

GrandBridge Energy Inc.
2026-2028 Non-Wires Application

EB-2025-0265

TABLE OF CONTENTS

Table of Contents	2
1. APPLICATION	4
1.1. PROPOSED EFFECTIVE DATE.....	5
1.2. FORM OF HEARING REQUESTED	5
1.3. MATERIALITY THRESHOLD.....	5
1.4. CONTACT INFORMATION.....	5
1.5. CUSTOMERS AFFECTED	6
1.6. CERTIFICATION OF SENIOR OFFICER.....	7
2. Executive Summary	8
3. Distribution System Needs.....	11
3.1. Current System Landscape & Constraints	11
3.2. Integrated Regional Resource Planning.....	15
3.3. Consistency with Historical Distribution System Plan	18
3.4. Asset Solution.....	19
4. Proposed Non-Wires Solution	19
4.1. Overview.....	19
4.2. GrandBridge Energy’s NWS Capacity Auction	20
4.2.1. NWS Program Description.....	20
4.2.2. NWS Forecasting.....	21
4.2.3. NWS Program Budget	22
4.2.4. NWS Margin-on-Payment.....	23
4.2.5. NWS Benefit-Cost Analysis Summary.....	24
4.2.6. NWS Project Timeline.....	27
5. Funding, Rate Design & Bill Impacts.....	27
5.1. Funding Sources.....	27
5.2. Rate Riders and Deferral and Variance Accounts	28
5.3. Bill Impacts	32
Attachment 1: Benefit Cost Analysis	34
Attachment 2: Benefit Cost Analysis Model	40
Attachment 3: GBE NWS Program Budget Details	41
Attachment 4: NWS Application Filing Checklist.....	44

Attachment 5: NWS Program Costs Variance Account Accounting Draft Order	45
Attachment 6: NWS Program Rulebook and Participant Agreements	47
Table 1: NWS Program Funding Request	10
Table 2: Distribution Service Test Results.....	10
Table 3: Preston TS, Galt TS, MTS#1 LTR	12
Table 4: Summer Reference: Load Actuals and Forecast MW (2025-2027) for Preston TS, Galt TS and MTS#1	13
Table 5: Summer Reference: Station Peak Demand Forecast, Coincident to KWCG Region (MW)	16
Table 6: Summer High: Station Peak Demand Forecast, Coincident to KWCG Region (MW) ...	17
Table 7: Summer High: Actuals and Forecast MW (2025-2027) for Preston TS, Galt TS and MTS#1	17
Table 8: Known Connected Distributed Generation Assets	20
Table 9: GBE NWS Program Budget	23
Table 10: GBE NWS Margin-on-Payments Incentive	24
Table 11: Summary of Proposed Incentive (per Section 2.3 of the NWS Incentive Guidelines) .	24
Table 12: Distribution System Test Results.....	26
Table 13 : Derivation of 3-Yr Average Rate Riders for NWS Program Cost Recovery.....	30
Table 14: Typical Bill Impacts of NWS Program	33

1
2
3
4
5
6
7
8

9
10
11
12
13

14
15
16
17

18
19
20
21
22
23
24
25
26
27
28

29
30
31
32
33
34
35
36

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c.15 (Schedule B) (the OEB Act);

AND IN THE MATTER OF an Application by GrandBridge
Energy Inc. to the Ontario Energy Board pursuant to section
78(3) of the OEB Act for an Order or Orders approving or
fixing just and reasonable rates and other charges for the
distribution of electricity as of May 1, 2026.

1. APPLICATION

GrandBridge Energy Inc., (the Applicant or GrandBridge Energy or GBE), is a corporation incorporated under the Ontario *Business Corporations Act*, and is licensed by the Ontario Energy Board (the OEB) to own and operate electricity distribution facilities under licence number ED-2021-0280.

GrandBridge Energy hereby applies to the OEB pursuant to section 78(3) of the *Ontario Energy Board Act, 1998*, as amended (the OEB Act), for orders approving funding for its Non-Wires Solutions Program (NWS Program or NWS) for the GrandBridge Energy GBE(E+) Rate Zone (defined below), through distribution rate riders effective May 1, 2026 (the Application).

By way of background, effective May 2, 2022, Energy+ Inc. (E+) and Brantford Power Inc. (BPI) amalgamated pursuant to the provisions of the Ontario *Business Corporations Act*, to continue as one corporation under the name “GrandBridge Energy Inc.”.¹ Although both service territories are now under one distribution licence, each of the service territories will continue to require separate tariffs of rates and charges until rates are harmonized through the filing of one cost of service rate application, which is expected to be effective for 2032 distribution rates, based on the 10-year deferral period. For reference purposes, the service territory for the City of Cambridge, Township of North Dumfries and County of Brant (including newly annexed section of the City of Brantford) will be referred to as the “GBE(E+) Rate Zone” and the service territory for the City of Brantford will be referred to as the “GBE(BPI) Rate Zone”. This Application only impacts GrandBridge Energy’s GBE(E+) Rate Zone and does not impact GrandBridge Energy’s GBE(BPI) Rate Zone.

This Application is prepared in accordance with the OEB’s:

- a. *Non-Wires Solutions Guidelines for Electricity Distributors*, EB-2024-0118, issued on March 28, 2024 (NWS Guidelines),
- b. *Benefit-Cost Analysis Framework for Addressing Electricity System Needs*, issued May 16, 2024 (BCA Framework),
- c. *Filing Guidelines for Incentives for Electricity Distributors to Use Third-Party DERs as Non-Wires Alternatives*, issued March 28, 2023 (NWS Incentive Guidelines),
- d. *Handbook for Utility Rate Applications (the Rate Handbook)*, dated October 13, 2016, and

¹ EB-2021-0280, March 17, 2022, OEB Decision and Order: Brantford Power Inc. and Energy+ Inc., Application for approval to amalgamate and continue operations as a single electricity distribution company.

1 e. *Section 11, Margin on Payments Incentive Mechanism, of the Distribution System Code,*
2 *issued on November 25, 2025.*

3 The OEB's NWS Guidelines provide guidance on the role of non-wires solutions for rate-regulated
4 electricity distributors and address the treatment of NWSs in distribution rate applications. Section
5 3 of the NWS Guidelines provides more details on the OEB's expectations and evidentiary
6 requirements for consideration of NWSs and applications for NWS funding. Chapter 3 of the
7 NWS Guidelines includes references to using the OEB's BCA Framework by distributors when
8 assessing the economic feasibility of NWSs to address defined electricity system needs.

9 This Application is consistent with the NWS Guidelines and BCA Framework. This Application is
10 supported by pre-filed written evidence, which may be amended from time to time. For the reasons
11 set out in this Application, GrandBridge Energy submits that the proposed distribution rates are
12 just and reasonable.

13 **1.1. PROPOSED EFFECTIVE DATE**

14 GrandBridge Energy requests that the OEB make its Final Rate Order effective May 1, 2026. If
15 the OEB does not expect that the Final Rate Order will be issued by such date, the Applicant
16 requests that the OEB approve the recovery of any differences in the NWS Program revenue
17 between the effective date and the implementation date of the OEB's Decision and Order
18 establishing final rates and charges.

20 **1.2. FORM OF HEARING REQUESTED**

21 As per the OEB's NWS Guidelines, GrandBridge Energy requests that this Application be heard
22 in writing by a panel of Commissioners.

24 **1.3. MATERIALITY THRESHOLD**

25 GrandBridge Energy has relied upon a materiality threshold of \$279k in preparing this Application.
26 This amount is equal to 0.5% of the combined distribution revenue requirements of GrandBridge
27 Energy's predecessor utilities, as approved in EB-2018-0028 (Energy+ Inc. 2019 Cost of Service)
28 and EB-2021-0009 (Brantford Power Inc. 2022 Cost of Service).

30 **1.4. CONTACT INFORMATION**

31 GrandBridge Energy requests that copies of all documents filed with the OEB by each party to
32 this proceeding be served on the Applicant, the Applicant's counsel, and the Applicant's
33 consultant as follows:

34
35 **Applicant's Name:** GrandBridge Energy Inc.
36 **Applicant's Service Address:** 39 Glebe Street, PO Box 1060
37 Cambridge, ON N1R 5X6

1 **Primary Contact for Electricity**

2 **Distribution License:** Sarah Hughes, CPA, CA, C. Dir.
3 President & CEO
4 Phone: (519) 621-3530 ex: 2638
5 Email: regulatoryaffairs@grandbridgeenergy.com

7 **Primary Contact for this Application:**

Gaetana Girardi
8 Director, Regulatory Affairs & Revenue Assurance
9 Phone: (226) 755-2273
10 Email: regulatoryaffairs@grandbridgeenergy.com
11

12 **Applicant's Internet Address:**

<https://grandbridgeenergy.com/>

14 **Applicant's Legal Counsel:**

John A.D. Vellone
15 Partner at Borden Ladner Gervais LLP,
16 Bay Adelaide Centre, East Tower,
17 Toronto, ON, Canada M5H 4E3
18 Phone: 416-367-6277
19 Email: jvellone@blg.com

21 **Applicant's Consultant:**

Andrew Mandyam
22 Vice President at Utilis Consulting Inc.,
23 PO Box 833 Uxbridge STN Main
24 Uxbridge, ON, Canada L9P 1N2
25 Phone: 416-569-7102
26 Email: andrew.mandyam@utilisconsulting.ca
27

28 **1.5. CUSTOMERS AFFECTED**

29 Those affected by this Application are the electricity distribution customers of GrandBridge Energy
30 Inc. and include customers residing in the following service territories and GBE(E+) Rate Zone:
31 (1) the City of Cambridge; (ii) the Township of North Dumfries; and (iii) within the County of Brant,
32 including the areas of Paris, St. George, Cainsville, and Burford.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

1.6. CERTIFICATION OF SENIOR OFFICER

Certification of Evidence

As Vice President, Finance and CFO of GrandBridge Energy Inc., I certify, to the best of my knowledge, that the evidence filed in this 2026 NWS Program application is accurate, consistent, and complete. The filing is consistent with the requirements of the OEB’s NWS Guidelines for Electricity Distributors, EB-2024-0118, issued on March 28, 2024 and the OEB’s Benefit-Cost Analysis Framework for Addressing Electricity System Needs, issued May 16, 2024.

Certified by:

Original Signed by Dan Molon



Date: December 1, 2025

**Dan Molon, MBA, CPA
Vice President, Finance & CFO**

Certification of Personal Information

As Director, Regulatory Affairs & Revenue Assurance of GrandBridge Energy Inc., I certify, to the best of my knowledge, that the document and evidence filed in this 2026 NWS Program application does not contain any personal information (as the phrase is defined in the Freedom of Information and Protection of Privacy Act), that is not otherwise redacted in accordance with Rule 9A of the OEB’s Rules of Practice and Procedure.

Certified by:

Original Signed by Gaetana Girardi



Date: December 1, 2025

**Gaetana Girardi
Director, Regulatory Affairs & Revenue Assurance**

2. EXECUTIVE SUMMARY

GrandBridge Energy Inc. (the Applicant, GrandBridge Energy or GBE) is applying to the Ontario Energy Board (OEB) for multi-year rate riders and deferral and variance accounts (DVA) to enable the implementation of a Non-Wires Solution Program (NWS Program or NWS) in 2026. The NWS is required to address urgent local capacity needs between 2026 and 2028, until a new transformer station (TS), MTS#2, is placed in service, forecast for the Spring of 2028. GBE will reassess the need for the NWS beyond 2028, drawing on experience from the NWS Program's first years.

Growing Capacity Shortfalls and the High Load Forecast

GBE is currently facing urgent capacity constraints across its service area as identified through the Independent Electricity System Operator's (IESO) Integrated Regional Resource Planning (IRRP) process for the Kitchener-Waterloo-Cambridge-Guelph (KWCG) region. GBE is an active participant in this planning effort, and the most recent updates from the IESO - in both the July 2024 KWCG IRRP Scoping Report, the May and September 2025 IESO KWCG stakeholder engagement webinars, and the September 30, 2025 Urge Letter - have escalated the urgency of addressing station capacity issues at three TSs (Preston TS, Galt TS and MTS#1) serving the City of Cambridge and recommended immediate action to address these priority needs.

