

SWIMMING WITH THE (MID)STREAM

COMMON EVALUATION CHALLENGES
FACING MIDSTREAM PROGRAMS,
AND HOW TO ADDRESS THEM

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AUGUST 21, 2019





INTRODUCTION & BACKGROUND

GOALS & AGENDA

We will review common challenges facing midstream program evaluations across the country. This review is meant to be informative, and we hope it will be helpful to new and veteran midstream program evaluators alike.

GOALS

- Help newer midstream program evaluators avoid likely pitfalls based on our experience
- Share lessons learned between evaluators and other stakeholders
- Contribute to an ongoing conversation within the industry about how to best evaluate midstream program offerings

AGENDA

1. DTE & Navigant Introduction
2. Midstream Background
3. Common Challenges & Solutions
4. Utility's Role
5. Conclusions & Next Steps



- Work with 50 largest US electric and gas utilities across every aspect of energy lifecycle
- Offices in 17+ states and 9+ countries
- DTE evaluator since 2013
- Navigant has worked closely with DTE and program implementers, since initial program pilot phase, to identify and address evaluation issues as they arise

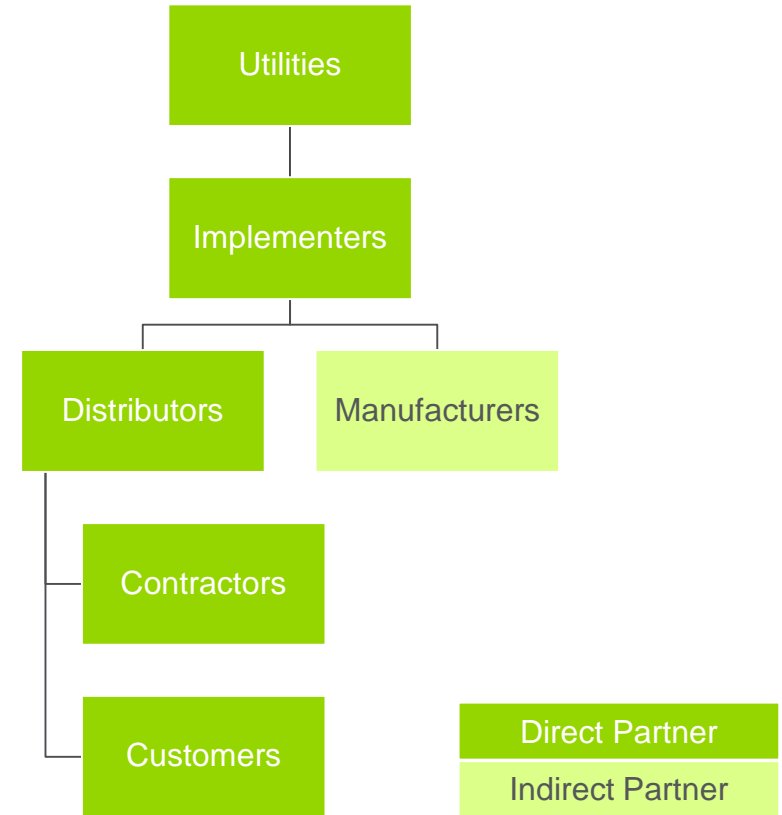


- Electric Customers: 1,800,000
Gas Customers: 1,100,100
Employees: 10,000
- Launched its first fully-commercialized midstream offering in 2017 (commercial lighting)
- Since then, DTE has launched two other midstream programs, and is currently investigating options to launch more

MIDSTREAM 101

Midstream programs provide rebates to customers by offering discounts on qualifying energy-efficient products sold by participating distributors

- Midstream programs involve a different and more diverse set of stakeholders compared to traditional rebate or direct-install programs
- The role of intermediary actors (distributors, retailers, and contactors) is more significant vs. traditional programs
- They offer an array of benefits over traditional downstream programs, including a streamlined participation process
- They also have the potential to engage more customers with fewer program-specific touch points





MIDSTREAM EVALUATION CHALLENGES

MIDSTREAM EVALUATION CHALLENGES: ROOT CAUSES

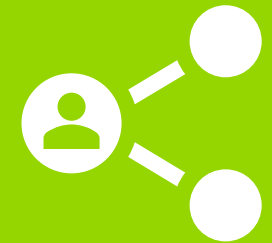
While all evaluations have issues they must overcome, midstream program evaluations face a distinct set of challenges stemming from their unique program delivery mechanism.

