

**THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES**

The Berkshire Gas Company)
_____) D.P.U. 23-_____

PRE-FILED TESTIMONY OF

HAMMAD CHAUDHRY

AND

JILLIAN WINTERKORN

ON BEHALF OF

THE BERKSHIRE GAS COMPANY

August 28, 2023

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THE BERKSHIRE GAS COMPANY

D.P.U. 23-XX

PRE-FILED TESTIMONY OF

HAMMAD CHAUDHRY AND JILLIAN WINTERKORN

1 **I. INTRODUCTION TO TESTIMONY**

2 **Q. Mr. Chaudhry, please state your name, business address, and employer.**

3 **A.** My name is Hammad Chaudhry. My business address is 60 Marsh Hill Road, Orange,
4 Connecticut. I am the Senior Manager for Conservation and Load Management for The
5 Berkshire Gas Company (“Berkshire,” “Company,” “Program Administrator,” or “PA”),
6 where I am ultimately responsible for all Conservation and Load Management programs
7 across our Massachusetts, Connecticut, and New York operating companies. I am also
8 responsible for the oversight and implementation of the Company’s energy efficiency
9 program initiatives, as well as negotiating and participating for the Company in the
10 development of the Statewide Three-Year Plan. In addition, I serve as the Company’s
11 designee to the Massachusetts Energy Efficiency Advisory Council (“Council”).

12 **Q. Have you previously testified before this or any other Commission?**

13 **A.** Yes, I have submitted pre-filed testimony as a witness before the Department of Public
14 Utilities (“Department”) in Berkshire’s Term Report for 2019-2021 proceeding (D.P.U.
15 22-110), Three-Year Plan for 2022-2024 proceeding (D.P.U. 21-120), and Mid-Term
16 Modification proceeding (D.P.U. 21-78). I have also testified before the Illinois Commerce

1 Commission, the Louisiana Public Service Commission, and the New York Department of
2 Public Service on several occasions.

3 **Q. Ms. Jillian Winterkorn, please state your name, business address, and employer.**

4 **A.** My name is Jillian Winterkorn. My business address is 60 Marsh Hill Road, Orange,
5 Connecticut. I am the Manager of Planning, Evaluation and Data Analytics for
6 Conservation and Load Management for Berkshire, where I am responsible for planning
7 and evaluation for the Conservation and Load Management programs across our
8 Massachusetts, Connecticut, and New York operating companies. I am also responsible for
9 the development of the Company's data management system for the energy efficiency
10 programs, as well as negotiating and participating for the Company in the development of
11 the Statewide Three-Year Plan.

12 **Q. Have you previously testified before this or any other Commission?**

13 **A.** No, I have not testified before this or any other Commission.

14 **Q. What is the purpose of this pre-filed testimony?**

15 **A.** The purpose of this testimony is to present to the Department the Company's requests for
16 Mid-Term Modifications ("MTMs") to increase spending in its Residential Sector and its
17 C&I Existing Buildings Program in its 2022-2024 Three Year Energy Efficiency Plan
18 ("Three-Year Plan"). Section 3.8.2(c) of the Department's energy efficiency guidelines
19 issued in Investigation by the Department of Public Utilities on its own Motion into
20 Updating its Energy Efficiency Guidelines, D.P.U. 20-150-A (2021) ("EE Guidelines")
21 requires Department approval and Energy Efficiency Advisory Council ("EEAC" or the
22 "Council") review of an increase or decrease to a three-year term sector budget that is

1 greater than 10 percent. Berkshire also seeks approval from the Department for the MTMs
2 pursuant to Three Year Plans Order, D.P.U. 21-120 through D.P.U. 21-129 (“Three-Year
3 Plans Order”) at 225, n.138, 139 (2022), wherein the Department required that a PA that
4 projects it will exceed a program-level budget over the three-year term, submit a request to
5 increase spending simultaneously to the Department for approval and the Council for
6 review. Berkshire’s projected increase in Income Eligible spending entails an increase to a
7 program-level budget pursuant to the Three-Year Plans Order, but it does not require an
8 MTM pursuant to the EE Guidelines because Berkshire does not project a sector-level
9 budget of more than 10 percent. The Department also determined that to qualify for a
10 program budget modification, the Program Administrator must demonstrate that an
11 increase in budget results in an increase in kilowatt-hour (“kWh”) or therm savings. Three-
12 Year Plans Order at 225. Berkshire’s proposed increases to the Residential Sector Existing
13 Buildings Program, Commercial & Industrial Sector Existing Buildings Program, and
14 Income Eligible Existing Buildings Program all meet this requirement.