The most recent Distribution System Plan (DSP) prepared and submitted by GBE was the Energy+ DSP prepared for Energy+'s 2019 Cost of Service, EB-2018-0028, covering the years 2019 to 2023 on a forecast basis (Energy+ DSP). The Energy+ DSP highlights the potential for future capacity needs affecting the Preston TS, Galt TS, and MTS#1 outside of the DSP period, the potential for such needs to arise rapidly, and the anticipated long-term infrastructure solution to address such needs when they arise. Subsequent to the Energy+ DSP's submission, large customer connections have accelerated the need for additional capacity in the area over a short period of time.

By 2027, under the February 2025 reference load growth scenario forecast (see Table 5 below), the key transformer stations serving GBE (E+)'s Rate Zone in Cambridge - Preston TS, Galt TS, and MTS#1 - are projected to reach 88% of their capacity due to rapid growth caused by a range of developments including data centres, commercial sectors near major highways, residential development, urban densification, and fleet electrification. Under normal circumstances, these stations could support this loading level; however, upstream transmission constraints require the stations to be derated to a combined limit of 400 MW to avoid overloading the transmission system during a contingency. Under the reference forecast, load at these stations is expected to reach 396 MW by 2027, which is 99% of the transmission-constrained limit during contingency peak conditions. At these levels, GBE faces severe restrictions on system operations, including: severe grid constraints that limit load transfers between stations; complication of outage management through reduced system resiliency; and delayed new customer connections, hindering economic growth.

The February 2025 high load growth scenario forecast demonstrates an even more urgent situation (see Table 6 below). Under this scenario, the same transformer stations would reach approximately 91.5% of station capacity -and exceed the 400 MW constrained limit - by 2027, reaching 103.1% of the allowable capacity (see Table 7 below). Given the volume of recent and near-term customer connection inquiries, GBE is now trending closer to the high growth scenario than the reference case. This reinforces the need for immediate, short-term capacity relief until the implementation of the MTS#2 solution.

1 Need for MTS#2 and Timing Gap.

2 To address the identified capacity shortfall in the KWCG region, the IESO, in coordination with
3 the KWCG Working Group (which includes Hydro One Networks Inc. (HONI) and GBE), has
4 determined that the development of a new 115 kV transformer station in Cambridge (MTS#2) is
5 required as part of an integrated regional solution. The IESO's urgent directive, as outlined in its
6 September 30, 2025, letter² identifies this project as a near-term priority to enable additional
7 supply capacity and maintain reliability across Cambridge, Kitchener, Brant, and Brantford. GBE
8 has taken a leadership role in advancing the MTS#2 project and is progressing rapidly toward an
9 in-service date of Q2 2028, in alignment with Hydro One's planned 115 kV transmission upgrades.

10 This is the earliest opportunity for GBE to invest in traditional capital solutions to meet the needs
11 faced by its customers and systems. GBE requires the NWS Program as a means to both create
12 immediate benefits for customers and to mitigate risk until MTS#2 is placed into service.

13 Why the NWS Program Is Required and How It Benefits Customers

14 GBE proposes its NWS Program as a cost-effective and innovative solution to address grid
15 capacity constraints and enhance system reliability and resiliency. The program leverages
16 demand response (DR) by incentivizing participants to reduce load during peak hours and
17 supports distributed energy resources (DERs) such as behind-the-meter solutions to reduce
18 demand on the grid. GBE plans to run capacity auctions for DR and behind-the-meter DER
19 participation, ensuring competitive pricing and cost-effectiveness for customers.

20 Without immediate action, GBE faces capacity constraints that could delay customer connections,
21 hinder economic growth, erode community trust, and heighten reliability risks from grid congestion
22 and outages. While the NWS Program cannot replace traditional infrastructure solutions in the
23 long-term, it will meet imminent system and customer needs in a manner that provides substantial
24 financial benefits resulting from GBE prudently managing its system reliability during high peak
25 loading. In addition, the NWS Program also delivers benefits by facilitating business and
26 residential connections, enhancing grid resiliency to reduce outage risks, supporting economic
27 growth by enabling new developments, and empowering customers to participate in Ontario's
28 clean energy transition.

29 Strategically, the NWS Program aligns with the OEB's regulatory framework for cost-effective grid
30 planning, maintains stable electricity costs for customers, and prepares GBE for a future
31 Distributor System Operator (DSO) model by integrating DERs into grid management. Through
32 this program, GBE aims to deliver near-term savings, create the expertise and platforms for
33 delivery of additional savings in the future, improve system performance, and advance Ontario's
34 energy transition while supporting local economic growth.

35 Program Funding, Costs and Benefits, and Bill Impact

36 As a utility serving approximately 115,000 customers, the NWS Program costs proposed in this
37 Application are material and cannot be supported in existing rates without impacts to existing
38 required capital and operational investments. Concurrent to this Application, GBE sought funding
39 through the federal government's Smart Renewables and Electrification Pathways (SREP)

² Letter from the IESO to GBE dated September 30, 2025, Re: "Urgent letter re: Transmission projects to supply near-term electricity demand growth in Cambridge, Kitchener, Brant, and Brantford"

1 Program in April 2025, but has not as of the submission of this Application received final
2 confirmation of funding approval.

3 This Application requests approval of rate riders applicable to all GBE customer classes in the
4 GBE(E+) Rate Zone in recovery of the following amounts as further described in Section 4.2.3 of
5 this NWS Application:

6 **Table 1: NWS Program Funding Request³**

Item (\$000's)	2026	2027	2028	Total
OM&A Program Costs	\$796	\$867	\$1,457	\$3,120
Capital-Related Revenue Requirement	\$36	\$151	\$155	\$342
SREP Contribution	(501)	(314)	(528)	(1,343)
Total NWS Revenue Requirement	\$331	\$703	\$1,084	\$2,119

7
8 As outlined above, GBE is investing in the NWS Program to address immediate short-term system
9 needs. However, GBE anticipates financial benefits associated with the NWS Program for
10 customers, and is mindful of the OEB's guidance that "Electricity distributors are to include a
11 distribution service analysis (i.e., DST inputs and results, and consideration of any distribution
12 service qualitative factors) in their filings to the OEB when requesting ratepayer funding for
13 NWS."⁴ GBE has calculated these financial benefits in accordance with the Distribution Service
14 Test (DST) as outlined in the OEB's BCA Framework. The results of the DST are shown below,
15 as further described in Section 4.2.5 and Attachment 1 of this NWS Application:

16 **Table 2: Distribution Service Test Results⁵**

Costs (\$ millions)	
PV of Program Costs*	\$1.80
Benefits (\$ millions)	
PV of Avoided Unplanned Outages (Probability Weighted)	\$0.78
PV of Avoided Planned Outages	\$2.34
PV of Reliability Benefits	\$3.12
PV of Avoided Transmission Charges	\$0.42
PV of Other Benefits	\$0.42
PV of Benefits	\$3.55
Net Benefits: No Deferral (\$ millions)	
Net Benefit to Customers	\$1.75
DST Ratio	1.97

*Exclusive of Margin-on-Payment, inclusive of SREP Contribution

³ These amounts include the margin-on-payment shown in Table 9. The BCA Model, NWS tab for 2026, 2067 and 2028 do not include margin-on-payment amounts.

⁴ OEB BCA Framework, page 17

⁵ All net present value (PV) figures are discounted to the year 2026 relying on a societal discount rate of 4%

1
2 Despite the substantial benefits associated with GBE’s NWS Program, the bill impacts of the
3 funding requested are modest to immaterial for customers, total bill impacts of 0.47% for typical
4 residential customers in the GBE (E+) Rate Zone. A full summary of bill impacts for all customer
5 rate classes is provided in Section 5.3 of this NWS Application.

6 GBE’s NWS proposal meets the OEB’s policy guidance as outlined in the NWS Guidelines, BCA
7 Framework, and NWS Filing Requirements. Please find as Attachment 4 a document titled
8 “GBE_NWS_2026_Att4_Checklist_20251121” which provides a structured checklist
9 demonstrating GBE’s compliance with OEB requirements and providing references to where each
10 requirement is met within evidence.

11 GBE’s written evidence supporting the proposed NWS is structured as follows:

- 12 • **Section 3 - Distribution System Needs:** A description of the portions of GBE’s system
13 which require and will be affected by the NWS, including identification of the need
14 underpinning the NWS, and the risks mitigated by the NWS Program until permanent
15 capital investments are placed in service;
- 16 • **Section 4 - Proposed Non-Wires Solution:** A detailed description of GBE’s NWS
17 proposal, including forecast results, budget, a summary of the benefit-cost analysis
18 conducted, and project timelines;
- 19 • **Section 5 - Eligibility for NWS Funding in Rates:** Clear articulation of the manner in
20 which GBE’s NWS proposal is consistent with OEB requirements, and eligible for
21 distribution funding in rates; and
- 22 • **Section 5 - Funding, Rate Design & Bill Impacts:** GBE’s proposals for cost recovery of
23 the proposed NWS costs, as well as the resulting customer impacts.

24 GBE has also included a written benefit-cost analysis at Attachment 1 to this NWS Application,
25 consistent with the OEB’s BCA Framework, accompanied by an Excel-based benefit-cost analysis
26 model attached as Attachment 2, “Att 2 – GBE_2026_NWS_BCA_20251128.”

27 **3. DISTRIBUTION SYSTEM NEEDS**

28 **3.1. Current System Landscape & Constraints**

29 The distribution system serving the City of Cambridge faces significant capacity constraints,
30 primarily due to the thermal limitations of HONI’s M20D and M21D transmission lines, which are
31 restricted to a combined capacity of 400 MW. These transmission lines supply Preston TS, Galt
32 TS, and MTS#1⁶. In Spring 2026, the combined Long-Term Rating (LTR)⁷ will be 451 MW.⁸
33 Presently, the combined amount is approximately 383.5 MW (i.e., 102+169+112.5, for MTS1, Galt
34 TS, and Preston TS, respectively). However, upstream transmission constraints necessitate
35 derating the stations to 400 MW to prevent overloading. By 2027, the forecasted load for these
36 stations is expected to reach 396 MW (see Table 4 below), representing 99% of transmission line
37 capacity during contingency peak loading. This high level of utilization will severely limit GBE’s

⁶ Referred to as Energy+ MTS#1 or GrandBridge MTS#1 in IESO IRRP documents

⁷ The ten-day summer LTR is being used.

⁸ On completion of Hydro One Networks Inc., sustainment work on Preston TS; planned for completion in June 2026. Works completed will increase the LTR from 112.5 MW to 180 MW.

1 ability to transfer loads between stations, reducing system resiliency, and complicating outage
2 management. Furthermore, the constrained capacity will delay new customer connections,
3 potentially hindering economic growth.

4 The table below is the LTR for GBE's three transformer stations - Preston TS, Galt TS, and MTS#1
5 in the Spring of 2026.

6

Table 3: Preston TS, Galt TS, MTS#1 LTR

Station	LTR (MW)
MTS#1	102
Galt TS	169
Preston TS	180
Total	451

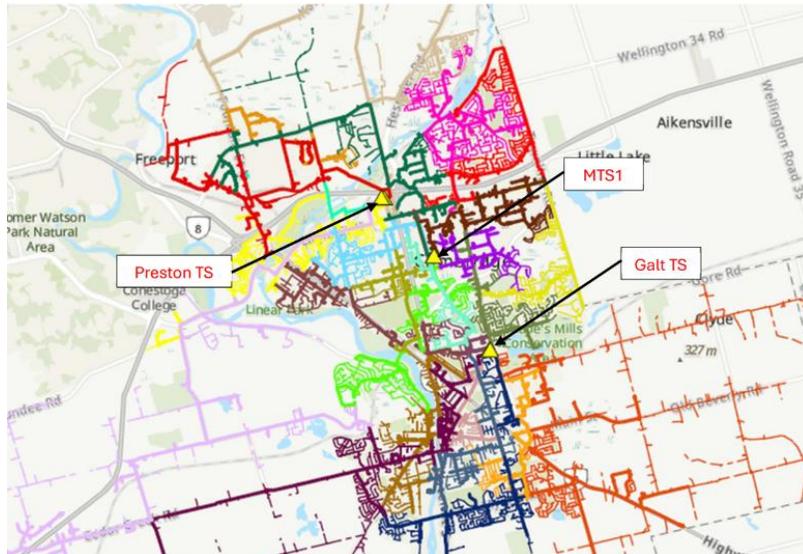
7

8 Figures 1 and 2 below, demonstrate the position of these three transformer stations on GBE's
9 distribution system, and HONI's transmission system, respectively:

10

11

Figure 1: Location of Preston TS, Galt TS and MTS#1 on GBE Distribution System



12

13

14

15

16

17

18

1 MW capacity), while Galt TS is relatively better positioned at 82% utilization (138.6 MW of 169
2 MW capacity); the loading at Galt TS still contributes to the overall system strain.