- These challenges can affect nearly every aspect of evaluation
- Challenges stem from the **significantly lighter customer touchpoint** that midstream programs employ
- Challenges can be placed into **two categories**



PROGRAM DATA

Placing fewer requirements on the amount of data required to participate can result in program records that are less clean, less comprehensive, and more difficult to use for the purposes of evaluation than other programs



PROGRAM CONTROL


Utilities and implementers have less control over how measures are distributed, installed, or used in the field. Reduced control can result in greater uncertainty and higher risk of unforeseen implementation scenarios.

MIDSTREAM EVALUATION CHALLENGES: SEVEN TYPES

We will discuss seven common challenges Navigant and DTE have encountered while evaluating midstream programs



**SERVICE TERRITORY
(LEAKAGE)**




DOUBLE-COUNTING




**CUSTOMER CONTACT
INFORMATION**



**ATTRIBUTION
& NTGR**



**REPEAT
PARTICIPATION**



**DETERMINING
SAVINGS**

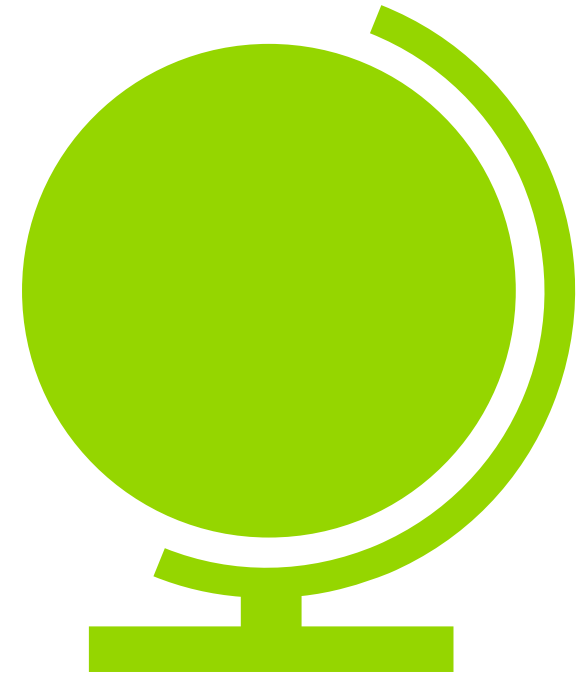


**OFFSITE
INSTALLATION**

SERVICE TERRITORY

Midstream programs face a unique challenge when it comes to determining jurisdictional eligibility.

- Midstream programs offer incentives at the time of purchase, and program implementers have far less control over where incentivized equipment will be installed
- Several midstream program implementers now offer tools that validate, in near real time, a customer's eligibility to receive incentives on purchased equipment
- Determining the extent to which the implementing organization is performing jurisdictional validation is an important step for any midstream evaluation



DOUBLE-COUNTING

Midstream programs also have a higher likelihood of double-counting savings compared to downstream programs, as utilities and implementing organizations have less direct control over which customers participate.



- This can be difficult to identify unless evaluators are specifically looking for it, as it occurs across multiple programs
- Double-counting can potentially reduce a program's gross savings or spillover (SO)
- Evaluators will want to compare records across the portfolio to determine where individual customers participated in multiple programs and account for those records appropriately
- Evaluators can then work with utility program managers and implementers to devise solutions to prevent this from happening in the future

CUSTOMER CONTACT INFORMATION

Since most midstream data is self-reported, the purchaser’s relationship is to the project and customer is often unclear.