15 **Q. Please summarize your testimony in support of this filing.**

16 A. This testimony supports Berkshire’s request for budget increases in its Residential Sector,
17 C&I Sector, and Income Eligible Sector. This testimony is accompanied by supporting
18 exhibits. This testimony describes the purpose of the programs in these sectors, their
19 approved budgets, the reasons for requesting budget increases, and an assessment of
20 whether the programs could continue absent the requested increases. This testimony also
21 explains how higher than planned demand for heat pumps is driving these budget increase

1 requests, as well as the cost-effectiveness of these programs. In addition, this testimony
2 addresses Berkshire's efforts to promote weatherization paired with electrification.
3 Further, this testimony addresses Berkshire's reasons for projecting an over-spend of its
4 Income Eligible sector budget. Finally, this testimony addresses the bill impacts and
5 Performance Incentive impacts associated with the requested MTMs.

6 **Q. Please summarize Berkshire's requested MTMs and budget increases.**

7 A. Specifically, in this filing, Berkshire seeks approval of:

- 8 • A three-year term request to increase spending by \$2,800,000 for its Residential Sector
9 (a 31% sector increase), including \$2,660,000 for its Residential Existing Buildings
10 Program and \$140,000 for its Residential Hard-to-Measure Program;
- 11 • A three-year term request to increase spending by \$4,350,000 for its C&I Sector (a
12 114% sector increase), all within the C&I Existing Buildings Program;
- 13 • An increase in the Income Eligible Sector by \$450,000 (a 10% sector increase), all
14 within the Income Eligible Existing Buildings Program.

15 **Q. Are you providing any exhibits in conjunction with your testimony?**

16 A. Yes. Accompanying this testimony, Berkshire has provided the following exhibits:

- 17 • Exhibit BGC-2, which provides the Company's current savings, budget, and benefits
18 table associated with each of the MTMs requested.
- 19 • Exhibit BGC-3, which provides the anticipated customer bill impacts associated with
20 each of the MTMs requested, consistent with the Company's most recent Local
21 Distribution Adjustment Clause filing, docketed with the Department on August 3 as
22 D.P.U. File No. 23-PGAF-BERK.
- 23 • Exhibit BGC-4, which provides the Narrative Description of each of the MTMs as
24 presented to the Council.

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1 **II. RESIDENTIAL SECTOR**

2 **Q. Please describe the purpose of the Residential Existing Buildings Program.**

3 A. The Residential Existing Buildings Program for the Company’s gas portfolio consists of
4 two energy-saving core initiatives: Residential Coordinated Delivery (“RCD”) and
5 Residential Retail. The RCD initiative is designed to promote and facilitate the
6 implementation of energy efficiency upgrades in existing homes to help customers reduce
7 their overall whole-home energy usage, with a particular focus on improvements to the
8 building envelope (D.P.U. 21-120 – D.P.U. 21-129, Exhibit 1, at 60). The Residential
9 Retail core initiative “provides a broader integrated marketplace where energy-efficient
10 products and equipment are positioned as attractive, primary choices for customers making
11 purchasing decisions, whether online, in-store, or through independent contractors and
12 distributors” (*id.*). In addition to the RCD and Residential Retail energy-saving core
13 initiatives, the Residential Existing Buildings Program includes the Residential
14 Conservation Services (“RCS”) core initiative.

15 **Q. What was the original budget approved by the Department for the Residential**
16 **Sector?**

17 A. The original budget approved by the Department for the Residential Sector was \$8,941,299
18 which includes \$8,203,812 allocated to the Residential Existing Buildings Program and
19 \$494,676 for the Residential Hard-to-Measure Program.

20 **Q. What has prompted the request for an MTM for the Residential Sector?**

21 A. While activity in the RCD and RCS core initiatives is only slightly ahead of the planned
22 budget with 60 percent of RCD’s budget spent, the Residential Retail core initiative is

1 expected to exceed its term budget by approximately 49 percent. Overall, the expected
2 variance in spending at the Program level is approximately 32 percent compared to the
3 approved budget.

4 The higher-than-expected expenditure within the Residential Retail core initiative
5 is driven by unprecedented demand for prescriptive heat pump measures. In 2022, the
6 Company experienced expenditures of 30 percent of all customer incentives in the
7 Residential Retail core initiative on electrification measures, though the Company had
8 planned for two heat pumps equivalent to \$6,000 in incentives in this sub-offering during
9 the first year of the Three-Year Plan. So far, through Q2 of 2023, nearly two thirds of all
10 customer incentives have been for electrification measures in that core initiative. This
11 reflects not only an unprecedented high demand for heat pumps, but also a significantly
12 lower than expected demand for high efficiency natural gas space-heating and water-
13 heating systems.