3 These high utilization levels create severe grid constraints that limit the ability to transfer loads
4 between stations during maintenance or emergency situations, fundamentally compromising
5 system resiliency. The reduced operational flexibility makes outage management significantly
6 more difficult, as there is insufficient spare capacity to reroute power when equipment failures
7 occur. This configuration increases the risk of cascading failures and extends restoration times,
8 as the system lacks the redundancy necessary to maintain reliable service during both planned
9 and unplanned outages. The loading of the three transformer stations at the high rates
10 demonstrated in Table 4 above is also anticipated to place physical strain on each station's
11 assets, reducing the technical lives of the stations relative to normal operating conditions.

12 Acceleration of Growth and the Resulting Urgency

13 GBE identified the potential for load growth in the affected area to materialize in 2019, and only
14 recently has experienced an acceleration of growth, which drives the urgency of the NWS
15 Program and, subsequently, a long-term technical solution. These extreme load levels will
16 significantly delay GBE's ability to connect new customers in the areas served by Preston TS,
17 Galt TS, and MTS#1. This delay directly affects GBE's capacity to meet customer needs in a
18 timely manner, contrary to its commitment to reliable service. This situation could also result in
19 the delay and possible loss of significant commercial and industrial investment in the local
20 economy served by GBE. These outcomes are unacceptable to GBE as a prudent system planner
21 and operator and would be directly contradictory to the Ontario Government's clearly stated
22 position that the regulated electricity sector should act as a facilitator of economic growth.¹⁰

23 In addition to the reference forecast, GBE has developed a high load growth scenario (provided
24 to the IESO in February 2025) that reflects customer inquiries and known development interest.
25 Under this scenario, load grows faster and reaches higher levels than the reference case. In the
26 high load growth scenario, the forecasted summer peak load is expected to exceed the 400 MW
27 transmission line limit during a single contingency (i.e., loss of one 230kV circuit) in 2027. The
28 forecasted summer peak load in 2026 comes within 600 kW of the transmission line limit. Table
29 6 below provides the high load growth scenario forecast. Recent customer connection inquiries
30 indicate that the high growth scenario is increasingly plausible.

31 Traditional "wires" solutions cannot be constructed in time to address the forecasted capacity
32 shortfall under this scenario. Even in the reference forecast, the available margin is only 4 MW
33 (approximately 1%) in the summer of 2027. Any delay in the in-service date of MTS#2 would
34 further tighten this margin, resulting in a 3.5 MW capacity shortfall by the summer of 2028 under
35 the reference case and a significantly larger shortfall under the high growth forecast scenario.
36 Tables 6 and 7 provide the high load growth forecast and comparison to the LTR and 400 MW,
37 respectively.

¹⁰ Bill 40, Protect Ontario by Securing Affordable Energy for Generations Act, 2025; Government of Ontario, "Energy for Generations", June 2025

3.2. Integrated Regional Resource Planning

GBE is part of the IESO KWCG IRRP working group and region. The most recent KWCG IRRP was completed in 2021 and spoke to specific needs at the Preston TS and MTS#1.¹¹ The Preston TS was identified as reaching its end-of-life in the 2025 to 2026 period, and requiring replacement.¹² The IESO's July 2024 KWCG IRRP Scoping Report identifies this work as being completed in 2027.¹³ It is GBE's understanding that the project to replace the transformer at Preston TS is anticipated to be placed into service in 2026. The capacity effect of this project is to increase the LTR at Preston TS from its current 112.5 MW to the 180 MW presented in Table 3 and relied upon in this Application.

Aside from the end-of-life status of Preston TS, the 2021 KWCG IRRP highlights both Preston TS and MTS#1 having near term capacity needs, in 2021 for Preston TS and 2023 for MTS#1. In both instances, the solution presented is to transfer load to the other two stations noted in Table 4 above (i.e. the Preston solution is to transfer load to Galt and MTS#1, while the MTS#1 solution is to transfer load to Preston and Galt). As shown and described in Section 3.1 above, there is not sufficient capacity across Preston TS, Galt TS, and MTS#1 to address the aggregate need in the area, and as such load transfers amongst the three is no longer an adequate solution.

The IESO's 2024 KWCG IRRP Scoping Report acknowledges these concerns, noting near term station capacity needs at both Preston TS and MTS#1. With respect to Preston TS, the IESO states the following:

"Therefore, addressing the imminent capacity need at the Preston TS is a near term need that must be addressed by the TWG¹⁴ through the IRRP.

The TWG recommends that the capacity need at Preston TS be further reviewed in an IRRP based on the timing of the need, the opportunity for integrated solutions involving both wire and non-wire options, and the opportunity to coordinate the solution to the need."¹⁵

The IESO's KWCG Scoping Report states the following with respect to MTS#1 TS:

"The need is imminent – historical demand for the station has already exceeded the station rating – and the load forecast shows that demand will grow beyond these levels. In response, GrandBridge Energy is preparing measures for a transfer of load from Energy+ MTS #1 to Galt TS to address the near-term need. However, Energy+ MTS #1 is near Preston TS where a potential integrated solution could address the needs at both stations.

The TWG recommends that the capacity need at Energy+ MTS #1 be further reviewed in an IRRP based on the timing of the need, the opportunity for integrated solutions

¹¹ Independent Electricity System Operator, Kitchener-Waterloo-Cambridge-Guelph Region: Integrated Regional Resource Plan, May 2021, page 10

¹² Ibid., page 9

¹³ Independent Electricity System Operator, Kitchener/Waterloo/Cambridge/Guelph Scoping Assessment Outcome Report, July 2024, page 7

¹⁴ Technical Working Group

¹⁵ Ibid., page 11

1 involving both wire and non-wire options, and the opportunity to coordinate the
2 solution to the need.”¹⁶

3 Finally, the IESO explicitly calls out the needs at Preston TS and MTS#1 TS as the most pressing
4 examined in preparing the 2024 KWCG Scoping Report, as follows:

5 “Of the needs identified, those at Preston TS, Energy+ MTS #1, and along the Galt
6 JCT (Junction) to Cambridge section of M20D/M21D are the most pressing. This may
7 introduce the need to use a hand-off letter to allow for the expedited initiation of
8 projects aimed towards addressing the imminent needs. A hand-off letter, if required,
9 confirms that these needs and the associated options were assessed by the TWG as
10 part of the regional planning process. Any recommendations included in a hand-off
11 letter would be captured, along with any project updates or advancements, in the final
12 IRRP report and the subsequent RIP prepared by the transmitter.”¹⁷

13 Tables 5 and 6 below present the summer reference and summer high forecast of peak demand
14 coincident to the KWCG Region from 2024 to 2043, respectively:

15

16 **Table 5: Summer Reference: Station Peak Demand Forecast, Coincident to KWCG Region (MW)¹⁸**

Transformer Station	LTR	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
MTS#1	102	82.9	100.4	97.9	99.9	81.9	81.9	81.9	81.9	81.9	81.9
Galt TS	169	129.5	132.5	135.5	138.6	141.8	141.8	141.8	141.8	141.8	141.8
Preston TS	180	88.5	89.1	155.4	157.5	159.7	159.7	159.7	159.7	159.7	159.7
Sub-Total	451	300.9	322	388.8	396	383.4	383.4	383.4	383.4	383.4	383.4
New MTS#2		0	0	0	0	20	29.3	38.8	48.5	58.4	68.6
Wolverton DS		10.5	10.7	11	11.2	11.5	11.8	12	12.3	12.6	12.9
Total		311.4	332.7	399.8	407.2	414.9	424.5	434.2	444.2	454.4	464.9

Transformer Station	LTR	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
MTS#1	102	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
Galt TS	169	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8	141.8
Preston TS	180	159.7	159.7	159.7	159.7	159.7	159.7	159.7	159.7	159.7	159.7
Sub-Total	451	383.4									
New MTS#2		79	89.6	100.5	111.6	123	134.7	146.6	158.8	171.2	184
Wolverton DS		13.2	13.5	13.8	14.1	14.4	14.8	15.1	15.5	15.8	16.2
Total		475.6	486.5	497.7	509.1	520.8	532.9	545.1	557.7	570.4	583.6

17

¹⁶ Ibid.

¹⁷ Ibid., page 14

¹⁸ February 10, 2025, GBE Summer Reference Forecast provided to the IESO.

1 **Table 6: Summer High: Station Peak Demand Forecast, Coincident to KWCG Region (MW)¹⁹**

Transformer Station	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
MTS#1	82.9	101.8	97.8	101.4	75.1	75.1	75.1	75.1	75.1	75.1
Galt TS	129.5	134.7	140.1	145.7	151.5	151.5	151.5	151.5	151.5	151.5
Preston TS	88.5	90.6	161.5	165.4	169.3	169.3	169.3	169.3	169.3	169.3
Sub-Total	300.9	327.1	399.4	412.5	395.9	395.9	395.9	395.9	395.9	395.9
MTS#2	0	0	0	0	30	47	64.8	83.2	102.3	122.3
Wolverton DS	10.5	10.9	11.4	11.8	12.3	12.8	13.3	13.8	14.4	14.9
Total	311.4	338	410.8	424.3	438.2	455.7	474	492.9	512.6	533.1

Transformer Station	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
MTS#1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
Galt TS	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5	151.5
Preston TS	169.3	169.3	169.3	169.3	169.3	169.3	169.3	169.3	169.3	169.3
Sub-Total	395.9									
MTS#2	143	164.6	187	210.3	234.5	259.8	286	313.3	341.6	371.1
Wolverton DS	15.5	16.2	16.8	17.5	18.2	18.9	19.7	20.5	21.3	22.1
Total	554.4	576.7	599.7	623.7	648.6	674.6	701.6	729.7	758.8	789.1

2
3 **Table 7: Summer High: Actuals and Forecast MW (2025-2027) for Preston TS, Galt TS and MTS#1**

Station	2022	2023	2024	2025	2026	2027
MTS#1	97	83.9	82.9	101.8	97.8	101.4
Galt TS	86.6	114.2	129.5	134.7	140.1	145.7
Preston TS	101.3	90.3	88.5	90.6	161.5	165.4
Total	284.9	288.4	300.9	327.1	399.4	412.5
% of Total LTR	74.3%	75.2%	78.5%	85.3%	88.6%	91.5%
% of 400 MW Limitation	71.20%	72.10%	75.20%	81.80%	99.90%	103.10%

4
5 The IESO’s most recent publications relating to the KWCG IRRP have elevated the urgency of
6 the needs identified in the 2021 and 2024 materials described above. In the IESO’s KWCG
7 Electricity Planning engagement webinar #2, held May 27, 2025, the IESO has added Galt TS to
8 the list of stations with capacity needs, and identified all of Preston TS, MTS#1 and Galt TS as
9 having immediate station capacity needs.²⁰ The presentation also notes that a new station is
10 being considered by GBE,²¹ and that due to the size and urgency of the need a wires option is
11 ultimately required.²² In the IESO’s KWCG Electricity Planning engagement webinar #3, held in
12 September 2025, which followed the completion of IRRP analysis of the priority needs affecting

¹⁹ February 10, 2025, GBE Summer Reference Forecast provided to the IESO.

²⁰ Independent Electricity System Operator, Kitchener/Waterloo/Cambridge/Guelph Electricity Planning: Engagement Webinar #2, May 27, 2025, slide 18

²¹ Ibid., slide 19

²² Ibid., slide 22

1 Cambridge, the IESO discussed specific solutions with estimated costs. It also gave specific
2 recommendations (i.e., upgrades to 115kV transmission lines, construction of a new GrandBridge
3 115kV transformer station, a new 500kV-230kV autotransformer station in Puslinch, a new 230kV
4 line to Puslinch, etc.). Lastly, on September 30, 2025, the IESO issued an Urgent letter to Hydro
5 One and GBE regarding the urgent need for an integrated solution, including transmission
6 infrastructure, identified through the KWCG IRRP process.²³ By way of context, the IESO
7 September 2025 Urgent letter was identified in the 2024 KWCG Scoping Report as the hand-off
8 letter that may be needed to address pressing capacity constraints at Preston TS, Energy+ MTS
9 #1, and along the Galt Junction to Cambridge section of M20D/M21D.

10 GBE submits that the need identified, the required long-term solution (i.e. a new TS), and the use
11 of an NWS Program to provide near-term capacity relief to Preston TS, Galt TS, and MTS#1 are
12 highly consistent with the most recent outputs of the IESO's IRRP process.

