically generate
2/9/2019	4	Economic loss due to inability economically generate
2/9/2019	5	Economic loss due to inability economically generate
2/9/2019	6	Economic loss due to inability economically generate
2/12/2019	1	Economic loss due to inability economically generate
2/12/2019	2	Economic loss due to inability economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/12/2019	5	Economic loss due to inability economically generate
2/12/2019	6	Economic loss due to inability to recover pumping costs
2/12/2019	24	Economic loss due to inability to recover pumping costs
2/14/2019	1	Economic loss due to inability to recover pumping costs
2/14/2019	7	Economic loss due to inability to recover pumping costs
2/14/2019	9	Economic loss due to inability to recover pumping costs
2/15/2019	1	Economic loss due to inability to recover pumping costs
2/15/2019	7	Economic loss due to inability to recover pumping costs
2/15/2019	8	Economic loss due to inability to recover pumping costs
2/15/2019	9	Economic loss due to inability to recover pumping costs
2/15/2019	13	Economic loss due to inability to recover pumping costs
2/15/2019	14	Economic loss due to inability to recover pumping costs
2/15/2019	15	Economic loss due to inability to recover pumping costs
2/15/2019	17	Economic loss due to inability to recover pumping costs
2/15/2019	18	Economic loss due to inability to recover pumping costs
2/15/2019	19	Economic loss due to inability to recover pumping costs
2/15/2019	20	Economic loss due to inability to recover pumping costs
2/15/2019	21	Economic loss due to inability to recover pumping costs
2/15/2019	22	Economic loss due to inability to recover pumping costs
2/15/2019	23	Economic loss due to inability to recover pumping costs
2/16/2019	2	Economic loss due to inability economically generate
2/18/2019	2	Economic loss due to inability economically generate
2/18/2019	3	Economic loss due to inability economically generate
2/18/2019	4	Economic loss due to inability economically generate
2/18/2019	7	Economic loss due to inability to recover pumping costs
2/18/2019	8	Economic loss due to inability to recover pumping costs
2/18/2019	9	Economic loss due to inability to recover pumping costs
2/18/2019	10	Economic loss due to inability to recover pumping costs
2/18/2019	11	Economic loss due to inability to recover pumping costs
2/18/2019	13	Economic loss due to inability to recover pumping costs
2/18/2019	14	Economic loss due to inability to recover pumping costs
2/21/2019	7	Economic loss due to inability to recover pumping costs
2/21/2019	8	Economic loss due to inability to recover pumping costs
2/21/2019	15	Economic loss due to inability to recover pumping costs
2/21/2019	21	Economic loss due to inability to recover pumping costs
2/21/2019	22	Economic loss due to inability to recover pumping costs
2/23/2019	14	Economic loss due to inability to recover pumping costs
2/23/2019	15	Economic loss due to inability to recover pumping costs
2/23/2019	16	Economic loss due to inability to recover pumping costs
2/23/2019	19	Economic loss due to inability to recover pumping costs
2/23/2019	20	Economic loss due to inability to recover pumping costs
2/23/2019	21	Economic loss due to inability to recover pumping costs
2/23/2019	24	Economic loss due to inability economically generate
3/3/2019	11	Economic loss due to inability to recover pumping costs
3/4/2019	14	Economic loss due to inability to recover pumping costs
3/10/2019	5	Economic loss due to inability economically generate
3/10/2019	6	Economic loss due to inability to recover pumping costs
3/10/2019	8	Economic loss due to inability economically generate
3/10/2019	19	Economic loss due to inability to recover pumping costs
3/10/2019	20	Economic loss due to inability to recover pumping costs
3/10/2019	21	Economic loss due to inability to recover pumping costs
3/10/2019	23	Economic loss due to inability economically generate
3/16/2019	2	Economic loss due to inability economically generate
3/16/2019	3	Economic loss due to inability economically generate
3/16/2019	4	Economic loss due to inability to recover pumping costs
3/16/2019	5	Economic loss due to inability economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/16/2019	6	Economic loss due to inability economically generate
3/16/2019	10	Economic loss due to inability economically generate
3/16/2019	11	Economic loss due to inability economically generate
3/16/2019	12	Economic loss due to inability economically generate
3/16/2019	13	Economic loss due to inability to recover pumping costs
3/16/2019	14	Economic loss due to inability to recover pumping costs
3/16/2019	17	Economic loss due to inability economically generate
3/16/2019	18	Economic loss due to inability economically generate
3/16/2019	20	Economic loss due to inability to recover pumping costs
3/16/2019	21	Economic loss due to inability to recover pumping costs
3/16/2019	22	Economic loss due to inability to recover pumping costs
3/17/2019	13	Economic loss due to inability to recover pumping costs
3/23/2019	9	Economic loss due to inability to recover pumping costs
3/23/2019	10	Economic loss due to inability to recover pumping costs
3/23/2019	11	Economic loss due to inability to recover pumping costs
3/23/2019	14	Economic loss due to inability to recover pumping costs
3/23/2019	15	Economic loss due to inability to recover pumping costs
3/23/2019	16	Economic loss due to inability to recover pumping costs
3/23/2019	18	Economic loss due to inability to recover pumping costs
3/23/2019	19	Economic loss due to inability to recover pumping costs
3/23/2019	20	Economic loss due to inability to recover pumping costs
3/23/2019	21	Economic loss due to inability to recover pumping costs
3/23/2019	22	Economic loss due to inability to recover pumping costs
3/24/2019	4	Economic loss due to inability economically generate
3/24/2019	7	Economic loss due to inability economically generate
3/24/2019	8	Economic loss due to inability to recover pumping costs
3/24/2019	9	Economic loss due to inability to recover pumping costs
3/24/2019	12	Economic loss due to inability to recover pumping costs
3/24/2019	13	Economic loss due to inability to recover pumping costs
3/24/2019	18	Economic loss due to inability to recover pumping costs
3/24/2019	24	Economic loss due to inability economically generate
3/25/2019	5	Economic loss due to inability to recover pumping costs
3/25/2019	16	Economic loss due to inability to recover pumping costs
3/25/2019	24	Economic loss due to inability economically generate
4/5/2019	2	Economic loss due to inability economically generate
4/5/2019	5	Economic loss due to inability economically generate
4/5/2019	6	Economic loss due to inability to recover pumping costs
4/5/2019	20	Economic loss due to inability to recover pumping costs
4/5/2019	21	Economic loss due to inability to recover pumping costs
4/8/2019	7	Economic loss due to inability to recover pumping costs
4/8/2019	8	Economic loss due to inability to recover pumping costs
4/8/2019	9	Economic loss due to inability to recover pumping costs
4/8/2019	11	Economic loss due to inability to recover pumping costs
4/8/2019	12	Economic loss due to inability to recover pumping costs
4/8/2019	13	Economic loss due to inability to recover pumping costs
4/8/2019	14	Economic loss due to inability to recover pumping costs
4/8/2019	15	Economic loss due to inability to recover pumping costs
4/16/2019	1	Economic loss due to inability to recover pumping costs
4/16/2019	2	Economic loss due to inability economically generate
4/16/2019	3	Economic loss due to inability to recover pumping costs
4/16/2019	4	Economic loss due to inability to recover pumping costs
4/16/2019	9	Economic loss due to inability to recover pumping costs
4/16/2019	10	Economic loss due to inability to recover pumping costs
4/16/2019	11	Economic loss due to inability to recover pumping costs
4/16/2019	12	Economic loss due to inability to recover pumping costs
4/16/2019	13	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
4/16/2019	14	Economic loss due to inability to recover pumping costs
4/16/2019	15	Economic loss due to inability to recover pumping costs
4/16/2019	16	Economic loss due to inability to recover pumping costs
4/16/2019	17	Economic loss due to inability to recover pumping costs
4/16/2019	18	Economic loss due to inability to recover pumping costs
4/16/2019	19	Economic loss due to inability to recover pumping costs
4/16/2019	20	Economic loss due to inability to recover pumping costs
4/16/2019	21	Economic loss due to inability to recover pumping costs
11/11/2019	3	Economic loss due to inability economically generate
11/11/2019	5	Economic loss due to inability economically generate
11/11/2019	6	Economic loss due to inability economically generate
11/11/2019	7	Economic loss due to inability economically generate
11/11/2019	8	Economic loss due to inability to recover pumping costs
11/11/2019	9	Economic loss due to inability to recover pumping costs
11/11/2019	10	Economic loss due to inability to recover pumping costs
11/11/2019	22	Economic loss due to inability economically generate
11/11/2019	23	Economic loss due to inability economically generate
11/11/2019	24	Economic loss due to inability economically generate
11/12/2019	1	Economic loss due to inability economically generate
11/12/2019	2	Economic loss due to inability economically generate
11/12/2019	6	Economic loss due to inability economically generate
11/12/2019	8	Economic loss due to inability to recover pumping costs
11/12/2019	14	Economic loss due to inability to recover pumping costs
11/12/2019	15	Economic loss due to inability to recover pumping costs
11/12/2019	17	Economic loss due to inability to recover pumping costs
11/12/2019	18	Economic loss due to inability to recover pumping costs
11/12/2019	19	Economic loss due to inability to recover pumping costs
11/14/2019	15	Economic loss due to inability to recover pumping costs
11/14/2019	16	Economic loss due to inability to recover pumping costs
11/14/2019	23	Economic loss due to inability economically generate
11/14/2019	24	Economic loss due to inability economically generate
11/15/2019	1	Economic loss due to inability economically generate
11/15/2019	2	Economic loss due to inability economically generate
11/15/2019	3	Economic loss due to inability economically generate
11/15/2019	4	Economic loss due to inability economically generate
11/15/2019	5	Economic loss due to inability economically generate
11/15/2019	8	Economic loss due to inability to recover pumping costs
11/15/2019	15	Economic loss due to inability to recover pumping costs
11/15/2019	16	Economic loss due to inability to recover pumping costs
11/15/2019	17	Economic loss due to inability to recover pumping costs
11/16/2019	5	Economic loss due to inability to recover pumping costs
11/17/2019	3	Economic loss due to inability to recover pumping costs
11/17/2019	6	Economic loss due to inability economically generate
11/17/2019	8	Economic loss due to inability economically generate
11/18/2019	4	Economic loss due to inability economically generate
11/24/2019	11	Economic loss due to inability to recover pumping costs
11/24/2019	12	Economic loss due to inability to recover pumping costs
11/24/2019	13	Economic loss due to inability to recover pumping costs
11/24/2019	15	Economic loss due to inability to recover pumping costs
11/24/2019	16	Economic loss due to inability to recover pumping costs
11/24/2019	17	Economic loss due to inability to recover pumping costs
11/24/2019	18	Economic loss due to inability to recover pumping costs
11/24/2019	19	Economic loss due to inability to recover pumping costs
11/24/2019	20	Economic loss due to inability to recover pumping costs
11/25/2019	8	Economic loss due to inability to recover pumping costs
11/25/2019	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/25/2019	10	Economic loss due to inability to recover pumping costs
11/25/2019	11	Economic loss due to inability to recover pumping costs
11/25/2019	12	Economic loss due to inability to recover pumping costs
11/25/2019	13	Economic loss due to inability to recover pumping costs
11/25/2019	14	Economic loss due to inability to recover pumping costs
11/25/2019	15	Economic loss due to inability to recover pumping costs
12/2/2019	1	Economic loss due to inability economically generate
12/2/2019	2	Economic loss due to inability economically generate
12/2/2019	3	Economic loss due to inability economically generate
12/2/2019	4	Economic loss due to inability economically generate
12/2/2019	5	Economic loss due to inability economically generate
12/2/2019	6	Economic loss due to inability economically generate
12/2/2019	7	Economic loss due to inability economically generate
12/2/2019	8	Economic loss due to inability to recover pumping costs
12/2/2019	9	Economic loss due to inability to recover pumping costs
12/2/2019	10	Economic loss due to inability to recover pumping costs
12/2/2019	11	Economic loss due to inability to recover pumping costs
12/2/2019	14	Economic loss due to inability to recover pumping costs
12/2/2019	15	Economic loss due to inability to recover pumping costs
12/2/2019	16	Economic loss due to inability to recover pumping costs
12/2/2019	17	Economic loss due to inability to recover pumping costs
12/3/2019	6	Economic loss due to inability economically generate
12/3/2019	7	Economic loss due to inability economically generate
12/3/2019	8	Economic loss due to inability to recover pumping costs
12/3/2019	11	Economic loss due to inability to recover pumping costs
12/3/2019	16	Economic loss due to inability to recover pumping costs
12/5/2019	1	Economic loss due to inability economically generate
12/5/2019	2	Economic loss due to inability economically generate
12/5/2019	3	Economic loss due to inability economically generate
12/5/2019	7	Economic loss due to inability economically generate
12/5/2019	8	Economic loss due to inability to recover pumping costs
12/5/2019	9	Economic loss due to inability to recover pumping costs
12/5/2019	10	Economic loss due to inability to recover pumping costs
12/5/2019	14	Economic loss due to inability to recover pumping costs
12/6/2019	7	Economic loss due to inability economically generate
12/6/2019	9	Economic loss due to inability to recover pumping costs
12/6/2019	15	Economic loss due to inability to recover pumping costs
12/6/2019	16	Economic loss due to inability to recover pumping costs
12/6/2019	17	Economic loss due to inability to recover pumping costs
12/6/2019	20	Economic loss due to inability to recover pumping costs
12/9/2019	7	Economic loss due to inability to recover pumping costs
12/9/2019	8	Economic loss due to inability to recover pumping costs
12/9/2019	9	Economic loss due to inability to recover pumping costs
12/9/2019	10	Economic loss due to inability to recover pumping costs
12/9/2019	11	Economic loss due to inability to recover pumping costs
12/9/2019	12	Economic loss due to inability to recover pumping costs
12/9/2019	13	Economic loss due to inability to recover pumping costs
12/9/2019	14	Economic loss due to inability to recover pumping costs
12/9/2019	15	Economic loss due to inability to recover pumping costs
12/9/2019	16	Economic loss due to inability to recover pumping costs
12/9/2019	17	Economic loss due to inability to recover pumping costs
12/9/2019	18	Economic loss due to inability to recover pumping costs
12/9/2019	19	Economic loss due to inability to recover pumping costs
12/9/2019	21	Economic loss due to inability economically generate
12/9/2019	22	Economic loss due to inability economically generate
12/9/2019	23	Economic loss due to inability economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/9/2019	24	Economic loss due to inability economically generate
12/10/2019	1	Economic loss due to inability economically generate
12/10/2019	2	Economic loss due to inability economically generate
12/10/2019	3	Economic loss due to inability economically generate
12/10/2019	4	Economic loss due to inability economically generate
12/10/2019	5	Economic loss due to inability economically generate
12/10/2019	6	Economic loss due to inability economically generate
12/10/2019	7	Economic loss due to inability economically generate
12/10/2019	8	Economic loss due to inability to recover pumping costs
12/10/2019	9	Economic loss due to inability to recover pumping costs
12/10/2019	10	Economic loss due to inability to recover pumping costs
12/10/2019	11	Economic loss due to inability to recover pumping costs
12/10/2019	12	Economic loss due to inability to recover pumping costs
12/10/2019	13	Economic loss due to inability to recover pumping costs
12/10/2019	14	Economic loss due to inability to recover pumping costs
12/10/2019	15	Economic loss due to inability to recover pumping costs
12/10/2019	16	Economic loss due to inability to recover pumping costs
12/10/2019	19	Economic loss due to inability to recover pumping costs
12/10/2019	23	Economic loss due to inability economically generate
12/10/2019	24	Economic loss due to inability economically generate
12/12/2019	15	Economic loss due to inability to recover pumping costs
12/13/2019	7	Economic loss due to inability economically generate
12/13/2019	8	Economic loss due to inability to recover pumping costs
12/13/2019	9	Economic loss due to inability to recover pumping costs
12/13/2019	10	Economic loss due to inability to recover pumping costs
12/13/2019	11	Economic loss due to inability to recover pumping costs
12/13/2019	12	Economic loss due to inability to recover pumping costs
12/14/2019	7	Economic loss due to inability to recover pumping costs
12/14/2019	20	Economic loss due to inability to recover pumping costs
12/14/2019	21	Economic loss due to inability to recover pumping costs
12/14/2019	23	Economic loss due to inability to recover pumping costs
12/15/2019	7	Economic loss due to inability economically generate
12/15/2019	8	Economic loss due to inability economically generate
12/15/2019	9	Economic loss due to inability economically generate
12/15/2019	10	Economic loss due to inability economically generate
12/15/2019	11	Economic loss due to inability economically generate
12/15/2019	12	Economic loss due to inability economically generate
12/15/2019	13	Economic loss due to inability to recover pumping costs
12/15/2019	15	Economic loss due to inability economically generate
12/15/2019	20	Economic loss due to inability to recover pumping costs
12/17/2019	24	Economic loss due to inability to recover pumping costs
12/18/2019	1	Economic loss due to inability economically generate
12/18/2019	2	Economic loss due to inability economically generate
12/18/2019	4	Economic loss due to inability economically generate
12/18/2019	5	Economic loss due to inability economically generate
12/18/2019	6	Economic loss due to inability economically generate
12/18/2019	7	Economic loss due to inability to recover pumping costs
12/18/2019	8	Economic loss due to inability to recover pumping costs
12/18/2019	9	Economic loss due to inability to recover pumping costs
12/18/2019	10	Economic loss due to inability to recover pumping costs
12/18/2019	12	Economic loss due to inability to recover pumping costs
12/18/2019	13	Economic loss due to inability to recover pumping costs
12/18/2019	14	Economic loss due to inability to recover pumping costs
12/18/2019	15	Economic loss due to inability to recover pumping costs
12/18/2019	16	Economic loss due to inability to recover pumping costs
12/21/2019	20	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/21/2019	21	Economic loss due to inability to recover pumping costs
12/21/2019	22	Economic loss due to inability to recover pumping costs
12/21/2019	23	Economic loss due to inability to recover pumping costs
12/21/2019	24	Economic loss due to inability to recover pumping costs
12/23/2019	5	Economic loss due to inability economically generate
12/23/2019	6	Economic loss due to inability economically generate
12/23/2019	7	Economic loss due to inability to recover pumping costs
12/23/2019	8	Economic loss due to inability to recover pumping costs
12/23/2019	9	Economic loss due to inability to recover pumping costs
12/23/2019	10	Economic loss due to inability to recover pumping costs
12/23/2019	11	Economic loss due to inability to recover pumping costs
12/23/2019	12	Economic loss due to inability to recover pumping costs
12/23/2019	13	Economic loss due to inability to recover pumping costs
12/23/2019	14	Economic loss due to inability to recover pumping costs
12/23/2019	15	Economic loss due to inability to recover pumping costs
12/23/2019	16	Economic loss due to inability to recover pumping costs
12/23/2019	17	Economic loss due to inability to recover pumping costs
12/23/2019	18	Economic loss due to inability to recover pumping costs
12/23/2019	19	Economic loss due to inability to recover pumping costs
12/23/2019	20	Economic loss due to inability to recover pumping costs
12/23/2019	21	Economic loss due to inability to recover pumping costs
12/24/2019	7	Economic loss due to inability to recover pumping costs
12/24/2019	8	Economic loss due to inability to recover pumping costs
12/24/2019	10	Economic loss due to inability to recover pumping costs
12/24/2019	14	Economic loss due to inability to recover pumping costs
12/24/2019	19	Economic loss due to inability to recover pumping costs
12/24/2019	21	Economic loss due to inability to recover pumping costs
12/24/2019	22	Economic loss due to inability to recover pumping costs
1/3/2020	2	Economic loss due to inability to economically generate
1/3/2020	3	Economic loss due to inability to economically generate
1/3/2020	4	Economic loss due to inability to economically generate
1/3/2020	5	Economic loss due to inability to economically generate
1/3/2020	6	Economic loss due to inability to economically generate
1/3/2020	7	Economic loss due to inability to economically generate
1/3/2020	8	Economic loss due to inability to recover pumping costs
1/3/2020	9	Economic loss due to inability to recover pumping costs
1/3/2020	10	Economic loss due to inability to recover pumping costs
1/3/2020	11	Economic loss due to inability to recover pumping costs
1/3/2020	12	Economic loss due to inability to recover pumping costs
1/3/2020	13	Economic loss due to inability to recover pumping costs
1/3/2020	14	Economic loss due to inability to recover pumping costs
1/3/2020	15	Economic loss due to inability to recover pumping costs
1/3/2020	16	Economic loss due to inability to recover pumping costs
1/3/2020	17	Economic loss due to inability to recover pumping costs
1/3/2020	18	Economic loss due to inability to recover pumping costs
1/3/2020	19	Economic loss due to inability to recover pumping costs
1/3/2020	24	Economic loss due to inability to recover pumping costs
1/13/2020	1	Economic loss due to inability to economically generate
1/13/2020	2	Economic loss due to inability to economically generate
1/13/2020	5	Economic loss due to inability to economically generate
1/13/2020	6	Economic loss due to inability to economically generate
1/13/2020	24	Economic loss due to inability to recover pumping costs
1/14/2020	7	Economic loss due to inability to recover pumping costs
1/14/2020	9	Economic loss due to inability to recover pumping costs
1/14/2020	11	Economic loss due to inability to recover pumping costs
1/14/2020	12	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/14/2020	21	Economic loss due to inability to recover pumping costs
1/15/2020	7	Economic loss due to inability to recover pumping costs
1/15/2020	8	Economic loss due to inability to recover pumping costs
1/15/2020	9	Economic loss due to inability to recover pumping costs
1/15/2020	10	Economic loss due to inability to recover pumping costs
1/15/2020	11	Economic loss due to inability to recover pumping costs
1/15/2020	12	Economic loss due to inability to recover pumping costs
1/15/2020	16	Economic loss due to inability to recover pumping costs
1/15/2020	17	Economic loss due to inability to recover pumping costs
1/15/2020	19	Economic loss due to inability to recover pumping costs
1/15/2020	20	Economic loss due to inability to recover pumping costs
1/15/2020	21	Economic loss due to inability to recover pumping costs
1/15/2020	24	Economic loss due to inability to recover pumping costs
1/16/2020	1	Economic loss due to inability to recover pumping costs
1/16/2020	4	Economic loss due to inability to economically generate
1/16/2020	5	Economic loss due to inability to economically generate
1/16/2020	6	Economic loss due to inability to economically generate
1/16/2020	7	Economic loss due to inability to recover pumping costs
1/16/2020	8	Economic loss due to inability to recover pumping costs
1/16/2020	9	Economic loss due to inability to recover pumping costs
1/16/2020	10	Economic loss due to inability to recover pumping costs
1/16/2020	11	Economic loss due to inability to recover pumping costs
1/16/2020	12	Economic loss due to inability to recover pumping costs
1/16/2020	13	Economic loss due to inability to recover pumping costs
1/16/2020	14	Economic loss due to inability to recover pumping costs
1/16/2020	15	Economic loss due to inability to recover pumping costs
1/16/2020	16	Economic loss due to inability to recover pumping costs
1/16/2020	17	Economic loss due to inability to recover pumping costs
1/16/2020	18	Economic loss due to inability to recover pumping costs
1/16/2020	19	Economic loss due to inability to recover pumping costs
1/16/2020	20	Economic loss due to inability to recover pumping costs
1/16/2020	21	Economic loss due to inability to recover pumping costs
1/16/2020	23	Economic loss due to inability to recover pumping costs
1/17/2020	24	Economic loss due to inability to recover pumping costs
1/19/2020	1	Economic loss due to inability to economically generate
1/19/2020	2	Economic loss due to inability to economically generate
1/19/2020	3	Economic loss due to inability to economically generate
1/19/2020	4	Economic loss due to inability to economically generate
1/19/2020	5	Economic loss due to inability to economically generate
1/19/2020	6	Economic loss due to inability to economically generate
1/19/2020	7	Economic loss due to inability to economically generate
1/19/2020	8	Economic loss due to inability to economically generate
1/19/2020	9	Economic loss due to inability to economically generate
1/19/2020	10	Economic loss due to inability to economically generate
1/19/2020	11	Economic loss due to inability to recover pumping costs
1/19/2020	12	Economic loss due to inability to economically generate
1/19/2020	13	Economic loss due to inability to economically generate
1/19/2020	14	Economic loss due to inability to recover pumping costs
1/19/2020	15	Economic loss due to inability to economically generate
1/19/2020	16	Economic loss due to inability to recover pumping costs
1/19/2020	17	Economic loss due to inability to recover pumping costs
1/19/2020	18	Economic loss due to inability to recover pumping costs
1/19/2020	19	Economic loss due to inability to recover pumping costs
1/19/2020	20	Economic loss due to inability to recover pumping costs
1/19/2020	21	Economic loss due to inability to recover pumping costs
1/19/2020	22	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/19/2020	23	Economic loss due to inability to recover pumping costs
1/19/2020	24	Economic loss due to inability to recover pumping costs
1/20/2020	14	Economic loss due to inability to recover pumping costs
1/20/2020	15	Economic loss due to inability to recover pumping costs
1/20/2020	16	Economic loss due to inability to recover pumping costs
1/20/2020	20	Economic loss due to inability to recover pumping costs
1/21/2020	5	Economic loss due to inability to recover pumping costs
1/21/2020	17	Economic loss due to inability to recover pumping costs
1/21/2020	18	Economic loss due to inability to recover pumping costs
1/21/2020	19	Economic loss due to inability to recover pumping costs
1/21/2020	20	Economic loss due to inability to recover pumping costs
1/21/2020	21	Economic loss due to inability to recover pumping costs
1/22/2020	7	Economic loss due to inability to recover pumping costs
1/22/2020	8	Economic loss due to inability to recover pumping costs
1/22/2020	9	Economic loss due to inability to recover pumping costs
1/22/2020	10	Economic loss due to inability to recover pumping costs
1/22/2020	11	Economic loss due to inability to recover pumping costs
1/22/2020	12	Economic loss due to inability to recover pumping costs
1/22/2020	13	Economic loss due to inability to recover pumping costs
1/22/2020	14	Economic loss due to inability to recover pumping costs
1/22/2020	16	Economic loss due to inability to recover pumping costs
1/22/2020	17	Economic loss due to inability to recover pumping costs
1/22/2020	18	Economic loss due to inability to recover pumping costs
1/22/2020	19	Economic loss due to inability to recover pumping costs
1/22/2020	20	Economic loss due to inability to recover pumping costs
1/22/2020	21	Economic loss due to inability to recover pumping costs
1/22/2020	22	Economic loss due to inability to recover pumping costs
1/22/2020	23	Economic loss due to inability to recover pumping costs
1/27/2020	1	Economic loss due to inability to economically generate
1/27/2020	2	Economic loss due to inability to economically generate
1/27/2020	3	Economic loss due to inability to economically generate
1/27/2020	4	Economic loss due to inability to economically generate
1/27/2020	5	Economic loss due to inability to economically generate
1/27/2020	6	Economic loss due to inability to economically generate
1/27/2020	7	Economic loss due to inability to recover pumping costs
1/27/2020	8	Economic loss due to inability to recover pumping costs
1/27/2020	9	Economic loss due to inability to recover pumping costs
1/27/2020	10	Economic loss due to inability to recover pumping costs
1/27/2020	11	Economic loss due to inability to recover pumping costs
1/27/2020	12	Economic loss due to inability to recover pumping costs
1/27/2020	13	Economic loss due to inability to recover pumping costs
1/27/2020	14	Economic loss due to inability to recover pumping costs
1/27/2020	15	Economic loss due to inability to recover pumping costs
1/27/2020	16	Economic loss due to inability to recover pumping costs
1/27/2020	17	Economic loss due to inability to recover pumping costs
1/27/2020	18	Economic loss due to inability to recover pumping costs
1/27/2020	19	Economic loss due to inability to recover pumping costs
1/27/2020	20	Economic loss due to inability to recover pumping costs
1/27/2020	21	Economic loss due to inability to recover pumping costs
1/27/2020	22	Economic loss due to inability to recover pumping costs
1/27/2020	23	Economic loss due to inability to recover pumping costs
1/28/2020	3	Economic loss due to inability to economically generate
1/28/2020	4	Economic loss due to inability to economically generate
1/28/2020	5	Economic loss due to inability to economically generate
1/28/2020	6	Economic loss due to inability to economically generate
1/28/2020	7	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/28/2020	8	Economic loss due to inability to recover pumping costs
1/28/2020	9	Economic loss due to inability to recover pumping costs
1/28/2020	10	Economic loss due to inability to recover pumping costs
1/28/2020	11	Economic loss due to inability to recover pumping costs
1/28/2020	13	Economic loss due to inability to recover pumping costs
1/28/2020	14	Economic loss due to inability to recover pumping costs
1/28/2020	15	Economic loss due to inability to recover pumping costs
1/28/2020	17	Economic loss due to inability to recover pumping costs
1/28/2020	18	Economic loss due to inability to recover pumping costs
1/28/2020	19	Economic loss due to inability to recover pumping costs
1/28/2020	20	Economic loss due to inability to recover pumping costs
1/28/2020	21	Economic loss due to inability to recover pumping costs
1/28/2020	22	Economic loss due to inability to recover pumping costs
1/28/2020	23	Economic loss due to inability to recover pumping costs
1/28/2020	24	Economic loss due to inability to recover pumping costs
1/29/2020	2	Economic loss due to inability to recover pumping costs
1/29/2020	3	Economic loss due to inability to economically generate
1/29/2020	4	Economic loss due to inability to economically generate
1/29/2020	5	Economic loss due to inability to recover pumping costs
1/29/2020	7	Economic loss due to inability to recover pumping costs
1/29/2020	15	Economic loss due to inability to recover pumping costs
1/30/2020	4	Economic loss due to inability to recover pumping costs
1/31/2020	2	Economic loss due to inability to recover pumping costs
1/31/2020	3	Economic loss due to inability to recover pumping costs
1/31/2020	4	Economic loss due to inability to economically generate
1/31/2020	5	Economic loss due to inability to recover pumping costs
2/1/2020	2	Economic loss due to inability to recover pumping costs
2/1/2020	3	Economic loss due to inability to recover pumping costs
2/1/2020	4	Economic loss due to inability to recover pumping costs
2/1/2020	7	Economic loss due to inability to recover pumping costs
2/1/2020	8	Economic loss due to inability to recover pumping costs
2/1/2020	9	Economic loss due to inability to recover pumping costs
2/1/2020	12	Economic loss due to inability to recover pumping costs
2/1/2020	13	Economic loss due to inability to recover pumping costs
2/1/2020	14	Economic loss due to inability to recover pumping costs
2/1/2020	15	Economic loss due to inability to recover pumping costs
2/1/2020	16	Economic loss due to inability to recover pumping costs
2/1/2020	21	Economic loss due to inability to recover pumping costs
2/1/2020	22	Economic loss due to inability to recover pumping costs
2/1/2020	23	Economic loss due to inability to recover pumping costs
2/1/2020	24	Economic loss due to inability to recover pumping costs
2/3/2020	1	Economic loss due to inability to economically generate
2/3/2020	2	Economic loss due to inability to economically generate
2/3/2020	3	Economic loss due to inability to economically generate
2/3/2020	4	Economic loss due to inability to economically generate
2/3/2020	5	Economic loss due to inability to economically generate
2/3/2020	6	Economic loss due to inability to economically generate
2/3/2020	7	Economic loss due to inability to recover pumping costs
2/3/2020	8	Economic loss due to inability to recover pumping costs
2/3/2020	9	Economic loss due to inability to recover pumping costs
2/3/2020	10	Economic loss due to inability to recover pumping costs
2/3/2020	11	Economic loss due to inability to recover pumping costs
