CADMUS

Memorandum

To: Mitch Horrie; Public Service Commission of Wisconsin

From: Scott Dimetrosky and Duncan Ward, Apex Analytics; Elissa Slocum and Jill Krueger, Cadmus

Subject: Focus on Energy Nonresidential Midstream Lighting Research Findings

Date: March 7, 2025

Introduction

Midstream lighting programs have the potential to lower barriers to lighting program participation and, thus, increase nonresidential lighting participation and savings. However, for many program administrators, including Focus on Energy, introducing a nonresidential midstream offering would require significant changes to their existing lighting portfolio. Consequently, it is important to carefully weigh the risks and opportunities of introducing such a program. To help Focus on Energy better understand these potential risks and opportunities, the evaluation team conducted a series of qualitative interviews with program administrators in different areas who have midstream lighting programs.

Methods

To support Focus on Energy in this process, the evaluation team reached out to eight efficiency program administrators that offer midstream programs and conducted interviews with staff from the following four utilities and one statewide efficiency program administrator: Ameren, Baltimore Gas and Electric Company (BG&E), DTE Energy, Eversource in Massachusetts, and Efficiency Maine. The team conducted interviews using Microsoft Teams, with each interview taking approximately 30 minutes.

Interviews focused on three main themes:

- The transition to a midstream program
  - *What motivated its introduction?*
  - *How were midstream measures rolled out?*
- The midstream program's structure
  - *How does it relate to their downstream offering?*
  - *Are there any restrictions on the program?*
- The utility's experience
  - *How has the program performed?*
  - *What is unique about it?*

Findings

Transition to Midstream

During the first part of the interview, respondents described why their utility introduced a midstream offering and what this introduction looked like.

Motivations

All respondents explicitly or implicitly reported introducing midstream measures to capture projects that otherwise would not have been covered by their downstream program, either because they were smaller projects or because they involved a lighting product that was not covered by downstream incentives.[1] All respondents reported that removing the need for participants to apply for incentives through the introduction of midstream was essential to meeting these goals. Respondents described an overlap between supporting smaller projects and expanding into new product types. Three respondents acknowledged that many smaller projects, for which a downstream application may have been too burdensome, also used products not covered by their downstream programs, such as residential-style lamps, screw-in bulbs, or linear LEDS.

> *"Our downstream program is really geared towards new fixtures. So, we weren't capturing the one-off replacement lamps and those were typically smaller quantities."*

Process

Each respondent reported starting small with their midstream offering and expanding it over time. Three respondents reported that this meant starting with a limited number of products, while one respondent started with a broad set of products but a limited set of distributors. One respondent did not have insight into how their program was introduced. In each case, midstream measures were introduced to compliment and not to replace the downstream lighting program. For some, but not all, respondents this led to certain products being covered by both downstream incentives. Subsequent sections address the relationship between midstream and downstream offerings in greater detail.

> *"When it first came out, we… set up a booth and, you know, brought in coffee and donuts to meet with contractors that were coming in through the door."*

Four respondents actively engaged distributors and other actors, such as trade allies, to build market awareness of their midstream offering. One respondent reported introducing midstream more passively. In this case, the utility enrolled distributors and then left it up to these distributors to build market awareness. This interviewee's later responses indicated that, compared to other respondents, it took longer

> *"Schools and government agencies and universities seem to benefit because a lot of the items that we sold through the midstream program were more replacement maintenance type items."*

1 It should be noted that all respondents but one had been involved with their midstream program since its inception and were able to provide firsthand insights in this section.

for their program to build market awareness. While outreach methods varied across respondents, in each case, strong relationships and engagement with distributors were central to starting up the program.

Market Response

Respondents reported that the midstream offerings were generally received favorably by customers. Three out of five respondents reported that end-users from sectors with a large amount of residential-style lighting were particularly positive about midstream offerings. For participants in these segments, midstream incentives were particularly beneficial as they expanded incentives to products that were not previously covered in downstream programs. Respondents referenced long-term care facilities, schools, universities, and other governmental agencies as examples of the facilities that benefited most from the introduction of midstream incentives for residential-style lighting products.

All respondents with insight into the introduction of their midstream program reported that it increased the number of small projects that were able to access lighting incentives. The instant rebate aspect of midstream programs enabled these smaller projects. In cases where downstream incentives had previously been offered, participants would not have otherwise taken advantage of them as these projects were often too small to warrant filling out downstream application materials.

One respondent reported that some trade allies initially had negative reactions to the introduction of their midstream program. This reaction was in response to trade allies no longer being able to have the rebate signed over to them or receive additional application incentives for midstream projects. The respondent in question did not have any specific suggestions for mitigating this concern, and in their experience, this concern was neither long-lasting nor a barrier to program success.

> *"[Trade allies] were kind of cut out of the loop, but the customer could still hire them to install the equipment."*

Program Structure

Respondents reported few restrictions or eligibility requirements for purchasers or projects to receive midstream incentives. Four respondents said that anyone making a purchase through a distributor enrolled in the midstream program could receive midstream incentives. One respondent reported that only approved contractors purchasing equipment from enrolled distributors were eligible for midstream incentives. These contractors, or qualified partners as they were called, were required to complete a midstream training in order to receive incentives at an enrolled distributor. One respondent reported that projects over a certain size (approximately $20k) would need to receive prior approval.