13 **3.3. Consistency with Historical Distribution System Plan**

14 The most recent DSP prepared and submitted by GBE relating to the area affected by the needs
15 described above was the Energy+ DSP prepared for Energy+'s 2019 Cost of Service, EB-2018-
16 0028, covering the years 2019 to 2023 on a forecast basis. The Energy+ DSP highlights the
17 potential for future capacity needs in this area outside of the DSP period, the potential for such
18 needs to arise rapidly, and the anticipated long-term infrastructure solution to address such needs
19 when they arise.

20 First, the Energy+ DSP highlights the anticipated need for a new TS (MTS#2), as follows:

21 "A new TS (designated as MTS #2) is expected to be required in the Cambridge area
22 outside of the forecast period of this DSP. Load growth is expected in the "East Side
23 Lands" area of Cambridge (see Section 4.1.7.1.1 for details), but is not currently
24 driving the construction of a new TS. While there is available capacity at Galt TS and
25 MTS #1, they are located far from the area of expected growth. Existing single,
26 double, and triple 27.6-kV circuits would have to be rebuilt to bring power to the East
27 Side Lands area. Long 27.6-kV circuits along with an increased number of triple- and
28 quadruple-circuits pose significant reliability risks.

29 Preston TS is the closest present supply point (about 5km as the crow flies). There is
30 some capacity available, although approximately 10 MW of cogeneration for a Large
31 Use customer can drop offline at any time; therefore, spare capacity is required. In
32 terms of alternatives to MTS #2, the increase in capacity of Preston TS has been
33 studied. The existing transformers have an internal defect that limits their overload
34 capability to the nameplate rating of 125 MVA. It is possible to change the
35 transformers to achieve a ten-day LTR of 197.6 MVA (the same as Galt TS) and there
36 is space for four (4) new breakers. The main deterrent to this option is cost due to the
37 egress of four (4) new feeders to the East Side Lands.

38 The addition of a new TS in the northwest corner of Cambridge has distinct
39 advantages. The surrounding area is set for industrial uses. The large users such as
40 data centres that are expected to occupy the space require a high level of reliability.
41 The presence of a TS so close is an advantage in trying to attract this type of customer
42 given the expectation of reliability. MTS#2 would also benefit existing customers since

²³ Located on the IESO Site: [Kitchener/Waterloo/Cambridge/Guelph](#)

1 some existing feeders could be shortened and there would be a large supply point in
2 the northwest area for backup during contingencies.

3 Capital expenditures relating to the construction of the TS have not been budgeted
4 over the forecast period. The need for MTS #2 may change rapidly, however, if the
5 construction of new data centres or other large, individual customers proceeds earlier
6 than planned. Therefore, Energy+ has started to acquire land, and begin
7 engineering/environment assessment processes related to the siting of MTS #2, but
8 has otherwise not budgeted any related capital expenditures.”²⁴

9 As noted in the Energy+ DSP, GBE foresaw the need for MTS#2 and assessed other alternatives
10 at a high-level. Subsequent to the Energy+ DSP’s submission, large customers and data centres
11 accelerated the need in the area over a short period of time. Consistent with the Energy+ DSP
12 preliminary assessment that MTS#2 was the appropriate solution for the region, the IESO’s May
13 and September 2025 presentations have identified a station as the solution to the imminent need
14 identified in the IRRP process.

15 **3.4. Asset Solution**

16 To facilitate sustained and timely customer connections, facilitate economic growth, and maintain
17 a safe and reliable system, GBE requires a traditional capital solution in the affected portion of its
18 service territory. The core feature of the planned capital solution is a new 75 MVA station (i.e.,
19 MTS#2) to alleviate current and future capacity constraints affecting Preston TS, Galt TS and
20 MTS#1. In addition, MTS#2 is expected to require distribution investments to facilitate connection
21 and integration with GBE’s local grid. As noted in Sections 2 and 3 above, both the IESO and
22 HONI have confirmed the need for this new station, and GBE is moving rapidly toward the
23 completion of MTS#2 to meet this need by 2028.

24 GBE is not proposing approval of the MTS#2 assets or costs. GBE is proposing the NWS Program
25 to meet the needs of GBE’s customers and system, as shown in Tables 5 and 6 above, depicting
26 forecast MW at Preston TS, Galt TS and MTS#1. Under planned timelines, MTS#2 assets are
27 planned to be placed into service as early as the Spring of 2028.

28 The needs outlined in this NWS Application are aligned with and confirmed by the IESO, including
29 in the IESO’s July 2024 Kitchener/Waterloo/Cambridge/ Guelph Scoping Assessment Outcome
30 Report²⁵, and the May and September 2025 IESO KWCG stakeholder engagement webinars.

31 **4. PROPOSED NON-WIRES SOLUTION**

32 **4.1. Overview**

33 GBE’s system and customers require an immediate solution to address the critical capacity
34 constraints discussed throughout this Application. While a technical solution involving traditional
35 infrastructure upgrades has been identified - specifically a new 75 MVA transformer station and
36 associated distribution investments - this cannot be completed until 2028. To bridge the
37 immediate gap and generate customer benefits, GBE’s plan is to procure 20 MW of capacity

²⁴ EB-2018-0028, Exhibit 2: Distribution System Plan, Page 217 to 218

²⁵ Independent Electricity System Operator, Kitchener/Waterloo/Cambridge/ Guelph Scoping Assessment Outcome Report, July 2024, <https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/kwcg/KWCG-20240708-scoping-assessment-outcome-report.pdf>

1 through an NWS capacity auction for three years (2026 to 2028), during which time the required
2 traditional infrastructure investment can be planned and constructed. This approach allows for
3 immediate capacity relief while providing sufficient time for traditional assets to be delivered
4 without compromising reliability, customer connections, or economic growth. On conclusion of
5 the NWS Program, GBE will maintain the operational capability and technical expertise to carry
6 out similar NWS programs where it is identified as needed and remains cost-effective compared
7 to traditional alternatives.

8
9 **4.2. GrandBridge Energy’s NWS Capacity Auction**

10
11 **4.2.1. NWS Program Description**

12 The GBE NWS Program, known as the GridShare Program, aims to alleviate capacity constraints
13 and enhance grid resiliency by leveraging local resources. This includes incentivizing DR
14 participants to reduce load during peak hours, promoting behind-the-meter DERs such as solar,
15 battery storage, and smart energy solutions to displace load, and conducting capacity auctions to
16 ensure cost-effective procurement of capacity, benefiting customers through competitive pricing.

17 To accomplish the required results, GBE will leverage the substantial foundation of behind-the-
18 meter distributed generation (DG) totalling approximately 34MW across the three critical
19 transformer stations. Table 8 summarizes the connected DG associated with GBE’s affected
20 transformers:

21
22 **Table 8: Known Connected Distributed Generation Assets²⁶**

	Total Connected DG Capacity (kW)	% that are Dispatchable	Dispatchable Connected DG Capacity (kW)
MTS#1	12,597	38%	4,787
Preston	16,045	74%	11,873
Galt	5,505	34%	1,872
TOTAL	34,147	54%	18,532

23
24 In addition to behind-the-meter DG, GBE expects results will be augmented by non-generating
25 sources of DR, such as load curtailing and shifting time-of-use.

26 For the 2026 obligation period, GBE plans to launch the NWS Program simultaneously at Preston
27 TS, Galt TS, and MTS#1, addressing the immediate need to unlock capacity across all three
28 stations. The combined target auction capacity for 2026 is up to 5 MW. The program is expected
29 to expand in subsequent years, with a combined target of up to 10 MW by 2027 and reaching a
30 total of 20 MW by 2028 across the three transformer stations.

²⁶ The table values are as of May 9, 2025.

1 Participants will register via a secure web portal, submitting price-quantity pair offers in ascending
2 price order, which are stacked and cleared competitively up to the target capacity. During the
3 obligation period (June 1 to September 30), participants must respond to standby notices (issued
4 from 2 p.m. EST the prior day to 7 a.m. EST on the day) and activation notices (within 2 hours of
5 activation) within the 11 a.m. to 9 p.m. EST availability window, with activations lasting up to 4
6 hours. Emergency activations may occur without standby notices, with optional response.
7 Performance will be verified through measurement and verification, comparing delivered capacity
8 against a baseline consumption calculated from the 15 highest consumption values over the last
9 20 business days, adjusted by a variation factor (0.8 to 1.2)²⁷. To ensure fair market operations
10 and accountability on the part of participants, performance charges may be applied if participants
11 fail to meet their capacity obligations during the obligation period. These performance charges
12 shall be in the form of liquidated damages and not penalties. To ensure demand response
13 readiness, a maximum of one test per period will be performed, and a machine-learning-enhanced
14 tool will aid daily load forecasting and decision-making. See Attachment 6 for further details of the
15 NWS Program, including the Program Rules and form of participant and aggregator agreements.

16 **4.2.2. NWS Forecasting**

17 The NWS Program operates under several market assumptions and forecasts to achieve its goal
18 of procuring up to 5 MW of capacity across Preston TS, Galt TS, and MTS#1 for the 2026
19 obligation period (June 1 to September 30):

- 20 • **Demand for Capacity:** The NWS Program relies on the local sufficiency of DR and DERs
21 articulated above. The minimum capacity obligation of 100 kW (single or aggregated)
22 articulates GBE's expectation that medium-to-large commercial or industrial customers,
23 or aggregators, will be the focus of the NWS Program.
- 24 • **Competitive Bidding:** The capacity auction relies on a competitive market where
25 participants submit price-quantity pairs, with prices not exceeding the reference price of
26 \$500/MW-day. GBE's forecast assumes that bids will be sufficiently low and varied to clear
27 the 5 MW target cost-effectively, as offers are stacked from lowest to highest price.
- 28 • **Grid Constraints:** The NWS Program forecasts peak demand constraints across Preston
29 TS, Galt TS, and MTS#1 during the availability window (11 a.m. to 9 p.m. EST on business
30 days), necessitating up to two (2) contracted monthly activations, with potential for
31 additional or emergency activations. This is supported by the analysis of historical load
32 data.
- 33 • **Participant Behaviour:** It is assumed that capacity market participants will reliably
34 respond to standby and activation notices, with performance incentives (\$250/MWh for
35 additional activations, \$500/MWh for emergency activations) and performance charges
36 (capacity dispatch and obligation charges), ensuring compliance.
- 37 • **Expansion Forecast:** The NWS Program anticipates scaling capacity targets to 10 MW
38 by 2027 and 20 MW by 2028 across the three stations.

²⁷ The variation factor is used to account for variation in the average consumption of the NWS Program participant, at hour H, on the activation day, compared to the average consumption in the past 20 regular business days. This is described in section 15 of the NWA Program Rulebook.

1 The NWS Program is supported and informed by robust analysis, completed with the assistance
2 of a third-party expert in the design of demand-response programs. The following highlights key
3 pieces of the NWS Program design:

- 4 • **Market Structure:** The NWS Program uses a reverse auction program structure, which,
5 unlike a forward market or standard offer program, encourages participants to compete by
6 offering price-quantity pairs that have the highest likelihood of winning. This competitive
7 market design indicates a sophisticated economic model being utilized for the NWS
8 Program that allows for optimization of resource procurement.
- 9 • **Load Forecasting:** The machine-learning forecasting tool relied on by GBE analyzes
10 historical load and real-time weather data to predict peak demand at Preston TS, Galt TS,
11 and MTS#1, enabling precise issuance of standby and activation notices.
- 12 • **Measurement and Verification (M&V):** The NWS Program uses a robust M&V process
13 to ensure market integrity, calculating baseline consumption from the 15 highest
14 consumption values over the last 20 business days (up to 35 days prior), adjusted by a
15 variation factor (0.8 to 1.2). This data-driven approach verifies participant performance,
16 supporting forecasts of reliable capacity delivery.
- 17 • **Performance Incentives and Penalties:** The structure of capacity obligation payments
18 (\$500/MW-day max), incentive payments (\$250/MWh), emergency payments
19 (\$500/MWh), and performance charges (with non-performance factors of 1.0 to
20 2.0)²⁸ reflects an analysis of participant incentives and grid reliability needs, ensuring
21 accountability and encouraging competitive bidding.

22 As part of this Application, GBE is providing the NWS Program Rulebook and participant and
23 aggregator agreements in Attachment 6. The Rulebook explains the NWS Program in detail.