2/3/2020	12	Economic loss due to inability to recover pumping costs
2/3/2020	14	Economic loss due to inability to recover pumping costs
2/3/2020	16	Economic loss due to inability to recover pumping costs
2/3/2020	17	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/4/2020	2	Economic loss due to inability to economically generate
2/4/2020	3	Economic loss due to inability to economically generate
2/4/2020	4	Economic loss due to inability to economically generate
2/4/2020	5	Economic loss due to inability to economically generate
2/4/2020	6	Economic loss due to inability to recover pumping costs
2/4/2020	7	Economic loss due to inability to recover pumping costs
2/4/2020	8	Economic loss due to inability to recover pumping costs
2/4/2020	9	Economic loss due to inability to recover pumping costs
2/4/2020	10	Economic loss due to inability to recover pumping costs
2/4/2020	11	Economic loss due to inability to recover pumping costs
2/4/2020	12	Economic loss due to inability to recover pumping costs
2/4/2020	13	Economic loss due to inability to recover pumping costs
2/4/2020	16	Economic loss due to inability to recover pumping costs
2/4/2020	18	Economic loss due to inability to recover pumping costs
2/4/2020	19	Economic loss due to inability to recover pumping costs
2/4/2020	20	Economic loss due to inability to recover pumping costs
2/4/2020	22	Economic loss due to inability to economically generate
2/4/2020	23	Economic loss due to inability to economically generate
2/4/2020	24	Economic loss due to inability to economically generate
2/5/2020	1	Economic loss due to inability to economically generate
2/5/2020	2	Economic loss due to inability to economically generate
2/5/2020	3	Economic loss due to inability to economically generate
2/5/2020	4	Economic loss due to inability to economically generate
2/5/2020	5	Economic loss due to inability to economically generate
2/5/2020	6	Economic loss due to inability to recover pumping costs
2/5/2020	7	Economic loss due to inability to recover pumping costs
2/5/2020	8	Economic loss due to inability to recover pumping costs
2/5/2020	9	Economic loss due to inability to recover pumping costs
2/5/2020	10	Economic loss due to inability to recover pumping costs
2/5/2020	11	Economic loss due to inability to recover pumping costs
2/5/2020	12	Economic loss due to inability to recover pumping costs
2/5/2020	13	Economic loss due to inability to recover pumping costs
2/5/2020	14	Economic loss due to inability to recover pumping costs
2/5/2020	15	Economic loss due to inability to recover pumping costs
2/5/2020	16	Economic loss due to inability to recover pumping costs
2/6/2020	2	Economic loss due to inability to recover pumping costs
2/6/2020	3	Economic loss due to inability to recover pumping costs
2/6/2020	5	Economic loss due to inability to recover pumping costs
2/6/2020	6	Economic loss due to inability to recover pumping costs
2/6/2020	7	Economic loss due to inability to recover pumping costs
2/6/2020	8	Economic loss due to inability to recover pumping costs
2/6/2020	9	Economic loss due to inability to recover pumping costs
2/6/2020	10	Economic loss due to inability to recover pumping costs
2/6/2020	11	Economic loss due to inability to recover pumping costs
2/6/2020	12	Economic loss due to inability to recover pumping costs
2/6/2020	13	Economic loss due to inability to recover pumping costs
2/6/2020	14	Economic loss due to inability to recover pumping costs
2/6/2020	23	Economic loss due to inability to recover pumping costs
2/7/2020	2	Economic loss due to inability to recover pumping costs
2/7/2020	5	Economic loss due to inability to economically generate
2/7/2020	6	Economic loss due to inability to economically generate
2/7/2020	7	Economic loss due to inability to recover pumping costs
2/7/2020	8	Economic loss due to inability to recover pumping costs
2/7/2020	9	Economic loss due to inability to recover pumping costs
2/7/2020	10	Economic loss due to inability to recover pumping costs
2/7/2020	11	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/7/2020	12	Economic loss due to inability to recover pumping costs
2/7/2020	13	Economic loss due to inability to recover pumping costs
2/7/2020	14	Economic loss due to inability to recover pumping costs
2/7/2020	15	Economic loss due to inability to recover pumping costs
2/7/2020	16	Economic loss due to inability to recover pumping costs
2/7/2020	17	Economic loss due to inability to recover pumping costs
2/7/2020	18	Economic loss due to inability to recover pumping costs
2/7/2020	19	Economic loss due to inability to recover pumping costs
2/7/2020	20	Economic loss due to inability to economically generate
2/7/2020	21	Economic loss due to inability to recover pumping costs
2/7/2020	22	Economic loss due to inability to recover pumping costs
2/8/2020	2	Economic loss due to inability to economically generate
2/8/2020	3	Economic loss due to inability to economically generate
2/8/2020	4	Economic loss due to inability to economically generate
2/8/2020	5	Economic loss due to inability to economically generate
2/8/2020	6	Economic loss due to inability to economically generate
2/9/2020	3	Economic loss due to inability to recover pumping costs
2/9/2020	4	Economic loss due to inability to recover pumping costs
2/9/2020	14	Economic loss due to inability to recover pumping costs
2/9/2020	15	Economic loss due to inability to recover pumping costs
2/9/2020	17	Economic loss due to inability to recover pumping costs
2/9/2020	18	Economic loss due to inability to recover pumping costs
2/9/2020	19	Economic loss due to inability to recover pumping costs
2/9/2020	20	Economic loss due to inability to recover pumping costs
2/9/2020	21	Economic loss due to inability to recover pumping costs
2/9/2020	22	Economic loss due to inability to recover pumping costs
2/9/2020	23	Economic loss due to inability to economically generate
2/9/2020	24	Economic loss due to inability to economically generate
2/10/2020	1	Economic loss due to inability to economically generate
2/10/2020	6	Economic loss due to inability to recover pumping costs
2/10/2020	7	Economic loss due to inability to recover pumping costs
2/10/2020	8	Economic loss due to inability to recover pumping costs
2/10/2020	9	Economic loss due to inability to recover pumping costs
2/10/2020	10	Economic loss due to inability to recover pumping costs
2/10/2020	11	Economic loss due to inability to recover pumping costs
2/10/2020	12	Economic loss due to inability to recover pumping costs
2/10/2020	13	Economic loss due to inability to recover pumping costs
2/10/2020	14	Economic loss due to inability to recover pumping costs
2/10/2020	15	Economic loss due to inability to recover pumping costs
2/12/2020	3	Economic loss due to inability to economically generate
2/12/2020	4	Economic loss due to inability to economically generate
2/12/2020	5	Economic loss due to inability to economically generate
2/12/2020	6	Economic loss due to inability to recover pumping costs
2/12/2020	7	Economic loss due to inability to recover pumping costs
2/12/2020	8	Economic loss due to inability to recover pumping costs
2/12/2020	9	Economic loss due to inability to recover pumping costs
2/12/2020	10	Economic loss due to inability to recover pumping costs
2/12/2020	11	Economic loss due to inability to recover pumping costs
2/12/2020	12	Economic loss due to inability to recover pumping costs
2/12/2020	13	Economic loss due to inability to recover pumping costs
2/12/2020	14	Economic loss due to inability to recover pumping costs
2/12/2020	15	Economic loss due to inability to recover pumping costs
2/12/2020	16	Economic loss due to inability to recover pumping costs
2/12/2020	17	Economic loss due to inability to recover pumping costs
2/12/2020	18	Economic loss due to inability to recover pumping costs
2/12/2020	19	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/12/2020	20	Economic loss due to inability to recover pumping costs
2/12/2020	21	Economic loss due to inability to recover pumping costs
2/12/2020	22	Economic loss due to inability to recover pumping costs
2/13/2020	2	Economic loss due to inability to economically generate
2/13/2020	3	Economic loss due to inability to economically generate
2/13/2020	4	Economic loss due to inability to economically generate
2/13/2020	6	Economic loss due to inability to recover pumping costs
2/13/2020	7	Economic loss due to inability to recover pumping costs
2/13/2020	8	Economic loss due to inability to recover pumping costs
2/13/2020	9	Economic loss due to inability to recover pumping costs
2/13/2020	10	Economic loss due to inability to recover pumping costs
2/13/2020	24	Economic loss due to inability to economically generate
2/16/2020	1	Economic loss due to inability to economically generate
2/16/2020	2	Economic loss due to inability to economically generate
2/16/2020	5	Economic loss due to inability to economically generate
2/16/2020	6	Economic loss due to inability to economically generate
2/16/2020	8	Economic loss due to inability to economically generate
2/16/2020	9	Economic loss due to inability to recover pumping costs
2/16/2020	11	Economic loss due to inability to recover pumping costs
2/16/2020	12	Economic loss due to inability to recover pumping costs
2/16/2020	13	Economic loss due to inability to recover pumping costs
2/16/2020	14	Economic loss due to inability to recover pumping costs
2/16/2020	15	Economic loss due to inability to recover pumping costs
2/16/2020	16	Economic loss due to inability to recover pumping costs
2/16/2020	17	Economic loss due to inability to recover pumping costs
2/16/2020	18	Economic loss due to inability to recover pumping costs
2/16/2020	19	Economic loss due to inability to recover pumping costs
2/16/2020	20	Economic loss due to inability to recover pumping costs
2/16/2020	21	Economic loss due to inability to recover pumping costs
2/16/2020	22	Economic loss due to inability to recover pumping costs
2/16/2020	23	Economic loss due to inability to recover pumping costs
2/17/2020	2	Economic loss due to inability to recover pumping costs
2/17/2020	4	Economic loss due to inability to recover pumping costs
2/17/2020	5	Economic loss due to inability to recover pumping costs
2/17/2020	6	Economic loss due to inability to recover pumping costs
2/17/2020	7	Economic loss due to inability to recover pumping costs
2/17/2020	9	Economic loss due to inability to recover pumping costs
2/17/2020	15	Economic loss due to inability to recover pumping costs
2/17/2020	16	Economic loss due to inability to recover pumping costs
2/17/2020	17	Economic loss due to inability to recover pumping costs
2/17/2020	19	Economic loss due to inability to recover pumping costs
2/17/2020	20	Economic loss due to inability to recover pumping costs
2/17/2020	21	Economic loss due to inability to recover pumping costs
2/17/2020	22	Economic loss due to inability to recover pumping costs
2/17/2020	23	Economic loss due to inability to recover pumping costs
2/18/2020	6	Economic loss due to inability to recover pumping costs
2/18/2020	7	Economic loss due to inability to recover pumping costs
2/18/2020	8	Economic loss due to inability to recover pumping costs
2/18/2020	9	Economic loss due to inability to recover pumping costs
2/18/2020	10	Economic loss due to inability to recover pumping costs
2/18/2020	11	Economic loss due to inability to recover pumping costs
2/18/2020	12	Economic loss due to inability to recover pumping costs
2/18/2020	13	Economic loss due to inability to recover pumping costs
2/18/2020	14	Economic loss due to inability to recover pumping costs
2/18/2020	15	Economic loss due to inability to recover pumping costs
2/18/2020	18	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/18/2020	19	Economic loss due to inability to recover pumping costs
2/18/2020	21	Economic loss due to inability to economically generate
2/18/2020	22	Economic loss due to inability to economically generate
2/18/2020	23	Economic loss due to inability to economically generate
2/18/2020	24	Economic loss due to inability to economically generate
2/19/2020	1	Economic loss due to inability to economically generate
2/19/2020	4	Economic loss due to inability to economically generate
2/19/2020	5	Economic loss due to inability to economically generate
2/19/2020	6	Economic loss due to inability to economically generate
2/19/2020	7	Economic loss due to inability to recover pumping costs
2/19/2020	8	Economic loss due to inability to recover pumping costs
2/19/2020	13	Economic loss due to inability to recover pumping costs
2/19/2020	14	Economic loss due to inability to recover pumping costs
2/19/2020	15	Economic loss due to inability to recover pumping costs
2/19/2020	16	Economic loss due to inability to recover pumping costs
2/19/2020	18	Economic loss due to inability to recover pumping costs
2/19/2020	19	Economic loss due to inability to recover pumping costs
2/19/2020	20	Economic loss due to inability to economically generate
2/19/2020	21	Economic loss due to inability to economically generate
2/19/2020	22	Economic loss due to inability to economically generate
2/19/2020	23	Economic loss due to inability to economically generate
2/19/2020	24	Economic loss due to inability to economically generate
2/20/2020	2	Economic loss due to inability to recover pumping costs
2/20/2020	3	Economic loss due to inability to economically generate
2/20/2020	5	Economic loss due to inability to economically generate
2/24/2020	1	Economic loss due to inability to economically generate
2/24/2020	2	Economic loss due to inability to economically generate
2/24/2020	3	Economic loss due to inability to economically generate
2/24/2020	4	Economic loss due to inability to economically generate
2/24/2020	5	Economic loss due to inability to economically generate
2/24/2020	6	Economic loss due to inability to economically generate
2/24/2020	7	Economic loss due to inability to recover pumping costs
2/24/2020	8	Economic loss due to inability to recover pumping costs
2/24/2020	9	Economic loss due to inability to recover pumping costs
2/24/2020	10	Economic loss due to inability to recover pumping costs
2/24/2020	11	Economic loss due to inability to recover pumping costs
2/24/2020	12	Economic loss due to inability to recover pumping costs
2/24/2020	13	Economic loss due to inability to recover pumping costs
2/24/2020	14	Economic loss due to inability to recover pumping costs
2/24/2020	15	Economic loss due to inability to recover pumping costs
2/24/2020	16	Economic loss due to inability to recover pumping costs
2/24/2020	17	Economic loss due to inability to recover pumping costs
2/24/2020	18	Economic loss due to inability to recover pumping costs
2/24/2020	19	Economic loss due to inability to recover pumping costs
2/25/2020	1	Economic loss due to inability to recover pumping costs
2/25/2020	2	Economic loss due to inability to recover pumping costs
2/25/2020	6	Economic loss due to inability to recover pumping costs
2/25/2020	7	Economic loss due to inability to recover pumping costs
2/25/2020	8	Economic loss due to inability to recover pumping costs
2/25/2020	9	Economic loss due to inability to recover pumping costs
2/25/2020	10	Economic loss due to inability to recover pumping costs
2/25/2020	11	Economic loss due to inability to recover pumping costs
2/25/2020	12	Economic loss due to inability to recover pumping costs
2/25/2020	13	Economic loss due to inability to recover pumping costs
2/25/2020	14	Economic loss due to inability to recover pumping costs
2/25/2020	15	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/25/2020	16	Economic loss due to inability to recover pumping costs
2/25/2020	17	Economic loss due to inability to recover pumping costs
2/25/2020	18	Economic loss due to inability to recover pumping costs
2/25/2020	19	Economic loss due to inability to recover pumping costs
2/25/2020	20	Economic loss due to inability to recover pumping costs
2/26/2020	7	Economic loss due to inability to recover pumping costs
2/26/2020	8	Economic loss due to inability to recover pumping costs
2/26/2020	9	Economic loss due to inability to recover pumping costs
2/26/2020	10	Economic loss due to inability to recover pumping costs
2/26/2020	11	Economic loss due to inability to recover pumping costs
2/26/2020	12	Economic loss due to inability to recover pumping costs
2/26/2020	13	Economic loss due to inability to recover pumping costs
2/26/2020	14	Economic loss due to inability to recover pumping costs
2/26/2020	15	Economic loss due to inability to recover pumping costs
2/26/2020	16	Economic loss due to inability to recover pumping costs
2/26/2020	17	Economic loss due to inability to recover pumping costs
2/26/2020	18	Economic loss due to inability to recover pumping costs
2/26/2020	19	Economic loss due to inability to recover pumping costs
2/26/2020	20	Economic loss due to inability to recover pumping costs
2/26/2020	21	Economic loss due to inability to recover pumping costs
2/26/2020	22	Economic loss due to inability to recover pumping costs
2/26/2020	23	Economic loss due to inability to recover pumping costs
2/26/2020	24	Economic loss due to inability to recover pumping costs
2/29/2020	15	Economic loss due to inability to economically generate
2/29/2020	16	Economic loss due to inability to recover pumping costs
3/2/2020	7	Economic loss due to inability to economically generate
3/2/2020	8	Economic loss due to inability to recover pumping costs
3/2/2020	9	Economic loss due to inability to recover pumping costs
3/2/2020	10	Economic loss due to inability to recover pumping costs
3/2/2020	11	Economic loss due to inability to recover pumping costs
3/2/2020	12	Economic loss due to inability to recover pumping costs
3/2/2020	13	Economic loss due to inability to recover pumping costs
3/2/2020	14	Economic loss due to inability to recover pumping costs
3/2/2020	15	Economic loss due to inability to recover pumping costs
3/2/2020	16	Economic loss due to inability to recover pumping costs
3/2/2020	17	Economic loss due to inability to recover pumping costs
3/2/2020	18	Economic loss due to inability to recover pumping costs
3/2/2020	19	Economic loss due to inability to recover pumping costs
3/2/2020	20	Economic loss due to inability to recover pumping costs
3/2/2020	21	Economic loss due to inability to recover pumping costs
3/2/2020	22	Economic loss due to inability to recover pumping costs
3/2/2020	23	Economic loss due to inability to recover pumping costs
3/2/2020	24	Economic loss due to inability to recover pumping costs
3/5/2020	10	Economic loss due to inability to recover pumping costs
3/5/2020	15	Economic loss due to inability to recover pumping costs
3/6/2020	3	Economic loss due to inability to economically generate
3/6/2020	4	Economic loss due to inability to economically generate
3/6/2020	6	Economic loss due to inability to recover pumping costs
3/6/2020	7	Economic loss due to inability to recover pumping costs
3/6/2020	13	Economic loss due to inability to recover pumping costs
3/6/2020	14	Economic loss due to inability to recover pumping costs
3/6/2020	15	Economic loss due to inability to recover pumping costs
3/6/2020	17	Economic loss due to inability to recover pumping costs
3/6/2020	18	Economic loss due to inability to recover pumping costs
3/6/2020	19	Economic loss due to inability to recover pumping costs
3/6/2020	20	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/6/2020	22	Economic loss due to inability to recover pumping costs
3/6/2020	24	Economic loss due to inability to recover pumping costs
3/11/2020	3	Economic loss due to inability to recover pumping costs
3/14/2020	6	Economic loss due to inability to economically generate
3/14/2020	7	Economic loss due to inability to recover pumping costs
3/14/2020	8	Economic loss due to inability to recover pumping costs
3/14/2020	9	Economic loss due to inability to recover pumping costs
3/14/2020	10	Economic loss due to inability to recover pumping costs
3/14/2020	11	Economic loss due to inability to recover pumping costs
3/14/2020	20	Economic loss due to inability to recover pumping costs
3/14/2020	21	Economic loss due to inability to recover pumping costs
3/14/2020	24	Economic loss due to inability to recover pumping costs
3/15/2020	1	Economic loss due to inability to recover pumping costs
3/15/2020	2	Economic loss due to inability to recover pumping costs
3/15/2020	3	Economic loss due to inability to economically generate
3/15/2020	4	Economic loss due to inability to recover pumping costs
3/15/2020	5	Economic loss due to inability to recover pumping costs
3/15/2020	6	Economic loss due to inability to recover pumping costs
3/15/2020	7	Economic loss due to inability to recover pumping costs
3/15/2020	9	Economic loss due to inability to recover pumping costs
3/15/2020	10	Economic loss due to inability to recover pumping costs
3/15/2020	11	Economic loss due to inability to recover pumping costs
3/15/2020	13	Economic loss due to inability to recover pumping costs
3/15/2020	14	Economic loss due to inability to economically generate
3/15/2020	15	Economic loss due to inability to economically generate
3/15/2020	16	Economic loss due to inability to recover pumping costs
3/15/2020	17	Economic loss due to inability to recover pumping costs
3/15/2020	18	Economic loss due to inability to recover pumping costs
3/16/2020	5	Economic loss due to inability to recover pumping costs
3/17/2020	2	Economic loss due to inability to economically generate
3/17/2020	3	Economic loss due to inability to economically generate
3/17/2020	4	Economic loss due to inability to economically generate
3/17/2020	5	Economic loss due to inability to economically generate
3/17/2020	6	Economic loss due to inability to recover pumping costs
3/17/2020	7	Economic loss due to inability to recover pumping costs
3/17/2020	8	Economic loss due to inability to recover pumping costs
3/17/2020	9	Economic loss due to inability to recover pumping costs
3/17/2020	10	Economic loss due to inability to recover pumping costs
3/17/2020	11	Economic loss due to inability to recover pumping costs
3/17/2020	12	Economic loss due to inability to recover pumping costs
3/17/2020	13	Economic loss due to inability to recover pumping costs
3/17/2020	15	Economic loss due to inability to recover pumping costs
3/17/2020	17	Economic loss due to inability to recover pumping costs
3/17/2020	19	Economic loss due to inability to recover pumping costs
3/17/2020	20	Economic loss due to inability to recover pumping costs
3/17/2020	21	Economic loss due to inability to recover pumping costs
3/17/2020	22	Economic loss due to inability to recover pumping costs
3/17/2020	23	Economic loss due to inability to recover pumping costs
3/17/2020	24	Economic loss due to inability to recover pumping costs
3/18/2020	4	Economic loss due to inability to economically generate
3/18/2020	5	Economic loss due to inability to recover pumping costs
3/18/2020	9	Economic loss due to inability to recover pumping costs
3/18/2020	10	Economic loss due to inability to recover pumping costs
3/18/2020	11	Economic loss due to inability to recover pumping costs
3/18/2020	12	Economic loss due to inability to recover pumping costs
3/18/2020	13	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/18/2020	14	Economic loss due to inability to recover pumping costs
3/18/2020	15	Economic loss due to inability to recover pumping costs
3/18/2020	17	Economic loss due to inability to recover pumping costs
3/18/2020	20	Economic loss due to inability to recover pumping costs
3/18/2020	24	Economic loss due to inability to recover pumping costs
3/23/2020	2	Economic loss due to inability to economically generate
3/23/2020	4	Economic loss due to inability to economically generate
3/23/2020	5	Economic loss due to inability to recover pumping costs
3/23/2020	21	Economic loss due to inability to recover pumping costs
3/23/2020	22	Economic loss due to inability to recover pumping costs
3/23/2020	24	Economic loss due to inability to recover pumping costs
3/24/2020	23	Economic loss due to inability to recover pumping costs
3/31/2020	5	Economic loss due to inability to recover pumping costs
3/31/2020	6	Economic loss due to inability to recover pumping costs
3/31/2020	7	Economic loss due to inability to recover pumping costs
3/31/2020	8	Economic loss due to inability to recover pumping costs
3/31/2020	9	Economic loss due to inability to recover pumping costs
3/31/2020	10	Economic loss due to inability to recover pumping costs
3/31/2020	11	Economic loss due to inability to recover pumping costs
3/31/2020	12	Economic loss due to inability to recover pumping costs
3/31/2020	13	Economic loss due to inability to recover pumping costs
3/31/2020	14	Economic loss due to inability to recover pumping costs
3/31/2020	15	Economic loss due to inability to recover pumping costs
3/31/2020	16	Economic loss due to inability to recover pumping costs
3/31/2020	17	Economic loss due to inability to recover pumping costs
3/31/2020	18	Economic loss due to inability to recover pumping costs
3/31/2020	19	Economic loss due to inability to recover pumping costs
3/31/2020	20	Economic loss due to inability to recover pumping costs
3/31/2020	21	Economic loss due to inability to recover pumping costs
3/31/2020	22	Economic loss due to inability to recover pumping costs
3/31/2020	23	Economic loss due to inability to recover pumping costs
5/25/2020	1	Economic loss due to inability to economically generate
5/25/2020	2	Economic loss due to inability to economically generate
5/25/2020	6	Economic loss due to inability to economically generate
5/25/2020	7	Economic loss due to inability to economically generate
5/25/2020	8	Economic loss due to inability to recover pumping costs
5/25/2020	9	Economic loss due to inability to recover pumping costs
5/25/2020	10	Economic loss due to inability to recover pumping costs
5/25/2020	11	Economic loss due to inability to recover pumping costs
5/25/2020	12	Economic loss due to inability to recover pumping costs
5/25/2020	13	Economic loss due to inability to recover pumping costs
5/25/2020	14	Economic loss due to inability to recover pumping costs
5/25/2020	15	Economic loss due to inability to recover pumping costs
5/25/2020	16	Economic loss due to inability to recover pumping costs
5/25/2020	17	Economic loss due to inability to recover pumping costs
5/25/2020	18	Economic loss due to inability to recover pumping costs
5/25/2020	19	Economic loss due to inability to recover pumping costs
5/25/2020	20	Economic loss due to inability to recover pumping costs
5/25/2020	21	Economic loss due to inability to recover pumping costs
5/25/2020	22	Economic loss due to inability to recover pumping costs
5/26/2020	6	Economic loss due to inability to recover pumping costs
5/26/2020	7	Economic loss due to inability to recover pumping costs
5/26/2020	10	Economic loss due to inability to recover pumping costs
5/27/2020	7	Economic loss due to inability to recover pumping costs
5/27/2020	8	Economic loss due to inability to recover pumping costs
5/27/2020	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
5/27/2020	10	Economic loss due to inability to recover pumping costs
5/27/2020	11	Economic loss due to inability to recover pumping costs
5/27/2020	12	Economic loss due to inability to recover pumping costs
5/27/2020	13	Economic loss due to inability to recover pumping costs
5/27/2020	14	Economic loss due to inability to recover pumping costs
5/27/2020	15	Economic loss due to inability to recover pumping costs
5/27/2020	16	Economic loss due to inability to recover pumping costs
5/27/2020	17	Economic loss due to inability to recover pumping costs
5/27/2020	18	Economic loss due to inability to recover pumping costs
5/27/2020	19	Economic loss due to inability to recover pumping costs
5/27/2020	20	Economic loss due to inability to recover pumping costs
5/27/2020	21	Economic loss due to inability to recover pumping costs
5/27/2020	22	Economic loss due to inability to recover pumping costs
5/27/2020	23	Economic loss due to inability to recover pumping costs
5/27/2020	24	Economic loss due to inability to recover pumping costs
6/3/2020	7	Economic loss due to inability to recover pumping costs
6/3/2020	8	Economic loss due to inability to recover pumping costs
6/3/2020	9	Economic loss due to inability to recover pumping costs
6/3/2020	10	Economic loss due to inability to recover pumping costs
6/3/2020	11	Economic loss due to inability to recover pumping costs
6/3/2020	12	Economic loss due to inability to recover pumping costs
6/3/2020	13	Economic loss due to inability to recover pumping costs
6/3/2020	14	Economic loss due to inability to recover pumping costs
6/3/2020	15	Economic loss due to inability to recover pumping costs
6/3/2020	16	Economic loss due to inability to recover pumping costs
6/3/2020	17	Economic loss due to inability to recover pumping costs
6/3/2020	18	Economic loss due to inability to recover pumping costs
6/3/2020	19	Economic loss due to inability to recover pumping costs
6/3/2020	20	Economic loss due to inability to recover pumping costs
6/3/2020	21	Economic loss due to inability to recover pumping costs
6/3/2020	22	Economic loss due to inability to recover pumping costs
6/3/2020	23	Economic loss due to inability to recover pumping costs
6/4/2020	7	Economic loss due to inability to recover pumping costs
6/4/2020	8	Economic loss due to inability to recover pumping costs
6/4/2020	9	Economic loss due to inability to recover pumping costs
6/4/2020	10	Economic loss due to inability to recover pumping costs
6/4/2020	11	Economic loss due to inability to recover pumping costs
6/4/2020	12	Economic loss due to inability to recover pumping costs
6/4/2020	13	Economic loss due to inability to recover pumping costs
6/4/2020	14	Economic loss due to inability to recover pumping costs
6/4/2020	15	Economic loss due to inability to recover pumping costs
6/4/2020	16	Economic loss due to inability to recover pumping costs
6/4/2020	17	Economic loss due to inability to recover pumping costs
6/4/2020	18	Economic loss due to inability to recover pumping costs
6/4/2020	19	Economic loss due to inability to recover pumping costs
6/4/2020	20	Economic loss due to inability to recover pumping costs
6/4/2020	21	Economic loss due to inability to recover pumping costs
6/4/2020	22	Economic loss due to inability to recover pumping costs
6/4/2020	23	Economic loss due to inability to recover pumping costs
6/4/2020	24	Economic loss due to inability to recover pumping costs
6/9/2020	7	Economic loss due to inability to recover pumping costs
6/9/2020	8	Economic loss due to inability to recover pumping costs
6/9/2020	9	Economic loss due to inability to recover pumping costs
6/9/2020	10	Economic loss due to inability to recover pumping costs
6/9/2020	11	Economic loss due to inability to recover pumping costs
6/9/2020	12	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
6/9/2020	13	Economic loss due to inability to recover pumping costs
6/9/2020	14	Economic loss due to inability to recover pumping costs
6/9/2020	15	Economic loss due to inability to recover pumping costs
6/9/2020	16	Economic loss due to inability to recover pumping costs
6/9/2020	17	Economic loss due to inability to recover pumping costs
6/9/2020	18	Economic loss due to inability to recover pumping costs
6/9/2020	19	Economic loss due to inability to recover pumping costs
6/9/2020	20	Economic loss due to inability to recover pumping costs
6/9/2020	21	Economic loss due to inability to recover pumping costs
6/9/2020	22	Economic loss due to inability to recover pumping costs
6/9/2020	23	Economic loss due to inability to recover pumping costs
6/18/2020	7	Economic loss due to inability to recover pumping costs
6/18/2020	8	Economic loss due to inability to recover pumping costs
6/18/2020	9	Economic loss due to inability to recover pumping costs
6/18/2020	10	Economic loss due to inability to recover pumping costs
6/18/2020	11	Economic loss due to inability to recover pumping costs
6/18/2020	12	Economic loss due to inability to recover pumping costs
6/18/2020	13	Economic loss due to inability to recover pumping costs
6/18/2020	14	Economic loss due to inability to recover pumping costs
6/18/2020	15	Economic loss due to inability to recover pumping costs
6/18/2020	16	Economic loss due to inability to recover pumping costs
6/18/2020	17	Economic loss due to inability to recover pumping costs
6/18/2020	18	Economic loss due to inability to recover pumping costs
6/18/2020	21	Economic loss due to inability to recover pumping costs
6/18/2020	22	Economic loss due to inability to recover pumping costs
6/18/2020	23	Economic loss due to inability to recover pumping costs
6/19/2020	5	Economic loss due to inability to economically generate
6/19/2020	6	Economic loss due to inability to economically generate
6/19/2020	7	Economic loss due to inability to recover pumping costs
6/19/2020	8	Economic loss due to inability to recover pumping costs
6/19/2020	9	Economic loss due to inability to recover pumping costs
6/19/2020	10	Economic loss due to inability to recover pumping costs
6/19/2020	11	Economic loss due to inability to recover pumping costs
6/19/2020	12	Economic loss due to inability to recover pumping costs
6/19/2020	13	Economic loss due to inability to recover pumping costs
6/19/2020	15	Economic loss due to inability to recover pumping costs
6/19/2020	16	Economic loss due to inability to recover pumping costs
6/19/2020	20	Economic loss due to inability to recover pumping costs
6/19/2020	21	Economic loss due to inability to recover pumping costs
6/20/2020	1	Economic loss due to inability to recover pumping costs
6/20/2020	8	Economic loss due to inability to recover pumping costs
6/20/2020	9	Economic loss due to inability to recover pumping costs
6/20/2020	10	Economic loss due to inability to recover pumping costs
6/20/2020	11	Economic loss due to inability to recover pumping costs
6/20/2020	12	Economic loss due to inability to recover pumping costs
6/20/2020	16	Economic loss due to inability to recover pumping costs
6/20/2020	17	Economic loss due to inability to recover pumping costs
6/20/2020	18	Economic loss due to inability to recover pumping costs
6/20/2020	19	Economic loss due to inability to recover pumping costs
6/20/2020	20	Economic loss due to inability to recover pumping costs
6/20/2020	21	Economic loss due to inability to recover pumping costs
6/20/2020	22	Economic loss due to inability to recover pumping costs
6/21/2020	4	Economic loss due to inability to economically generate
6/21/2020	5	Economic loss due to inability to economically generate