All respondents reported offering both downstream and midstream incentives, and three out of five respondents reported that certain products are covered by both incentive types. These three respondents all reported that midstream incentives were lower than their downstream counterparts. In addition to reporting overlap in the product types covered by the two programs, in some cases, respondents also reported that a project could use both

> *"We had a lot of screw in lightbulb equipment early… now our participation is in linear LEDs."*

midstream and downstream incentives for different measures. However, these two potential sources of overlap, by product type and project, can pose a challenge for program monitoring.

One respondent reported that adding a midstream program initially made it harder to track whether a site had already upgraded its lighting and to make sure that sites did not claim incentives from both midstream and downstream for the same equipment. However, this respondent also stressed that integrating data collection and monitoring across midstream and downstream mitigated these issues. Another respondent reported using the same site inspectors for both the midstream and downstream programs to give their inspectors visibility across both programs and to minimize the difficulty of project tracking across multiple programs. Not every interviewee discussed the relationship between midstream and downstream program tracking, but the anecdotal evidence above indicates that integrating the two can make monitoring double dipping substantially easier.

Product Offerings

As previously mentioned, most respondents launched their midstream program with a limited number of products, focusing initially on replacement screw-in bulbs. Respondents reported that, as their programs matured, their product offerings shifted towards other products, such as TLEDs and fixtures. One respondent reported offering midstream and downstream incentives for the same products, while two other respondents reported limited overlap in the products offered by both programs.

One respondent reported that their organization prioritizes high-volume and highly uniform measures for their midstream offerings. These factors are important product characteristics given the limited data collected for midstream projects as opposed to downstream.

> *"We offer high-volume type equipment, and equipment that we can make baseline assumptions for because for midstream we don't really collect any data from the customer."*

Two respondents specifically referenced lighting sensors as poor candidates for midstream incentives, given that these products need data that is not collected through midstream to evaluate their savings.

> *"We won't offer sensors through midstream because we don't capture enough data."*

Utility Experience

All respondents reported that their organization's midstream program has been a success. One central theme for the success of midstream incentives is their ability to engage new types of projects. These projects can be characterized in a few overlapping ways: bulb replacement projects, smaller projects, and smaller customers. For example, at the beginning of midstream programs, program administrators were able to increase participation and savings from bulb replacement projects. These were often lower-volume projects that previously were not captured, either because the utility did not offer downstream incentives for replacement bulbs or because prospective participants did not see it as worth their time to fill out a downstream

> *"Schools and government agencies and universities seem to benefit because a lot of the items that we sold through the midstream program were more replacement maintenance type items."*

application. Additionally, four respondents reported that midstream incentives increased the number of projects that were done by smaller customers.

"We may have 15% overlap where people have dropped the prescriptive to go to midstream ...and midstream is 80% of prescriptive (savings)."

Respondents reported that midstream incentives grew their lighting participation and savings. Given that midstream programs increased savings in market segments that often were not well captured by downstream programs, respondents saw the midstream programs largely as complementary rather than a substitute.

While all respondents said their programs grew after adopting midstream incentives, some also reported that savings had since stabilized or even decreased. Three respondents reported stable or increasing savings, and two reported decreasing savings. These respondents explained that decreases in program uptake often reflected changes in regulations at the local or federal level that impacted lighting baselines and, thus, the range of products midstream programs could offer.

Summary of Findings

All respondents reported that introducing a midstream program had increased overall lighting program participation and savings. They also reported that participation in midstream programs often came from projects and customers who had not previously participated in downstream lighting incentives, which meant that midstream savings and participation were often not at the expense of the downstream program.

However, respondents said the relationship between midstream and downstream programs needs to be managed carefully. Without integrating data tracking across both programs, the addition of midstream can make it hard to monitor double dipping across the programs. By making data easily visible across programs and using the same site inspectors across both, some respondents were able to mostly mitigate this issue. Additionally, some respondents described aligning internal goals as best as possible across both programs to reduce any friction that may result from downstream and midstream programs competing for savings.

While all respondents were able to successfully establish their midstream programs initially, not all programs have continued to grow or sustain their participation levels. The shelf life of midstream programs appears to vary by area. To understand the potential of midstream lighting in Wisconsin, an important next step is to assess the current baselines, product offerings, and both the current and future savings potential of a midstream lighting program.

Interviewees in this year's Energy Advisor research also reported a strong dislike for the idea of midstream lighting. Many Energy Advisors see lighting projects as jumping off points for larger projects. Energy Advisors worried that if Focus on Energy shifted to midstream lighting that they would lose a key entry point to larger projects. These findings indicate that the potential introduction of a midstream lighting offering is a sensitive point for Energy Advisors. Any serious consideration of midstream lighting should include engagement with Energy Advisors to make sure that they do not feel cut out by the program.