24 25 **4.2.3. NWS Program Budget**

26 The total costs of GBE's proposed NWS Program are made up of software licensing and
27 maintenance, professional consulting fees, allocated staffing costs, participant payments, margin-
28 on-payment for the distributor, and the capital cost of implementing required software and of
29 developing the NWS Program materials, as summarized in Table 9 below:

30
31
32
33
34
35
²⁸ The Rulebook Pre-Auction Report (in Attachment 6) outlines that the non-performance factor for the 2026 obligation period is a number between 1.0 and 2.0, depending on the month of the year, and accounts for the severity of the grid constraint during a particular month.

1

Table 9: GBE NWS Program Budget

Cost (\$000's)	2026	2027	2028	Total
Software Licensing & Maintenance	\$50	\$50	\$50	\$150
Professional Consulting	\$230	\$0	\$0	\$230
Allocated Staffing Costs	\$109	\$77	\$77	\$263
Participant Payments	\$326	\$592	\$1,064	\$1,982
Margin on Payment	\$81	\$148	\$266	\$495
Total Operating Costs	\$796	\$867	\$1,457	\$3,120
IT Software Implementation	\$475	\$0	\$0	\$475
Capitalized Professional Services	\$111	\$0	\$0	\$111
Total Capital Costs	\$586	\$0	\$0	\$586
Total NWS Program Cost	\$1,383	\$867	\$1,457	\$3,707
SREP Contribution	\$501	\$314	\$528	\$1,343
Total NWS Program Cost	\$882	\$553	\$929	\$2,363

2

3 GBE is requesting recovery of the operating costs and capital-related revenue requirement costs
4 of the NWS Program for recovery in rates. Attachment 3 describes and provides justification for
5 these costs.

6

7 **4.2.4. NWS Margin-on-Payment**

8 GBE is requesting approval for an incentive associated with its administration of the proposed
9 NWS Program, in accordance with the OEB's NWS Incentive Guidelines and the final Distribution
10 System Code (DSC) section 11 provisions related to the Margin-on-Payment (MoP) incentive.

11 As outlined in Section 1 of those NWS Incentive Guidelines, the OEB established a framework
12 through which distributors may propose incentive mechanisms to promote the use of third party-
13 owned DERs as alternatives to traditional wires infrastructure. In line with that guidance, GBE
14 proposes to implement an MoP incentive, whereby a reasonable margin will be added to the
15 payments made to third-party program participants delivering services under the NWS initiative.
16 GBE will retain this margin as an incentive. Following the release of the OEB's final amendments
17 to the DSC, on November 25, 2025, GBE's MoP incentive proposal is in accordance with section
18 11 of the DSC, such that:

- 19 • The incentive amount should not exceed 25% of the total payments made to vendors or
20 program participants; and
- 21 • The total incentive paid to the distributor should not exceed 50% of the net present value
22 (NPV) of customer benefits.

23 GBE is proposing an incentive rate of 25% of payments made to NWS Program participants.
24 Importantly, GBE's NWS Program is expected to deliver significant net benefits to customers by
25 avoiding planned and unplanned outages and reducing transmission charges. The total proposed

1 incentive constitutes only 16% of the net benefits, which is well below the 50% upper bound
2 proposed by the OEB, as shown in Table 10 below:

3
4

Table 10: GBE NWS Margin-on-Payments Incentive

Item (\$000's)	NPV	2026	2027	2028	Total
Program Participant Payments Costs	1,807	326	592	1,064	1,982
Program Participant Payments, SREP Funding	705	127	231	415	773
Program Participant Payments, Net SREP Funding	1,102	199	361	649	1,209
Margin on Payment (%)		25%	25%	25%	
Margin on Payment (\$)	275	50	90	162	302
Total Net Benefits	1,749				
Total Margin on Payment as % of Net Benefits	16%				

5
6

7 Given the incentive's small size relative to overall customer benefits, GBE believes the proposed
8 incentive level is fully aligned with the OEB's expectations and strikes a favourable balance for
9 customers. GBE therefore submits that the proposed incentive is appropriate and should be
10 approved in full.

11

Table 11: Summary of Proposed Incentive (per Section 2.3 of the NWS Incentive Guidelines)

12
13

Element	Details
Incentive Amount	Forecasted total incentive equals 25% of total vendor/program participant payments.
Methodology	Margin is applied on all eligible NWS participant/vendor payments. The amount is recorded and tracked against actual disbursements.
Incentive Term	The incentive term is equal to the full program delivery period (3 years), aligned with the term of contracted services.
Incentive Implementation	Incentive payments are embedded within the NWS program budget, which is funded via approved rate riders. A variance account has been proposed to allow for final reconciliation and true-up.

14

15

16 **4.2.5. NWS Benefit-Cost Analysis Summary**

17 As discussed above, GBE's system reliability is currently at risk due to significant capacity
18 constraints affecting multiple transformer stations in Cambridge. The NWS Program, therefore,
19 represents a non-discretionary investment; one that is essential to maintain and enhance system
20 reliability, support customer connections, and facilitate continued economic growth. The NWS
21 Program was not initiated as part of an economic optimization exercise, rather, GBE determined
22 that the NWS was a necessary and technically effective response to an identified reliability need.

1 A BCA was subsequently completed, consistent with OEB’s BCA Framework, to confirm that the
2 proposed investment is also cost-effective and delivers value to customers.

3 In preparing its BCA, GBE followed the OEB’s Phase 1 BCA Framework and applied the DST to
4 evaluate the quantified costs and benefits of the NWS Program.

5 Because the OEB has not yet finalized Phase 2 of its BCA Framework, which will define the
6 parameters of the Energy System Test (EST), GBE’s assessment is limited to the DST.
7 Nevertheless, it is understood that completion of an EST would likely capture additional system-
8 wide benefits attributable to the NWS Program, such as avoided transmission or generation-level
9 costs, emissions reductions, and enhanced system flexibility.

10 On a present value basis, the cost of the NWS Program in distribution rates is estimated at \$1.80
11 million, excluding the MoP incentive and taking into account SREP funding. The benefits of the
12 NWS Program can be summarized as follows:

- 13 • **Avoided Unplanned Outages:** In light of the capacity constraints present at GBE’s
14 Preston TS, Galt TS, and MTS#1, the risk of unplanned customer outages is elevated over
15 the 2026 to 2028 period. By reducing unplanned outages over this period, the NWS
16 Program will deliver probability-weighted present value customer benefits of \$0.78 million
17 for GBE. Unplanned events happen at transformer stations due to factors such as
18 equipment failures, weather conditions, and animal contacts. For example, on July
19 4, 2019, the failure of a 27.6kV potential transformer on the “Q” bus at Preston TS resulted
20 in a one-week outage of the “Q” bus. During this time, approximately half of Preston TS’s
21 load was transferred to Galt TS and MTS#1 to restore power. In 2019, there was sufficient
22 spare capacity available at Galt TS and MTS#1 to accept this load transfer. However, in
23 2026, 2027 and 2028 (in the absence of the implementation of MTS#2), sufficient
24 transformer station LTR would not be available at Galt TS and MTS#1 to perform the load
25 transfers undertaken on July 4, 2019, to restore power in the reference and high load
26 growth scenario forecasts;
- 27 • **Avoided Planned Outages:** Similar to unplanned outages, the NWS Program will provide
28 GBE the opportunity to avoid planned customer outages by deploying the NWS Program
29 to free up capacity during planned maintenance or other activities. This will provide
30 customer benefits of \$2.34 million; and,
- 31 • **Avoided Transmission Charges:** The NWS Program will be targeted to reduce GBE’s
32 demand at peak periods during the June to September period. As Network,
33 Transformation Connection and Line Connection transmission charges are billed based
34 on monthly station peaks, deployment of the NWS Program will reduce these charges paid
35 by GBE’s customers over these months; providing customer benefits of \$0.42 million.

36

37 Table 12 below summarizes the results of the DST. Further detail is provided in Attachment 1
38 (BCA) and Attachment 2 (BCA Model)²⁹.

39

40

²⁹ Excel File: Att 2 – GBE_2026_NWS_BCA_20251128.xls

1
2

Table 12: Distribution System Test Results

Costs (\$ millions)	
PV of Program Costs*	\$1.80
Benefits (\$ millions)	
PV of Avoided Unplanned Outages (Probability Weighted)	\$0.78
PV of Avoided Planned Outages	\$2.34
PV of Reliability Benefits	\$3.12
PV of Avoided Transmission Charges	\$0.42
PV of Other Benefits	\$0.42
PV of Benefits	\$3.55
Net Benefits: No Deferral (\$ millions)	
Net Benefit to Customers	\$1.75
DST Ratio	1.97

*Exclusive of Margin-on-Payment, inclusive of SREP Contribution

3

4 In addition to the net financial benefit of deferred and avoided capital as presented above,
5 implementation of the proposed NWS will have the following unquantified benefits:

- 6 • **Avoided Outage on 230kV Transmission Line:** As described in this evidence, GBE is
7 required by Hydro One to manage the total demand of its Preston TS, Galt TS and MTS#1
8 to a combined total of 400 MW due to capacity constraints on the 230kV line from which
9 these stations receive service. The 230kV transmission line is twinned, and the 400 MW
10 limitation is structured to allow for the short-term transfer of all GBE load from the 3
11 stations onto one of the two 230kV lines in the event of a single-line transmission outage.
12 In the event one of the two lines experiences an outage, and GBE is above 400MW at that
13 time, GBE would be forced to open the 27.6kV tie breaker at MTS#1 whenever load on
14 the transmission lines exceeds 400 MW. In the event one of the two lines experiences an
15 outage, half the customers supplied from MTS#1 would experience an outage. Due to the
16 low probability but high impact to customers, GBE has designated this benefit as
17 qualitative only and has not included it within the DST calculation or results.
- 18 • **Avoided Delays in Customer Connections:** By addressing grid constraints through
19 NWS, GBE mitigates significant delays in connecting new customers, ensuring timely
20 service and supporting broader economic objectives.
- 21 • **Economic Growth:** By managing grid constraints, the program supports new commercial
22 and industrial development.
- 23 • **Regulatory Alignment:** Aligns with the OEB’s framework for cost-effective grid planning,
24 facilitating a transition to a Distributor System Operator (DSO) model.

- 1 • **Reputation Risk Mitigation:** The NWS Program reinforces GBE's reputation, along with
2 Ontario's distribution utilities, as proactive enablers of economic growth. It highlights
3 forward-thinking grid planning and commitment to reliable service delivery.
- 4 • **Customer Empowerment:** The program enables customers to actively participate in
5 energy management, incenting the use of DERs and DR, and enhancing their role in the
6 clean energy ecosystem.

7 8 **4.2.6. NWS Project Timeline**

9 The NWS Program follows a phased implementation approach with three key milestones. The
10 NWS solution implementation is targeted for completion by the end of December 2025,
11 establishing the foundational system capabilities. Following this technical deployment, customer
12 registration activities are scheduled to begin in Q1 2026, allowing participants to enroll in the
13 program. The final phase involves NWS activations, which are strategically planned for June
14 through September 2026 to align with the summer peak demand period when the system's
15 demand response capabilities will be most valuable.

16 **5. FUNDING, RATE DESIGN & BILL IMPACTS**

17 The following sections outline the funding model proposed for the NWS Program, associated rate-
18 making proposals, and resulting bill impacts for customers.

19 **5.1. Funding Sources**

20 Concurrent with this Application, GBE applied to Natural Resources Canada's (NRCan) SREP
21 program in Q2 2025 for a funding contribution of approximately \$1.34 million. GBE's NWS
22 Program has been accepted by NRCan and is in the due diligence stage of enrollment. The SREP
23 contribution will be used to offset a portion of the total NWS Program costs. This approach
24 ensures that customers receive the full benefit of the federal contribution and that only prudently
25 incurred, utility-funded costs are included in rate recovery.

26 GBE proposes that distribution rates act as the source of funding for the NWS Program to recover
27 the forecast costs of the NWS Program, net of SREP funding received from the federal
28 government. The need identified in this Application is clearly a distribution need, and the benefits
29 of the NWS Program will accrue directly to GBE's customers. Without implementation of the NWS
30 Program, GBE may face delays in connecting new customers while a traditional capital solution
31 is developed and executed, as well as challenges to maintain system reliability and resilience at
32 levels that meet the expectations of local customers. Given both the need and benefits are directly
33 attributable to distribution customers, it is appropriate that funding for the NWS be sourced from
34 distribution rates in a manner consistent with OEB policies.