6/21/2020	6	Economic loss due to inability to economically generate
6/21/2020	7	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
6/21/2020	8	Economic loss due to inability to economically generate
6/21/2020	9	Economic loss due to inability to recover pumping costs
6/21/2020	10	Economic loss due to inability to recover pumping costs
6/21/2020	11	Economic loss due to inability to recover pumping costs
6/21/2020	12	Economic loss due to inability to recover pumping costs
6/21/2020	13	Economic loss due to inability to recover pumping costs
6/21/2020	14	Economic loss due to inability to recover pumping costs
6/21/2020	15	Economic loss due to inability to recover pumping costs
6/21/2020	16	Economic loss due to inability to recover pumping costs
6/21/2020	17	Economic loss due to inability to recover pumping costs
6/21/2020	18	Economic loss due to inability to recover pumping costs
6/21/2020	19	Economic loss due to inability to recover pumping costs
6/21/2020	20	Economic loss due to inability to recover pumping costs
6/22/2020	2	Economic loss due to inability to economically generate
6/22/2020	4	Economic loss due to inability to economically generate
6/22/2020	5	Economic loss due to inability to economically generate
6/22/2020	6	Economic loss due to inability to economically generate
6/26/2020	7	Economic loss due to inability to recover pumping costs
6/26/2020	8	Economic loss due to inability to recover pumping costs
6/26/2020	9	Economic loss due to inability to recover pumping costs
6/26/2020	10	Economic loss due to inability to recover pumping costs
6/26/2020	11	Economic loss due to inability to recover pumping costs
6/26/2020	12	Economic loss due to inability to recover pumping costs
6/26/2020	13	Economic loss due to inability to recover pumping costs
6/26/2020	14	Economic loss due to inability to recover pumping costs
6/26/2020	15	Economic loss due to inability to recover pumping costs
6/26/2020	16	Economic loss due to inability to recover pumping costs
6/26/2020	17	Economic loss due to inability to recover pumping costs
6/26/2020	18	Economic loss due to inability to recover pumping costs
6/26/2020	19	Economic loss due to inability to recover pumping costs
6/26/2020	20	Economic loss due to inability to recover pumping costs
6/26/2020	21	Economic loss due to inability to recover pumping costs
6/26/2020	22	Economic loss due to inability to recover pumping costs
6/26/2020	23	Economic loss due to inability to recover pumping costs
6/26/2020	24	Economic loss due to inability to recover pumping costs
6/28/2020	8	Economic loss due to inability to economically generate
6/28/2020	9	Economic loss due to inability to economically generate
6/28/2020	10	Economic loss due to inability to economically generate
6/28/2020	11	Economic loss due to inability to recover pumping costs
6/28/2020	12	Economic loss due to inability to recover pumping costs
6/28/2020	13	Economic loss due to inability to recover pumping costs
6/28/2020	14	Economic loss due to inability to recover pumping costs
6/28/2020	15	Economic loss due to inability to recover pumping costs
6/28/2020	16	Economic loss due to inability to recover pumping costs
6/28/2020	17	Economic loss due to inability to recover pumping costs
6/28/2020	18	Economic loss due to inability to recover pumping costs
6/28/2020	19	Economic loss due to inability to recover pumping costs
6/28/2020	20	Economic loss due to inability to recover pumping costs
6/28/2020	21	Economic loss due to inability to recover pumping costs
6/29/2020	7	Economic loss due to inability to recover pumping costs
6/29/2020	8	Economic loss due to inability to recover pumping costs
6/29/2020	9	Economic loss due to inability to recover pumping costs
6/29/2020	10	Economic loss due to inability to recover pumping costs
6/29/2020	11	Economic loss due to inability to recover pumping costs
6/29/2020	12	Economic loss due to inability to recover pumping costs
6/29/2020	13	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
6/29/2020	14	Economic loss due to inability to recover pumping costs
6/29/2020	15	Economic loss due to inability to recover pumping costs
6/29/2020	16	Economic loss due to inability to recover pumping costs
6/29/2020	17	Economic loss due to inability to recover pumping costs
6/29/2020	18	Economic loss due to inability to recover pumping costs
6/29/2020	19	Economic loss due to inability to recover pumping costs
6/29/2020	20	Economic loss due to inability to recover pumping costs
6/29/2020	21	Economic loss due to inability to recover pumping costs
6/29/2020	22	Economic loss due to inability to recover pumping costs
6/30/2020	7	Economic loss due to inability to recover pumping costs
6/30/2020	8	Economic loss due to inability to recover pumping costs
6/30/2020	9	Economic loss due to inability to recover pumping costs
6/30/2020	10	Economic loss due to inability to recover pumping costs
6/30/2020	11	Economic loss due to inability to recover pumping costs
6/30/2020	14	Economic loss due to inability to recover pumping costs
6/30/2020	15	Economic loss due to inability to recover pumping costs
6/30/2020	16	Economic loss due to inability to recover pumping costs
6/30/2020	17	Economic loss due to inability to recover pumping costs
6/30/2020	18	Economic loss due to inability to recover pumping costs
6/30/2020	19	Economic loss due to inability to recover pumping costs
6/30/2020	20	Economic loss due to inability to recover pumping costs
6/30/2020	21	Economic loss due to inability to recover pumping costs
6/30/2020	22	Economic loss due to inability to recover pumping costs
6/30/2020	24	Economic loss due to inability to recover pumping costs
7/1/2020	10	Economic loss due to inability to recover pumping costs
7/1/2020	11	Economic loss due to inability to recover pumping costs
7/1/2020	12	Economic loss due to inability to recover pumping costs
7/1/2020	13	Economic loss due to inability to recover pumping costs
7/1/2020	14	Economic loss due to inability to recover pumping costs
7/1/2020	15	Economic loss due to inability to recover pumping costs
7/1/2020	16	Economic loss due to inability to recover pumping costs
7/1/2020	17	Economic loss due to inability to recover pumping costs
7/3/2020	7	Economic loss due to inability to recover pumping costs
7/3/2020	8	Economic loss due to inability to recover pumping costs
7/3/2020	9	Economic loss due to inability to recover pumping costs
7/3/2020	10	Economic loss due to inability to recover pumping costs
7/3/2020	11	Economic loss due to inability to recover pumping costs
7/3/2020	12	Economic loss due to inability to recover pumping costs
7/3/2020	13	Economic loss due to inability to recover pumping costs
7/3/2020	14	Economic loss due to inability to recover pumping costs
7/3/2020	15	Economic loss due to inability to recover pumping costs
7/3/2020	16	Economic loss due to inability to recover pumping costs
7/3/2020	17	Economic loss due to inability to recover pumping costs
7/3/2020	18	Economic loss due to inability to recover pumping costs
7/3/2020	19	Economic loss due to inability to recover pumping costs
7/3/2020	20	Economic loss due to inability to recover pumping costs
7/3/2020	21	Economic loss due to inability to recover pumping costs
7/3/2020	22	Economic loss due to inability to recover pumping costs
7/3/2020	23	Economic loss due to inability to recover pumping costs
7/3/2020	24	Economic loss due to inability to recover pumping costs
7/4/2020	8	Economic loss due to inability to recover pumping costs
7/4/2020	9	Economic loss due to inability to recover pumping costs
7/4/2020	10	Economic loss due to inability to recover pumping costs
7/4/2020	11	Economic loss due to inability to recover pumping costs
7/4/2020	12	Economic loss due to inability to recover pumping costs
7/4/2020	13	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
7/4/2020	14	Economic loss due to inability to recover pumping costs
7/4/2020	15	Economic loss due to inability to recover pumping costs
7/4/2020	16	Economic loss due to inability to recover pumping costs
7/4/2020	17	Economic loss due to inability to recover pumping costs
7/4/2020	18	Economic loss due to inability to recover pumping costs
7/4/2020	19	Economic loss due to inability to recover pumping costs
7/4/2020	20	Economic loss due to inability to recover pumping costs
7/4/2020	21	Economic loss due to inability to recover pumping costs
7/4/2020	22	Economic loss due to inability to recover pumping costs
7/4/2020	23	Economic loss due to inability to recover pumping costs
7/5/2020	8	Economic loss due to inability to recover pumping costs
7/5/2020	9	Economic loss due to inability to recover pumping costs
7/5/2020	10	Economic loss due to inability to recover pumping costs
7/5/2020	13	Economic loss due to inability to recover pumping costs
7/5/2020	14	Economic loss due to inability to recover pumping costs
7/5/2020	15	Economic loss due to inability to recover pumping costs
7/5/2020	16	Economic loss due to inability to recover pumping costs
7/5/2020	17	Economic loss due to inability to recover pumping costs
7/5/2020	18	Economic loss due to inability to recover pumping costs
7/5/2020	19	Economic loss due to inability to recover pumping costs
7/5/2020	20	Economic loss due to inability to recover pumping costs
7/7/2020	7	Economic loss due to inability to recover pumping costs
7/7/2020	8	Economic loss due to inability to recover pumping costs
7/7/2020	9	Economic loss due to inability to recover pumping costs
7/7/2020	10	Economic loss due to inability to recover pumping costs
7/7/2020	11	Economic loss due to inability to recover pumping costs
7/7/2020	12	Economic loss due to inability to recover pumping costs
7/7/2020	13	Economic loss due to inability to recover pumping costs
7/7/2020	14	Economic loss due to inability to recover pumping costs
7/7/2020	15	Economic loss due to inability to recover pumping costs
7/7/2020	16	Economic loss due to inability to recover pumping costs
7/7/2020	17	Economic loss due to inability to recover pumping costs
7/13/2020	7	Economic loss due to inability to recover pumping costs
7/13/2020	8	Economic loss due to inability to recover pumping costs
7/13/2020	9	Economic loss due to inability to recover pumping costs
7/13/2020	10	Economic loss due to inability to recover pumping costs
7/13/2020	11	Economic loss due to inability to recover pumping costs
7/13/2020	12	Economic loss due to inability to recover pumping costs
7/13/2020	13	Economic loss due to inability to recover pumping costs
7/13/2020	14	Economic loss due to inability to recover pumping costs
7/13/2020	16	Economic loss due to inability to recover pumping costs
7/13/2020	17	Economic loss due to inability to recover pumping costs
7/13/2020	18	Economic loss due to inability to recover pumping costs
7/13/2020	19	Economic loss due to inability to recover pumping costs
7/13/2020	20	Economic loss due to inability to recover pumping costs
7/13/2020	21	Economic loss due to inability to recover pumping costs
7/13/2020	22	Economic loss due to inability to recover pumping costs
7/13/2020	23	Economic loss due to inability to recover pumping costs
7/15/2020	7	Economic loss due to inability to recover pumping costs
7/15/2020	8	Economic loss due to inability to recover pumping costs
7/15/2020	9	Economic loss due to inability to recover pumping costs
7/15/2020	10	Economic loss due to inability to recover pumping costs
7/15/2020	11	Economic loss due to inability to recover pumping costs
7/15/2020	12	Economic loss due to inability to recover pumping costs
7/15/2020	13	Economic loss due to inability to recover pumping costs
7/15/2020	14	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
7/15/2020	22	Economic loss due to inability to recover pumping costs
7/15/2020	23	Economic loss due to inability to recover pumping costs
7/17/2020	7	Economic loss due to inability to recover pumping costs
7/17/2020	8	Economic loss due to inability to recover pumping costs
7/17/2020	9	Economic loss due to inability to recover pumping costs
7/17/2020	10	Economic loss due to inability to recover pumping costs
7/17/2020	11	Economic loss due to inability to recover pumping costs
7/17/2020	12	Economic loss due to inability to recover pumping costs
7/17/2020	13	Economic loss due to inability to recover pumping costs
7/17/2020	14	Economic loss due to inability to recover pumping costs
7/17/2020	15	Economic loss due to inability to recover pumping costs
7/17/2020	16	Economic loss due to inability to recover pumping costs
7/17/2020	17	Economic loss due to inability to recover pumping costs
7/17/2020	18	Economic loss due to inability to recover pumping costs
7/17/2020	19	Economic loss due to inability to recover pumping costs
7/17/2020	20	Economic loss due to inability to recover pumping costs
7/17/2020	21	Economic loss due to inability to recover pumping costs
7/17/2020	22	Economic loss due to inability to recover pumping costs
7/17/2020	23	Economic loss due to inability to recover pumping costs
7/17/2020	24	Economic loss due to inability to recover pumping costs
7/18/2020	9	Economic loss due to inability to recover pumping costs
7/18/2020	10	Economic loss due to inability to recover pumping costs
7/18/2020	11	Economic loss due to inability to recover pumping costs
7/18/2020	12	Economic loss due to inability to recover pumping costs
7/18/2020	13	Economic loss due to inability to recover pumping costs
7/18/2020	14	Economic loss due to inability to recover pumping costs
7/18/2020	15	Economic loss due to inability to recover pumping costs
7/18/2020	16	Economic loss due to inability to recover pumping costs
7/18/2020	17	Economic loss due to inability to recover pumping costs
7/18/2020	18	Economic loss due to inability to recover pumping costs
7/18/2020	19	Economic loss due to inability to recover pumping costs
7/18/2020	20	Economic loss due to inability to recover pumping costs
7/18/2020	21	Economic loss due to inability to recover pumping costs
7/21/2020	7	Economic loss due to inability to recover pumping costs
7/21/2020	8	Economic loss due to inability to recover pumping costs
7/21/2020	9	Economic loss due to inability to recover pumping costs
7/22/2020	7	Economic loss due to inability to recover pumping costs
7/22/2020	8	Economic loss due to inability to recover pumping costs
7/22/2020	9	Economic loss due to inability to recover pumping costs
7/22/2020	10	Economic loss due to inability to recover pumping costs
7/22/2020	11	Economic loss due to inability to recover pumping costs
7/22/2020	12	Economic loss due to inability to recover pumping costs
7/23/2020	7	Economic loss due to inability to recover pumping costs
7/24/2020	7	Economic loss due to inability to recover pumping costs
7/24/2020	8	Economic loss due to inability to recover pumping costs
7/24/2020	9	Economic loss due to inability to recover pumping costs
7/24/2020	10	Economic loss due to inability to recover pumping costs
7/24/2020	11	Economic loss due to inability to recover pumping costs
7/25/2020	15	Economic loss due to inability to recover pumping costs
7/25/2020	16	Economic loss due to inability to recover pumping costs
7/25/2020	24	Economic loss due to inability to recover pumping costs
7/26/2020	9	Economic loss due to inability to economically generate
7/26/2020	10	Economic loss due to inability to recover pumping costs
7/26/2020	11	Economic loss due to inability to recover pumping costs
7/27/2020	7	Economic loss due to inability to recover pumping costs
7/27/2020	8	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
7/27/2020	9	Economic loss due to inability to recover pumping costs
7/27/2020	10	Economic loss due to inability to recover pumping costs
7/27/2020	11	Economic loss due to inability to recover pumping costs
7/27/2020	12	Economic loss due to inability to recover pumping costs
7/27/2020	13	Economic loss due to inability to recover pumping costs
7/28/2020	7	Economic loss due to inability to recover pumping costs
7/28/2020	11	Economic loss due to inability to recover pumping costs
7/28/2020	12	Economic loss due to inability to recover pumping costs
7/28/2020	13	Economic loss due to inability to recover pumping costs
7/28/2020	15	Economic loss due to inability to recover pumping costs
7/28/2020	16	Economic loss due to inability to recover pumping costs
7/28/2020	17	Economic loss due to inability to recover pumping costs
7/28/2020	18	Economic loss due to inability to recover pumping costs
7/29/2020	6	Economic loss due to inability to economically generate
7/29/2020	7	Economic loss due to inability to recover pumping costs
7/29/2020	8	Economic loss due to inability to recover pumping costs
7/29/2020	9	Economic loss due to inability to recover pumping costs
7/29/2020	10	Economic loss due to inability to recover pumping costs
7/29/2020	11	Economic loss due to inability to recover pumping costs
7/29/2020	12	Economic loss due to inability to recover pumping costs
7/29/2020	13	Economic loss due to inability to recover pumping costs
7/29/2020	14	Economic loss due to inability to recover pumping costs
7/29/2020	15	Economic loss due to inability to recover pumping costs
7/29/2020	16	Economic loss due to inability to recover pumping costs
7/29/2020	17	Economic loss due to inability to recover pumping costs
7/29/2020	18	Economic loss due to inability to recover pumping costs
7/29/2020	19	Economic loss due to inability to recover pumping costs
7/29/2020	20	Economic loss due to inability to recover pumping costs
7/29/2020	21	Economic loss due to inability to recover pumping costs
7/29/2020	22	Economic loss due to inability to recover pumping costs
7/29/2020	23	Economic loss due to inability to recover pumping costs
7/30/2020	7	Economic loss due to inability to recover pumping costs
7/30/2020	8	Economic loss due to inability to recover pumping costs
7/30/2020	9	Economic loss due to inability to recover pumping costs
7/30/2020	10	Economic loss due to inability to recover pumping costs
7/30/2020	11	Economic loss due to inability to recover pumping costs
7/30/2020	24	Economic loss due to inability to recover pumping costs
7/31/2020	7	Economic loss due to inability to recover pumping costs
7/31/2020	8	Economic loss due to inability to recover pumping costs
7/31/2020	9	Economic loss due to inability to recover pumping costs
7/31/2020	10	Economic loss due to inability to recover pumping costs
7/31/2020	11	Economic loss due to inability to recover pumping costs
7/31/2020	12	Economic loss due to inability to recover pumping costs
7/31/2020	13	Economic loss due to inability to recover pumping costs
7/31/2020	14	Economic loss due to inability to recover pumping costs
7/31/2020	15	Economic loss due to inability to recover pumping costs
7/31/2020	16	Economic loss due to inability to recover pumping costs
7/31/2020	17	Economic loss due to inability to recover pumping costs
7/31/2020	18	Economic loss due to inability to recover pumping costs
7/31/2020	19	Economic loss due to inability to recover pumping costs
7/31/2020	20	Economic loss due to inability to recover pumping costs
7/31/2020	21	Economic loss due to inability to recover pumping costs
7/31/2020	24	Economic loss due to inability to recover pumping costs
8/1/2020	8	Economic loss due to inability to recover pumping costs
8/1/2020	9	Economic loss due to inability to recover pumping costs
8/1/2020	10	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
8/1/2020	11	Economic loss due to inability to recover pumping costs
8/1/2020	12	Economic loss due to inability to recover pumping costs
8/1/2020	13	Economic loss due to inability to recover pumping costs
8/1/2020	14	Economic loss due to inability to recover pumping costs
8/1/2020	15	Economic loss due to inability to recover pumping costs
8/1/2020	16	Economic loss due to inability to recover pumping costs
8/1/2020	17	Economic loss due to inability to recover pumping costs
8/1/2020	19	Economic loss due to inability to recover pumping costs
8/1/2020	20	Economic loss due to inability to recover pumping costs
8/1/2020	21	Economic loss due to inability to recover pumping costs
8/1/2020	22	Economic loss due to inability to recover pumping costs
8/1/2020	23	Economic loss due to inability to recover pumping costs
8/1/2020	24	Economic loss due to inability to recover pumping costs
8/4/2020	18	Economic loss due to inability to recover pumping costs
8/4/2020	19	Economic loss due to inability to recover pumping costs
8/4/2020	23	Economic loss due to inability to recover pumping costs
8/6/2020	7	Economic loss due to inability to recover pumping costs
8/6/2020	8	Economic loss due to inability to recover pumping costs
8/6/2020	9	Economic loss due to inability to recover pumping costs
8/6/2020	10	Economic loss due to inability to recover pumping costs
8/6/2020	11	Economic loss due to inability to recover pumping costs
8/6/2020	12	Economic loss due to inability to recover pumping costs
8/6/2020	13	Economic loss due to inability to recover pumping costs
8/6/2020	14	Economic loss due to inability to recover pumping costs
8/6/2020	15	Economic loss due to inability to recover pumping costs
8/6/2020	16	Economic loss due to inability to recover pumping costs
8/6/2020	17	Economic loss due to inability to recover pumping costs
8/6/2020	18	Economic loss due to inability to recover pumping costs
8/6/2020	19	Economic loss due to inability to recover pumping costs
8/6/2020	20	Economic loss due to inability to recover pumping costs
8/6/2020	21	Economic loss due to inability to recover pumping costs
8/6/2020	22	Economic loss due to inability to recover pumping costs
8/7/2020	7	Economic loss due to inability to recover pumping costs
8/7/2020	8	Economic loss due to inability to recover pumping costs
8/7/2020	9	Economic loss due to inability to recover pumping costs
8/7/2020	10	Economic loss due to inability to recover pumping costs
8/7/2020	11	Economic loss due to inability to recover pumping costs
8/7/2020	12	Economic loss due to inability to recover pumping costs
8/7/2020	13	Economic loss due to inability to recover pumping costs
8/7/2020	14	Economic loss due to inability to recover pumping costs
8/7/2020	15	Economic loss due to inability to recover pumping costs
8/7/2020	16	Economic loss due to inability to recover pumping costs
8/7/2020	17	Economic loss due to inability to recover pumping costs
8/7/2020	18	Economic loss due to inability to recover pumping costs
8/7/2020	19	Economic loss due to inability to recover pumping costs
8/7/2020	20	Economic loss due to inability to recover pumping costs
8/7/2020	21	Economic loss due to inability to recover pumping costs
8/8/2020	9	Economic loss due to inability to recover pumping costs
8/8/2020	10	Economic loss due to inability to recover pumping costs
8/8/2020	11	Economic loss due to inability to recover pumping costs
8/8/2020	12	Economic loss due to inability to recover pumping costs
8/8/2020	13	Economic loss due to inability to recover pumping costs
8/8/2020	14	Economic loss due to inability to recover pumping costs
8/8/2020	15	Economic loss due to inability to recover pumping costs
8/8/2020	16	Economic loss due to inability to recover pumping costs
8/8/2020	17	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
8/8/2020	18	Economic loss due to inability to recover pumping costs
8/9/2020	8	Economic loss due to inability to economically generate
8/9/2020	9	Economic loss due to inability to economically generate
8/9/2020	10	Economic loss due to inability to recover pumping costs
8/21/2020	7	Economic loss due to inability to recover pumping costs
8/21/2020	8	Economic loss due to inability to recover pumping costs
8/21/2020	9	Economic loss due to inability to recover pumping costs
8/21/2020	10	Economic loss due to inability to recover pumping costs
8/21/2020	11	Economic loss due to inability to recover pumping costs
8/26/2020	1	Economic loss due to inability to recover pumping costs
8/26/2020	3	Economic loss due to inability to recover pumping costs
8/27/2020	7	Economic loss due to inability to recover pumping costs
8/27/2020	8	Economic loss due to inability to recover pumping costs
8/27/2020	9	Economic loss due to inability to recover pumping costs
8/27/2020	10	Economic loss due to inability to recover pumping costs
8/27/2020	11	Economic loss due to inability to recover pumping costs
8/27/2020	12	Economic loss due to inability to recover pumping costs
8/27/2020	13	Economic loss due to inability to recover pumping costs
8/27/2020	14	Economic loss due to inability to recover pumping costs
9/1/2020	6	Economic loss due to inability to recover pumping costs
9/1/2020	7	Economic loss due to inability to recover pumping costs
9/1/2020	8	Economic loss due to inability to recover pumping costs
9/1/2020	9	Economic loss due to inability to recover pumping costs
9/2/2020	7	Economic loss due to inability to recover pumping costs
9/2/2020	15	Economic loss due to inability to recover pumping costs
9/4/2020	8	Economic loss due to inability to recover pumping costs
9/4/2020	9	Economic loss due to inability to recover pumping costs
9/4/2020	10	Economic loss due to inability to recover pumping costs
9/4/2020	11	Economic loss due to inability to recover pumping costs
9/4/2020	12	Economic loss due to inability to recover pumping costs
9/4/2020	13	Economic loss due to inability to recover pumping costs
9/4/2020	14	Economic loss due to inability to recover pumping costs
9/4/2020	15	Economic loss due to inability to recover pumping costs
9/4/2020	16	Economic loss due to inability to recover pumping costs
9/4/2020	17	Economic loss due to inability to recover pumping costs
9/4/2020	18	Economic loss due to inability to recover pumping costs
9/4/2020	19	Economic loss due to inability to recover pumping costs
9/4/2020	20	Economic loss due to inability to recover pumping costs
9/4/2020	21	Economic loss due to inability to recover pumping costs
9/4/2020	22	Economic loss due to inability to recover pumping costs
9/4/2020	23	Economic loss due to inability to recover pumping costs
9/7/2020	12	Economic loss due to inability to economically generate
9/7/2020	13	Economic loss due to inability to economically generate
9/7/2020	14	Economic loss due to inability to recover pumping costs
9/8/2020	5	Economic loss due to inability to economically generate
9/9/2020	4	Economic loss due to inability to economically generate
9/9/2020	5	Economic loss due to inability to recover pumping costs
9/9/2020	6	Economic loss due to inability to recover pumping costs
9/11/2020	5	Economic loss due to inability to recover pumping costs
9/11/2020	6	Economic loss due to inability to recover pumping costs
9/11/2020	23	Economic loss due to inability to recover pumping costs
9/11/2020	24	Economic loss due to inability to recover pumping costs
9/23/2020	2	Economic loss due to inability to economically generate
9/23/2020	3	Economic loss due to inability to economically generate
9/23/2020	4	Economic loss due to inability to economically generate
9/23/2020	5	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
9/23/2020	6	Economic loss due to inability to recover pumping costs
9/23/2020	7	Economic loss due to inability to recover pumping costs
9/23/2020	8	Economic loss due to inability to recover pumping costs
9/23/2020	9	Economic loss due to inability to recover pumping costs
9/23/2020	10	Economic loss due to inability to recover pumping costs
9/23/2020	11	Economic loss due to inability to recover pumping costs
9/23/2020	12	Economic loss due to inability to recover pumping costs
9/23/2020	13	Economic loss due to inability to recover pumping costs
9/23/2020	14	Economic loss due to inability to recover pumping costs
9/23/2020	15	Economic loss due to inability to recover pumping costs
9/23/2020	16	Economic loss due to inability to recover pumping costs
9/23/2020	17	Economic loss due to inability to recover pumping costs
9/23/2020	18	Economic loss due to inability to recover pumping costs
9/23/2020	19	Economic loss due to inability to recover pumping costs
9/23/2020	20	Economic loss due to inability to recover pumping costs
9/23/2020	21	Economic loss due to inability to recover pumping costs
9/23/2020	22	Economic loss due to inability to recover pumping costs
9/23/2020	23	Economic loss due to inability to recover pumping costs
9/23/2020	24	Economic loss due to inability to recover pumping costs
9/24/2020	1	Economic loss due to inability to recover pumping costs
9/24/2020	3	Economic loss due to inability to economically generate
9/24/2020	4	Economic loss due to inability to economically generate
9/24/2020	5	Economic loss due to inability to recover pumping costs
9/24/2020	6	Economic loss due to inability to recover pumping costs
9/24/2020	7	Economic loss due to inability to recover pumping costs
9/24/2020	8	Economic loss due to inability to recover pumping costs
9/24/2020	9	Economic loss due to inability to recover pumping costs
9/24/2020	10	Economic loss due to inability to recover pumping costs
9/24/2020	11	Economic loss due to inability to recover pumping costs
9/25/2020	5	Economic loss due to inability to recover pumping costs
9/25/2020	14	Economic loss due to inability to recover pumping costs
9/25/2020	15	Economic loss due to inability to recover pumping costs
9/25/2020	16	Economic loss due to inability to recover pumping costs
9/25/2020	17	Economic loss due to inability to recover pumping costs
9/25/2020	20	Economic loss due to inability to recover pumping costs
9/25/2020	21	Economic loss due to inability to recover pumping costs
9/25/2020	22	Economic loss due to inability to recover pumping costs
9/25/2020	23	Economic loss due to inability to recover pumping costs
9/25/2020	24	Economic loss due to inability to recover pumping costs
9/27/2020	10	Economic loss due to inability to economically generate
9/27/2020	11	Economic loss due to inability to recover pumping costs
9/27/2020	12	Economic loss due to inability to recover pumping costs
9/27/2020	13	Economic loss due to inability to recover pumping costs
9/27/2020	14	Economic loss due to inability to recover pumping costs
9/27/2020	15	Economic loss due to inability to recover pumping costs
9/27/2020	16	Economic loss due to inability to recover pumping costs
9/27/2020	17	Economic loss due to inability to recover pumping costs
9/27/2020	18	Economic loss due to inability to recover pumping costs
9/27/2020	19	Economic loss due to inability to recover pumping costs
9/27/2020	20	Economic loss due to inability to recover pumping costs
9/27/2020	22	Economic loss due to inability to recover pumping costs
9/27/2020	23	Economic loss due to inability to recover pumping costs
9/28/2020	1	Economic loss due to inability to recover pumping costs
9/28/2020	4	Economic loss due to inability to economically generate
9/28/2020	24	Economic loss due to inability to recover pumping costs
11/12/2020	1	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/12/2020	2	Economic loss due to inability to economically generate
11/12/2020	3	Economic loss due to inability to economically generate
11/12/2020	4	Economic loss due to inability to economically generate
11/12/2020	5	Economic loss due to inability to economically generate
11/12/2020	6	Economic loss due to inability to recover pumping costs
11/12/2020	7	Economic loss due to inability to recover pumping costs
11/12/2020	8	Economic loss due to inability to recover pumping costs
11/12/2020	9	Economic loss due to inability to recover pumping costs
11/12/2020	10	Economic loss due to inability to recover pumping costs
11/12/2020	11	Economic loss due to inability to recover pumping costs
11/12/2020	12	Economic loss due to inability to recover pumping costs
11/12/2020	13	Economic loss due to inability to recover pumping costs
11/12/2020	14	Economic loss due to inability to recover pumping costs
11/12/2020	15	Economic loss due to inability to recover pumping costs
11/12/2020	16	Economic loss due to inability to recover pumping costs
11/12/2020	17	Economic loss due to inability to recover pumping costs
11/12/2020	18	Economic loss due to inability to recover pumping costs
11/12/2020	19	Economic loss due to inability to recover pumping costs
11/12/2020	20	Economic loss due to inability to recover pumping costs
11/12/2020	21	Economic loss due to inability to recover pumping costs
11/12/2020	22	Economic loss due to inability to recover pumping costs
11/12/2020	23	Economic loss due to inability to recover pumping costs
11/13/2020	2	Economic loss due to inability to recover pumping costs
11/13/2020	5	Economic loss due to inability to recover pumping costs
11/13/2020	6	Economic loss due to inability to recover pumping costs
11/13/2020	7	Economic loss due to inability to recover pumping costs
11/13/2020	8	Economic loss due to inability to recover pumping costs
11/13/2020	9	Economic loss due to inability to recover pumping costs
11/13/2020	12	Economic loss due to inability to recover pumping costs
11/13/2020	13	Economic loss due to inability to recover pumping costs
11/13/2020	14	Economic loss due to inability to recover pumping costs
11/13/2020	15	Economic loss due to inability to recover pumping costs
11/13/2020	16	Economic loss due to inability to recover pumping costs
11/13/2020	17	Economic loss due to inability to recover pumping costs
11/13/2020	18	Economic loss due to inability to recover pumping costs
11/13/2020	19	Economic loss due to inability to recover pumping costs
11/13/2020	20	Economic loss due to inability to recover pumping costs
11/13/2020	21	Economic loss due to inability to recover pumping costs
11/13/2020	22	Economic loss due to inability to recover pumping costs
11/13/2020	23	Economic loss due to inability to recover pumping costs
11/17/2020	5	Economic loss due to inability to economically generate
11/17/2020	6	Economic loss due to inability to economically generate
11/17/2020	7	Economic loss due to inability to recover pumping costs
11/17/2020	8	Economic loss due to inability to recover pumping costs
11/17/2020	9	Economic loss due to inability to recover pumping costs
11/17/2020	10	Economic loss due to inability to recover pumping costs
11/17/2020	11	Economic loss due to inability to recover pumping costs
11/17/2020	12	Economic loss due to inability to recover pumping costs
11/17/2020	13	Economic loss due to inability to recover pumping costs
11/17/2020	14	Economic loss due to inability to recover pumping costs
11/17/2020	15	Economic loss due to inability to recover pumping costs
11/17/2020	16	Economic loss due to inability to recover pumping costs
11/17/2020	17	Economic loss due to inability to recover pumping costs
11/17/2020	18	Economic loss due to inability to recover pumping costs