14 Finally, it is important to note that the plan as originally approved included
15 decreasing budgets for the Residential Retail core initiative over the term to account for
16 the phasing down of gas equipment. However, because of the increased demand for heat
17 pumps, spending is increasing each year.

18 **Q. What additional spending authority is requested for the Residential Sector?**

19 A. The Company seeks approval to increase spending for this sector by \$2,800,000, which
20 would result in a total budget of \$11,741,299, representing a 31 percent increase in the
21 budget previously approved for the Residential Sector in D.P.U. 21-120. The Company

1 anticipates that a majority of these new funds will be used for participant incentives in the
2 Residential Retail core initiative within the Residential Existing Buildings Program.

3 **Q. Would it be possible for the Company to continue to operate the Residential Existing**
4 **Buildings Program within the confines of the original budget as approved by the**
5 **Department?**

6 A. No. As of June 2023, Berkshire has expended approximately 65 percent of its Residential
7 Retail customer incentive budget for the term, 62 percent of its total Residential Retail core
8 initiative budget, and 61 percent of its Residential Existing Buildings Program budget.
9 Without changes to program or core initiative design, the Company will not be able to
10 continue to operate the Residential Existing Buildings Program as approved in D.P.U. 21-
11 120. To allow for fulfilment of prescriptive rebates for all measures currently being offered
12 statewide, and to continue to serve customers seeking both electrification and non-
13 electrification measures in the Residential Existing Buildings program, and the Retail core
14 initiative more specifically, the Company requires additional funding.

15 **Q. Should the MTM be granted for the Residential Existing Buildings Program, will it**
16 **result in additional therm savings?**

17 A. Yes. The MTM will allow the Company to capture both more natural gas savings than
18 would be achieved without the requested funds and more savings than were associated
19 with this program in the Plan. Berkshire estimates that if this MTM is approved,
20 Residential Existing Buildings Program will capture incremental savings of 1,843,668
21 lifetime therms.

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1 **Q. What are the implications to the Company and its customers if the MTM as proposed**
2 **is not approved?**

3 A. If the MTM is not approved, the Company will need to cease offering customer incentives
4 for certain measures in order to stay within the approved Existing Buildings Program term
5 budget. Such modifications will undoubtedly cause disruption in the marketplace,
6 including dissatisfied customers and contractors, and will likely prevent the Company from
7 continuing to support legislatively mandated electrification and decarbonization goals.

8 **Q. Please describe Berkshire's achievements thus far for the 2022-2024 term with respect**
9 **to heat pump projects for Residential Retail.**

10 A. The Company reported expenditures of \$316,986 in incentives in Program Year 2022
11 related to the installation of 69 heat pumps (165 tons), despite there being minimal heat
12 pump incentives planned for the first year of the Three-Year Plan term. In 2022, Berkshire
13 incentivized 16 heat pumps that fully displaced gas heating systems and 53 heat pumps that
14 partially displaced gas heating systems. All heat pumps incentivized by Berkshire were for
15 single family homes. Of the heat pumps incentivized in 2022, 14 were ducted and 55 were
16 ductless; 14 were for "dual-fuel" or "hybrid" heating systems. These systems all included
17 the installation of an integrated control system and were done following a home energy
18 assessment. Twenty-two of the heat pumps incentivized were for homes verified to be
19 weatherized pursuant to the protocols described in the Program Administrators' May 2,
20 2022, Compliance Filing to encourage weatherization for residential customers receiving
21 incentives to install full or partial displacement heat pumps in their homes. The removal of
22 an existing natural gas system is not a pre-requisite to the receipt of a full displacement

1 incentive, and the Company did not collect information on whether customers removed or
2 made their existing gas systems inoperable.

3 **Q. What are the Company’s revised expectations related to demand for electrification**
4 **measures within the Residential Retail core initiative for the ongoing 2022-2024 term?**

5 A. Based on the current rate of installations and expenditures in 2023, having already
6 exceeded the number of installs in 2022, the Company conservatively anticipates demand
7 for more than 616 tons of heat pump incentives over the remainder of the term requiring
8 approximately \$1,650,000 in additional rebates at current incentive levels. Additional
9 expenditures on external Sales, Technical Assistance and Training (“STAT”) are also
10 anticipated, including those associated with the onboarding and transition to a new rebate
11 fulfillment vendor in the Retail core initiative. A full breakdown of program costs is
12 included in Exhibit BGC-2.