35 GBE does not have an existing OM&A and capital funding amount for the administration or
36 participant funding of an NWS Program and cannot absorb the incremental costs of the NWS
37 within its existing budgets. GBE is subject to a stretch factor under the OEB's Renewed
38 Regulatory Framework of 0.15%, which drives the utility to strive for greater levels of efficiency
39 and cost optimization. In the current environment characterized by high levels of customer and
40 load growth, policy and customer prioritization of grid modernization, and new and evolving
41 requirements of electricity distributors, GBE cannot prioritize operational funding away from

1 existing costs towards the NWS Program. As such, the NWS Program's costs are not funded in
2 existing distribution rates, and incremental funding is required.

3 As per the NWS Guidelines, GBE met with the IESO to discuss potential duplication of its NWS
4 Program with an IESO program and was advised that there is no such duplication. Additionally,
5 GBE contacted the IESO in April 2025 to inquire about IESO funding for its NWS Program. GBE
6 was advised that the Grid Innovation Fund provides funding for utility programs; however, the
7 theme and criteria for the next call for proposals had not yet been finalized, and as such, funding
8 for utility programs may or may not be in scope. GBE is subscribed to receive IESO updates on
9 Grid Innovation Funding News and Programs. GBE concludes there is no IESO funding for its
10 NWS Program.

11 **5.2. Rate Riders and Deferral and Variance Accounts**

12 The GBE NWS Program will implement a structured approach to recover costs and manage
13 variances through a combination of rate riders and deferral and variance accounts (DVAs),
14 ensuring alignment with OEB principles. This approach supports the program's funding up to
15 December 31, 2028, while maintaining transparency and accountability.

16 **NWS Rate Riders**

17 To recover operating and capital-related revenue requirement expenses associated with the NWS
18 Program, GBE will implement a rate rider applicable to the GBE(E+) Rate Zone and for all rate
19 classes. The NWS Program is required to facilitate the continued delivery of safe and reliable
20 service to customers and to facilitate the continued timely connection of new customers. These
21 outcomes are baseline requirements expected from all customers, and as such GBE submits that
22 all customers in the GBE(E+) Rate Zone should contribute to the outcomes.

23 Costs will be allocated based on base distribution revenue, as outlined in Tab 9. Shared Tax –
24 Rate Rider of GBE's most recently approved IRM models for the GBE(E+) Rate Zone. GBE
25 proposes rate riders be approved effective from May 1, 2026, to December 31, 2028, covering
26 the program's implementation from 2026 to 2028. A May 1, 2026, effective date will ensure
27 funding for the NWS Program will be implemented in rates in advance of participant payments
28 being required in June of 2026.

29 GBE considered two options for structuring the rate riders:

- 30 1. **Variable Rate Riders:** Implement distinct annual rate riders to reflect the NWS Program's
31 evolving cost profile over the three-year term, accounting for changes in operational
32 expenses as the scales from 5 MW to 20 MW across the target transformer stations.
- 33 2. **Average Rate Rider:** Calculate a single rate rider by dividing the total projected three-
34 year program costs by 32 months of billing determinants (i.e. May 1, 2026 to December
35 31, 2028), ensuring a consistent rate that reflects the average cost recovery required over
36 the term. This approach simplifies administration and provides rate stability for customers.

37 GBE proposes implementation of the Average Rate Rider approach articulated above.
38 Implementation of this approach allows the OEB to approve fixed rate riders effective May 1,
39 2026, and allow these same rate riders to continue in subsequent years without necessitating

1 revision or the pre-emptive approval of multiple years' distinct rate riders. While the Average Rate
2 Rider approach is anticipated to result in greater single-year variances as between NWS funding
3 and NWS costs, the variance accounts proposed below will ensure that in the aggregate revenues
4 and costs are well aligned, and that any net variance is returned as a debit or credit to customers.

1 Table 13 below shows the derivation of rate riders to recover the total of \$2.12 million in operating and capital-related revenue requirement
2 costs associated with the NWS Program over the 2026 to 2028 period:

3

4 **Table 13 13: Derivation of 3-Yr Average Rate Riders for NWS Program Cost Recovery**

5

Energy+ Rate Zone	Unit	Distribution Revenue (\$)	Distribution Revenue (%)	Total Metered kWh	Total Metered kW	Allocated Costs	32 Months of kWh/kW	Rate Rider (May 1, 2026 - Dec 31, 2028)
Rate Class								
RESIDENTIAL SERVICE CLASSIFICATION	kWh	17,528,595	51.8%	542,709,487	-	1,098,574	1,447,225,299	0.0008
GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION	kWh	4,131,617	12.2%	218,827,695	3,759	258,942	583,540,519	0.0004
GENERAL SERVICE 50 TO 999 KW SERVICE CLASSIFICATION	kW	7,613,422	22.5%	562,895,601	1,691,497	477,158	4,510,659	0.1058
GENERAL SERVICE 1,000 TO 4,999 KW SERVICE CLASSIFICATION	kW	2,356,119	7.0%	187,259,712	456,521	147,666	1,217,388	0.1213
LARGE USE SERVICE CLASSIFICATION	kW	1,040,061	3.1%	159,015,613	328,261	65,184	875,362	0.0745
UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION	kWh	64,042	0.2%	2,164,673	-	4,014	5,772,460	0.0007
STREET LIGHTING SERVICE CLASSIFICATION	kW	671,824	2.0%	6,060,293	16,878	42,105	45,008	0.9355
SENTINEL LIGHTING SERVICE CLASSIFICATION	kW	14,573	0.0%	66,482	455	913	1,213	0.7530
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE CND	kW	50,527	0.1%	13,702,265	28,598	3,167	76,260	0.0415
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - WATERLOO	kW	221,287	0.7%	74,715,098	140,797	13,869	375,459	0.0369
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - BRANTFORD	kW	4,224	0.0%	358,800	1,189	265	3,172	0.0835
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE #1	kW	114,004	0.3%	9,726,053	20,299	7,145	54,130	0.1320
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE #2	kW	0	0.0%	69,913,318	169,835	-	452,895	0.0000
Total		33,810,294	100.0%	1,777,501,772	2,688,253	2,119,001		

1 **NWS Deferral and Variance Accounts**

2 GBE requests approval to establish an NWS Deferral and Variance Account, NWS Program Costs
3 Variance Account (NWS-PCVA), with two sub-accounts: (1) NWS-PCVA and (2) NWS-PCVA
4 Carrying Charges (NWS-PCVA Carrying Charges). These sub-accounts are described in
5 Attachment 5, DVA Draft Accounting Order. The NWS-PCVA will record variances between the
6 revenues collected through the NWS rate riders and the OEB-approved revenues for the NWS
7 Program. Any amounts recorded will be net of any third-party funding (i.e., federal grants). This
8 account will ensure that any over- or under-collection of revenues is tracked transparently,
9 maintaining financial accountability and protecting customers from unanticipated billing
10 determinant variances. The NWS-PCVA Carrying Charges Account will record the carrying
11 charges applied to the account monthly at the OEB prescribed rates. The true-up of this DVA is
12 described below.

13 The NWS-PCVA will record variances (symmetrically) between the total forecasted NWS Program
14 OM&A and capital budget revenue requirement and the actual OM&A and capital revenue
15 requirement for the NWS Program, net of third-party funding. The details of the NWS Program
16 OM&A and capital costs are outlined in Attachment 3 and include: software licensing and
17 maintenance, professional services, staffing costs, program participant payments, MoP, capital
18 costs for the IT hardware and software and capital costs related to the NWS Program platform
19 and professional services costs associated with the development of NWS Program rules,
20 participant agreements and portal agreements and the registration of the trademark. A draft
21 accounting order has been included as Attachment 5.

22 GBE proposes recovery of costs that are as much as 30% in excess of the OEB approved NWS
23 Program Costs in the NWS-PCVA (30% Provision). The 30% Provision is aligned with the OEB's
24 Advanced Capital Module (ACM) policy which balances program execution and customer
25 protection from excessive NWS Program Costs. Specifically, the 30% Provision allows for a
26 modest amount of payments to program participants that are greater than the amount included in
27 the OEB approved NWS Program Costs, while protecting customers by limiting the program
28 payments.

29 Eligibility Criteria

30 The OEB's *Chapter 2 Filing Requirements for Electricity Distribution Rate Applications – 2025*
31 *Edition for 2026 Rate Applications* specifies that requests for new deferral or variance accounts
32 must satisfy the OEB's eligibility criteria of causation, materiality and prudence. The proposed
33 NWS-PCVA satisfies the OEB's eligibility criteria as follows:

34
35 Causation - As described in Section 5.1 above, the costs proposed for the NWS-PCVA address
36 GBE's capacity needs identified in this Application. GBE does not have existing OM&A and capital
37 funding for the administration or participant funding of its NWS Program and cannot absorb the
38 incremental costs of the NWS Program within its existing budgets. Therefore, eligible costs are
39 incremental, prudently incurred expenses necessary to deliver the NWS Program.
40

41 Materiality - GBE has relied upon a materiality threshold of \$279k in preparing this Application.
42 This amount is equal to 0.5% of the combined distribution revenue requirements of GrandBridge
43 Energy's predecessor utilities, as approved in EB-2018-0028 (Energy+ Inc. 2019 Cost of Service)
44 and EB-2021-0009 (Brantford Power Inc. 2022 Cost of Service). GBE's revenue requirement

1 request, after consideration of the SREP federal government grant being backout, is \$2.12 million
2 and exceeds the \$279K materiality threshold.

3
4 Prudence - GBE intends to use competitive, transparent processes for the procurement of all the
5 NWS Program costs. The costs related to participant payments in the NWS Program will follow
6 clear eligibility criteria, auction rules, performance obligations, penalties/remedies, M&V protocols
7 and settlement processes as outlined in the NWS Program Rulebook and participant agreements.

8 ***True-Up Process***

9 GBE is currently in a deferred rebasing period, with next rebasing scheduled for 2032. In light of
10 the length of the deferred rebasing period, GBE is requesting the ability to bring forward the three
11 NWS variance account balances sooner, at its discretion, for disposition in an IRM application.
12 Given the nascent nature of NWS in Ontario, GBE is of the view that the industry would benefit
13 from receiving the details of the OEB's review at an earlier date than 2032, while GBE will be
14 afforded the opportunity to clear balances in a more timely manner and protect intergenerational
15 equity for its customers.

16 In bringing forward the NWS variance accounts for disposition, GBE will provide substantiating
17 evidence to support the disposition of these amounts, including but not limited to program results,
18 actual costs incurred, actual benefits realized, actual revenues collected, and any lessons learned
19 which may benefit other regulated entities in the Province contemplating or engaging in non-wire
20 solution programs. The true-up process will ensure that any over- or under-recoveries in
21 revenues, expenditures and any approved MoP are addressed appropriately, with adjustments
22 proposed to rate riders or other mechanisms as needed to maintain cost neutrality for customers.

23 **5.3. Bill Impacts**

24 As outlined in Section 5.2, GBE proposes implementing the Average Rate Rider approach, and
25 to create rate riders for the GBE(E+)'s Rate Zone. For residential customers, the estimated bill
26 impact for a typical customer is \$0.60/month representing 0.47% total bill increase in the GBE(E+)
27 Rate Zone. Table 14 below provides the distribution and total bill impacts of the NWS rate riders:

28

1 **Table 14: Typical Bill Impacts of NWS Program**

2

	Distribution Bill	Total Bill	NWS Rider Revenue	Distribution Impact	Total Impact
GBE(E+) Rate Zone					
RESIDENTIAL SERVICE CLASSIFICATION	\$34.23	\$128.72	\$0.60	1.75%	0.47%
GENERAL SERVICE LESS THAN 50 KW SERVICE CLASSIFICATION	\$59.18	\$322.29	\$0.80	1.35%	0.25%
GENERAL SERVICE 50 TO 999 KW SERVICE CLASSIFICATION	\$418.14	\$3,765.71	\$6.35	1.52%	0.17%
GENERAL SERVICE 1,000 TO 4,999 KW SERVICE CLASSIFICATION	\$10,796.43	\$134,424.46	\$242.60	2.25%	0.18%
LARGE USE SERVICE CLASSIFICATION	\$43,750.04	\$1,037,649.08	\$1,192.00	2.72%	0.11%
UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION	\$9.04	\$21.59	\$0.07	0.77%	0.32%
STREET LIGHTING SERVICE CLASSIFICATION	-\$6,935.04	\$50,023.03	\$654.85	-9.44%	1.31%
SENTINEL LIGHTING SERVICE CLASSIFICATION	\$1,471.53	\$3,175.19	\$21.84	1.48%	0.69%
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE CND	\$6,642.13	\$213,898.51	\$106.82	1.61%	0.05%
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - WATERLOO	\$16,415.61	\$86,791.77	\$305.53	1.86%	0.35%
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - BRANTFORD	\$418.19	\$7,435.08	\$2.25	0.54%	0.03%
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE #1	\$3,519.00	\$197,559.58	\$308.88	8.78%	0.16%
EMBEDDED DISTRIBUTOR SERVICE CLASSIFICATION - HYDRO ONE #2	\$197.84	\$269,025.26	\$0.00	0.00%	0.00%

3

4

ATTACHMENT 1: BENEFIT COST ANALYSIS

Need

GBE is facing a nondiscretionary system need arising from projected capacity constraints at key transformer stations - Preston TS, Galt TS, and MTS#1 - serving the rapidly growing Cambridge area. By 2027, these stations are forecasted to reach 88% of their capacity, and 99% of their available transmission capacity, primarily driven by accelerating demand from new data centers, commercial developments along major highways, urban densification, residential growth, and transportation electrification. This growth is expected to continue beyond 2027, intensifying strain on the system and limiting GBE's ability to maintain operational flexibility, manage outages effectively, and accommodate new customer connections. The timing of the need is immediate, with significant constraints projected to begin as early as 2026.