11/17/2020	19	Economic loss due to inability to recover pumping costs
11/21/2020	8	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/21/2020	9	Economic loss due to inability to recover pumping costs
11/21/2020	11	Economic loss due to inability to recover pumping costs
11/21/2020	16	Economic loss due to inability to recover pumping costs
11/21/2020	17	Economic loss due to inability to recover pumping costs
11/21/2020	18	Economic loss due to inability to recover pumping costs
11/21/2020	19	Economic loss due to inability to recover pumping costs
11/21/2020	20	Economic loss due to inability to recover pumping costs
11/21/2020	21	Economic loss due to inability to recover pumping costs
11/21/2020	22	Economic loss due to inability to recover pumping costs
11/23/2020	3	Economic loss due to inability to economically generate
11/23/2020	4	Economic loss due to inability to economically generate
11/23/2020	5	Economic loss due to inability to economically generate
11/23/2020	6	Economic loss due to inability to economically generate
11/23/2020	7	Economic loss due to inability to recover pumping costs
11/23/2020	8	Economic loss due to inability to recover pumping costs
11/23/2020	9	Economic loss due to inability to recover pumping costs
11/23/2020	10	Economic loss due to inability to recover pumping costs
11/23/2020	11	Economic loss due to inability to recover pumping costs
11/23/2020	12	Economic loss due to inability to recover pumping costs
11/23/2020	13	Economic loss due to inability to recover pumping costs
11/23/2020	14	Economic loss due to inability to recover pumping costs
11/23/2020	15	Economic loss due to inability to recover pumping costs
11/23/2020	16	Economic loss due to inability to recover pumping costs
11/23/2020	17	Economic loss due to inability to recover pumping costs
11/23/2020	18	Economic loss due to inability to recover pumping costs
11/23/2020	20	Economic loss due to inability to recover pumping costs
11/23/2020	21	Economic loss due to inability to recover pumping costs
11/24/2020	7	Economic loss due to inability to recover pumping costs
11/24/2020	8	Economic loss due to inability to recover pumping costs
11/24/2020	9	Economic loss due to inability to recover pumping costs
11/24/2020	10	Economic loss due to inability to recover pumping costs
11/24/2020	11	Economic loss due to inability to recover pumping costs
11/24/2020	12	Economic loss due to inability to recover pumping costs
11/24/2020	13	Economic loss due to inability to recover pumping costs
11/24/2020	14	Economic loss due to inability to recover pumping costs
11/24/2020	15	Economic loss due to inability to recover pumping costs
11/24/2020	17	Economic loss due to inability to recover pumping costs
11/24/2020	18	Economic loss due to inability to recover pumping costs
11/24/2020	19	Economic loss due to inability to recover pumping costs
11/24/2020	22	Economic loss due to inability to recover pumping costs
11/25/2020	8	Economic loss due to inability to recover pumping costs
11/25/2020	9	Economic loss due to inability to recover pumping costs
11/25/2020	10	Economic loss due to inability to recover pumping costs
11/25/2020	11	Economic loss due to inability to recover pumping costs
11/25/2020	12	Economic loss due to inability to recover pumping costs
11/25/2020	13	Economic loss due to inability to recover pumping costs
11/25/2020	14	Economic loss due to inability to recover pumping costs
11/25/2020	15	Economic loss due to inability to recover pumping costs
11/25/2020	16	Economic loss due to inability to recover pumping costs
11/25/2020	17	Economic loss due to inability to recover pumping costs
11/25/2020	18	Economic loss due to inability to recover pumping costs
11/25/2020	19	Economic loss due to inability to recover pumping costs
11/25/2020	20	Economic loss due to inability to recover pumping costs
11/25/2020	21	Economic loss due to inability to recover pumping costs
11/25/2020	22	Economic loss due to inability to recover pumping costs
11/25/2020	23	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/26/2020	7	Economic loss due to inability to recover pumping costs
11/26/2020	8	Economic loss due to inability to recover pumping costs
11/26/2020	9	Economic loss due to inability to recover pumping costs
11/26/2020	10	Economic loss due to inability to recover pumping costs
11/26/2020	11	Economic loss due to inability to recover pumping costs
11/26/2020	12	Economic loss due to inability to recover pumping costs
11/26/2020	13	Economic loss due to inability to recover pumping costs
11/26/2020	14	Economic loss due to inability to recover pumping costs
11/26/2020	15	Economic loss due to inability to recover pumping costs
11/26/2020	16	Economic loss due to inability to recover pumping costs
11/26/2020	17	Economic loss due to inability to recover pumping costs
11/26/2020	18	Economic loss due to inability to recover pumping costs
11/26/2020	19	Economic loss due to inability to recover pumping costs
11/26/2020	20	Economic loss due to inability to recover pumping costs
11/26/2020	21	Economic loss due to inability to recover pumping costs
12/4/2020	4	Economic loss due to inability to economically generate
12/4/2020	5	Economic loss due to inability to economically generate
12/4/2020	6	Economic loss due to inability to economically generate
12/4/2020	7	Economic loss due to inability to economically generate
12/4/2020	8	Economic loss due to inability to recover pumping costs
12/4/2020	9	Economic loss due to inability to recover pumping costs
12/4/2020	10	Economic loss due to inability to recover pumping costs
12/4/2020	11	Economic loss due to inability to recover pumping costs
12/4/2020	12	Economic loss due to inability to recover pumping costs
12/4/2020	13	Economic loss due to inability to recover pumping costs
12/4/2020	14	Economic loss due to inability to recover pumping costs
12/4/2020	15	Economic loss due to inability to recover pumping costs
12/4/2020	16	Economic loss due to inability to recover pumping costs
12/4/2020	17	Economic loss due to inability to recover pumping costs
12/4/2020	18	Economic loss due to inability to recover pumping costs
12/4/2020	19	Economic loss due to inability to recover pumping costs
12/4/2020	20	Economic loss due to inability to recover pumping costs
12/4/2020	21	Economic loss due to inability to recover pumping costs
12/4/2020	22	Economic loss due to inability to recover pumping costs
12/4/2020	23	Economic loss due to inability to recover pumping costs
12/4/2020	24	Economic loss due to inability to recover pumping costs
12/5/2020	4	Economic loss due to inability to economically generate
12/5/2020	5	Economic loss due to inability to economically generate
12/5/2020	6	Economic loss due to inability to economically generate
12/5/2020	7	Economic loss due to inability to economically generate
12/5/2020	8	Economic loss due to inability to recover pumping costs
12/5/2020	9	Economic loss due to inability to economically generate
12/5/2020	10	Economic loss due to inability to recover pumping costs
12/5/2020	11	Economic loss due to inability to recover pumping costs
12/5/2020	12	Economic loss due to inability to recover pumping costs
12/5/2020	13	Economic loss due to inability to economically generate
12/5/2020	14	Economic loss due to inability to economically generate
12/5/2020	15	Economic loss due to inability to economically generate
12/5/2020	17	Economic loss due to inability to recover pumping costs
12/5/2020	18	Economic loss due to inability to recover pumping costs
12/5/2020	19	Economic loss due to inability to recover pumping costs
12/5/2020	20	Economic loss due to inability to recover pumping costs
12/5/2020	21	Economic loss due to inability to recover pumping costs
12/5/2020	23	Economic loss due to inability to economically generate
12/5/2020	24	Economic loss due to inability to economically generate
12/6/2020	2	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/6/2020	4	Economic loss due to inability to economically generate
12/6/2020	5	Economic loss due to inability to economically generate
12/7/2020	3	Economic loss due to inability to economically generate
12/7/2020	4	Economic loss due to inability to economically generate
12/7/2020	5	Economic loss due to inability to economically generate
12/7/2020	6	Economic loss due to inability to economically generate
12/7/2020	8	Economic loss due to inability to recover pumping costs
12/7/2020	9	Economic loss due to inability to recover pumping costs
12/7/2020	10	Economic loss due to inability to recover pumping costs
12/7/2020	18	Economic loss due to inability to recover pumping costs
12/7/2020	19	Economic loss due to inability to recover pumping costs
12/7/2020	20	Economic loss due to inability to recover pumping costs
12/13/2020	1	Economic loss due to inability to economically generate
12/13/2020	2	Economic loss due to inability to economically generate
12/13/2020	3	Economic loss due to inability to economically generate
12/13/2020	4	Economic loss due to inability to economically generate
12/13/2020	5	Economic loss due to inability to economically generate
12/13/2020	6	Economic loss due to inability to economically generate
12/13/2020	7	Economic loss due to inability to economically generate
12/13/2020	8	Economic loss due to inability to economically generate
12/13/2020	9	Economic loss due to inability to economically generate
12/13/2020	10	Economic loss due to inability to economically generate
12/13/2020	11	Economic loss due to inability to economically generate
12/13/2020	12	Economic loss due to inability to economically generate
12/13/2020	13	Economic loss due to inability to economically generate
12/13/2020	14	Economic loss due to inability to economically generate
12/13/2020	15	Economic loss due to inability to economically generate
12/13/2020	17	Economic loss due to inability to economically generate
12/13/2020	18	Economic loss due to inability to economically generate
12/13/2020	19	Economic loss due to inability to economically generate
12/13/2020	23	Economic loss due to inability to economically generate
12/13/2020	24	Economic loss due to inability to economically generate
12/15/2020	1	Economic loss due to inability to economically generate
12/15/2020	2	Economic loss due to inability to economically generate
12/15/2020	4	Economic loss due to inability to economically generate
12/15/2020	5	Economic loss due to inability to economically generate
12/15/2020	6	Economic loss due to inability to economically generate
12/16/2020	2	Economic loss due to inability to economically generate
12/16/2020	3	Economic loss due to inability to economically generate
12/16/2020	4	Economic loss due to inability to economically generate
12/16/2020	5	Economic loss due to inability to economically generate
12/16/2020	6	Economic loss due to inability to economically generate
12/16/2020	8	Economic loss due to inability to recover pumping costs
12/19/2020	1	Economic loss due to inability to recover pumping costs
12/19/2020	2	Economic loss due to inability to economically generate
12/19/2020	3	Economic loss due to inability to economically generate
12/19/2020	7	Economic loss due to inability to economically generate
12/19/2020	8	Economic loss due to inability to recover pumping costs
12/19/2020	9	Economic loss due to inability to recover pumping costs
12/19/2020	19	Economic loss due to inability to recover pumping costs
12/19/2020	20	Economic loss due to inability to recover pumping costs
12/19/2020	21	Economic loss due to inability to recover pumping costs
12/19/2020	22	Economic loss due to inability to recover pumping costs
12/20/2020	1	Economic loss due to inability to recover pumping costs
12/20/2020	2	Economic loss due to inability to economically generate
12/20/2020	3	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/20/2020	4	Economic loss due to inability to economically generate
12/20/2020	5	Economic loss due to inability to economically generate
12/20/2020	6	Economic loss due to inability to economically generate
12/20/2020	7	Economic loss due to inability to economically generate
12/20/2020	8	Economic loss due to inability to recover pumping costs
12/20/2020	9	Economic loss due to inability to recover pumping costs
12/20/2020	10	Economic loss due to inability to recover pumping costs
12/20/2020	11	Economic loss due to inability to recover pumping costs
12/20/2020	15	Economic loss due to inability to recover pumping costs
12/20/2020	16	Economic loss due to inability to recover pumping costs
12/20/2020	20	Economic loss due to inability to recover pumping costs
12/20/2020	21	Economic loss due to inability to recover pumping costs
12/20/2020	24	Economic loss due to inability to economically generate
12/21/2020	1	Economic loss due to inability to economically generate
12/21/2020	2	Economic loss due to inability to economically generate
12/21/2020	3	Economic loss due to inability to economically generate
12/21/2020	4	Economic loss due to inability to economically generate
12/21/2020	5	Economic loss due to inability to economically generate
12/21/2020	6	Economic loss due to inability to economically generate
1/1/2021	3	Economic loss due to inability to recover pumping costs
1/1/2021	4	Economic loss due to inability to economically generate
1/1/2021	5	Economic loss due to inability to economically generate
1/1/2021	6	Economic loss due to inability to economically generate
1/1/2021	7	Economic loss due to inability to economically generate
1/1/2021	8	Economic loss due to inability to economically generate
1/1/2021	9	Economic loss due to inability to economically generate
1/1/2021	10	Economic loss due to inability to economically generate
1/1/2021	11	Economic loss due to inability to recover pumping costs
1/1/2021	12	Economic loss due to inability to economically generate
1/1/2021	13	Economic loss due to inability to recover pumping costs
1/1/2021	14	Economic loss due to inability to economically generate
1/1/2021	15	Economic loss due to inability to recover pumping costs
1/1/2021	16	Economic loss due to inability to economically generate
1/1/2021	17	Economic loss due to inability to economically generate
1/1/2021	18	Economic loss due to inability to recover pumping costs
1/1/2021	19	Economic loss due to inability to recover pumping costs
1/1/2021	20	Economic loss due to inability to recover pumping costs
1/1/2021	23	Economic loss due to inability to recover pumping costs
1/2/2021	2	Economic loss due to inability to economically generate
1/2/2021	3	Economic loss due to inability to economically generate
1/2/2021	5	Economic loss due to inability to economically generate
1/2/2021	6	Economic loss due to inability to economically generate
1/2/2021	7	Economic loss due to inability to economically generate
1/2/2021	8	Economic loss due to inability to economically generate
1/2/2021	9	Economic loss due to inability to recover pumping costs
1/3/2021	1	Economic loss due to inability to economically generate
1/3/2021	2	Economic loss due to inability to economically generate
1/3/2021	3	Economic loss due to inability to economically generate
1/3/2021	4	Economic loss due to inability to economically generate
1/3/2021	5	Economic loss due to inability to economically generate
1/3/2021	6	Economic loss due to inability to economically generate
1/3/2021	7	Economic loss due to inability to economically generate
1/3/2021	8	Economic loss due to inability to economically generate
1/3/2021	9	Economic loss due to inability to recover pumping costs
1/3/2021	10	Economic loss due to inability to recover pumping costs
1/4/2021	1	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/4/2021	2	Economic loss due to inability to economically generate
1/4/2021	3	Economic loss due to inability to economically generate
1/4/2021	4	Economic loss due to inability to economically generate
1/4/2021	5	Economic loss due to inability to economically generate
1/4/2021	13	Economic loss due to inability to recover pumping costs
1/5/2021	1	Economic loss due to inability to economically generate
1/6/2021	1	Economic loss due to inability to economically generate
1/6/2021	2	Economic loss due to inability to economically generate
1/6/2021	3	Economic loss due to inability to economically generate
1/6/2021	4	Economic loss due to inability to economically generate
1/7/2021	2	Economic loss due to inability to economically generate
1/7/2021	3	Economic loss due to inability to economically generate
1/7/2021	6	Economic loss due to inability to economically generate
1/7/2021	7	Economic loss due to inability to economically generate
1/7/2021	12	Economic loss due to inability to recover pumping costs
1/7/2021	13	Economic loss due to inability to recover pumping costs
1/7/2021	14	Economic loss due to inability to recover pumping costs
1/7/2021	15	Economic loss due to inability to recover pumping costs
1/7/2021	16	Economic loss due to inability to recover pumping costs
1/7/2021	17	Economic loss due to inability to recover pumping costs
1/9/2021	2	Economic loss due to inability to economically generate
1/9/2021	4	Economic loss due to inability to economically generate
1/9/2021	5	Economic loss due to inability to economically generate
1/9/2021	6	Economic loss due to inability to economically generate
1/9/2021	7	Economic loss due to inability to economically generate
1/10/2021	1	Economic loss due to inability to economically generate
1/10/2021	2	Economic loss due to inability to economically generate
1/10/2021	3	Economic loss due to inability to economically generate
1/10/2021	4	Economic loss due to inability to economically generate
1/10/2021	5	Economic loss due to inability to economically generate
1/10/2021	6	Economic loss due to inability to recover pumping costs
1/10/2021	9	Economic loss due to inability to economically generate
1/11/2021	2	Economic loss due to inability to economically generate
1/11/2021	3	Economic loss due to inability to economically generate
1/11/2021	4	Economic loss due to inability to economically generate
1/11/2021	5	Economic loss due to inability to economically generate
1/11/2021	6	Economic loss due to inability to economically generate
1/11/2021	7	Economic loss due to inability to recover pumping costs
1/11/2021	8	Economic loss due to inability to recover pumping costs
1/11/2021	16	Economic loss due to inability to recover pumping costs
1/11/2021	20	Economic loss due to inability to recover pumping costs
1/11/2021	21	Economic loss due to inability to recover pumping costs
1/11/2021	23	Economic loss due to inability to recover pumping costs
1/11/2021	24	Economic loss due to inability to economically generate
1/12/2021	1	Economic loss due to inability to economically generate
1/12/2021	2	Economic loss due to inability to economically generate
1/12/2021	3	Economic loss due to inability to economically generate
1/12/2021	4	Economic loss due to inability to economically generate
1/12/2021	5	Economic loss due to inability to economically generate
1/12/2021	6	Economic loss due to inability to recover pumping costs
1/12/2021	7	Economic loss due to inability to recover pumping costs
1/12/2021	24	Economic loss due to inability to recover pumping costs
1/13/2021	1	Economic loss due to inability to economically generate
1/13/2021	2	Economic loss due to inability to economically generate
1/13/2021	3	Economic loss due to inability to economically generate
1/13/2021	4	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/13/2021	5	Economic loss due to inability to economically generate
1/13/2021	6	Economic loss due to inability to recover pumping costs
1/13/2021	7	Economic loss due to inability to recover pumping costs
1/13/2021	8	Economic loss due to inability to recover pumping costs
1/13/2021	9	Economic loss due to inability to recover pumping costs
1/13/2021	10	Economic loss due to inability to recover pumping costs
1/13/2021	12	Economic loss due to inability to recover pumping costs
1/13/2021	13	Economic loss due to inability to recover pumping costs
1/13/2021	14	Economic loss due to inability to recover pumping costs
1/13/2021	15	Economic loss due to inability to recover pumping costs
1/13/2021	16	Economic loss due to inability to recover pumping costs
1/13/2021	17	Economic loss due to inability to recover pumping costs
1/13/2021	18	Economic loss due to inability to recover pumping costs
1/13/2021	19	Economic loss due to inability to recover pumping costs
1/13/2021	20	Economic loss due to inability to recover pumping costs
1/13/2021	21	Economic loss due to inability to economically generate
1/13/2021	22	Economic loss due to inability to economically generate
1/13/2021	23	Economic loss due to inability to economically generate
1/13/2021	24	Economic loss due to inability to economically generate
1/17/2021	1	Economic loss due to inability to economically generate
1/17/2021	7	Economic loss due to inability to economically generate
1/17/2021	8	Economic loss due to inability to economically generate
1/17/2021	9	Economic loss due to inability to economically generate
1/17/2021	10	Economic loss due to inability to economically generate
1/17/2021	11	Economic loss due to inability to recover pumping costs
1/17/2021	12	Economic loss due to inability to recover pumping costs
1/17/2021	13	Economic loss due to inability to recover pumping costs
1/17/2021	14	Economic loss due to inability to recover pumping costs
1/17/2021	15	Economic loss due to inability to recover pumping costs
1/17/2021	16	Economic loss due to inability to recover pumping costs
1/17/2021	17	Economic loss due to inability to recover pumping costs
1/17/2021	18	Economic loss due to inability to recover pumping costs
1/17/2021	19	Economic loss due to inability to recover pumping costs
1/17/2021	20	Economic loss due to inability to recover pumping costs
1/17/2021	21	Economic loss due to inability to recover pumping costs
1/17/2021	22	Economic loss due to inability to recover pumping costs
1/17/2021	23	Economic loss due to inability to recover pumping costs
1/17/2021	24	Economic loss due to inability to economically generate
1/18/2021	2	Economic loss due to inability to economically generate
1/18/2021	3	Economic loss due to inability to economically generate
1/18/2021	4	Economic loss due to inability to economically generate
1/18/2021	5	Economic loss due to inability to economically generate
1/18/2021	23	Economic loss due to inability to recover pumping costs
1/18/2021	24	Economic loss due to inability to economically generate
1/19/2021	1	Economic loss due to inability to economically generate
1/19/2021	2	Economic loss due to inability to economically generate
1/19/2021	3	Economic loss due to inability to economically generate
1/19/2021	4	Economic loss due to inability to economically generate
1/19/2021	5	Economic loss due to inability to economically generate
1/19/2021	6	Economic loss due to inability to economically generate
1/19/2021	7	Economic loss due to inability to economically generate
1/19/2021	8	Economic loss due to inability to recover pumping costs
1/19/2021	9	Economic loss due to inability to recover pumping costs
1/19/2021	10	Economic loss due to inability to recover pumping costs
1/19/2021	11	Economic loss due to inability to recover pumping costs
1/19/2021	12	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/19/2021	13	Economic loss due to inability to recover pumping costs
1/19/2021	14	Economic loss due to inability to recover pumping costs
1/19/2021	15	Economic loss due to inability to recover pumping costs
1/19/2021	16	Economic loss due to inability to recover pumping costs
1/19/2021	17	Economic loss due to inability to recover pumping costs
1/19/2021	18	Economic loss due to inability to recover pumping costs
1/19/2021	19	Economic loss due to inability to recover pumping costs
1/19/2021	20	Economic loss due to inability to recover pumping costs
1/19/2021	21	Economic loss due to inability to recover pumping costs
1/19/2021	22	Economic loss due to inability to economically generate
1/19/2021	23	Economic loss due to inability to economically generate
1/19/2021	24	Economic loss due to inability to economically generate
1/22/2021	1	Economic loss due to inability to economically generate
1/22/2021	2	Economic loss due to inability to economically generate
1/22/2021	3	Economic loss due to inability to economically generate
1/22/2021	4	Economic loss due to inability to economically generate
1/22/2021	5	Economic loss due to inability to economically generate
1/22/2021	6	Economic loss due to inability to economically generate
1/22/2021	7	Economic loss due to inability to economically generate
1/22/2021	8	Economic loss due to inability to recover pumping costs
1/22/2021	9	Economic loss due to inability to recover pumping costs
1/22/2021	10	Economic loss due to inability to recover pumping costs
1/22/2021	11	Economic loss due to inability to recover pumping costs
1/22/2021	12	Economic loss due to inability to recover pumping costs
1/22/2021	13	Economic loss due to inability to recover pumping costs
1/22/2021	14	Economic loss due to inability to recover pumping costs
1/22/2021	15	Economic loss due to inability to recover pumping costs
1/22/2021	16	Economic loss due to inability to recover pumping costs
1/22/2021	17	Economic loss due to inability to recover pumping costs
1/22/2021	19	Economic loss due to inability to recover pumping costs
1/22/2021	20	Economic loss due to inability to recover pumping costs
1/22/2021	21	Economic loss due to inability to recover pumping costs
1/22/2021	22	Economic loss due to inability to recover pumping costs
1/22/2021	23	Economic loss due to inability to economically generate
1/22/2021	24	Economic loss due to inability to economically generate
1/23/2021	1	Economic loss due to inability to economically generate
1/23/2021	2	Economic loss due to inability to economically generate
1/23/2021	3	Economic loss due to inability to economically generate
1/23/2021	4	Economic loss due to inability to economically generate
1/23/2021	5	Economic loss due to inability to economically generate
1/23/2021	6	Economic loss due to inability to economically generate
1/23/2021	7	Economic loss due to inability to economically generate
1/23/2021	8	Economic loss due to inability to economically generate
1/23/2021	9	Economic loss due to inability to economically generate
1/23/2021	10	Economic loss due to inability to economically generate
1/23/2021	11	Economic loss due to inability to recover pumping costs
1/23/2021	12	Economic loss due to inability to recover pumping costs
1/23/2021	13	Economic loss due to inability to recover pumping costs
1/23/2021	14	Economic loss due to inability to recover pumping costs
1/23/2021	15	Economic loss due to inability to recover pumping costs
1/23/2021	16	Economic loss due to inability to recover pumping costs
1/23/2021	17	Economic loss due to inability to recover pumping costs
1/23/2021	18	Economic loss due to inability to recover pumping costs
1/23/2021	19	Economic loss due to inability to recover pumping costs
1/23/2021	20	Economic loss due to inability to recover pumping costs
1/23/2021	21	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
1/23/2021	22	Economic loss due to inability to recover pumping costs
1/23/2021	23	Economic loss due to inability to recover pumping costs
1/23/2021	24	Economic loss due to inability to recover pumping costs
1/25/2021	24	Economic loss due to inability to recover pumping costs
1/27/2021	2	Economic loss due to inability to economically generate
1/27/2021	3	Economic loss due to inability to economically generate
1/27/2021	4	Economic loss due to inability to economically generate
1/27/2021	5	Economic loss due to inability to economically generate
1/28/2021	1	Economic loss due to inability to recover pumping costs
1/28/2021	2	Economic loss due to inability to recover pumping costs
1/28/2021	3	Economic loss due to inability to economically generate
1/28/2021	4	Economic loss due to inability to economically generate
1/28/2021	5	Economic loss due to inability to economically generate
1/28/2021	6	Economic loss due to inability to economically generate
1/28/2021	7	Economic loss due to inability to recover pumping costs
1/28/2021	8	Economic loss due to inability to recover pumping costs
1/28/2021	9	Economic loss due to inability to recover pumping costs
1/28/2021	10	Economic loss due to inability to recover pumping costs
1/28/2021	11	Economic loss due to inability to recover pumping costs
1/28/2021	12	Economic loss due to inability to recover pumping costs
1/28/2021	13	Economic loss due to inability to recover pumping costs
1/28/2021	14	Economic loss due to inability to recover pumping costs
1/28/2021	15	Economic loss due to inability to recover pumping costs
1/28/2021	16	Economic loss due to inability to recover pumping costs
1/28/2021	17	Economic loss due to inability to recover pumping costs
1/28/2021	18	Economic loss due to inability to recover pumping costs
1/28/2021	19	Economic loss due to inability to recover pumping costs
1/28/2021	20	Economic loss due to inability to recover pumping costs
1/28/2021	21	Economic loss due to inability to economically generate
1/28/2021	22	Economic loss due to inability to economically generate
1/28/2021	24	Economic loss due to inability to economically generate
1/29/2021	4	Economic loss due to inability to economically generate
1/29/2021	5	Economic loss due to inability to economically generate
1/29/2021	6	Economic loss due to inability to recover pumping costs
1/29/2021	7	Economic loss due to inability to recover pumping costs
1/29/2021	8	Economic loss due to inability to recover pumping costs
1/29/2021	9	Economic loss due to inability to recover pumping costs
1/31/2021	1	Economic loss due to inability to recover pumping costs
1/31/2021	2	Economic loss due to inability to recover pumping costs
1/31/2021	7	Economic loss due to inability to recover pumping costs
1/31/2021	8	Economic loss due to inability to recover pumping costs
1/31/2021	10	Economic loss due to inability to recover pumping costs
1/31/2021	15	Economic loss due to inability to recover pumping costs
1/31/2021	16	Economic loss due to inability to recover pumping costs
1/31/2021	17	Economic loss due to inability to recover pumping costs
1/31/2021	18	Economic loss due to inability to recover pumping costs
1/31/2021	19	Economic loss due to inability to recover pumping costs
1/31/2021	20	Economic loss due to inability to recover pumping costs
1/31/2021	21	Economic loss due to inability to recover pumping costs
1/31/2021	22	Economic loss due to inability to recover pumping costs
1/31/2021	23	Economic loss due to inability to recover pumping costs
1/31/2021	24	Economic loss due to inability to recover pumping costs
2/1/2021	1	Economic loss due to inability to recover pumping costs
2/1/2021	2	Economic loss due to inability to economically generate
2/1/2021	3	Economic loss due to inability to economically generate
2/1/2021	4	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/1/2021	5	Economic loss due to inability to economically generate
2/1/2021	7	Economic loss due to inability to recover pumping costs
2/1/2021	8	Economic loss due to inability to recover pumping costs
2/1/2021	9	Economic loss due to inability to recover pumping costs
2/1/2021	10	Economic loss due to inability to recover pumping costs
2/1/2021	11	Economic loss due to inability to recover pumping costs
2/1/2021	12	Economic loss due to inability to recover pumping costs
2/2/2021	1	Economic loss due to inability to recover pumping costs
2/2/2021	2	Economic loss due to inability to recover pumping costs
2/2/2021	3	Economic loss due to inability to economically generate
2/2/2021	4	Economic loss due to inability to economically generate
2/2/2021	5	Economic loss due to inability to economically generate
2/2/2021	6	Economic loss due to inability to recover pumping costs
2/2/2021	11	Economic loss due to inability to recover pumping costs
2/2/2021	14	Economic loss due to inability to recover pumping costs
2/2/2021	15	Economic loss due to inability to recover pumping costs
2/2/2021	16	Economic loss due to inability to recover pumping costs
2/2/2021	17	Economic loss due to inability to recover pumping costs
2/2/2021	20	Economic loss due to inability to recover pumping costs
2/2/2021	21	Economic loss due to inability to recover pumping costs
2/2/2021	22	Economic loss due to inability to economically generate
2/2/2021	23	Economic loss due to inability to economically generate
2/2/2021	24	Economic loss due to inability to economically generate
2/3/2021	1	Economic loss due to inability to economically generate
2/3/2021	2	Economic loss due to inability to economically generate
2/3/2021	6	Economic loss due to inability to economically generate
2/3/2021	7	Economic loss due to inability to economically generate
2/3/2021	8	Economic loss due to inability to recover pumping costs
2/3/2021	9	Economic loss due to inability to recover pumping costs
2/3/2021	10	Economic loss due to inability to recover pumping costs
2/3/2021	11	Economic loss due to inability to recover pumping costs
2/3/2021	12	Economic loss due to inability to recover pumping costs
2/3/2021	13	Economic loss due to inability to recover pumping costs
2/3/2021	14	Economic loss due to inability to recover pumping costs
2/3/2021	15	Economic loss due to inability to recover pumping costs
2/3/2021	16	Economic loss due to inability to recover pumping costs
2/3/2021	17	Economic loss due to inability to recover pumping costs
2/3/2021	18	Economic loss due to inability to recover pumping costs
2/3/2021	19	Economic loss due to inability to recover pumping costs
2/3/2021	20	Economic loss due to inability to recover pumping costs
2/3/2021	21	Economic loss due to inability to recover pumping costs
2/3/2021	22	Economic loss due to inability to recover pumping costs
2/3/2021	23	Economic loss due to inability to recover pumping costs
2/3/2021	24	Economic loss due to inability to recover pumping costs
2/4/2021	2	Economic loss due to inability to recover pumping costs
2/4/2021	3	Economic loss due to inability to recover pumping costs
2/4/2021	4	Economic loss due to inability to economically generate
2/4/2021	5	Economic loss due to inability to recover pumping costs
2/4/2021	6	Economic loss due to inability to recover pumping costs
2/4/2021	8	Economic loss due to inability to recover pumping costs
2/4/2021	9	Economic loss due to inability to recover pumping costs
2/4/2021	10	Economic loss due to inability to recover pumping costs
2/4/2021	16	Economic loss due to inability to recover pumping costs
2/4/2021	17	Economic loss due to inability to recover pumping costs