13 **Q. Was the increase in demand for electrification measures in the Residential Retail core**
14 **initiative foreseeable?**

15 No. The Company could not have anticipated such high demand for electrification
16 measures within the Residential Existing Buildings Program or Retail core initiative during
17 the planning process. The potential study commissioned to help inform planning for the
18 2022-2024 term modeled no savings from electrification measures given that they were
19 non-cost-effective. Furthermore, nothing in the Company’s experience during the 2019-
20 2021 term suggested there would be significant demand for these measures among its
21 natural gas customers in the current term, even given the planned marketing and other
22 activities.

1 **Q. Has the Company followed the Department’s directive to pair weatherization services**
2 **with electrification measures to the extent feasible?**

3 A. Yes. The Company has been following the protocols described in the Program
4 Administrators’ May 2, 2022, Compliance Filing to encourage weatherization for
5 residential customers receiving incentives to install full or partial displacement heat pumps
6 in their homes. In its 2022 Term Year Report, the Company was able to verify
7 weatherization for 22 heat pumps reported in the Residential Retail core initiative. The
8 Company is committed to promoting, and training our vendors to promote, air sealing and
9 insulation in a home prior to the installation of heat pump measures. This not only ensures
10 right sizing of the technology to maximize energy and cost savings, but also improves
11 customer comfort and satisfaction.

12 **Q. Does the Company expect the Residential Existing Buildings Program or the**
13 **Residential Sector to be cost-effective over the term if the MTM is granted as**
14 **proposed?**

15 A. Berkshire currently projects that the Residential Existing Buildings Program will be just
16 barely cost-effective with a BCR of 1.00 over the term and that the Residential Sector will
17 be just barely *not*-cost-effective over the term because the pace of adoption of
18 electrification measures continues to increase. The Company continues to aggressively
19 market and promote cost-effective measures within both the Residential Retail and RCD
20 core initiatives to achieve greater benefits than total resource costs over the term. However,
21 there has been significantly more interest in electrification measures than planned. As
22 demonstrated at the time of the Company’s initial filing in D.P.U. 21-120, residential
23 electrification measures that replace or displace natural gas heating equipment, either

1 partially or fully, are not cost effective (D.P.U. 21-120, Exh. BGC-2, at 37–38, Att. A).
2 Because electrification measures both reduce natural gas usage and increase the use of
3 electricity, and because the avoided cost of natural gas is relatively low, the cost associated
4 with these measures is greater than the associated benefits. While evaluation of these
5 measures continues, the energy and non-energy impacts of electrification measures for
6 residential customers is currently not sufficient to overcome the negative benefits
7 associated with increased electricity use, the total benefits are less than the total resource
8 cost. As a result, the measures are not currently cost effective.

9 In its Order on PAs’ Joint Motion for Clarification dated February 15, 2022, at 10,
10 the Department stated “... that for this Three-Year Plans [sic] term, it has approved the
11 Program Administrators’ proposed strategic electrification offerings, including those
12 offerings that replace natural gas heating with efficient electric heating and are not cost-
13 effective, *so long as they are within cost-effective programs*” (see D.P.U. 21-120 through
14 21-129 (Joint Motion for Clarification of the Program Administrators at 10) (emphasis
15 added). Given this clarification, and the risk that continuing to meet the robust demand for
16 heat pump measures will result in a non-cost effective Residential Existing Buildings
17 Program and Residential Sector, the Company requests the Department’s guidance on
18 whether to continue to offer heat pump measures to residential customers within the
19 Residential Existing Buildings Program’s Retail core initiative.

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1 **Q. What additional budget does the Company propose for the Residential Hard-to-**
2 **Measure Program?**