- For evaluators, it is important to understand the purchaser’s role within the context of the program in two specific areas:
 - **Decision-Maker (DM):** the individual was responsible for selecting which products were purchased
 - **Access Authority (AA):** the individual has authority to grant access to equipment for inspection
- Midstream evaluators will need to be flexible, and will want to make sure to clarify the purchaser’s role and relationship to the project during any kind of outreach to the customer

CATEGORY	DESCRIPTION	DM	AA
Contractor	Individual performing work on behalf of the incentivized equipment end-user	Potentially	Unlikely
Facility Manager	Individual responsible for ensuring a facility is well-maintained and operational	Likely	Potentially
End-User	Individual who interacts with equipment on a day-to-day basis	Potentially	Likely

DETERMINING SAVINGS

Midstream programs face challenges and likely pushback when it comes to applying traditional approaches to evaluating program savings.

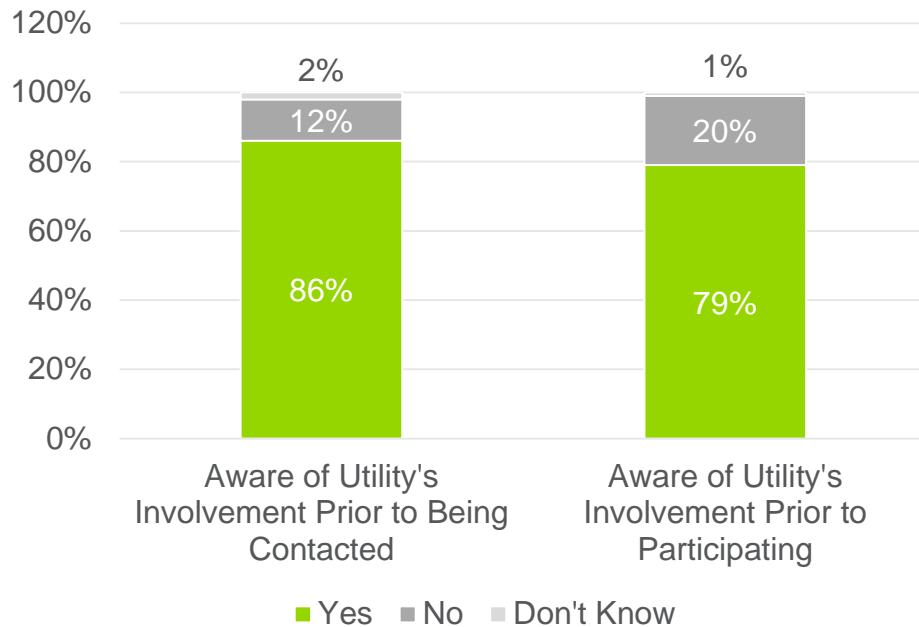


- Important to strike the right balance between **rigor**, **effort**, and **customer burden**
- In cases where multiple TRM values exist, evaluators can create a **weighted average measure** based on existing values and baseline replacement assumptions
- Evaluators can also work with utilities to create “**custom prescriptive**” or “**workpaper**” measures that are applied like a prescriptive measure but exist outside of a traditional TRM

ATTRIBUTION & NET-TO-GROSS

Since midstream programs are designed to be lighter touch than downstream programs, customers are less likely to be contacted directly by the utility, and are therefore less likely to be aware of the utility's role in providing rebates.

Customer Awareness of Utility Involvement DTE Midstream Programs, PY2017



- Midstream evaluators can include more detailed questions to assess awareness of the program through the **participation lifecycle**, and their **procurement decision-making**, in existing customer surveys
- Beyond traditional NTGR analysis, evaluators will also want to consider **quantifying a midstream program's effects in moving the regional market** towards a more efficient baseline
- Evaluators may also wish to **quantify traditional spillover** to determine if the program is encouraging customers to take additional energy efficient actions