2/4/2021	20	Economic loss due to inability to recover pumping costs
2/4/2021	21	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/4/2021	22	Economic loss due to inability to economically generate
2/4/2021	23	Economic loss due to inability to recover pumping costs
2/4/2021	24	Economic loss due to inability to recover pumping costs
2/6/2021	1	Economic loss due to inability to economically generate
2/6/2021	2	Economic loss due to inability to economically generate
2/6/2021	3	Economic loss due to inability to economically generate
2/6/2021	4	Economic loss due to inability to economically generate
2/6/2021	5	Economic loss due to inability to economically generate
2/6/2021	6	Economic loss due to inability to economically generate
2/6/2021	7	Economic loss due to inability to economically generate
2/6/2021	8	Economic loss due to inability to economically generate
2/6/2021	9	Economic loss due to inability to economically generate
2/6/2021	10	Economic loss due to inability to economically generate
2/6/2021	11	Economic loss due to inability to economically generate
2/6/2021	12	Economic loss due to inability to economically generate
2/6/2021	13	Economic loss due to inability to economically generate
2/6/2021	14	Economic loss due to inability to economically generate
2/6/2021	15	Economic loss due to inability to economically generate
2/6/2021	16	Economic loss due to inability to economically generate
2/6/2021	17	Economic loss due to inability to recover pumping costs
2/6/2021	18	Economic loss due to inability to recover pumping costs
2/6/2021	19	Economic loss due to inability to recover pumping costs
2/6/2021	20	Economic loss due to inability to recover pumping costs
2/6/2021	21	Economic loss due to inability to recover pumping costs
2/6/2021	22	Economic loss due to inability to recover pumping costs
2/6/2021	23	Economic loss due to inability to recover pumping costs
2/6/2021	24	Economic loss due to inability to recover pumping costs
2/7/2021	4	Economic loss due to inability to economically generate
2/7/2021	5	Economic loss due to inability to economically generate
2/7/2021	6	Economic loss due to inability to economically generate
2/7/2021	7	Economic loss due to inability to economically generate
2/7/2021	8	Economic loss due to inability to economically generate
2/7/2021	9	Economic loss due to inability to economically generate
2/7/2021	10	Economic loss due to inability to economically generate
2/7/2021	11	Economic loss due to inability to economically generate
2/7/2021	12	Economic loss due to inability to economically generate
2/7/2021	13	Economic loss due to inability to economically generate
2/7/2021	14	Economic loss due to inability to economically generate
2/7/2021	15	Economic loss due to inability to economically generate
2/7/2021	20	Economic loss due to inability to recover pumping costs
2/7/2021	23	Economic loss due to inability to economically generate
2/7/2021	24	Economic loss due to inability to economically generate
2/8/2021	1	Economic loss due to inability to economically generate
2/11/2021	5	Economic loss due to inability to economically generate
2/12/2021	2	Economic loss due to inability to economically generate
2/12/2021	3	Economic loss due to inability to economically generate
2/12/2021	4	Economic loss due to inability to economically generate
2/16/2021	7	Economic loss due to inability to recover pumping costs
2/16/2021	11	Economic loss due to inability to recover pumping costs
2/16/2021	12	Economic loss due to inability to recover pumping costs
2/16/2021	13	Economic loss due to inability to recover pumping costs
2/16/2021	14	Economic loss due to inability to recover pumping costs
2/16/2021	15	Economic loss due to inability to recover pumping costs
2/16/2021	16	Economic loss due to inability to recover pumping costs
2/16/2021	17	Economic loss due to inability to recover pumping costs
2/21/2021	10	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/21/2021	12	Economic loss due to inability to recover pumping costs
2/21/2021	22	Economic loss due to inability to recover pumping costs
2/21/2021	24	Economic loss due to inability to economically generate
2/23/2021	1	Economic loss due to inability to economically generate
2/23/2021	2	Economic loss due to inability to economically generate
2/23/2021	7	Economic loss due to inability to recover pumping costs
2/23/2021	8	Economic loss due to inability to recover pumping costs
2/23/2021	9	Economic loss due to inability to recover pumping costs
2/23/2021	10	Economic loss due to inability to recover pumping costs
2/23/2021	11	Economic loss due to inability to recover pumping costs
2/23/2021	12	Economic loss due to inability to recover pumping costs
2/23/2021	13	Economic loss due to inability to recover pumping costs
2/23/2021	14	Economic loss due to inability to recover pumping costs
2/23/2021	15	Economic loss due to inability to recover pumping costs
2/23/2021	16	Economic loss due to inability to recover pumping costs
2/23/2021	17	Economic loss due to inability to recover pumping costs
2/23/2021	18	Economic loss due to inability to recover pumping costs
2/23/2021	19	Economic loss due to inability to recover pumping costs
2/23/2021	20	Economic loss due to inability to recover pumping costs
2/23/2021	21	Economic loss due to inability to recover pumping costs
2/23/2021	22	Economic loss due to inability to recover pumping costs
2/23/2021	23	Economic loss due to inability to recover pumping costs
2/23/2021	24	Economic loss due to inability to recover pumping costs
2/24/2021	4	Economic loss due to inability to economically generate
2/24/2021	6	Economic loss due to inability to recover pumping costs
2/24/2021	7	Economic loss due to inability to recover pumping costs
2/24/2021	8	Economic loss due to inability to recover pumping costs
2/24/2021	9	Economic loss due to inability to recover pumping costs
2/24/2021	10	Economic loss due to inability to recover pumping costs
2/24/2021	11	Economic loss due to inability to recover pumping costs
2/24/2021	12	Economic loss due to inability to recover pumping costs
2/24/2021	13	Economic loss due to inability to recover pumping costs
2/24/2021	14	Economic loss due to inability to recover pumping costs
2/24/2021	15	Economic loss due to inability to recover pumping costs
2/24/2021	16	Economic loss due to inability to recover pumping costs
2/24/2021	17	Economic loss due to inability to recover pumping costs
2/24/2021	18	Economic loss due to inability to recover pumping costs
2/24/2021	21	Economic loss due to inability to economically generate
2/24/2021	22	Economic loss due to inability to economically generate
2/24/2021	23	Economic loss due to inability to economically generate
2/24/2021	24	Economic loss due to inability to economically generate
2/25/2021	1	Economic loss due to inability to economically generate
2/25/2021	2	Economic loss due to inability to economically generate
2/25/2021	3	Economic loss due to inability to economically generate
2/25/2021	4	Economic loss due to inability to economically generate
2/25/2021	5	Economic loss due to inability to economically generate
2/25/2021	6	Economic loss due to inability to economically generate
2/26/2021	10	Economic loss due to inability to recover pumping costs
2/26/2021	11	Economic loss due to inability to recover pumping costs
2/26/2021	12	Economic loss due to inability to recover pumping costs
2/26/2021	14	Economic loss due to inability to recover pumping costs
2/26/2021	15	Economic loss due to inability to recover pumping costs
2/26/2021	16	Economic loss due to inability to recover pumping costs
2/26/2021	17	Economic loss due to inability to recover pumping costs
2/26/2021	18	Economic loss due to inability to recover pumping costs
2/26/2021	19	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
2/26/2021	20	Economic loss due to inability to recover pumping costs
2/26/2021	21	Economic loss due to inability to recover pumping costs
2/26/2021	22	Economic loss due to inability to economically generate
2/26/2021	23	Economic loss due to inability to economically generate
2/26/2021	24	Economic loss due to inability to economically generate
2/27/2021	1	Economic loss due to inability to economically generate
2/27/2021	2	Economic loss due to inability to economically generate
2/27/2021	6	Economic loss due to inability to economically generate
2/27/2021	7	Economic loss due to inability to economically generate
2/27/2021	8	Economic loss due to inability to economically generate
2/27/2021	9	Economic loss due to inability to economically generate
2/27/2021	10	Economic loss due to inability to economically generate
2/27/2021	12	Economic loss due to inability to recover pumping costs
2/27/2021	13	Economic loss due to inability to recover pumping costs
2/27/2021	14	Economic loss due to inability to recover pumping costs
2/27/2021	15	Economic loss due to inability to recover pumping costs
2/27/2021	16	Economic loss due to inability to economically generate
2/27/2021	17	Economic loss due to inability to recover pumping costs
2/27/2021	23	Economic loss due to inability to recover pumping costs
3/1/2021	7	Economic loss due to inability to economically generate
3/1/2021	8	Economic loss due to inability to recover pumping costs
3/1/2021	9	Economic loss due to inability to recover pumping costs
3/1/2021	10	Economic loss due to inability to recover pumping costs
3/1/2021	11	Economic loss due to inability to recover pumping costs
3/1/2021	12	Economic loss due to inability to recover pumping costs
3/1/2021	13	Economic loss due to inability to recover pumping costs
3/1/2021	14	Economic loss due to inability to recover pumping costs
3/1/2021	15	Economic loss due to inability to recover pumping costs
3/1/2021	16	Economic loss due to inability to recover pumping costs
3/1/2021	17	Economic loss due to inability to recover pumping costs
3/1/2021	19	Economic loss due to inability to recover pumping costs
3/1/2021	20	Economic loss due to inability to recover pumping costs
3/1/2021	22	Economic loss due to inability to economically generate
3/1/2021	23	Economic loss due to inability to economically generate
3/1/2021	24	Economic loss due to inability to economically generate
3/2/2021	1	Economic loss due to inability to economically generate
3/2/2021	2	Economic loss due to inability to economically generate
3/2/2021	23	Economic loss due to inability to recover pumping costs
3/2/2021	24	Economic loss due to inability to economically generate
3/3/2021	1	Economic loss due to inability to economically generate
3/3/2021	2	Economic loss due to inability to economically generate
3/3/2021	3	Economic loss due to inability to economically generate
3/3/2021	4	Economic loss due to inability to economically generate
3/3/2021	5	Economic loss due to inability to economically generate
3/3/2021	6	Economic loss due to inability to economically generate
3/3/2021	24	Economic loss due to inability to recover pumping costs
3/4/2021	1	Economic loss due to inability to recover pumping costs
3/4/2021	2	Economic loss due to inability to recover pumping costs
3/4/2021	3	Economic loss due to inability to economically generate
3/4/2021	4	Economic loss due to inability to economically generate
3/4/2021	5	Economic loss due to inability to economically generate
3/4/2021	6	Economic loss due to inability to recover pumping costs
3/4/2021	7	Economic loss due to inability to recover pumping costs
3/4/2021	8	Economic loss due to inability to recover pumping costs
3/4/2021	9	Economic loss due to inability to recover pumping costs
3/4/2021	10	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/4/2021	11	Economic loss due to inability to recover pumping costs
3/4/2021	12	Economic loss due to inability to recover pumping costs
3/4/2021	13	Economic loss due to inability to recover pumping costs
3/4/2021	14	Economic loss due to inability to recover pumping costs
3/4/2021	15	Economic loss due to inability to recover pumping costs
3/4/2021	16	Economic loss due to inability to recover pumping costs
3/4/2021	17	Economic loss due to inability to recover pumping costs
3/7/2021	2	Economic loss due to inability to recover pumping costs
3/7/2021	10	Economic loss due to inability to recover pumping costs
3/7/2021	14	Economic loss due to inability to recover pumping costs
3/7/2021	15	Economic loss due to inability to recover pumping costs
3/7/2021	16	Economic loss due to inability to recover pumping costs
3/8/2021	3	Economic loss due to inability to recover pumping costs
3/8/2021	4	Economic loss due to inability to economically generate
3/8/2021	5	Economic loss due to inability to recover pumping costs
3/8/2021	6	Economic loss due to inability to recover pumping costs
3/8/2021	11	Economic loss due to inability to recover pumping costs
3/8/2021	15	Economic loss due to inability to recover pumping costs
3/8/2021	21	Economic loss due to inability to recover pumping costs
3/8/2021	22	Economic loss due to inability to recover pumping costs
3/8/2021	23	Economic loss due to inability to economically generate
3/8/2021	24	Economic loss due to inability to economically generate
3/17/2021	4	Economic loss due to inability to recover pumping costs
3/17/2021	23	Economic loss due to inability to economically generate
3/20/2021	1	Economic loss due to inability to recover pumping costs
3/20/2021	2	Economic loss due to inability to recover pumping costs
3/20/2021	4	Economic loss due to inability to recover pumping costs
3/20/2021	5	Economic loss due to inability to recover pumping costs
3/20/2021	14	Economic loss due to inability to recover pumping costs
3/20/2021	15	Economic loss due to inability to recover pumping costs
3/20/2021	16	Economic loss due to inability to recover pumping costs
3/20/2021	17	Economic loss due to inability to recover pumping costs
3/20/2021	18	Economic loss due to inability to recover pumping costs
3/20/2021	21	Economic loss due to inability to recover pumping costs
3/20/2021	23	Economic loss due to inability to recover pumping costs
3/20/2021	24	Economic loss due to inability to recover pumping costs
3/23/2021	2	Economic loss due to inability to economically generate
3/23/2021	3	Economic loss due to inability to economically generate
3/23/2021	4	Economic loss due to inability to economically generate
3/23/2021	5	Economic loss due to inability to economically generate
3/23/2021	6	Economic loss due to inability to economically generate
3/23/2021	7	Economic loss due to inability to recover pumping costs
3/23/2021	8	Economic loss due to inability to recover pumping costs
3/23/2021	9	Economic loss due to inability to recover pumping costs
3/23/2021	10	Economic loss due to inability to recover pumping costs
3/23/2021	11	Economic loss due to inability to recover pumping costs
3/23/2021	12	Economic loss due to inability to recover pumping costs
3/23/2021	13	Economic loss due to inability to recover pumping costs
3/23/2021	14	Economic loss due to inability to recover pumping costs
3/23/2021	15	Economic loss due to inability to recover pumping costs
3/23/2021	20	Economic loss due to inability to recover pumping costs
3/23/2021	21	Economic loss due to inability to recover pumping costs
3/23/2021	22	Economic loss due to inability to recover pumping costs
3/23/2021	23	Economic loss due to inability to recover pumping costs
3/23/2021	24	Economic loss due to inability to recover pumping costs
4/12/2021	1	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
4/12/2021	2	Economic loss due to inability to economically generate
4/12/2021	3	Economic loss due to inability to recover pumping costs
4/12/2021	4	Economic loss due to inability to recover pumping costs
4/12/2021	5	Economic loss due to inability to recover pumping costs
4/12/2021	6	Economic loss due to inability to recover pumping costs
4/12/2021	7	Economic loss due to inability to recover pumping costs
4/12/2021	8	Economic loss due to inability to recover pumping costs
4/12/2021	9	Economic loss due to inability to recover pumping costs
4/12/2021	10	Economic loss due to inability to recover pumping costs
4/12/2021	11	Economic loss due to inability to recover pumping costs
4/12/2021	12	Economic loss due to inability to recover pumping costs
4/12/2021	13	Economic loss due to inability to recover pumping costs
4/12/2021	14	Economic loss due to inability to recover pumping costs
4/12/2021	15	Economic loss due to inability to recover pumping costs
4/12/2021	16	Economic loss due to inability to recover pumping costs
4/12/2021	17	Economic loss due to inability to recover pumping costs
4/12/2021	18	Economic loss due to inability to recover pumping costs
4/12/2021	19	Economic loss due to inability to recover pumping costs
4/12/2021	20	Economic loss due to inability to recover pumping costs
4/12/2021	21	Economic loss due to inability to recover pumping costs
4/12/2021	22	Economic loss due to inability to recover pumping costs
4/12/2021	23	Economic loss due to inability to recover pumping costs
4/12/2021	24	Economic loss due to inability to economically generate
5/26/2021	1	Economic loss due to inability to economically generate
5/26/2021	2	Economic loss due to inability to economically generate
5/26/2021	3	Economic loss due to inability to economically generate
5/26/2021	4	Economic loss due to inability to economically generate
5/26/2021	5	Economic loss due to inability to economically generate
5/26/2021	6	Economic loss due to inability to economically generate
5/26/2021	7	Economic loss due to inability to recover pumping costs
5/26/2021	8	Economic loss due to inability to recover pumping costs
5/26/2021	9	Economic loss due to inability to recover pumping costs
5/26/2021	10	Economic loss due to inability to recover pumping costs
5/26/2021	11	Economic loss due to inability to recover pumping costs
5/26/2021	12	Economic loss due to inability to recover pumping costs
5/26/2021	13	Economic loss due to inability to recover pumping costs
5/26/2021	16	Economic loss due to inability to recover pumping costs
5/26/2021	17	Economic loss due to inability to recover pumping costs
5/26/2021	18	Economic loss due to inability to recover pumping costs
5/26/2021	19	Economic loss due to inability to recover pumping costs
5/26/2021	20	Economic loss due to inability to recover pumping costs
5/26/2021	21	Economic loss due to inability to recover pumping costs
5/26/2021	22	Economic loss due to inability to recover pumping costs
5/26/2021	23	Economic loss due to inability to economically generate
5/31/2021	1	Economic loss due to inability to economically generate
5/31/2021	2	Economic loss due to inability to economically generate
5/31/2021	3	Economic loss due to inability to economically generate
5/31/2021	4	Economic loss due to inability to economically generate
5/31/2021	5	Economic loss due to inability to economically generate
5/31/2021	6	Economic loss due to inability to recover pumping costs
5/31/2021	7	Economic loss due to inability to recover pumping costs
5/31/2021	8	Economic loss due to inability to recover pumping costs
5/31/2021	9	Economic loss due to inability to recover pumping costs
5/31/2021	10	Economic loss due to inability to recover pumping costs
5/31/2021	11	Economic loss due to inability to recover pumping costs
5/31/2021	12	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
5/31/2021	13	Economic loss due to inability to recover pumping costs
5/31/2021	14	Economic loss due to inability to recover pumping costs
5/31/2021	15	Economic loss due to inability to recover pumping costs
5/31/2021	16	Economic loss due to inability to recover pumping costs
5/31/2021	17	Economic loss due to inability to recover pumping costs
5/31/2021	18	Economic loss due to inability to recover pumping costs
5/31/2021	20	Economic loss due to inability to recover pumping costs
6/2/2021	9	Economic loss due to inability to recover pumping costs
6/2/2021	10	Economic loss due to inability to recover pumping costs
6/2/2021	11	Economic loss due to inability to recover pumping costs
6/2/2021	12	Economic loss due to inability to recover pumping costs
6/2/2021	13	Economic loss due to inability to recover pumping costs
6/2/2021	22	Economic loss due to inability to recover pumping costs
6/2/2021	23	Economic loss due to inability to recover pumping costs
6/2/2021	24	Economic loss due to inability to economically generate
6/3/2021	1	Economic loss due to inability to economically generate
6/3/2021	2	Economic loss due to inability to economically generate
6/3/2021	4	Economic loss due to inability to economically generate
6/3/2021	24	Economic loss due to inability to economically generate
6/5/2021	7	Economic loss due to inability to economically generate
6/5/2021	8	Economic loss due to inability to economically generate
6/5/2021	9	Economic loss due to inability to economically generate
6/5/2021	22	Economic loss due to inability to recover pumping costs
6/5/2021	23	Economic loss due to inability to recover pumping costs
6/6/2021	6	Economic loss due to inability to economically generate
6/6/2021	7	Economic loss due to inability to economically generate
6/10/2021	3	Economic loss due to inability to recover pumping costs
6/10/2021	4	Economic loss due to inability to recover pumping costs
6/10/2021	5	Economic loss due to inability to recover pumping costs
6/10/2021	8	Economic loss due to inability to recover pumping costs
6/10/2021	16	Economic loss due to inability to recover pumping costs
6/10/2021	17	Economic loss due to inability to recover pumping costs
6/10/2021	18	Economic loss due to inability to recover pumping costs
6/10/2021	19	Economic loss due to inability to recover pumping costs
6/11/2021	23	Economic loss due to inability to recover pumping costs
6/11/2021	24	Economic loss due to inability to recover pumping costs
6/16/2021	1	Economic loss due to inability to economically generate
6/16/2021	2	Economic loss due to inability to economically generate
6/16/2021	3	Economic loss due to inability to economically generate
6/16/2021	4	Economic loss due to inability to economically generate
6/16/2021	5	Economic loss due to inability to economically generate
6/16/2021	6	Economic loss due to inability to economically generate
6/16/2021	13	Economic loss due to inability to recover pumping costs
6/16/2021	14	Economic loss due to inability to recover pumping costs
6/16/2021	15	Economic loss due to inability to recover pumping costs
6/16/2021	16	Economic loss due to inability to recover pumping costs
6/16/2021	17	Economic loss due to inability to recover pumping costs
6/16/2021	18	Economic loss due to inability to recover pumping costs
6/16/2021	24	Economic loss due to inability to economically generate
6/23/2021	1	Economic loss due to inability to economically generate
6/23/2021	2	Economic loss due to inability to economically generate
6/23/2021	3	Economic loss due to inability to economically generate
6/23/2021	4	Economic loss due to inability to economically generate
6/23/2021	5	Economic loss due to inability to economically generate
6/23/2021	6	Economic loss due to inability to economically generate
6/23/2021	7	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
6/23/2021	8	Economic loss due to inability to recover pumping costs
6/23/2021	9	Economic loss due to inability to recover pumping costs
6/23/2021	10	Economic loss due to inability to recover pumping costs
6/23/2021	11	Economic loss due to inability to recover pumping costs
6/23/2021	12	Economic loss due to inability to recover pumping costs
6/23/2021	13	Economic loss due to inability to recover pumping costs
6/23/2021	14	Economic loss due to inability to recover pumping costs
6/23/2021	15	Economic loss due to inability to recover pumping costs
6/23/2021	16	Economic loss due to inability to recover pumping costs
6/23/2021	17	Economic loss due to inability to recover pumping costs
6/23/2021	19	Economic loss due to inability to recover pumping costs
6/23/2021	20	Economic loss due to inability to recover pumping costs
6/23/2021	24	Economic loss due to inability to economically generate
6/26/2021	5	Economic loss due to inability to economically generate
6/26/2021	6	Economic loss due to inability to economically generate
6/26/2021	11	Economic loss due to inability to recover pumping costs
6/26/2021	12	Economic loss due to inability to recover pumping costs
6/26/2021	13	Economic loss due to inability to recover pumping costs
6/26/2021	14	Economic loss due to inability to recover pumping costs
6/26/2021	15	Economic loss due to inability to recover pumping costs
6/26/2021	18	Economic loss due to inability to recover pumping costs
6/26/2021	19	Economic loss due to inability to recover pumping costs
6/26/2021	20	Economic loss due to inability to recover pumping costs
6/26/2021	21	Economic loss due to inability to recover pumping costs
6/26/2021	23	Economic loss due to inability to economically generate
6/26/2021	24	Economic loss due to inability to economically generate
6/27/2021	1	Economic loss due to inability to economically generate
6/27/2021	2	Economic loss due to inability to economically generate
6/27/2021	3	Economic loss due to inability to economically generate
6/27/2021	4	Economic loss due to inability to economically generate
6/27/2021	5	Economic loss due to inability to economically generate
6/27/2021	6	Economic loss due to inability to economically generate
6/27/2021	7	Economic loss due to inability to economically generate
6/27/2021	8	Economic loss due to inability to economically generate
6/27/2021	9	Economic loss due to inability to economically generate
6/27/2021	11	Economic loss due to inability to recover pumping costs
6/27/2021	12	Economic loss due to inability to recover pumping costs
6/27/2021	13	Economic loss due to inability to recover pumping costs
6/27/2021	15	Economic loss due to inability to recover pumping costs
6/27/2021	16	Economic loss due to inability to recover pumping costs
6/27/2021	19	Economic loss due to inability to recover pumping costs
6/27/2021	20	Economic loss due to inability to recover pumping costs
6/28/2021	7	Economic loss due to inability to recover pumping costs
7/1/2021	17	Economic loss due to inability to recover pumping costs
7/1/2021	18	Economic loss due to inability to recover pumping costs
7/1/2021	19	Economic loss due to inability to recover pumping costs
7/1/2021	20	Economic loss due to inability to recover pumping costs
7/1/2021	21	Economic loss due to inability to recover pumping costs
7/4/2021	13	Economic loss due to inability to recover pumping costs
7/4/2021	14	Economic loss due to inability to recover pumping costs
7/4/2021	23	Economic loss due to inability to recover pumping costs
7/5/2021	5	Economic loss due to inability to economically generate
7/5/2021	6	Economic loss due to inability to economically generate
7/5/2021	7	Economic loss due to inability to recover pumping costs
7/5/2021	8	Economic loss due to inability to recover pumping costs
7/5/2021	9	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
7/5/2021	10	Economic loss due to inability to recover pumping costs
7/5/2021	11	Economic loss due to inability to recover pumping costs
7/5/2021	12	Economic loss due to inability to recover pumping costs
7/5/2021	17	Economic loss due to inability to recover pumping costs
7/5/2021	18	Economic loss due to inability to recover pumping costs
7/5/2021	19	Economic loss due to inability to recover pumping costs
7/5/2021	20	Economic loss due to inability to economically generate
7/5/2021	21	Economic loss due to inability to economically generate
7/5/2021	22	Economic loss due to inability to economically generate
7/5/2021	23	Economic loss due to inability to economically generate
7/5/2021	24	Economic loss due to inability to economically generate
7/12/2021	6	Economic loss due to inability to economically generate
7/13/2021	6	Economic loss due to inability to economically generate
7/14/2021	5	Economic loss due to inability to economically generate
7/16/2021	5	Economic loss due to inability to economically generate
7/16/2021	6	Economic loss due to inability to economically generate
7/16/2021	15	Economic loss due to inability to recover pumping costs
7/16/2021	16	Economic loss due to inability to recover pumping costs
7/16/2021	17	Economic loss due to inability to recover pumping costs
7/16/2021	18	Economic loss due to inability to recover pumping costs
7/16/2021	19	Economic loss due to inability to recover pumping costs
7/16/2021	20	Economic loss due to inability to recover pumping costs
7/16/2021	21	Economic loss due to inability to recover pumping costs
7/16/2021	22	Economic loss due to inability to recover pumping costs
7/16/2021	23	Economic loss due to inability to recover pumping costs
7/17/2021	12	Economic loss due to inability to recover pumping costs
7/17/2021	14	Economic loss due to inability to recover pumping costs
7/17/2021	15	Economic loss due to inability to recover pumping costs
7/17/2021	16	Economic loss due to inability to recover pumping costs
7/17/2021	17	Economic loss due to inability to recover pumping costs
7/17/2021	18	Economic loss due to inability to recover pumping costs
7/17/2021	19	Economic loss due to inability to recover pumping costs
7/17/2021	20	Economic loss due to inability to recover pumping costs
7/22/2021	1	Economic loss due to inability to economically generate
7/23/2021	1	Economic loss due to inability to economically generate
7/23/2021	24	Economic loss due to inability to recover pumping costs
7/24/2021	1	Economic loss due to inability to economically generate
7/24/2021	9	Economic loss due to inability to economically generate
7/24/2021	10	Economic loss due to inability to economically generate
7/24/2021	11	Economic loss due to inability to recover pumping costs
7/24/2021	13	Economic loss due to inability to recover pumping costs
7/24/2021	14	Economic loss due to inability to recover pumping costs
7/24/2021	15	Economic loss due to inability to recover pumping costs
7/24/2021	16	Economic loss due to inability to recover pumping costs
7/24/2021	17	Economic loss due to inability to recover pumping costs
7/24/2021	18	Economic loss due to inability to recover pumping costs
7/24/2021	19	Economic loss due to inability to recover pumping costs
7/24/2021	20	Economic loss due to inability to recover pumping costs
7/25/2021	2	Economic loss due to inability to economically generate
7/25/2021	7	Economic loss due to inability to economically generate
7/25/2021	8	Economic loss due to inability to economically generate
7/25/2021	9	Economic loss due to inability to economically generate
7/25/2021	10	Economic loss due to inability to recover pumping costs
7/30/2021	1	Economic loss due to inability to economically generate
7/30/2021	2	Economic loss due to inability to economically generate
7/30/2021	3	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
7/30/2021	4	Economic loss due to inability to economically generate
7/30/2021	5	Economic loss due to inability to economically generate
7/30/2021	6	Economic loss due to inability to economically generate
7/30/2021	12	Economic loss due to inability to recover pumping costs
7/30/2021	13	Economic loss due to inability to recover pumping costs
7/30/2021	14	Economic loss due to inability to recover pumping costs
7/30/2021	16	Economic loss due to inability to recover pumping costs
7/30/2021	17	Economic loss due to inability to recover pumping costs
7/30/2021	19	Economic loss due to inability to recover pumping costs
7/30/2021	20	Economic loss due to inability to recover pumping costs
8/2/2021	1	Economic loss due to inability to economically generate
8/2/2021	2	Economic loss due to inability to economically generate
8/2/2021	3	Economic loss due to inability to economically generate
8/2/2021	4	Economic loss due to inability to economically generate
8/2/2021	5	Economic loss due to inability to economically generate
8/2/2021	6	Economic loss due to inability to economically generate
8/2/2021	7	Economic loss due to inability to economically generate
8/2/2021	8	Economic loss due to inability to economically generate
8/2/2021	9	Economic loss due to inability to economically generate
8/2/2021	10	Economic loss due to inability to economically generate
8/2/2021	11	Economic loss due to inability to recover pumping costs
8/2/2021	12	Economic loss due to inability to recover pumping costs
8/2/2021	13	Economic loss due to inability to recover pumping costs
8/2/2021	14	Economic loss due to inability to economically generate
8/2/2021	15	Economic loss due to inability to economically generate
8/2/2021	16	Economic loss due to inability to recover pumping costs
8/2/2021	17	Economic loss due to inability to recover pumping costs
8/2/2021	18	Economic loss due to inability to recover pumping costs
8/2/2021	19	Economic loss due to inability to recover pumping costs
8/2/2021	20	Economic loss due to inability to recover pumping costs
8/2/2021	21	Economic loss due to inability to recover pumping costs
8/2/2021	23	Economic loss due to inability to economically generate
8/2/2021	24	Economic loss due to inability to economically generate
8/5/2021	7	Economic loss due to inability to recover pumping costs
8/8/2021	24	Economic loss due to inability to economically generate
8/10/2021	6	Economic loss due to inability to economically generate
8/11/2021	2	Economic loss due to inability to economically generate
8/15/2021	2	Economic loss due to inability to recover pumping costs
8/15/2021	3	Economic loss due to inability to economically generate
8/15/2021	4	Economic loss due to inability to economically generate
8/16/2021	7	Economic loss due to inability to recover pumping costs
8/22/2021	4	Economic loss due to inability to economically generate
8/29/2021	6	Economic loss due to inability to economically generate
8/29/2021	7	Economic loss due to inability to economically generate
9/1/2021	6	Economic loss due to inability to recover pumping costs
9/1/2021	13	Economic loss due to inability to recover pumping costs
9/1/2021	14	Economic loss due to inability to recover pumping costs
9/1/2021	17	Economic loss due to inability to recover pumping costs
9/3/2021	5	Economic loss due to inability to economically generate
9/4/2021	11	Economic loss due to inability to recover pumping costs
9/4/2021	12	Economic loss due to inability to recover pumping costs
9/4/2021	14	Economic loss due to inability to recover pumping costs
9/4/2021	22	Economic loss due to inability to recover pumping costs
9/4/2021	23	Economic loss due to inability to economically generate
9/4/2021	24	Economic loss due to inability to economically generate
9/7/2021	3	Economic loss due to inability to economically generate