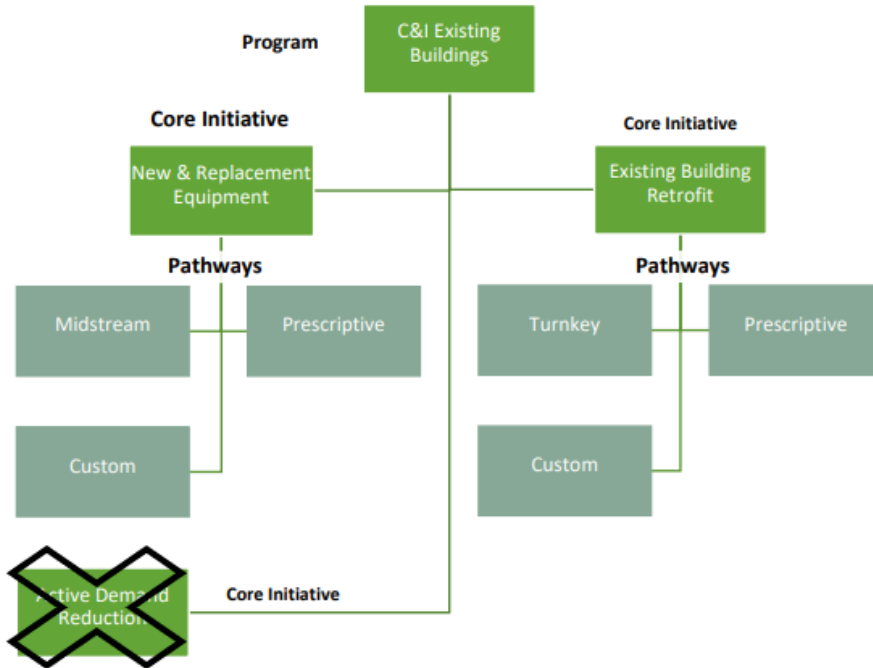
3 A. Additional budget in the Residential Hard-to-Measure Program is proposed for
4 unanticipated increases in spending for several purposes, including residential education
5 (inclusive of Sales, Technical Assistance, and Training (“STAT”)), evaluation and market
6 research, residential sponsorships, and DOER assessments.

7 **III. COMMERCIAL AND INDUSTRIAL SECTOR**

8 **Q. Please describe the purpose of the C&I Existing Buildings Program.**

9 A. As described in Exhibit 1 of the 2022-2024 Three-Year Plan, at Section 3.9.2, the C&I
10 Existing Buildings program consists of two core initiatives for gas programs: (1) Existing
11 Building Retrofit; and (2) New & Replacement Equipment (“N&RE”). The Company
12 works with its C&I customers to identify and support the improvement or replacement of
13 existing systems and equipment to increase efficiency and reduce energy use. Each core
14 initiative has three pathways that customers can use to access funding and technical support
15 depending on their needs, as shown in Figure 3-29 below.

Figure 3-29: C&I Existing Buildings Program – Core Initiatives and Pathways



1

2 (see D.P.U. 21-120 through D.P.U. 21-129, Exhibit 1, at 162).

3 **Q. What was the original budget approved by the Department for the C&I Existing**
4 **Buildings Program?**

5 A. The original budget approved by the Department for Berkshire’s C&I Existing Buildings
6 Program is \$3,136,889.

7 **Q. What has prompted the request for an MTM for the C&I Existing Buildings**
8 **Program?**

9 A. As noted above, Berkshire’s C&I Existing Buildings Program consists of two core
10 initiatives for the gas portfolio. Under the EE Guidelines at § 3.8.2, the Program
11 Administrators are allowed to shift funds among core initiatives within a Program.
12 However, pursuant to the 2022-2024 Three Year Plans Order, the Department also requires

1 that PAs seek approval to exceed the approved budget at the Program level. Therefore, the
2 Company seeks an MTM at the program level, and notes that the driver of increased
3 spending is activity within the C&I New and Replacement Equipment core initiative and
4 activity in the Existing Building Retrofit core initiative's Turnkey and Custom pathways.

5 **Q. What additional spending authority is requested for the C&I Existing Buildings**
6 **Program?**

7 A. The Company seeks approval to increase spending for this program by \$4,350,000, which
8 would bring the proposed program budget to \$7,486,889 for the term, or an increase of 139
9 percent of the budget approved for the program in D.P.U. 21-120. These new funds will be
10 utilized primarily for participant incentives in the C&I N&RE core initiative and the
11 Existing Building Retrofit core initiative to support additional Main Streets events through
12 the Turnkey program and large C&I custom retrofit projects.

13 **Q. Would it be possible for the Company to continue to operate the C&I Existing**
14 **Buildings Program with the original budget approved by the Department?**

15 A. No. To fulfill prescriptive rebate inquiries in queue and to continue to serve customers
16 seeking both electrification and non-electrification measures in the C&I Existing Buildings
17 program, the Company requires additional funding. Additional funding is also needed in
18 order to meet the demand for additional Main Streets events within Berkshire's territory.
19 There are insufficient funds to meet these demands.

20 **Q. If the MTM is granted for the C&I Existing Buildings Program, will it result in**
21 **additional therm savings?**

22 A. Yes, the measures that will be incentivized as a result of the increased spending in this
23 program will result in additional therm savings both compared to no additional spending

1 and compared to planned savings. However, the cost to achieve natural gas savings is
2 expected to be higher than originally planned. Berkshire estimates that if this MTM is
3 approved, the C&I Existing Buildings Program will capture incremental savings of
4 6,527,852 lifetime therms.

