

Memo

→ CONSULTANT TEAM

To: **EEAC**
 From: **EEAC Consultant Team**
 Date: **June 15, 2018**
 Subject: **June Mid-Term Modification Requests**

INTRODUCTION AND SUMMARY

This memo presents a summary of findings and conclusions from our review of the Mid-Term Modification (MTM) requests submitted to the Council in June 2018. The proposed adjustments trigger a “Category One” Mid-Term Modification (“MTM”), which requires Council review and approval, pursuant to § 3.8 of the revised Energy Efficiency Guidelines (“Guidelines”) issued by the Department in D.P.U. 11-120. Our memo discusses the impact the MTMs would have on benefits, savings, and costs for 2018 and the Three-Year Plan period, as well as our recommendations for how the MTM requests should be handled. The table below summarizes the MTM requests received in June.

Program Administrator	Program	Approved 2016-2018 Budget (\$ millions)	Requested Budget Change (\$ millions)	Adjusted Budget (\$ millions)	% Change from Approved
Berkshire	Residential Products	\$2.3	-\$0.8	\$1.6	-32%
	Low-Income Hard-to-Measure	\$0.08	-\$0.03	\$0.05	-40%
Liberty	Residential Whole House	\$4.1	\$1.3	\$5.5	32%
National Grid Gas	C&I New Construction	\$27.4	\$6.6	\$33.0	24%
	Residential Hard-to-Measure	\$8.3	-\$3.0	\$5.4	-36%
	Low Income Hard-to-Measure	\$2.0	-\$0.7	\$1.3	-37%
	C&I Hard-to-Measure	\$2.2	-\$0.6	\$1.6	-28%
National Grid Electric	C&I New Construction	\$85.5	-\$25.0	\$60.5	-29%
	Low-Income Hard-to-Measure	\$2.3	-\$0.8	\$1.4	-36%
	C&I Hard-to-Measure	\$6.7	-\$2.1	\$4.6	-31%

We recommend that the Council take the actions presented in the table below with regard to the June MTMs. We note that the three MTMs we are not recommending be approved included multiple requests as part of the same MTM. In two of these MTMs, we would recommend approval for one part of each MTM, if submitted separately. We describe our review and analysis in the following sections.

Program Administrator	Consultant Recommendation
Berkshire	Not Approve
Liberty	Approve
National Grid Electric	Not Approve

National Grid Gas	Not Approve
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HIGH-LEVEL FINDINGS

Portfolio-wide benefits and savings remain relatively unchanged

In aggregate, the June 2018 MTMs propose benefits that are less than 0.1% lower than the combined planned benefits for 2016-2018 (-1% for electric and +2% for gas). The proposed reductions in Hard-to-Measure programs do not have an impact on the portfolio benefits because no savings are associated and claimed for those programs.

National Grid was the only electric PA to submit an MTM request in June. They have indicated that the number of savings generating projects in the C&I New Buildings and Major Renovations initiative is lower than planned. At a statewide level, this proposed change results in lifetime savings that are 1% lower than planned. As with the benefits, the proposed reductions in Hard-to-Measure programs do not have an impact on the portfolio savings because no savings are associated and claimed for those programs.

For the gas programs, National Grid's requested increase in C&I New Construction program activity and Liberty's requested increase in the Residential Whole House program would result in lifetime gas savings that are 1% greater than the savings approved in the plan. These increased savings counteract Berkshire's reduced savings from its request to underspend on the Residential Products program. The proposed reductions in Hard-to-Measure programs do not have an impact on the portfolio savings because no savings are associated and claimed for those programs.

While the proposed MTMs have a small statewide impact, the impact for individual PAs is larger and important to review and address

For the smaller PAs, most requested changes would have a relatively small impact on the portfolio as a whole. However, the changes may have a more significant impact on customers when looking at the individual MTM requests. For example, the increased benefits from Liberty's proposed increase in spending for the Residential Whole House program represents 13% of their total planned benefits. For this reason, the Consultant Team provides analysis and recommendations in the following section of this memo that are PA-specific.

Reduced Hard-to-Measure spending has not been adequately justified

Three out of four of the proposed MTMs included requests for reduced spending in one or more of the Hard-to-Measure programs. Although reduced spending for these programs would not have a direct impact on savings and benefits, they do represent a missed opportunity for the PAs to engage in activities that help improve savings and, where appropriate, reduce costs. Another need for this type of spending is to foster new and emerging measures, markets and efficiency programs. The MTM requests from the PAs do not provide convincing evidence that spending for and investments in these activities as originally planned are unachievable and should be reduced.