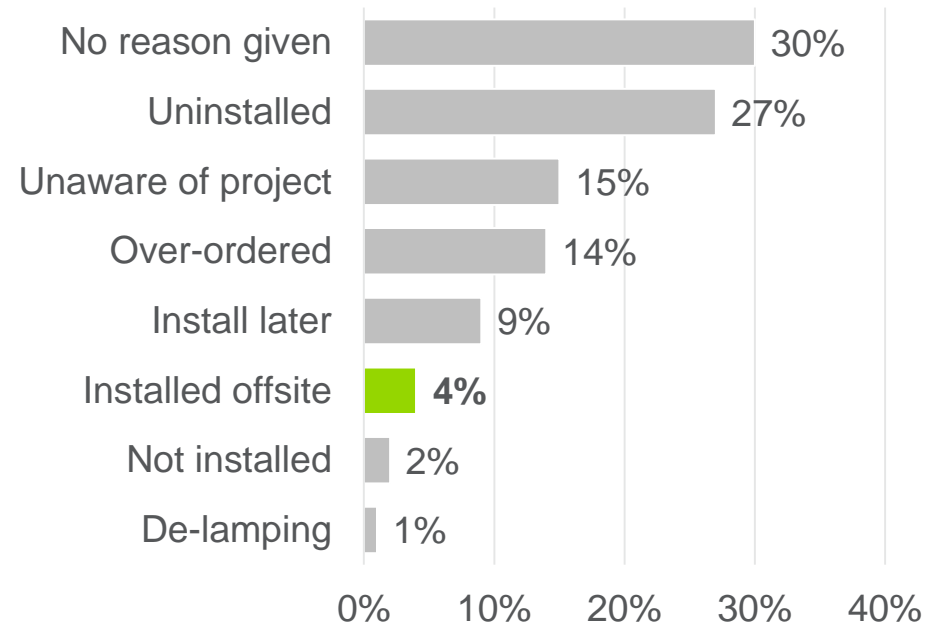
OFFSITE INSTALLATION

Another midstream evaluation challenge occurs when a customer purchases measures, uses a single address for validation purposes, and ultimately installs the incented items at multiple different locations.

- This results in situations where a fraction of measures can be verified as having been installed at the reported address
- First, evaluators must determine whether purchased equipment is being installed in more locations than is listed in the underlying data
- Evaluators may then wish to collect the addresses of any additional sites where measures were installed
- Finally, evaluators should consider performing additional verification on these sites to determine eligibility and to capture a more representative view of a program's impacts

Reason Measures Not Installed

DTE Midstream Programs, PY2017



REPEAT PARTICIPATION

Installation verification for midstream programs can also be less straightforward than downstream programs. This issue manifests when customers participate multiple times throughout the year or across different locations.

- When a single customer participates multiple times, it has the potential to create confusion when **partial year program data is used to verify measure installation**
- Evaluators can perform verification more frequently throughout the year, and true-up verification data against year-end participation records to eliminate confusion at the end of the year
- Commercial midstream programs may also observe some **businesses participating across multiple locations**
- Evaluators will want to consider **aggregating records where possible** to ensure all relevant measures are validated with the **fewest number of customer touchpoints**



UTILITY ROLE IN ADDRESSING EVALUATION CHALLENGES

Utilities play a large role in how these evaluation challenges are addressed by setting and enforcing strong program guidelines that take into account evaluation priorities.



- **Encouraging implementers** to collect data necessary for evaluation and perform verification at time of sale
- Maintaining **strong relationships with distributors** and continuously reinforcing evaluation-related efforts
- **Supporting internal-facing evaluation efforts** to address issues stemming from data quality or completeness
- **Engaging with evaluators** and buying in to evaluation objectives

CONCLUDING THOUGHTS

Purpose of this discussion is to highlight the importance of flexibility and utility engagement in approaching midstream evaluation challenges,

- This is **not intended to be comprehensive**, authoritative accounting of midstream program evaluation challenges and how they should be addressed
- We hope is this **contributes to a broader conversation** within the evaluation community, while providing helpful guidance to new midstream program evaluators on how to avoid some of the more common challenges these programs face



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