5 **Q. What are the implications to the Company and its customers should the MTM not be**
6 **approved?**

7 A. Without approval for the increase as requested, the Company will need to either modify or
8 cease offering customer incentives for measures, which will deprive the Company's C&I
9 customers access to incentives that are available to C&I customers in other natural gas
10 territories. This would impact not only customers seeking prescriptive incentives for heat
11 pump equipment, but those customers seeking support for other measures as well,
12 including high-efficiency natural gas heating and hot water systems, food service
13 equipment, and heat recovery equipment. More specifically, because the N&RE program
14 is a critical component of this core initiative, comprising nearly 41 percent of the C&I
15 Existing Building program's budget over the 2022-2024 term, without approval of this
16 MTM, Berkshire will have to modify or cease participating in that offering. Such
17 modification or cessation will disrupt C&I customers' access to these measures and will
18 frustrate the Company's ability to provide all cost-effective energy efficiency and
19 greenhouse gas reduction mandates.

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1 **Q. Please describe Berkshire’s achievements thus far for the 2022-2024 term with respect**
2 **to heat pump and Custom projects for the C&I Existing Buildings Program.**

3 A. The Company reported modest demand for prescriptive heat pumps displacing natural gas
4 heating in the core initiative in 2022, ending the term year claiming savings on 34 heat
5 pumps (98 tons) and expending \$237,250 in customer incentives. The Company
6 experienced increased interest in these measures toward the end of 2022. Of the heat pumps
7 incentivized in 2022, 14 were full displacements and 20 were partial displacements. All
8 heat pumps incentivized were for ductless systems, and 17 were for weatherized buildings.
9 The removal of an existing natural gas system is not a pre-requisite to the receipt of a full
10 displacement incentive, however, partial installs are required to have an integrated control
11 system. Thus far in 2023, Berkshire has incentivized 112 tons of C&I heat pumps through
12 N&RE. In total, through six quarters, Berkshire has incentivized 210 tons of heat pumps
13 through this core initiative at an incentive cost of over \$519,000. The entire N&RE plan
14 incentive budget for the term was \$704,675, meaning that through half the term, the heat
15 pump incentives already total more than 73% of the total N&RE incentive budget.
16 Berkshire’s total N&RE incentive spending through six quarters, inclusive of all measures,
17 is \$776,054, or 110% of the planned term incentive. Nearly 67% of that incentive spending
18 has been for heat pumps.

19 In addition, Berkshire provides additional support for weatherization, heat pumps
20 and process equipment through its Custom pathway provided under the Existing Building
21 Retrofit (EBR) and New & Replacement Equipment core initiatives. Through Q2 2023,
22 Berkshire has spent \$777,099 in EBR incentives. This is nearly 76% of the three-year EBR

1 incentive budget of \$1,023,314. In addition, Berkshire has signed agreements for another
2 \$256,355 of incentives for custom projects in EBR set to complete in 2023 that represent
3 over 3.5 million lifetime therm savings. Other projects are in various stages of review and
4 development but cannot be committed to without additional budget.

5 The New and Replacement Equipment (NRE) Core initiative has a similar pipeline
6 of custom projects. Currently, Berkshire has \$90,308 of incentive commitments with
7 signed agreements for 2023 representing over 400,000 lifetime therms, and another
8 potential \$179,000 of custom incentives for projects under development that will be
9 impacted by the result of this MTM. This is over and above the demand for new C&I
10 prescriptive heat pump incentives discussed above.

11 Additionally, Berkshire has identified several large custom electrification projects
12 that are presently under engineering review. These projects would require additional
13 funding to support if they are deemed to be cost-effective and remain on track to complete
14 prior to the end of 2024.

15 **Q. What are the Company's revised expectations related to demand for electrification**
16 **measures within the C&I New & Replacement Equipment core initiative for the 2022-**
17 **2024 term?**

18 A. Based on applications in hand and expected sustained interest among customers, the
19 Company currently estimates it will fulfill rebates related to more than 338 tons of heat
20 pump technology in this core initiative over the remainder of the term requiring
21 approximately \$846,300 in customer incentives. Additional expenditures on Sales,
22 Technical Assistance and Training ("STAT") are also anticipated.