While long-term capital investments are ultimately required, GBE currently faces a lack of near-term options to implement such infrastructure in time. Uncertainties remain around the precise pace and location of demand growth, especially in the commercial and data center sectors, but the overall trend is clear and pressing. Accordingly, GBE must take timely action to address this capacity need and ensure system reliability and customer service continuity.

Alternatives Considered

For this non-discretionary need, there are no traditional "poles-and-wires" infrastructure solutions to evaluate as a comparator, as the final solution to the need identified is a traditional solution (i.e. Transformer Station) planned to be in-service in 2028. GBE has identified an NWS Program as a viable and cost-effective means to meet immediate needs and create benefits for customers.

The NWS Program leverages demand response and behind-the-meter distributed energy resources to reduce peak demand, reduce planned and unplanned outages, and reduce transmission charges paid by GBE's customers. In doing so, the NWS enables GBE to maintain reliability, support new customer connections, and preserve system resiliency while the utility plans and executes an enduring capital solution.

Cost-Effectiveness Test

GBE has completed a DST as part of this BCA, in accordance with the OEB's BCA Framework. The DST is intended to assess the cost-effectiveness of a proposed NWS from the perspective of the distribution system and its customers. In this case, the NWS Program represents a non-discretionary reliability investment, and there is no practical alternative to addressing the identified capacity constraints.

Accordingly, the DST has been applied not as a comparative test between multiple options, but as a reasonableness assessment to confirm that the proposed investment delivers net system benefits and is cost-effective. The analysis compares the costs incurred to implement the NWS against quantified benefits. A completed version of the OEB's DST template, modified by GBE to reflect the circumstances of this application, is provided as Attachment 2.

1 **Distribution System Test: Benefits**

2 The DST quantifies the present value difference between total costs and benefits of each option,
3 to determine the net benefits of selecting one alternative over another. In this instance, the results
4 of the DST show substantial benefits associated with the NWS program proposed.

5 The avoided costs (benefits) included in the DST are outlined below.

6 Reliability Benefits: Value of Lost Load

7 In order to quantify the benefit of maintained or improved reliability through avoided outages, GBE
8 first set out to determine the Value of Lost Load (VOLL) applicable to its customers. VOLL is the
9 economic cost experienced by customers when experiencing an outage, and as such can be used
10 to quantify the economic benefits of outages which are avoided through the NWS Program. To
11 calculate VOLL, GBE relied on the U.S. Department of Energy's Interruption Cost Estimator
12 ("ICE") 2.0, relying on data from New York, Michigan, Ohio, and Iowa as instructed in the OEB's
13 Vulnerability Assessment and Storm Hardening Report.³⁰

14 Through the use of the ICE 2.0, and the provision of GBE-specific inputs, GBE determined the
15 VOLL for its customers was \$12.99 per kWh for non-residential customers, and \$0.95 per kWh,
16 in 2023 USD. When converting these values to CAD and escalating by the Consumer Price Index
17 to 2025, the resulting VOLL values are \$19.05 CAD per kWh for non-residential customers, and
18 \$1.40 CAD per kWh for residential customers.

19 With these figures calculated, GBE determined the economic value of avoided outages.

20 Avoided Unplanned Outages

21 In light of the capacity constraints facing GBE's Preston TS, Galt TS, and MTS#1, the risk of
22 unplanned outages is heightened for customers served by these stations. Implementation of the
23 NWS Program will provide GBE the flexibility to avoid unplanned outages by calling on capacity
24 through the NWS Program.

25 As described in section 4.2.5 above, unplanned events happen at transformer stations due to
26 factors such as equipment failures, weather conditions, and animal contacts. For example, on
27 July 4, 2019, the failure of a 27.6kV potential transformer on the "Q" bus at Preston TS resulted
28 in a one-week outage of the "Q" bus. During this time, approximately half of Preston TS's load
29 was transferred to Galt TS and MTS#1 to restore power.

30 GBE determined it is reasonable to expect the NWS Program to avoid 1 unplanned outage over
31 the 3 year period of 2026 to 2028. In order to quantify this benefit, GBE relied on the following
32 inputs:

- 33
- 34 • The avoided unplanned outage will be 8 hours in duration;
 - 35 • The full NWS Program capacity available in each year (5MW in 2026, 10MW in 2027, and
36 20MW in 2028) will be leveraged to avoid customer outages; and,
 - 62% of the impacted load will be non-residential, with the remaining 38% residential.

37 With these inputs GBE calculated the total VOLL for each of 2026, 2027 and 2028. Given GBE
38 anticipates only 1 unplanned outage over the 3 year period, but cannot forecast which year, the

³⁰ EB-2024-0199, VASH Report, October 7, 2025, pages 25-26

1 resulting VOLL for each year is discounted to 33%, such that the VOLL associated with avoided
2 unplanned outages is an average of 2026 to 2028. Finally, GBE is intending for MTS#2 to be in-
3 service in advance of the 2028 cooling season during which the NWS Program operates, however
4 planning for MTS#2 is in its early stages, and there is risk the station will not be in-service until
5 fall of 2028. To represent this uncertainty, 2028 benefits have been further discounted by 50%;
6 implying a mid-summer in-service date.

7 Tab 'Benefit 1 – Unplanned Outages' of Attachment 2 – BCA Model details the calculation of
8 benefits, while Table 1 below summarizes them.

9 **Table 1 – Avoided Unplanned Outages Benefit**

Benefit 1 - Avoided Unplanned Outages (VOLL)	Residential	Commercial/ Industrial	Total	Present Value of Benefits	Probability Weighting	Probability Weighted PV of Benefits	50% Discount in 2028 only
2026	\$21,459	\$469,460	\$490,920	\$490,920	33%	\$163,640	\$163,640
2027	\$42,919	\$938,921	\$981,840	\$944,077	33%	\$314,692	\$314,692
2028	\$85,838	\$1,877,842	\$1,963,679	\$1,815,532	33%	\$605,177	\$302,589
Total	\$150,216	\$3,286,223	\$3,436,439	\$3,250,528	100%	\$1,083,509	\$780,921

10

11 Avoided Planned Outages

12 The benefits of avoided planned outages have been calculated in a manner consistent with
13 unplanned outages; relying on the same assumptions for VOLL, the use of full NWS Program
14 capacity, and the division of customers as between non-residential and residential. The only
15 differentiation in the derivation of avoided planned outage benefits is the number and duration of
16 occurrences assumed. Based on analysis of upcoming projects, demand and planned
17 maintenance, GBE assumes the NWS Program will avoid 2 planned outages of 4 hours in duration
18 in each of 2026, 2027 and 2028. Similar to the above, GBE has discounted 2028 benefits by 50%
19 to represent uncertainty regarding the precise in-service date of MTS#2.

20 Tab 'Benefit 2 – Planned Outages' of Attachment 2 – BCA Model details the calculation of
21 benefits, while Table 2 below summarizes them.

22 **Table 2 – Avoided Planned Outages Benefit**

Benefit 2 - Avoided Planned Outages (VOLL)	Residential	Commercial/ Industrial	Total	Present Value of Benefits	50% Discount in 2028 only
2026	\$21,459	\$469,460	\$490,920	\$490,920	\$490,920
2027	\$42,919	\$938,921	\$981,840	\$944,077	\$944,077
2028	\$85,838	\$1,877,842	\$1,963,679	\$1,815,532	\$907,766
Total	\$150,216	\$3,286,223	\$3,436,439	\$3,250,528	\$2,342,762

23

24 Avoided Transmission Charges

25 The purpose of the NWS Program is to reduce GBE's peak demand across the Preston TS, Galt
26 TS and MTS#1 to manage system constraints. An additional outcome of this will be the reduction

1 of transmission charges at these stations, as peak demand reductions in a given month will lower
2 the MW charge determinants used to bill Uniform Transmission Rates (UTRs) to GBE and its
3 customers. GBE recognizes that avoided UTR payments will not always represent an absolute
4 savings to the broader Ontario electricity system, as in time avoided transmission revenues from
5 GBE would need to be absorbed by other transmission customers on a go-forward basis after the
6 transmitters' next rebasing application. While this would potentially be relevant to an Energy
7 System Test, GBE is completing a DST which is focused solely on costs and benefits to
8 distribution customers. Within the context, avoided UTRs are a benefit to GBE's distribution
9 customers, and should be included within the DST.

10 GBE conducted analysis to determine the impact on UTR charge determinants as a result of the
11 NWS Program, and applied specific reductions to charge determinants in each of 2026, 2027 and
12 2028 to calculate avoided transmission charges. Similar to the above, GBE has discounted 2028
13 benefits by 50% to represent uncertainty regarding the precise in-service date of MTS#2.

14 Tab 'Benefit 3 – Transmission Charge' of Attachment 2 – BCA Model details the calculation of
15 benefits, while Tables 3 to 5 below summarizes them.

16 **Table 3 – 2026 Avoided Transmission Charges**

2026 (\$ Savings in Transmission Charges)					
	Preston	Galt	MTS#1	Total	Present Value
Jun	-	23,672	10,318	33,990	33,990
Jul	15,064	-	10,318	25,382	25,382
Aug	15,064	23,672	-	38,736	38,736
Sep	15,064	-	-	15,064	15,064
Total	45,192	47,344	20,636	113,172	113,172

17 **Table 4 – 2027 Avoided Transmission Charges**

2027 (\$ Savings in Transmission Charges)					
	Preston	Galt	MTS#1	Total	Present Value
Jun	-	47,344	20,636	67,980	65,365
Jul	30,128	-	20,636	50,764	48,812
Aug	24,748	41,964	-	66,712	64,146
Sep	20,444	-	-	20,444	19,658
Total	75,320	89,308	41,272	205,900	197,981

18

19 **Table 5 – 2028 Avoided Transmission Charges**

2028 (\$ Savings in Transmission Charges)						50% Discount
	Preston	Galt	MTS#1	Total	Present Value	To 2028
Jun	-	78,548	20,636	99,184	91,701	\$45,851
Jul	30,128	-	20,636	50,764	46,934	\$23,467
Aug	24,748	43,040	-	67,788	62,674	\$31,337
Sep	21,520	-	-	21,520	19,896	\$9,948
Total	76,396	121,588	41,272	239,256	221,206	110,603

20

1 **Distribution System Test: Costs**

2 The costs associated with the NWS Program are limited to the operational expenditures required
3 to launch and operate the program, as well as the capital-related revenue requirement associated
4 with one-time IT investments to launch the program. These costs are offset by \$1.34 million in
5 contribution's from NRCan's SREP. The net present value of these costs are \$1,796,549.³¹

6 The net benefits of the NWS program are derived by subtracting the NPV of program costs from
7 the NPV of program benefits. The DST ratio is determined by dividing the NPV of program costs
8 by the NPV of program benefits.