Performance Incentives statewide mechanism and payout rates remain unchanged

The PAs in their proposed MTMs are not requesting changes to the 2016-2018 Three-Year Plan performance incentive pool or mechanism, or to the incentive payout rates for benefits ("savings") or net benefits ("value"), the PAs are not requesting changes to their approved Three-Year Plan savings goals or planned benefits, and the requested changes in the MTMs to underspend or overspend program budgets would not change the performance incentive mechanism for 2016-2018. Therefore, the approved performance incentive payout rates would continue to apply for each unit of benefits ("savings") and net benefits ("value") actually achieved.

INDIVIDUAL MTM RECOMMENDATIONS

The table below summarizes the Consultant Team recommendations for each of June MTM requests. The section following provides an explanation for the recommendations provided.

Program Administrator	Program	Requested Budget Change (\$ millions)	Consultant Recommendation
Berkshire	Residential Products	-\$0.8	Defer until later in 2018
	Low-Income Hard-to-Measure	-\$0.03	Approve
Liberty	Residential Whole House	\$1.3	Approve
National Grid Gas	C&I New Construction	\$6.6	Approve
	Residential Hard-to-Measure	-\$3.0	Do Not Approve
	Low Income Hard-to Measure	-\$0.7	More Consideration Required
National Grid Electric	C&I Hard-to-Measure	-\$0.6	Do Not Approve
	C&I New Construction	-\$25.0	Do Not Approve
	Low-Income Hard-to-Measure	-\$0.8	More Consideration Required
	C&I Hard-to-Measure	-\$2.1	Do Not Approve

Liberty

Program Administrator	Program	Approved 2016-2018 Budget (\$ millions)	Requested Budget Change (\$ millions)	Adjusted Budget (\$ millions)	% Change from Approved
Liberty	Residential Whole House	\$4.1	\$1.3	\$5.5	32%

Liberty's MTM is requesting additional money to serve additional customers. They have provided a sufficient explanation for the need to increase their budget and we support this request.

Berkshire

Program Administrator	Program	Approved 2016-2018 Budget (\$ millions)	Requested Budget Change (\$ millions)	Adjusted Budget (\$ millions)	% Change from Approved
Berkshire	Residential Products	\$2.3	-\$0.8	\$1.6	-32%
	Low-Income Hard-to-Measure	\$0.08	-\$0.03	\$0.05	-40%

Although Berkshire is not proposing changes to its total projected savings and benefits, the Consultant Team is concerned that Berkshire has not engaged in the activities necessary to implement a successful Residential Products program. In 2016, Berkshire spent only 66% of its Residential Products program budget and achieved 70% of its lifetime term goal. Rather than redouble its efforts to avoid a similar outcome in 2017, Berkshire achieved only 46% of its lifetime goal; spending 47% of its budget. From a measure perspective, nearly all of the savings shortfall, at least in 2016, was from space heating equipment, of which 95% were boilers. Water heating and thermostat savings slightly exceeded Plan savings. Berkshire considerably underspent its small Marketing and Advertising budgets in both years: 78% of Plan in 2016 (\$9K) and 50% (\$6k) in 2017. Further, about 78% of 2016 evaluated savings came from major measures (space and hot water heating equipment), which are not likely to respond to marketing efforts such as radio advertisements or direct mail.

To be able to support the reduced spending proposed for this program, the Consultant Team would first need to assess Berkshire responses to the following questions:

- Can Berkshire supply information to indicate it is reaching market saturation?
- Why did hot water savings and participation exceed Plan estimates, but not boilers? Wouldn't one expect to see similar trends?
- What did Berkshire do to reach out to contractors, builders, and distributors to encourage efficient space heating equipment sales? Did it consider any change in incentives?

- Has Berkshire attempted to increase thermostat sales at retail, particularly Wifi units, to make up for some of the lost space heating equipment sales?
- What was the total marketing spend on the program with Mass Save and other marketing efforts?

Based on these questions, the Consultant Team recommends deferring Council action until later in 2018, at a time after the PA makes additional efforts to invest the funding in effective ways.