1 **Q. What are the Company’s revised expectations related to demand for energy efficiency**
2 **measures within the C&I Turnkey pathway for the 2022-2024 term?**

3 A. The Company reported expenditures of \$43,352.56, in incentives in Program Year 2022
4 related to the increased incentives offered through Main Street Initiatives. The Company
5 anticipates \$310,220.60 from Main Streets Projects that have already concluded and have
6 currently put a hold on future Main Streets Projects for 2023. Berkshire only facilitated one
7 Main Street event in 2022 in Pittsfield, an Environmental Justice community, and while
8 there are additional efforts to promote Main Streets events among Berkshire communities,
9 with a focus on Environmental Justice communities, the Company requires additional
10 funding to support this initiative. Based on the current rate of installations and
11 expenditures, the Company anticipates demand for more than 274 direct install projects
12 over the remainder of the term requiring approximately \$560,000.00 in additional
13 funding. Additional expenditures on external STAT are also anticipated.

14 **Q. Was the increase in demand for electrification measures within the C&I Existing**
15 **Buildings Program foreseeable?**

16 No. The Company could not have anticipated such high demand for electrification
17 measures within the C&I Existing Buildings Program during the planning process. The
18 Company did not anticipate any activity in the C&I sector related to heat pumps and
19 variable refrigerant flow HVAC systems due to the relatively low cost of natural gas and
20 the relative lack of demand in the prior term among C&I customers for electrification
21 equipment. Further, the potential study commissioned to help inform planning for the
22 2022-2024 term assumed electrification measures for C&I natural gas customers were non-

1 cost-effective, and thus they were not included in the estimates of achievable potential. In
2 addition, it was assumed that even with the significant marketing efforts and other activities
3 intended to increase awareness of, demand for, and contractor experience with gas-to-
4 electric measures, that it would take longer for the Company's C&I customers to become
5 interested in and seek deployment of the technology.

6 **Q. Has the Company followed the Department's directive to pair weatherization services**
7 **with electrification measures to the extent feasible for the C&I Existing Buildings**
8 **Program?**

9 A. Yes. To date the Company has verified that approximately 31 percent of the C&I sector
10 electrification projects meet the criteria for being considered weatherized. Efforts are being
11 made to track weatherization among C&I customers receiving electrification measures for
12 HVAC and to find ways to better promote weatherization prior to installing HVAC
13 equipment. However, because weatherization of existing C&I buildings is often more
14 complex and expensive than the resulting energy savings justify, pairing weatherization
15 with electrification is not always cost-effective or practical.

16 **Q. Does the Company anticipate that the C&I Existing Buildings Program will be cost-**
17 **effective over the term if the MTM is granted as proposed?**

18 A. Yes. Although for the first year of the Three-Year Plan, the benefits associated with
19 prescriptive C&I electrification measures were not cost-effective, the evaluation results of
20 a non-energy impact study completed in 2022 and applied to program year 2023 and 2024
21 measures increased claimable benefits of these measures, so that they now exceed the total
22 resource cost. Over the term, Berkshire estimates the Benefit-Cost ratio of the C&I Existing
23 Buildings Program will exceed 1.0.

1 **IV. INCOME ELIGIBLE SECTOR**

2 **Q. Does the Company propose to increase the budget of the Income Eligible sector?**

3 A. Yes, Berkshire has proposed an increase of \$450,000 to its Income Eligible Sector
4 budget, for the Income Eligible Existing Buildings Program. If approved, Berkshire’s
5 budget for the Income Eligible sector would be \$4,977,077. This additional funding
6 serves two purposes. First, Berkshire’s increase accounts for a potential, large
7 multifamily Income Eligible project. Second, an increase to the Income Eligible budget
8 will ensure that Berkshire’s plan, as amended by this Mid-Term Modification, complies
9 with the statutory mandate to allocate 20% of a gas energy efficiency plan to the Income
10 Eligible sector. G.L. c. 25 s. 19(c). As originally approved, Berkshire’s 2022-24 Three-
11 Year Plan called for 26.5% of spending in the Income Eligible sector. With the changes
12 proposed in this MTM, Berkshire proposes to spend 20% of its budget in the Income
13 Eligible sector. The relative decline in Income Eligible budget results from the high
14 demand for electrification measures in the Residential and Commercial & Industrial
15 Sector. Further, the requested budget increase will lead to increased lifetime therm
16 savings of 13,760, satisfying the requirement of Three Year Plans Order, D.P.U. 21-120
17 through D.P.U. 21-129 (“Three-Year Plans Order”) at 225, n.138, 139 (2022). The
18 projected BCR of the Income Eligible Sector will remain cost-effective at 3.48 following
19 the MTM.