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
9/7/2021	5	Economic loss due to inability to economically generate
9/7/2021	6	Economic loss due to inability to economically generate
9/7/2021	7	Economic loss due to inability to recover pumping costs
9/7/2021	8	Economic loss due to inability to recover pumping costs
9/7/2021	14	Economic loss due to inability to recover pumping costs
9/9/2021	4	Economic loss due to inability to economically generate
9/9/2021	5	Economic loss due to inability to recover pumping costs
9/9/2021	14	Economic loss due to inability to recover pumping costs
9/10/2021	24	Economic loss due to inability to economically generate
9/12/2021	1	Economic loss due to inability to economically generate
9/12/2021	2	Economic loss due to inability to economically generate
9/12/2021	3	Economic loss due to inability to economically generate
9/12/2021	4	Economic loss due to inability to economically generate
9/12/2021	5	Economic loss due to inability to economically generate
9/16/2021	22	Economic loss due to inability to economically generate
9/16/2021	23	Economic loss due to inability to economically generate
9/16/2021	24	Economic loss due to inability to economically generate
10/2/2021	6	Economic loss due to inability to economically generate
10/2/2021	23	Economic loss due to inability to recover pumping costs
10/10/2021	15	Economic loss due to inability to recover pumping costs
10/10/2021	17	Economic loss due to inability to recover pumping costs
10/10/2021	19	Economic loss due to inability to recover pumping costs
10/10/2021	20	Economic loss due to inability to recover pumping costs
10/10/2021	21	Economic loss due to inability to recover pumping costs
10/10/2021	22	Economic loss due to inability to economically generate
10/10/2021	23	Economic loss due to inability to economically generate
10/15/2021	5	Economic loss due to inability to economically generate
10/18/2021	1	Economic loss due to inability to economically generate
10/18/2021	2	Economic loss due to inability to economically generate
10/18/2021	3	Economic loss due to inability to economically generate
10/18/2021	4	Economic loss due to inability to economically generate
10/18/2021	5	Economic loss due to inability to economically generate
10/18/2021	6	Economic loss due to inability to recover pumping costs
10/18/2021	7	Economic loss due to inability to recover pumping costs
10/18/2021	8	Economic loss due to inability to recover pumping costs
10/18/2021	9	Economic loss due to inability to recover pumping costs
10/18/2021	10	Economic loss due to inability to recover pumping costs
10/18/2021	11	Economic loss due to inability to recover pumping costs
10/18/2021	12	Economic loss due to inability to recover pumping costs
10/18/2021	13	Economic loss due to inability to recover pumping costs
10/18/2021	14	Economic loss due to inability to recover pumping costs
10/18/2021	15	Economic loss due to inability to recover pumping costs
10/18/2021	16	Economic loss due to inability to recover pumping costs
10/18/2021	17	Economic loss due to inability to recover pumping costs
10/18/2021	18	Economic loss due to inability to recover pumping costs
10/18/2021	19	Economic loss due to inability to recover pumping costs
10/18/2021	20	Economic loss due to inability to economically generate
10/18/2021	21	Economic loss due to inability to recover pumping costs
10/18/2021	22	Economic loss due to inability to recover pumping costs
10/18/2021	23	Economic loss due to inability to recover pumping costs
10/18/2021	24	Economic loss due to inability to recover pumping costs
10/22/2021	11	Economic loss due to inability to recover pumping costs
10/22/2021	12	Economic loss due to inability to recover pumping costs
10/22/2021	13	Economic loss due to inability to recover pumping costs
10/22/2021	14	Economic loss due to inability to recover pumping costs
10/24/2021	10	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
10/24/2021	11	Economic loss due to inability to recover pumping costs
10/24/2021	12	Economic loss due to inability to recover pumping costs
10/24/2021	14	Economic loss due to inability to recover pumping costs
10/24/2021	17	Economic loss due to inability to recover pumping costs
10/24/2021	18	Economic loss due to inability to recover pumping costs
10/24/2021	23	Economic loss due to inability to recover pumping costs
10/26/2021	7	Economic loss due to inability to recover pumping costs
10/26/2021	8	Economic loss due to inability to recover pumping costs
10/26/2021	9	Economic loss due to inability to recover pumping costs
10/26/2021	10	Economic loss due to inability to recover pumping costs
10/26/2021	11	Economic loss due to inability to recover pumping costs
10/26/2021	12	Economic loss due to inability to recover pumping costs
10/26/2021	13	Economic loss due to inability to recover pumping costs
10/26/2021	14	Economic loss due to inability to recover pumping costs
10/26/2021	15	Economic loss due to inability to recover pumping costs
10/26/2021	16	Economic loss due to inability to recover pumping costs
10/26/2021	17	Economic loss due to inability to recover pumping costs
10/26/2021	18	Economic loss due to inability to recover pumping costs
10/26/2021	19	Economic loss due to inability to recover pumping costs
11/8/2021	12	Economic loss due to inability to recover pumping costs
11/8/2021	15	Economic loss due to inability to recover pumping costs
11/12/2021	2	Economic loss due to inability to economically generate
11/12/2021	9	Economic loss due to inability to recover pumping costs
11/12/2021	10	Economic loss due to inability to recover pumping costs
11/12/2021	12	Economic loss due to inability to recover pumping costs
11/12/2021	13	Economic loss due to inability to recover pumping costs
11/13/2021	12	Economic loss due to inability to recover pumping costs
11/21/2021	11	Economic loss due to inability to economically generate
11/21/2021	12	Economic loss due to inability to economically generate
11/24/2021	11	Economic loss due to inability to recover pumping costs
11/24/2021	12	Economic loss due to inability to recover pumping costs
11/26/2021	8	Economic loss due to inability to recover pumping costs
11/30/2021	24	Economic loss due to inability to economically generate
12/12/2021	9	Economic loss due to inability to economically generate
12/12/2021	10	Economic loss due to inability to economically generate
12/16/2021	7	Economic loss due to inability to recover pumping costs
12/16/2021	12	Economic loss due to inability to recover pumping costs
12/16/2021	13	Economic loss due to inability to recover pumping costs
12/16/2021	14	Economic loss due to inability to recover pumping costs
12/16/2021	15	Economic loss due to inability to recover pumping costs
12/16/2021	16	Economic loss due to inability to recover pumping costs
12/17/2021	5	Economic loss due to inability to economically generate
12/17/2021	13	Economic loss due to inability to recover pumping costs
12/17/2021	14	Economic loss due to inability to recover pumping costs
12/17/2021	15	Economic loss due to inability to recover pumping costs
12/20/2021	7	Economic loss due to inability to recover pumping costs
12/20/2021	9	Economic loss due to inability to recover pumping costs
12/20/2021	13	Economic loss due to inability to recover pumping costs
12/20/2021	14	Economic loss due to inability to recover pumping costs
12/20/2021	16	Economic loss due to inability to recover pumping costs
12/20/2021	17	Economic loss due to inability to recover pumping costs
12/20/2021	18	Economic loss due to inability to recover pumping costs
12/20/2021	19	Economic loss due to inability to recover pumping costs
12/20/2021	20	Economic loss due to inability to recover pumping costs
12/24/2021	20	Economic loss due to inability to recover pumping costs
12/24/2021	21	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/24/2021	22	Economic loss due to inability to recover pumping costs
12/24/2021	23	Economic loss due to inability to recover pumping costs
12/24/2021	24	Economic loss due to inability to economically generate
12/25/2021	16	Economic loss due to inability to recover pumping costs
12/26/2021	6	Economic loss due to inability to economically generate
12/26/2021	7	Economic loss due to inability to economically generate
12/27/2021	11	Economic loss due to inability to recover pumping costs
12/27/2021	13	Economic loss due to inability to recover pumping costs
12/27/2021	14	Economic loss due to inability to recover pumping costs
12/27/2021	15	Economic loss due to inability to recover pumping costs
12/27/2021	16	Economic loss due to inability to recover pumping costs
12/28/2021	4	Economic loss due to inability to economically generate
12/31/2021	6	Economic loss due to inability to recover pumping costs
12/31/2021	7	Economic loss due to inability to recover pumping costs
1/12/2022	7	Economic loss due to inability to economically generate
1/12/2022	8	Economic loss due to inability to recover pumping costs
1/12/2022	10	Economic loss due to inability to recover pumping costs
1/12/2022	11	Economic loss due to inability to recover pumping costs
1/17/2022	11	Economic loss due to inability to recover pumping costs
1/17/2022	12	Economic loss due to inability to recover pumping costs
1/17/2022	13	Economic loss due to inability to recover pumping costs
1/18/2022	8	Economic loss due to inability to recover pumping costs
1/27/2022	7	Economic loss due to inability to recover pumping costs
1/27/2022	8	Economic loss due to inability to recover pumping costs
1/27/2022	9	Economic loss due to inability to recover pumping costs
1/27/2022	10	Economic loss due to inability to recover pumping costs
1/27/2022	19	Economic loss due to inability to recover pumping costs
1/27/2022	20	Economic loss due to inability to economically generate
1/28/2022	7	Economic loss due to inability to economically generate
1/28/2022	8	Economic loss due to inability to recover pumping costs
2/2/2022	5	Economic loss due to inability to economically generate
2/4/2022	1	Economic loss due to inability to economically generate
2/4/2022	2	Economic loss due to inability to economically generate
2/6/2022	9	Economic loss due to inability to recover pumping costs
2/6/2022	10	Economic loss due to inability to recover pumping costs
2/6/2022	11	Economic loss due to inability to recover pumping costs
2/6/2022	18	Economic loss due to inability to recover pumping costs
2/6/2022	19	Economic loss due to inability to recover pumping costs
2/7/2022	11	Economic loss due to inability to recover pumping costs
2/7/2022	22	Economic loss due to inability to recover pumping costs
2/7/2022	23	Economic loss due to inability to recover pumping costs
2/7/2022	24	Economic loss due to inability to recover pumping costs
2/8/2022	24	Economic loss due to inability to recover pumping costs
2/9/2022	1	Economic loss due to inability to economically generate
2/9/2022	2	Economic loss due to inability to economically generate
2/9/2022	3	Economic loss due to inability to economically generate
2/10/2022	11	Economic loss due to inability to recover pumping costs
2/10/2022	23	Economic loss due to inability to recover pumping costs
2/10/2022	24	Economic loss due to inability to recover pumping costs
2/11/2022	17	Economic loss due to inability to recover pumping costs
2/11/2022	23	Economic loss due to inability to economically generate
2/11/2022	24	Economic loss due to inability to economically generate
2/22/2022	2	Economic loss due to inability to economically generate
3/7/2022	3	Economic loss due to inability to recover pumping costs
3/7/2022	4	Economic loss due to inability to economically generate
3/16/2022	23	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
3/16/2022	24	Economic loss due to inability to recover pumping costs
3/17/2022	1	Economic loss due to inability to economically generate
3/18/2022	18	Economic loss due to inability to recover pumping costs
3/18/2022	22	Economic loss due to inability to recover pumping costs
3/18/2022	23	Economic loss due to inability to economically generate
3/18/2022	24	Economic loss due to inability to economically generate
4/6/2022	11	Economic loss due to inability to recover pumping costs
4/6/2022	12	Economic loss due to inability to recover pumping costs
4/6/2022	13	Economic loss due to inability to recover pumping costs
4/6/2022	16	Economic loss due to inability to recover pumping costs
4/6/2022	19	Economic loss due to inability to recover pumping costs
4/6/2022	21	Economic loss due to inability to recover pumping costs
4/7/2022	7	Economic loss due to inability to recover pumping costs
4/7/2022	8	Economic loss due to inability to recover pumping costs
4/7/2022	13	Economic loss due to inability to recover pumping costs
4/7/2022	14	Economic loss due to inability to recover pumping costs
4/7/2022	15	Economic loss due to inability to recover pumping costs
4/7/2022	16	Economic loss due to inability to recover pumping costs
4/7/2022	21	Economic loss due to inability to recover pumping costs
4/10/2022	12	Economic loss due to inability to recover pumping costs
4/10/2022	13	Economic loss due to inability to recover pumping costs
4/10/2022	19	Economic loss due to inability to recover pumping costs
4/10/2022	20	Economic loss due to inability to recover pumping costs
4/10/2022	21	Economic loss due to inability to recover pumping costs
4/10/2022	22	Economic loss due to inability to recover pumping costs
4/10/2022	23	Economic loss due to inability to recover pumping costs
5/9/2022	17	Economic loss due to inability to recover pumping costs
5/9/2022	18	Economic loss due to inability to recover pumping costs
5/9/2022	19	Economic loss due to inability to recover pumping costs
5/9/2022	20	Economic loss due to inability to recover pumping costs
5/9/2022	21	Economic loss due to inability to recover pumping costs
5/13/2022	8	Economic loss due to inability to recover pumping costs
5/15/2022	6	Economic loss due to inability to economically generate
5/22/2022	4	Economic loss due to inability to recover pumping costs
5/22/2022	5	Economic loss due to inability to recover pumping costs
6/22/2022	7	Economic loss due to inability to recover pumping costs
6/22/2022	8	Economic loss due to inability to recover pumping costs
8/2/2022	5	Economic loss due to inability to economically generate
9/1/2022	6	Economic loss due to inability to recover pumping costs
9/1/2022	16	Economic loss due to inability to recover pumping costs
9/2/2022	7	Economic loss due to inability to recover pumping costs
9/2/2022	8	Economic loss due to inability to recover pumping costs
9/2/2022	9	Economic loss due to inability to recover pumping costs
9/2/2022	11	Economic loss due to inability to recover pumping costs
9/2/2022	12	Economic loss due to inability to recover pumping costs
10/3/2022	7	Economic loss due to inability to recover pumping costs
10/9/2022	17	Economic loss due to inability to recover pumping costs
10/9/2022	19	Economic loss due to inability to recover pumping costs
10/25/2022	7	Economic loss due to inability to recover pumping costs
10/25/2022	8	Economic loss due to inability to recover pumping costs
10/25/2022	9	Economic loss due to inability to recover pumping costs
10/25/2022	10	Economic loss due to inability to recover pumping costs
10/25/2022	11	Economic loss due to inability to recover pumping costs
10/25/2022	13	Economic loss due to inability to recover pumping costs
10/25/2022	14	Economic loss due to inability to recover pumping costs
10/25/2022	15	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
10/25/2022	16	Economic loss due to inability to recover pumping costs
10/25/2022	17	Economic loss due to inability to recover pumping costs
10/25/2022	18	Economic loss due to inability to recover pumping costs
11/9/2022	8	Economic loss due to inability to recover pumping costs
11/9/2022	9	Economic loss due to inability to recover pumping costs
11/9/2022	10	Economic loss due to inability to recover pumping costs
11/9/2022	11	Economic loss due to inability to recover pumping costs
11/9/2022	12	Economic loss due to inability to recover pumping costs
11/9/2022	13	Economic loss due to inability to recover pumping costs
11/9/2022	14	Economic loss due to inability to recover pumping costs
11/9/2022	15	Economic loss due to inability to recover pumping costs
11/9/2022	16	Economic loss due to inability to recover pumping costs
11/9/2022	17	Economic loss due to inability to recover pumping costs
11/9/2022	18	Economic loss due to inability to recover pumping costs
11/9/2022	19	Economic loss due to inability to recover pumping costs
11/9/2022	20	Economic loss due to inability to recover pumping costs
11/9/2022	21	Economic loss due to inability to recover pumping costs
11/9/2022	22	Economic loss due to inability to recover pumping costs
11/9/2022	23	Economic loss due to inability to economically generate
11/11/2022	12	Economic loss due to inability to recover pumping costs
11/11/2022	13	Economic loss due to inability to recover pumping costs
11/11/2022	14	Economic loss due to inability to recover pumping costs
11/11/2022	15	Economic loss due to inability to recover pumping costs
11/11/2022	16	Economic loss due to inability to recover pumping costs
11/11/2022	17	Economic loss due to inability to recover pumping costs
11/11/2022	18	Economic loss due to inability to recover pumping costs
11/11/2022	19	Economic loss due to inability to recover pumping costs
11/11/2022	22	Economic loss due to inability to recover pumping costs
11/15/2022	24	Economic loss due to inability to economically generate
11/16/2022	4	Economic loss due to inability to economically generate
11/16/2022	5	Economic loss due to inability to economically generate
11/16/2022	8	Economic loss due to inability to recover pumping costs
11/16/2022	9	Economic loss due to inability to recover pumping costs
11/16/2022	11	Economic loss due to inability to recover pumping costs
11/16/2022	14	Economic loss due to inability to recover pumping costs
11/16/2022	22	Economic loss due to inability to recover pumping costs
11/16/2022	23	Economic loss due to inability to recover pumping costs
11/16/2022	24	Economic loss due to inability to recover pumping costs
11/17/2022	2	Economic loss due to inability to recover pumping costs
11/17/2022	13	Economic loss due to inability to recover pumping costs
11/17/2022	15	Economic loss due to inability to recover pumping costs
11/17/2022	19	Economic loss due to inability to recover pumping costs
11/17/2022	20	Economic loss due to inability to recover pumping costs
11/17/2022	21	Economic loss due to inability to recover pumping costs
11/17/2022	23	Economic loss due to inability to economically generate
11/17/2022	24	Economic loss due to inability to economically generate
11/18/2022	5	Economic loss due to inability to economically generate
11/19/2022	10	Economic loss due to inability to recover pumping costs
11/19/2022	11	Economic loss due to inability to recover pumping costs
11/19/2022	12	Economic loss due to inability to recover pumping costs
11/19/2022	13	Economic loss due to inability to recover pumping costs
11/19/2022	14	Economic loss due to inability to economically generate
11/19/2022	15	Economic loss due to inability to economically generate
11/19/2022	16	Economic loss due to inability to economically generate
11/19/2022	17	Economic loss due to inability to recover pumping costs
11/19/2022	18	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
11/19/2022	19	Economic loss due to inability to recover pumping costs
11/19/2022	20	Economic loss due to inability to recover pumping costs
11/19/2022	21	Economic loss due to inability to recover pumping costs
11/19/2022	22	Economic loss due to inability to recover pumping costs
11/19/2022	23	Economic loss due to inability to recover pumping costs
11/20/2022	10	Economic loss due to inability to economically generate
11/20/2022	11	Economic loss due to inability to economically generate
11/20/2022	12	Economic loss due to inability to economically generate
11/20/2022	13	Economic loss due to inability to economically generate
11/20/2022	14	Economic loss due to inability to economically generate
11/20/2022	15	Economic loss due to inability to economically generate
11/20/2022	16	Economic loss due to inability to economically generate
11/20/2022	17	Economic loss due to inability to recover pumping costs
11/20/2022	18	Economic loss due to inability to recover pumping costs
11/20/2022	19	Economic loss due to inability to recover pumping costs
11/20/2022	20	Economic loss due to inability to recover pumping costs
11/20/2022	21	Economic loss due to inability to recover pumping costs
11/20/2022	22	Economic loss due to inability to recover pumping costs
11/20/2022	23	Economic loss due to inability to recover pumping costs
11/24/2022	8	Economic loss due to inability to recover pumping costs
11/24/2022	9	Economic loss due to inability to recover pumping costs
11/24/2022	10	Economic loss due to inability to recover pumping costs
11/24/2022	11	Economic loss due to inability to recover pumping costs
11/24/2022	12	Economic loss due to inability to recover pumping costs
11/24/2022	13	Economic loss due to inability to recover pumping costs
11/24/2022	14	Economic loss due to inability to recover pumping costs
11/24/2022	15	Economic loss due to inability to recover pumping costs
11/24/2022	16	Economic loss due to inability to recover pumping costs
11/24/2022	17	Economic loss due to inability to recover pumping costs
11/24/2022	18	Economic loss due to inability to recover pumping costs
11/24/2022	19	Economic loss due to inability to recover pumping costs
11/24/2022	20	Economic loss due to inability to recover pumping costs
11/24/2022	21	Economic loss due to inability to recover pumping costs
11/27/2022	15	Economic loss due to inability to recover pumping costs
11/27/2022	16	Economic loss due to inability to recover pumping costs
11/27/2022	17	Economic loss due to inability to recover pumping costs
11/27/2022	18	Economic loss due to inability to recover pumping costs
11/27/2022	19	Economic loss due to inability to recover pumping costs
11/27/2022	20	Economic loss due to inability to recover pumping costs
11/27/2022	21	Economic loss due to inability to economically generate
11/27/2022	22	Economic loss due to inability to economically generate
11/27/2022	23	Economic loss due to inability to economically generate
11/27/2022	24	Economic loss due to inability to economically generate
11/29/2022	20	Economic loss due to inability to recover pumping costs
12/2/2022	18	Economic loss due to inability to recover pumping costs
12/2/2022	19	Economic loss due to inability to recover pumping costs
12/2/2022	20	Economic loss due to inability to recover pumping costs
12/2/2022	21	Economic loss due to inability to recover pumping costs
12/3/2022	18	Economic loss due to inability to recover pumping costs
12/3/2022	20	Economic loss due to inability to recover pumping costs
12/4/2022	21	Economic loss due to inability to recover pumping costs
12/4/2022	22	Economic loss due to inability to economically generate
12/10/2022	10	Economic loss due to inability to recover pumping costs
12/10/2022	20	Economic loss due to inability to recover pumping costs
12/15/2022	8	Economic loss due to inability to recover pumping costs
12/15/2022	10	Economic loss due to inability to recover pumping costs