The Consultant Team recommends approving the proposal to reduce spending for the Low Income Hard-to-Measure program. Although underspending for LEAN was significant (24% of budget in 2016 and 19% of budget in 2017), annual and lifetime savings for 2017 were 129% of planned, suggesting the program is running successfully.

National Grid Gas

Program Administrator	Program	Approved 2016-2018 Budget (\$ millions)	Requested Budget Change (\$ millions)	Adjusted Budget (\$ millions)	% Change from Approved
National Grid Gas	C&I New Construction	\$27.4	\$6.6	\$33.0	24%
	Residential Hard-to-Measure	\$8.3	-\$3.0	\$5.4	-36%
	Low Income Hard-to Measure	\$2.0	-\$0.7	\$1.3	-37%
	C&I Hard-to-Measure	\$2.2	-\$0.6	\$1.6	-28%

The Consultant Team recommends approving National Grid's request to increase spending in the C&I New Construction Program, which is primarily being driven by the success of the upstream water heating initiative. The increased spending will allow National Grid to meet higher demand for the program. Upstream savings also tend to be less expensive to achieve, helping to increase savings at a lower cost.

However, the Consultant Team recommends that National Grid spend the C&I and residential Hard-to-Measure program budgets as planned. Although the proposed changes would not reduce total projected savings and benefits, the Consultant Team believes there is still opportunity to spend the funding from the budget reduction requests for the program categories as originally intended. For the C&I program, these uses include: improving the National Grid database by assigning Standard Industrial Classification (SIC) codes to customer accounts and creating an online customer portal equivalent to the one created by Eversource.

For the Residential Hard to Measure Program, underspending for RD&D (73% of 2016 goal, 5% of 2017 goal) and Workforce Development (10% of 2016 goal, 13% of 2017 goal) are of particular concern as we seek to transition to a new program model. Furthermore, National Grid underspent these categories in 2013-2015 and was asked by the EEAC consultants to do more. And National Grid's 2019-2021 residential gas goal is lower than its 2016-2018 goal (1.39% vs. 1.51%) so it's especially important to be building additional capacity and new sources of savings.

The reduced spending request for the Low Income Hard-to-Measure program is difficult to assess without knowing why LEAN expenditure so much lower than budget. Underspending can be a good thing, but National Grid's Low Income programs failed to meet annual and lifetime savings goals (both 82% of goal) in 2016 and slightly exceeded annual and lifetime savings goals (102% and 104% respectively) in 2017. Therefore it is possible that the Low Income Hard-to Measure funding could be used in improving program outcomes. The Consultant Team is unable to assess this without additional information regarding the reasons for the underspending for the LEAN item.

National Grid Electric

Program Administrator	Program	Approved 2016-2018 Budget (\$ millions)	Requested Budget Change (\$ millions)	Adjusted Budget (\$ millions)	% Change from Approved
National Grid Electric	C&I New Construction	\$85.5	-\$25.0	\$60.5	-29%
	Low-Income Hard-to-Measure	\$2.3	-\$0.8	\$1.4	-36%
	C&I Hard-to-Measure	\$6.7	-\$2.1	\$4.6	-31%

Although National Grid is not proposing changes to its total projected savings and benefits, the Consultant Team believes there is still opportunity to spend the funding from the budget reduction requests for the program categories as originally intended. The Consultant Team suggests that instead of underspending in New Construction program, the PAs use this as an opportunity to develop a way to promote commercial Passive House in order to maximize savings from new buildings and major renovations. Also, it is unclear whether National Grid is capturing all opportunities related to new construction of agricultural grow facilities. This may provide an additional opportunity to use the unspent funds.

There are also several opportunities for National Grid to put the C&I Hard-to-Measure program money to productive use. These opportunities include: improving the National Grid database by assigning Standard Industrial Classification (SIC) codes to customer accounts, creating an online customer portal equivalent to the one created by Eversource, and developing a plan to retrofit all company owned streetlights to LED with controls by the end of 2021.

As discussed with regard to National Grid's Gas Hard-to-Measure program, the reduced spending request for the Low Income Hard-to-Measure program is difficult to assess without knowing why LEAN expenditures are so much lower than budget. National Grid's low income program failed to meet annual (76% of goal) and lifetime (75% of goal) savings goals in 2016 and annual savings goal (92%) in 2017. Therefore it is possible that the Low Income Hard-to Measure funding could be used in improve program outcomes.