20 ///

21 ///

1 **V. PERFORMANCE INCENTIVES AND BILL IMPACTS**

2 **Q. How will approval of this MTM affect Berkshire’s ability to earn Performance**
3 **Incentives pursuant to the Three-Year Plan?**

4 A. At this time, the Company is not requesting any change in the Performance Incentive (“PI”)
5 framework filed in the Compliance Filing made on March 31, 2022. PI payout rates for the
6 four components of PI (achievement of benefits related to equity, electrification, standard
7 benefits, and net benefits (also known as the “value component”)) will remain as approved.

8 In order to promote the achievement and aggressive pursuit of electrification and
9 equity benefits, the Department in its Order approving the compliance filing removed the
10 PA proposed cap on earnings related to equity and electrification, provided that a minimum
11 benefits threshold is maintained for all four components. Conversely, if a PA does *not*
12 achieve the minimum benefits threshold for any one component, then PI is capped at the
13 design level for each of the PI components, regardless of performance.

14 In fact, the Company now anticipates, due to the low or negative cost-effectiveness
15 of electrification measures, that it may not be able to achieve the net benefits threshold
16 established for the value component of PI. If this occurs, the Company’s PI will be capped
17 at the planned PI level for all components even if, as anticipated, it delivers more than the
18 planned benefits for both equity and electrification. Even if the MTM is approved,
19 additional customers are served, and high priority electrification measures are installed, the
20 Company’s PI will be limited if it fails to exceed the value component threshold.

1 Further impacting Berkshire's ability to earn PI, and as referenced above, is the fact
2 that the Residential Retail core initiative within the Residential Existing Buildings Program
3 is not projected to be cost-effective over the term due to the very high demand for
4 electrification measures, which are not cost effective. Due to the size of the Residential
5 Retail core initiative relative to the Existing Buildings Program as a whole (38 percent as
6 approved, 42 percent if the MTM request is approved), the program itself will fall below
7 1.0 benefit/cost ratio. If that happens, the benefits associated with the Residential Retail
8 core initiative will be removed from the calculation of performance incentive, per the EE
9 Guidelines. EE Guidelines at § 3.8.2. Without those benefits included in the calculation,
10 which accounted for 12 percent of portfolio benefits in 2022 and will increase with the
11 approval of all MTM requests, the Company may not be able to achieve *any* of the four
12 benefits thresholds, putting the Company's entire performance incentive at risk.

13 **Q. Are there any other issues you would like to address regarding performance**
14 **incentives?**

15
16 A. The Company respects the Department's Guidelines and precedents outlined above
17 regarding the standards and thresholds for earning performance incentives, particularly the
18 importance of running cost-effective programs. While Berkshire does not propose any
19 changes to such Guidelines or performance incentive precedent in this focused MTM
20 proceeding, this MTM request highlights the fact that the Commonwealth also has adopted
21 a strong set of policies favoring electrification to achieve its climate objectives. Using
22 current costs and benefits, some electrification efforts stand in tension with cost-
23 effectiveness due to the relative avoided costs of electricity and natural gas. Berkshire

1 continues to aggressively market and promote cost-effective measures within the
2 Residential Retail core initiative as well as weatherization measures within the Residential
3 Coordinated Delivery core initiative in an effort to achieve greater benefits than total
4 resource costs over term. Berkshire respectfully requests that when the 2025-2027 term is
5 completed, the Department not foreclose the possibility of waivers of threshold cost-
6 effectiveness requirements if Berkshire's implementation proves not to be cost-effective
7 on account of its successfully meeting the demand of its customers for heat pumps.

8 **Q. Has the Company provided information relative to the bill impacts associated with**
9 **its requested budget increases in this MTM request?**

10 A. Yes, Exhibit BGC-3 provides a comparison between the bill impacts as previously
11 approved and as proposed in this MTM request customer classes. It is important to note
12 that these bill impacts are provided for illustrative purposes only, to allow comparison
13 between what was previously approved versus what would have been filed had the original
14 budget included the additional funds requested with these MTMs. In fact, actual energy
15 efficiency rates for 2022 and 2023 differed from what was included in the bill impact
16 analysis included in the October 1, 2022, filing of Berkshire's Three-Year Plan. The
17 Company recently filed a petition regarding its local distribution adjustment charge,
18 including the energy efficiency charge, on August 3, 2023. 23-D.P.U.-PGAF-BERK. The
19 petition is based on actual expenditures and revenues through June 2023, and anticipated
20 expenditures through October 2024 based on this MTM request.

1 Bill impacts were calculated by customer class, taking all MTMs into account,
2 including the additional funds requested for the income eligible programs, which are
3 funded by both residential and C&I customers.

4 **VI. CONCLUSION**

5 **Q. Does this conclude your testimony.**

6 **A.** Yes. It does.