SBGVA Hour when Pumping is Uneconomic and Associated Reasons for Economic Loss if Pumped

Date	Hour	Reason for Economic Loss
12/15/2022	11	Economic loss due to inability to recover pumping costs
12/15/2022	12	Economic loss due to inability to recover pumping costs
12/15/2022	13	Economic loss due to inability to recover pumping costs
12/15/2022	14	Economic loss due to inability to recover pumping costs
12/15/2022	15	Economic loss due to inability to recover pumping costs
12/15/2022	16	Economic loss due to inability to recover pumping costs
12/15/2022	17	Economic loss due to inability to recover pumping costs
12/15/2022	18	Economic loss due to inability to recover pumping costs
12/15/2022	19	Economic loss due to inability to recover pumping costs
12/18/2022	2	Economic loss due to inability to economically generate
12/18/2022	14	Economic loss due to inability to recover pumping costs
12/18/2022	20	Economic loss due to inability to recover pumping costs
12/28/2022	11	Economic loss due to inability to recover pumping costs
12/28/2022	12	Economic loss due to inability to recover pumping costs
12/28/2022	13	Economic loss due to inability to recover pumping costs
12/28/2022	16	Economic loss due to inability to recover pumping costs
12/28/2022	18	Economic loss due to inability to recover pumping costs
12/28/2022	21	Economic loss due to inability to recover pumping costs
12/30/2022	24	Economic loss due to inability to recover pumping costs
12/31/2022	9	Economic loss due to inability to recover pumping costs
12/31/2022	11	Economic loss due to inability to recover pumping costs
12/31/2022	12	Economic loss due to inability to recover pumping costs
12/31/2022	16	Economic loss due to inability to recover pumping costs
12/31/2022	17	Economic loss due to inability to recover pumping costs
12/31/2022	18	Economic loss due to inability to recover pumping costs
12/31/2022	21	Economic loss due to inability to recover pumping costs
12/31/2022	22	Economic loss due to inability to recover pumping costs
12/31/2022	24	Economic loss due to inability to recover pumping costs