9

10 **Distribution System Test: Results**

DST Benefits

Benefit	Benefit Type	NPV
Avoided Unplanned Outages (Probability Weighted)	Reliability (Net Avoided Outage Costs)	\$780,921
Avoided Planned Outages	Reliability (Net Avoided Outage Costs)	\$2,342,762
Avoided Transmission Charges	Other	\$421,756
Total DST Benefit		\$3,545,439

DST Costs

Cost	Cost Type	NPV
NWS Capacity Auction	DER Acquisition Cost	\$1,796,549
Total DST Cost		\$1,796,549

NPV Net DST Benefit	\$1,748,890	1.97	DST Ratio
----------------------------	--------------------	-------------	------------------

11

12 **Other BCA Considerations / Non-Quantified Benefits**

13 Additionally, non-quantified benefits of the NWS include but are not limited to:

- 14 • **Avoided Outage on 230kV Transmission Line:** As described in this evidence, GBE is
15 required by Hydro One to manage the total demand of its Preston TS, Galt TS and MTS#1
16 to a combined total of 400MW due to capacity constraints on the 230kV line from which
17 these stations receive service. The 230kV transmission line is twinned, and the 400MW
18 limitation is structured to allow for the short-term transfer of all GBE load from the 3
19 stations onto a single one of the two 230kV lines in the event of a single-line transmission
20 outage. In the event one of the two lines experiences an outage and GBE is above 400MW
21 at that time, GBE would be forced to open the 27.6kV tie breaker at MTS#1 whenever load
22 on the transmission lines exceeds 400 MW. In the event one of the two lines experiences

³¹ Tab NWS, Attachment 2

1 an outage, half the customers supplied from MTS#1 would experience an outage. Due to
2 the low probability but high impact to customers, GBE has designated this benefit as
3 qualitative only and has not included it within the DST calculation or results.

- 4 • **Avoided Delays in Customer Connections:** By addressing grid constraints through
5 NWS, GBE mitigates significant delays in connecting new customers, ensuring timely
6 service and supporting broader economic objectives.
- 7 • **Economic Growth:** By managing grid constraints, the program supports new commercial
8 and industrial development.
- 9 • **Regulatory Alignment:** Aligns with the OEB's framework for cost-effective grid planning,
10 facilitating a transition to a Distributor System Operator (DSO) model.
- 11 • **Reputation Risk Mitigation:** The NWS Program reinforces GBE's reputation, along with
12 Ontario's distribution utilities, as proactive enablers of economic growth. It highlights
13 forward-thinking grid planning and commitment to reliable service delivery.
- 14 • **Customer Empowerment:** The program enables customers to actively participate in
15 energy management, incenting the use DERs and FR, and enhancing their role in the
16 clean energy ecosystem.

17 **Conclusion**

18 The results of the BCA and DST indicate the NWS is highly cost-effective, yielding net benefits
19 to customers and a DST ratio of costs to benefits of 1.97. In addition, the NWS Program yields
20 substantial non-quantified benefits to customers now and into the future.

1 **ATTACHMENT 2: BENEFIT COST ANALYSIS MODEL**

2

3 Filed as Excel Model GBE_Attachment 2_2026_NWS_BCA_20251201

4

ATTACHMENT 3: GBE NWS PROGRAM BUDGET DETAILS

The information below explains the components of the NWS Program Budget as outlined in Table 9 of the Application.

A. Capital Costs

1. IT Software Implementation

The IT capital cost budget for GBE's NWS program is \$475,000 and is related to the GridS2 services described below.

GBE engaged GridS2 to provide a turnkey technical solution for the design and technology platform of its NWS Program. In addition, GridS2 is providing project management, advisory, and program rule development services. The technical solution includes developing a customized software platform for GBE to operate its own NWS Program, including short-term load forecasting, power flow analysis, an energy auction platform for soliciting demand response capacity from customers, and scheduling the dispatch of procured demand response capacity (also known collectively as DERMS and Energy Transaction Market Platform functionalities).

GridS2 is an experienced full-stack developer, proficiency in developing web-based applications. Stack expertise includes MongoDB, Next.JS, React, Node.JS and cloud platforms such as Azure and AWS. GridS2 was involved in developing Toronto Hydro's Local Demand Response Program.

Prior to selecting GridS2, GBE completed a market needs assessment for its NWS Program that would integrate the following three capabilities into a single solution:

- Energy Market Transaction Platform: To facilitate the registration of NWS, bidding of flexible capacity offered by NWS, and dispatch of NWS for grid needs.
- Grid-Operational DERMS Functionality: Includes short-term load forecasting, basic power flow analysis, to enable operational decision-making to dispatch NWS.
- Settlement and Verification Tools: To determine accurate measurement of dispatched flexible capacity and financial settlements with participants.
- Program rule development
- Consulting, advisor and training services.

GBE assessed 11 vendors, and GridS2 emerged as the most aligned solution to meet GBE's needs. The competing solutions typically lacked one or more critical components or required significant additional integration with external systems (e.g., GIS, ADMS) or third-party providers, resulting in increased complexity and cost. In addition, GridS2's successful implementation with Toronto Hydro's Local Demand Response Program demonstrated relevant operational experience and a proven deployment model.

2. Legal Services

The capital cost budget for legal services (\$111,448) pertains to the review of GBE's NWS Program rules, participant agreement, portal agreement, and the registration of the tradename, GridShare, for the NWS Program. GBE engaged the law firm of Borden Ladner Gervais LLP

1 (BLG) to provide legal support on all aspects of GBE's NWS Program. Below in Section B is a
2 description of the support BLG is providing with respect to GBE's OEB NWS Program application.

3
4 **B. Operating Costs**

5
6 1. Software Licensing & Maintenance

7
8 The operating cost budget of \$150,000 includes GridS2's annual licensing fee of \$50k/year for
9 the NWS solution platform.

10
11 2. Professional Consulting Services

12
13 The total operating cost budget for Professional Consulting services, at \$229,709, includes
14 regulatory consulting services provided by Utilis Consulting Inc. (Utilis) and legal services
15 provided by BLG.

16
17 Utilis' budget is \$79,063 and includes services for preparing the NWS Program OEB application
18 evidence, completing the benefit-cost analysis and rate design, providing regulatory strategic
19 guidance, project managing the application filing, and supporting GBE throughout the application
20 process. GBE has engaged Utilis in the past to assist with regulatory matters. For example, in
21 September 2024, GBE engaged Utilis to prepare and provide a presentation to GBE's Board of
22 Directors on the OEB's NWS Benefit Cost Analysis Framework and provide an overview of
23 Toronto Hydro's Local Demand Response Program. Utilis has over 70 years of combined
24 experience in Canadian energy regulation, policy and business development. The Utilis team has
25 the knowledge and tactics to deliver on GBE's regulatory needs.

26
27 BLG's budget of \$150,646 includes providing strategic legal advice on all aspects of the pre-filed
28 evidence and application proceeding (e.g., interrogatories, technical conference, settlement
29 conference, oral hearing, argument process). In addition, BLG reviewed the NWS Program rules
30 and participant agreement. BLG is GBE's legal counsel on regulatory and corporate matters.
31 BLG brings extensive experience in developing similar NWS programs for other Ontario utilities.

32
33 3. Staffing Costs

34 The total staffing cost budget is \$263,118 and is for the Grid Innovation Specialist position. The
35 Grid Innovation Specialist is a new and critical role within the Engineering & Innovation
36 department that will be responsible for identifying, evaluating, and piloting new business models
37 and technologies aligned with GrandBridge Energy's strategic objectives. Working effectively and
38 collaboratively with cross-functional teams and stakeholders, this role will support the research,
39 development, and implementation of emerging technologies and business models that drive grid
40 modernization and enhance the customer experience.

41 3. Participant Payment

42
43 The total operating cost budget for participant payments in GBE's NWS Program is \$1,981,880.
44 This cost is based on the network analysis completed by GridS2 for the phased acquisition of up
45 to 5MW of capacity in 2026, up to 10 MW in 2027, and up to 20 MW in 2028 across all three
46 transformer stations (MTS#1, Preston and Galt) under planned activations (issued with standby
47 notices) and unplanned activations (under emergency activation scenarios).

48

1 4. Margin-on-Payment

2

3 Section 4.2.4 of the Application provides a description of GBE's Margin-on-Payment (MoP)
4 incentive proposal. GBE's budget is \$495,470, excluding SREP funding. The MoP incentive cost,
5 after considering the SREP funding, is \$302,169.

6

- 1 **ATTACHMENT 4: NWS APPLICATION FILING CHECKLIST**
- 2 Filed as Excel model GBE_Attachment 4_NWS_Checklist_20251201

1 **ATTACHMENT 5: NWS PROGRAM COSTS VARIANCE ACCOUNT**
2 **ACCOUNTING DRAFT ORDER**
3

4 **GrandBridge Energy Inc.**

5 **Draft Accounting Order**

6 **Account 1508 – Other Regulatory Assets, NWS Program Cost Variance Account (NWS-**
7 **PCVA)**

8 GrandBridge Energy Inc. (GBE) shall establish the new deferral account, “NWS Program Cost
9 Variance Account (NWS-PCVA)”, effective May 1, 2026, to capture variances (symmetrical)
10 between:

- 11 1. The Ontario Energy Board (OEB) approved NWS Program revenue requirement,
12 recovered through the NWS rate rider and consisting of both O&M and capital related
13 costs, and
14 2. The actual NWS Program O&M and capital revenue requirement incurred during the 2026-
15 2028 period.

16 O&M costs eligible for inclusion in the NWS-PCVA include, but are not limited to, software
17 licensing and maintenance, participant payments (professional services, and administrative
18 expenses (“NWS Program Costs”). Any amounts recorded will be net of any third-party funding
19 or recoveries (e.g. federal grants).. Capital costs eligible for inclusion include IT software
20 implementation, capitalized professional services and other capitalized expenditures directly
21 attributable to NWS Program implementation. Actual NWS capital additions placed into service
22 will be converted into an equivalent revenue requirement using the same parameters and
23 methodology the OEB used to establish the NWS Program revenue requirement.

24 Amounts entered in the account can be debit or credit entries and will be debited or credited to
25 the account annually. Carrying charges will be applied to the account monthly at the Ontario
26 Energy Board’s (OEB) prescribed rates.

27 GBE will be allowed to recover costs that are as much as 30% in excess of the OEB approved
28 NWS Program Costs in the NWS-PCVA (“30% Provision”). The 30% Provision is aligned with the

1 OEB's Advanced Capital Module ("ACM") policy³² which balances program execution and
2 customer protection from excessive NWS Program Costs. Specifically, the 30% Provision allows
3 for a modest amount of payments to program participants that are greater than the amount
4 included in the OEB approved NWS Program Costs, while protecting customers by limiting the
5 program payments.

6 GrandBridge Energy Inc. will seek disposition of balances in the NWS-PCVA no later than its next
7 Cost of Service application and will recommend either the continuance or discontinuance of the
8 Sub-Account at that time.

9

10 GrandBridge Energy shall establish the following variance accounts effective May 1, 2026 to
11 December 31, 2028, to record the amounts described above:

- 12 • Account 1508 -Other Regulatory Assets, Sub-Account NWS Program Cost Variance
13 Account
- 14
- 15 • Account 1508 -Other Regulatory Assets, Sub-Account NWS Program Cost Variance
16 Account Carrying Charges
- 17

18 The sample accounting entries for the variance accounts are provided below:

19 **A.** To record annually the symmetrical difference between the actual costs associated with
20 non-wires solutions operational costs and the amounts recovered through non-wires
21 solutions rate rider (on a revenue requirement basis) over the 2026-2028 period:

- 22 • DR/CR 4080 Distribution Services Revenue
- 23
- 24 • CR/DR 1508 Other Regulatory Assets, Sub-Account NWS Program Cost Variance
25 Account
- 26

27 **B.** To record the carrying charges in sub-account NWS Program Cost Variance Account:

- 28 • DR/CR 6035 Other Interest Expense
- 29
- 30 • CR/DR 1508 Other Regulatory Assets, Subaccount NWS Program Cost Variance
31 Account Carrying Charges
- 32

³² Report of the OEB EB-2014-0219 New Policy Options for the Funding of Capital Investments: Supplemental Report, January 22, 2016, Appendix A

1 **ATTACHMENT 6: NWS PROGRAM RULEBOOK AND PARTICIPANT**
2 **AGREEMENTS**

3 The following material makes up Attachment 6:

4 1. NWS Program Rulebook

5 2. NWS Program Rulebook Appendices:

6 Appendix A: Definitions

7 Appendix B: Eligibility Criteria

8 Appendix C: Sample Registration Form

9 Appendix D: Sample Offer Submission

10 Appendix E: Sample Capacity Settlement Use Cases

11 Appendix F: Sample Participant Agreement- Direct Participant

12 Appendix G: Sample Participant Agreement- Aggregator

13 Appendix H: Electricity Retailer Waiver

14 Appendix I: Portal Terms and Conditions

15

16 3. NWS Program Rulebook, 2026 Pre-Auction Report