REGULATED HYDROELECTRIC PROJECTS –
CAPACITY REFURBISHMENT VARIANCE ACCOUNT

As discussed in Ex. H1-1-1, Section 5.6, OPG is seeking recovery of additions to the Capacity Refurbishment Variance Account ("CRVA") for the following regulated hydroelectric capital projects that were placed in service during the period from June 1, 2017 to December 31, 2021, or otherwise subsequent to the last time the regulated hydroelectric CRVA balances were reviewed as of year-end 2015. The projects are summarized at Ex. H1-1-1, Table 7b, Note 4 and Ex. H1-1-1, Table 7a, Note 2.

As also discussed in Ex. H1-1-1, Section 5.6, OPG proposes to defer recovery of the hydroelectric portion of the CRVA additions recorded in 2022 to a future application, in order to have available the necessary details for assessing the recoverability of amounts recorded over the full 2022-2026 IR period based on the thresholds set out in the EB-2020-0290 Payment Amounts Order.

<u>Sir Adam Beck I Generating Station – Unit G10 Major Overhaul and Upgrade</u>

As part of this project, OPG completed various major upgrades to Unit G10 at the Sir Adam Beck I GS, such as rewinding the generator stator and rotor, replacing associated electrical equipment, and overhauling the turbine. These changes improved unit efficiency and increased the MCR from 45.9 MW to 55.0 MW. The project was placed in service in 2017 with a total cost of $30.8M. This represented an increase of $3.2M from the Class 3 estimate of $27.0M in the First Execution Business Case, which is inside the Class 3 estimate accuracy range.[1] The cost variance was mainly due to higher than expected contractor cost to perform the work under an Engineer-Procure-Construct ("EPC") contract strategy, Original Equipment Manufacturer's ("OEM") delays in generator coil manufacturing and testing, and scope added

[1] Refers to the Association for the Advancement of Cost Engineering ("AACE") cost estimate classification system. The Estimate Class guidance within the AACE defines the "quality" of a cost estimate based on the underlying inputs and the project's stage of development, with Class 1 being the most accurate and Class 5 the least accurate. Estimates underpinning execution phase releases are generally Class 3, with an expected accuracy range of -20% to +30%.

to the turbine overhaul for a new head cover and bottom ring based on lessons learned from the Sir Adam Beck I Unit G9 upgrade.

Sir Adam Beck Pump Generating Station – PG1 and PG6 Overhauls

Executed as two separate projects, the overhaul of the PG1 and PG6 units at the Sir Adam Beck Pump GS included rehabilitating the existing runners, generators, exciters and other electrical components and systems, and installing a new control system. The overhaul of PG1 was placed in service in 2017 with a total cost of $7.0M, while the overhaul of PG6 was placed in service in 2019 with a total cost of $7.1M. Both projects were completed within their respective First Execution Business Case estimates of $7.3M and $7.9M, respectively.

Stewartville Generating Station – Sluicegate Replacement

Prior to the project, the two existing sluicegates and associated ancillary systems at the Stewartville GS were at the end of life, and inspections had revealed that they were in a deteriorated condition. This project replaced these sluicegates with those of newer design capable of operating in throttling mode, whereby they can be partially opened to regulate flow and variability, to preserve efficiency, along with the associated systems, the hoist, and the tower structure. The project was placed in service 2017 and 2018 with a total cost of $7.3M. This represented an increase of $0.5M, which was within 7% of the First Execution Business Case estimate of $6.8M.

Mountain Chute Generating Station – Rehabilitate Sluicegate Structure and Replace Gates

This project replaced the two existing sluicegates and the associated power supply and control systems as well as the sectional service gates at the Mountain Chute GS. The existing assets were at the end of life and in a deteriorated condition. The replacement sluicegates are designed to operate in throttling mode. The project was placed in service in 2017 and 2018 with a total cost of $7.8M, which was within the First Execution Business Case estimate of $8.3M.

DeCew Falls II Generating Station – Unit G2 Overhaul and Upgrade

This project installed a new generator and turbine shaft at the DeCew Falls II Unit G2, along with performing an overhaul of the turbine. Downstream electrical equipment and protections were also upgraded to accommodate output from the new unit. This work restored the unit's capacity to its 72.0 MW Maximum Continuous Rating ("MCR"), which had previously been de-rated to 63.0 MW between 2013 and 2019 to mitigate the risk of generator failure due to vibrations. The project was placed in service in 2019 with a total cost of $35.5M, which was within the First Execution Business Case estimate of $38.1M.

Otter Rapids Generating Station – T1, T2 Transformer Replacement

Both transformers at the Otter Rapids GS had reached the end of life and were replaced with those uprated in size and containing current technology as part of this project. The new transformers enable an increase in transmission capability from 90MVA to 120MVA to accommodate planned runner upgrades at the facility in the 2022-2026 IR period. The project was placed in service in 2018 and 2020 at a total cost of $12.7M, which was in line with the First Execution Business Case estimate of $12.7M.

Manitou Falls Generating Station – Auto Sluice System Replacement

Prior to this project, auto sluicegates #A and #B at Manitou Falls GS were at the end of life and no longer met operational and design requirements, and their deteriorated condition limited operational frequency in order to manage the risk of failure. This project replaced the existing auto sluice system with an upgraded design and converted the adjacent log sluice to an auto sluice, allowing the system to operate more frequently to respond to market conditions. The project was placed in service in 2020 and 2021 with a total cost of $25.3M. This represented an increase of $1.3M, which was within 5% of the First Execution Business Case estimate of $24.0M.

Sir Adam Beck I Generating Station – Unit G5 Major Overhaul

Prior to this project, Unit G5 at the Sir Adam Beck I GS was at the end of its useful life and operating under a derate to 49MW to manage the risk of generator failure due to vibrations.

The project was a major overhaul and upgrade of the unit, including installation of a new turbine runner and static exciter and refurbishment of the field poles and the generator stator, windings and rotor. In addition to eliminating the derate, these changes increased the unit's MCR from 53.1 MW to 58.0 MW. The project was placed in service in 2021 with a total cost of $44.7M. While this represented an increase of $24.7M from $20.0M in the First Execution Business Case, this First Execution Business Case was a partial release of funds primarily for procurement of long lead materials and contained a total project estimate, identified as only at a Class 4, that was premature for an execution business case. Relative to the Full Execution Business Case, the total cost is an increase of $9.9M from the estimate of $34.8M. While characterized as a Class 2 estimate at the time, the level of project definition in the Full Execution Business Case was reflective of a Class 3 estimate, which would have been typical for the phase of the project at that time.

The cost variance from the Full Execution Business Case was mainly due to greater execution complexity compared to the station's Unit G10 Major Overhaul (discussed above), which was used as a basis for the cost estimate, resulting in greater than expected cost to perform the work. Additionally, actual cost was impacted by the COVID-19 pandemic, including from suspension of on-site work at the pandemic's onset and additional safety protocols upon resumption, and extended dry commissioning phase and equipment failure during wet commissioning.

<u>Whitedog Falls Generating Station – Auto Sluice System Replacement and Sluicegate #1, #4, #5 and #6 Replacement</u>

The Auto Sluice System Replacement and Sluicegate #1, #4, #5 and #6 Replacement at Whitedog Falls GS were executed as two separate projects. The Auto Sluice System Replacement project replaced the existing auto sluice gates and associated systems, which had reached the end of life and were limited from operating frequently in order to manage the risk of failure, and added a third auto sluicegate by converting an existing pinned sluicegate. The improved design of the auto sluice system allows it to operate as often as needed, enabling quicker responses to market conditions. The project was placed in service in 2018

and 2019 with a total cost of $16.9M, which was within 5% of the First Execution Business case estimate of $16.2M.

The Sluicegate #1, #4, #5 and #6 Replacement project replaced these four existing pinned sluicegates, the secondary concrete and embedded parts, and the associated electrical components, all at the end of life. The project was placed in service in 2020 and 2021 with a total cost of $12.8M, which was in line with the First Execution Business Case estimate of $12.8M.

Pine Portage Generating Station – Auto Sluice System Replacement

This project replaced both auto sluicegates at the Pine Portage GS, along with the hoists, the structure, and the sluicegate gains at the spillway; these assets were placed in service in 2018. The project scope subsequently expanded to replace the surface of the dam deck, which deteriorated significantly while work was being performed on the auto sluice system and became a safety hazard. The new concrete deck at the spillway section of the dam was placed in service in 2021. Prior to the project, the existing auto sluicegates were at the end of life and were no longer capable of adequately responding to changing market conditions, and were limited from operating frequently in order to manage the failure rate. The replaced auto sluicegates reflect an upgraded design that allows them to operate as and when needed. The project was completed with a total cost of $13.1M, which was $3.4M higher than the Class 3 estimate of $9.7M in the First Execution Business Case and within the superseding budget of $13.6M that reflected the scope added to replace the surface of the dam deck.

Caribou Falls Generating Station – Auto Sluice System Replacement and Sluicegate #4 and #6 Replacement

The Auto Sluice System Replacement and Sluicegate #4 and #6 Replacement at the Caribou Falls GS were executed as two separate projects. The Auto Sluice System Replacement project replaced existing auto sluicegates #8 and #9 and associated equipment, which had reached the end of life and were constrained to limited operations to minimize the risk of failure. The restricted operations of the sluicegates reduced OPG's ability to operate reliably and to

maintain availability to respond to market conditions. The new auto sluicegates will increase the reliability and frequency of operation through their modified design. The project also converted existing pinned sluicegate #7 to an auto sluicegate. The project was placed in service in 2021 with a total cost of $17.1M, which was within 3% of the First Execution Business Case estimate of $16.6M.

The Sluicegate #4 and #6 Replacement project replaced the original pinned sluicegates #4 and #6 at the end of life with new gates containing a new gain and gate heating system, along with the secondary concrete, embedded parts and electrical equipment. The project was placed in service 2021 with a total cost of $7.0M, which was within the First Execution Business Case estimate of $7.3M.

Aguasabon Generating Station – Surge Tank Replacement

This project replaced the existing surge tank at the Aguasabon GS that was approaching the end of life with one reflecting current design, materials and technology. The walls of the existing surge tank had material loss in thickness from corrosion and the lower bowl contained significant leakage. The project was placed in service in 2022 with a total cost of $26.4M, which was essentially in line with the First Execution Business Case estimate of $26.3M.

In this application, OPG is seeking recovery of the project's removal costs of $1.8M and the revenue requirement impact associated with $23.1M in assets placed in service during the 2017-2021 IR period. As noted above, OPG proposes to defer recovery of the hydroelectric portion of the CRVA additions recorded in 2022 to a future application.

Abitibi Canyon Generating Station – Unit G5 Stator Winding Replacement

This project constituted the engineering, design, fabrication, and installation of new stator windings for Unit G5 at the Abitibi Canyon GS to replace existing stator windings that had reached the end of life. Prior to the project, the deterioration of these existing components had resulted in multiple winding and jumper failures. The project was placed in service in 2020 with a total cost of $9.3M, which was within the First Execution Business Case estimate of $9.7M.

Sir Adam Beck I Generating Station – Units G1, G2 Replacement

Under this project, OPG replaced the obsolete and previously decommissioned 25Hz G1 and G2 units at the Sir Adam Beck I GS with two new 60Hz units. For each unit, OPG installed a new generator, exciter, transformer and protection and controls systems, replaced the scroll cases, refurbished the headgates, and replaced the turbine components. The new units have an MCR of 57.5 MW, compared to 40 MW for the decommissioned units. The project was placed in service over the 2019-2022 period with a total cost of $122.8M, which was within 2.5% of the First Execution Business Case estimate of $119.7M and within the superseding budget of $127.9M. The superseding budget was established to account for supply chain delays for key components manufactured overseas as a result of the COVID-19 pandemic, as well as replacement of the scroll cases for both units upon discovery of significant deterioration beyond repair. In this application, OPG is seeking recovery of the project's removal costs of $9.9M and the revenue requirement impact associated with $11.7M in assets placed in service during the 2017-2021 IR period.

Ranney Falls Generating Station G3

The project installed a new 10 MW G3 unit at the Ranney Falls GS, replacing the existing 0.8 MW unit in the second powerhouse that had reached the end of life. The project was placed in service in 2019 and 2022 with a total cost of $74.5M. Although the project experienced a schedule delay from the generator sustaining damage during final commissioning in 2020, resulting in the final in-service taking place in 2022, it was completed within the First Execution Business Case estimate of $77.3M. As the damage to the generator stemmed from work performed by the vendor, the vendor undertook additional work to repair and reassemble the unit at their own cost. In this application, OPG is seeking recovery of the revenue requirement impact associated with $53.7M in assets placed in service during the 2017-2021 IR period.

R.H. Saunders Generating Station – Replacement of Westinghouse Excitation

OPG is in the process of replacing the outdated excitation systems in all 16 units of the R.H. Saunders GS that were built using technology that has since become obsolete, resulting in

minimal manufacturer support and diminished ability for maintenance. As part of this project, replacement of the excitation systems and associated components related to units G1, G3, G5, G6, G7, G9 and G14 were placed in service by the end of the 2017-2021 IR period at an aggregate cost of $7.5M. Replacement of the excitation systems in the remaining units is ongoing. The overall project is tracking within the First Execution Business Case estimate.

Sir Adam Beck Pump Generating Station – Reservoir Refurbishment

This project refurbished the storage reservoir belonging to the Sir Adam Beck Pump GS. The reservoir is surrounded by a dike consisting of a natural clay material in its core, which connects to the reservoir floor to prevent water seepage. The bedrock underneath the dike contained open, continuous joints that could cause water to seep out from the reservoir, particularly in areas with the largest water depths and strongest downward pressures, risking the formation of sinkholes capable of causing the dike to breach. The project was undertaken to minimize the risk of water seepage and other risks by lining critical areas of the reservoir with clay liners, constructing grout curtain in the bedrock foundation of the dike, and re-grading the reservoir floor in specified locations to remove any depressions. The project was placed in service in February 2017 with a total cost of $48.7M, which was within the First Execution Business Case estimate of $58.2M.

Table 7b
Capacity Refurbishment Variance Account - Hydroelectric - Projects In-service from June 1, 2017 to December 31, 2021
Summary of Account Additions Before Application of Recoverability Threshold - 2016, 2017, 2018, 2019, 2020 and 2021 ($M)

Line No.	Particulars	Note	Actual 2016	Actual Jan 1 2017- May 31 2017	Actual June 1 2017 - Dec 31 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021
			(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	**Actual Net Plant Rate Base**	4	0.0	0.0	22.4	57.4	127.8	203.2	272.0
2	**Weighted Average Cost of Capital**	1	6.85%	6.85%	6.85%	6.85%	6.85%	6.85%	6.85%
3	**Cost of Capital** (line 1 x line 2)		0.0	0.0	1.5	3.9	8.8	13.9	18.6
4	**Actual Depreciation**	4	0.0	0.0	0.3	1.0	2.3	3.6	4.8
	Income Tax Impact								
5	**Actual Capital Cost Allowance Deduction**		0.0	0.0	1.6	4.4	18.3	28.7	25.1
6	**Actual SR&ED Qualifying Capital Expenditures**		0.3	1.1	1.6	0.0	12.2	20.0	23.7
7	**Net Decrease in Regulatory Taxable Income**	3	(0.3)	(1.1)	(1.9)	(1.0)	(22.9)	(36.6)	(32.7)
8	**Income Tax Rate**		25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
9	**Income Tax Impact** (line 7 x line 8 / (1 - line 8))		(0.1)	(0.4)	(0.6)	(0.3)	(7.6)	(12.2)	(10.9)
10	**Total Capital-Related Revenue Requirement Impact** (line 3 + line 4 + line 9)		(0.1)	(0.4)	1.2	4.5	3.4	5.4	12.5
11	**Less: EB-2016-0152 Reference Amount**	2	0.0	0.0	0.6	1.0	1.0	1.0	1.0
12	**Total Capital Addition to Variance Account - Capital Portion - Projects In-service from June 1, 2017 to Dec 31, 2021, Before Application of Recoverability Threshold** (line 10 - line 11)		(0.1)	(0.4)	0.7	3.6	2.4	4.4	11.5

Notes:

1 From EB-2013-0321 Payment Amounts Order, App. A, Table 6b, line 6, col. (c).

2 Per EB-2016-0152 Payment Amounts Order, App. G, pp. 9-10, calculated as $0.9M escalated at the following OEB-approved I-X rates applied to adjust OPG's regulated hydroelectric payment amounts (prorated by 7/12th for June 1 to December 31, 2017): 1.4% in 2017, 0.9% in 2018, 1.1% in 2019, 1.5% in 2020, and 1.7% in 2021.

3 The decrease in regulatory taxable income is calculated as line 4, less the sum of 5 and 6, plus the ROE component of the cost of capital at line 3. The ROE component is equal to line 1 multiplied by the OEB-approved equity portion (45%) of the capital structure and the OEB-approved ROE rate of 9.30%.

4 For cols. (a) to (g), the amounts are calculated as follows:

Table to Note 4 - Capacity Refurbishment Variance Account - Actual Net Plant Rate Base Amounts for Hydroelectric Projects In-Service from June 1, 2017 to December 31, 2021 ($M)

Line No.		June 1 2017 - Dec 31 2017	2018	2019	2020	2021
		(a)	(b)	(c)	(d)	(e)
1a	Gross Plant Opening Balance	0.0	45.2	71.2	189.2	228.0
2a	In-service Additions*	45.2	26.0	118.0	38.7	107.3
3a	Gross Plant Closing Balance (line 1a + line 2a)	45.2	71.2	189.2	228.0	335.2
4a	Gross Plant Rate Base Amount (line 1a + line 3a)/2	22.6	58.2	130.2	208.6	281.6
5a	Accumulated Depreciation Opening Balance	0.0	0.3	1.3	3.5	7.2
6a	Depreciation	0.3	1.0	2.3	3.6	4.8
7a	Accumulated Depreciation Closing Balance (line 5a + line 6a)	0.3	1.3	3.5	7.2	11.9
8a	Accumulated Depreciation Rate Base Amount (line 5a + line 7a)/2	0.2	0.8	2.4	5.3	9.5
9a	Net Plant Rate Base Amount (line 4a - line 8a)	22.4	57.4	127.8	203.2	272.0

* The following projects comprise the actual in-service additions. See Ex. H1-1-1, Attachment 4 for further details.

Capacity Refurbishment Variance Account - Hydroelectric - In-Service Capital Project Listing from June 1, 2017 to December 31, 2021 ($M)

Line No.	Project Name	Final In-Service Date+	Total Project Cost ++	1st Execution Business Case	In-Service June 1 2017- Dec 31 2017	In-Service 2018	In-Service 2019	In-Service 2020	In-Service 2021
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1b	Sir Adam Beck I Generating Station – Unit G10 Major Overhaul and Upgrade	Jun-17	30.8	27.0	30.2				
2b	Sir Adam Beck Pump Generating Station – PG1 Overhaul	Dec-17	7.0	7.3	7.0				
3b	Stewartville Generating Station – Sluicegate Replacement	Oct-18	7.3	6.8	3.7	3.6			
4b	Mountain Chute Generating Station – Rehabilitate Sluicegate Structure and Replace Gates	Nov-18	7.8	8.3	4.3	3.4			
5b	Sir Adam Beck Pump Generating Station – PG6 Overhaul	May-19	7.1	7.9			7.1		
6b	DeCew Falls II Generating Station – Unit G2 Overhaul and Upgrade	Jul-19	35.5	38.1			34.9		
7b	Otter Rapids Generating Station – T1, T2 Transformer Replacement	Aug-20	12.7	12.7		4.6		7.4	
8b	Manitou Falls Generating Station – Auto Sluice System Replacement	Sep-21	25.3	24.0				14.8	8.8
9b	Sir Adam Beck I Generating Station – Unit G5 Major Overhaul	Sep-21	44.7	20.0					43.4
10b	Whitedog Falls Generating Station – Sluicegate #1, #4, #5 and #6 Replacement	Oct-21	12.8	12.8				5.7	5.3
11b	Pine Portage Generating Station – Auto Sluice System Replacement	Oct-21	13.1	9.7		9.5			2.4
12b	Caribou Falls Generating Station – Sluicegate #4 and #6 Replacement	Nov-21	7.0	7.3					6.0
13b	Whitedog Falls Generating Station – Auto Sluice System Replacement	Dec-21	16.9	16.2		5.0	9.4		0.4
14b	Aguasabon Generating Station – Surge Tank Replacement	Aug-23	26.4	26.3					23.1
15b	Abitibi Canyon Generating Station – Unit G5 Stator Winding Replacement	Oct-23	9.3	9.7				8.1	
16b	Caribou Falls Generating Station – Auto Sluice System Replacement	Oct-23	17.1	16.6					14.6
17b	Sir Adam Beck I Generating Station – Units G1, G2 Replacement	Oct-23	122.8	119.7			10.9	0.7	
18b	Ranney Falls Generating Station G3	Oct-23	74.5	77.3			53.7		
19b	R.H. Saunders Generating Station – Replacement of Westinghouse Excitation			17.2			1.8	2.0	3.3
20b	Total				45.2	26.0	118.0	38.7	107.3

\+ For completed projects only, subject to project close out where it may not have yet occurred. Final In-Service Date means the final date for in-service and close out of project, or the final in-service date (but not the final project close out date which may not have yet occurred).

++ For completed projects only, subject to project close out where it may not have yet occurred. Project costs shown include removal costs expensed to OM&A, whereas in-service amounts exclude these costs.

Table 17
Capacity Refurbishment Variance Account - Nuclear - D2O Project
Summary of Account Transactions - 2020 and 2021 ($M)

Line No.	Particulars	Note	Actual 2020	Actual 2021
			(a)	(b)
	Capital Addition to Variance Account:			
1	**Forecast Cost of Capital Amount**	1	0.8	0.8
2	**Actual Net Plant Rate Base Amount**	2	293.8	378.5
3	**Weighted Average Cost of Capital**	1	6.44%	6.43%
4	**Actual Cost of Capital Amount** (line 2 x line3)		18.9	24.3
5	**Cost of Capital Variance** (line 4 - line 1)		18.1	23.6
6	**Forecast Depreciation**	1	0.4	0.4
7	**Actual Depreciation**	2	9.1	12.0
8	**Depreciation Variance** (line 7 - line 6)		8.7	11.6
	Income Tax Impact:			
9	**Net Increase in Regulatory Taxable Income**	3	19.8	26.1
10	**Income Tax Rate**		25.0%	25.0%
11	**Income Tax Impact** (line 9 x line 10 / (1 - line 10))		6.6	8.7
12	**Total Additon to Variance Account - D2O Project** (line 5 + line 8 + line 11)		33.4	43.9

Notes:

1 For cols. (a) and (b), the amounts are calculated as follows:

Table to Note 1 - D2O Project Forecast Capital Amounts - EB-2016-0152 ($M)

Line No.		2020	2021
		(a)	(b)
1a	Forecast Net Plant Rate Base Amount*	12.5	12.2
2a	Weighted Average Cost of Capital**	6.44%	6.43%
3a	Forecast Cost of Capital Amount (line 1a x line 2a)	0.8	0.8
4a	ROE Component of Forecast Cost of Capital Amount	0.5	0.5
5a	Forecast Depreciation*	0.4	0.4

* Cols. (a) and (b) as reflected in the EB-2016-0152 Payment Amounts Order.
** From EB-2016-0152 Payment Amounts Order, App. A: Table 14, line 6, col. (c) for 2020 and Table 15, line 6, col. (c) for 2021.

2 For cols. (a) and (b), the amounts are calculated as follows:

Table to Note 2 - D2O Project Actual Net Plant Rate Base Amounts ($M)

Line No.		2020	2021
		(a)	(b)
1b	Gross Plant Opening Balance[+]	14.6	395.6
2b	In-service Additions[++]	381.0	0.0
3b	Gross Plant Closing Balance (line 1b + line 2b)	395.6	395.6
4b	Gross Plant Rate Base Amount (line 1b + line 3b)/2[+]	300.4	395.6
5b	Accumulated Depreciation and Amortization Opening Balance[+++]	2.0	11.2
6b	Depreciation and Amortization[++++]	9.1	12.0
7b	Accumulated Depreciation and Amortization Closing Balance (line 5b + line 6b)	11.2	23.2
8b	Accumulated Depreciation and Amortization Rate Base Amount (line 5b + line 7b)/2[+++]	6.6	17.2
9b	Net Plant Rate Base Amount (line 4b - line 8b)	293.8	378.5

\+ From EB-2020-0290 Payment Amounts Order, App. A, Table 9a, lines 3a and 3f, cols. (e) and (f). Based on March 27, 2020 in-service date, the in-service additions at line 2b are assigned a weighting of 9 months for purposes of 2020 rate base.
++ From EB-2020-0290 Payment Amounts Order, App. A, Table 9a, cols. (e) and (f): line 3b + line 3c + line 3d.
+++ From EB-2020-0290 Payment Amounts Order, App. A, Table 10a, lines 4a and 4e, cols. (e) and (f).
++++ From EB-2020-0290 Payment Amounts Order, App. A, Table 10a, cols. (e) and (f): line 4b + line 4c.

3 The change in regulatory taxable income is calculated as the sum of line 8 and the ROE component of the cost of capital variance at line 5. The ROE component of the variance is equal to the difference between (i) line 2 multiplied by the OEB-approved equity portion (45%) of the capital structure and the OEB-approved ROE rate of 8.78% for 2020 and 2021, and (ii) line 4a, for the corresponding year. Consistent with EB-2020-0290, CCA for the D2O Project is included within overall DRP and Accelerated Investment Incentive CCA - DRP balances of the Capacity Refurbishment Variance Account.