5.3.1 Commercial Standard Offer Program

Table 73. Commercial Standard Offer Program Summary

Commercial SOP	Summary
Program description	The Commercial SOP provides incentives to energy efficiency service providers or self-sponsored commercial customers who install approved energy efficiency measures in eligible business, government, nonprofit, and worship facilities in Oncor's service area. This program is designed to achieve energy and demand savings in the commercial market with a wide range of energy efficiency measures, which are approved for use and more fully described in the Texas Technical Reference Manual (TRM). Incentives paid to service providers help to offset the cost of these energy efficiency measures. Common commercial measures include new construction and retrofit lighting, HVAC, variable frequency drives, as well as other program measures utilized from the TRM that exceed existing energy code baselines in the TRM.Projects must be approved by Oncor prior to the project's start. Once completed, Oncor verifies the savings, and the service providers receive incentive payments based on the project's actual savings. For master metered multifamily customers, commercial measures include HVAC units. **2024 Program Design Update:** Commercial solar PV is now included as a measure to streamline applications for multi-measure projects. Certain HVAC measure technologies previously only available in the Commercial Midstream MTP are now fully included in the Commercial SOP.
Target markets	• Market segments: Large and small commercial businesses • Eligibility criteria: o Pre-qualification of Service Providers o Deemed Savings: New or retrofit projects with total project incentive of at least $500Custom M&V: New or retrofit projects with total project incentive of at least $10,000. Oncor technical pre-review and preliminary M&V Plan is required prior to project acceptance. Oncor pre-review of M&V project proposals may include consultation with EM&V team for certain unique or complex project measures. • Applications: New or retrofit applications
Marketing strategies and project sponsors	• Marketing strategies: Oncor website (www.oncor.com), Oncor energy efficiency website for customers (www.takealoadofftexas.com), Oncor energy efficiency contractor portal (https://eepm.oncor.com), Oncor energy efficiency program managers and implementers, trade and industry organizations, industry conferences, retail partners, equipment manufacturers and distributors and radio advertisements. • Service Providers typically include: o National or local energy service companies (ESCOs), o National or local companies that provide energy-related services (e.g., contracting) or products (e.g., lighting and HVAC equipment), o Retail Electric Providerss, and o individual customers with metered electrical demand exceeding 50 kW that implement qualifying energy efficiency measures in their own facilities.
Implementation and delivery	• Implementers: Oncor

Commercial SOP	Summary
Measures/products, services, offerings	• Measure offerings: Include, but not limited to energy efficient lighting, HVAC units, variable frequency drives, cool roofs, food service equipment, zero energy doors and other refrigeration measures, high-efficiency data center air conditioning, premium efficiency motors, ice makers, pool pumps, vending machine controls, lodging guest room occupancy controls, condenser air evaporative pre-cooling, and demand controlled kitchen ventilation. • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the project sponsor (Service Provider), who then passes the rebate/incentive to the end-use customer at their discretion • Incentives are calculated using a formula using the measure's M&V annual savings, its effective useful life, a net present value calculation, and, in applicable counties, a geographic multiplier.
QA/QC	• Pre- and post-on-site inspections at the discretion of the utility • Conducted by the utility or a third-party implementer or combination

Table 74 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 74. Commercial Standard Offer Program EM&V Plan

Commercial SOP	Description	2024
Evaluation priority	The Commercial SOP is a *high* priority in PY2024. The majority of savings are from deemed measures with some custom measures.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace? • Is the current mixture of rebated measures still appropriate, or could some measures be included or removed? • What changes to the program design and delivery may improve program performance? • Have the changes in equipment baselines affected the program's ability to meet goals? Are there viable strategies the program can adopt to adapt to the changing codes and standards climate to meet and exceed set goals given the new baselines?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	14
	Participant surveys: Interviews will be completed with HVAC tune-up participants	Census sample to meet 90/10

5.3.2 Small Business Direct Install Standard Offer Program

Table 75. Small Business Direct Install Standard Offer Program Summary

Small Business Direct Install SOP	Summary
Program description	The Small Business Direct Install SOP is a special offering of the Commercial SOP designed to address the specific needs of the small business market with enhanced incentives. The program is focused on the non-Metro counties served by Oncor, and targets select business types. **2024 Program Design Update:** Oncor has transitioned this program from an implementer-run MTP into a self-administered SOP. In addition to enhanced incentives, Oncor will be offering no-cost HVAC tune-ups. This program will be rebranded as Commercial Non-Metro SOP in the 2025 plan.
Target markets	• Market segments: Small commercial facilities • Eligibility criteria: Small commercial facilities within Oncor's service territory and with peak demands ≤200 kW, focusing on the non-metro counties served by Oncor. Dallas, Collin, Tarrant, Denton, and Rockwall counties are not eligible to participate in this program. • Applications: Retrofit or new construction projects

Marketing strategies and project sponsors	• Marketing strategies: Oncor plans to market the availability of this program in the following manner:
	  ○ Contract with a third-party program implementer to conduct outreach and planning activities;
	  ○ Third party contractor will identify and recruit contractors to develop a network of participating contractors who will deliver the program directly to customers;
	  ○ maintain a website to provide information to potential participants, directing customer to program information and sign up;
	  ○ One pager and trifold developed with QR code
	  ○ Implementer will conduct training as necessary to explain elements of the program, such as responsibilities of the participants, project requirements, incentive information, and the application and reporting process;
	  ○ participate in regional outreach activities as may be necessary; including sharing program information at local business organizations e.g. local Chamber of Commerce
	  ○ participate in appropriate industry-related meetings to generate awareness and interest.
	• Project sponsors: HVAC Contractor Service Providers

Implementation and delivery	• Implementers: CLEAResult is the third-party implementer.
Measures/products, services, offerings	• Measure offerings: CoolSavers tune up measure and methodology offered by CLEAResult while using the iManifold tool to perform tune ups and collect required tracking data. • Technical assistance: Provided by the contractor/implementer • Rebates/incentives: Provided by the contractor/implementer

Small Business Direct Install SOP	Summary
QA/QC	• Pre- and post-on-site inspections for 100 percent of the first five projects submitted by each contractor, and randomly selected pre- and post-inspections for 20 percent of each additional project submitted • Pre- and post-inspection conducted by a third-party implementer • In addition, some verification conducted by the utility

Table 76 documents the evaluation priority and methodologies for the Small Business Direct Install SOP.

Table 76. Small Business Direct Install Standard Offer Program EM&V Plan

Small Business Direct Install SOP	Description	2024
Evaluation priority	The Small Business Direct Install SOP is a *high* priority in PY2024 due to the inclusion of HVAC tune-ups.	High
Key researchable Issues	• What are the challenges and opportunities to serve this hard-to-reach business sector? • How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace? • Is the current mixture of rebated measures still appropriate, or could some measures be included or removed? • What changes to the program design and delivery may improve program performance? • Have the changes in equipment baselines affected the program's ability to meet goals? Are there viable strategies the program can adopt to adapt to the changing codes and standards climate to meet and exceed set goals given the new baselines?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0
	Consumption analysis: The EM&V team will conduct a targeted consumption analysis to evaluate energy and demand impacts **on HVAC tune-ups, which may be included in this program**. The PY2024 consumption analysis will help all stakeholders better understand the savings resulting from measures installed through this program and inform prospective updates to the TRM for PY2026.	Census
	Participant surveys: Interviews will be completed for HVAC tune-ups, to the extent these are implemented through this program	Census sample to meet 90/10

5.4 LOAD MANAGEMENT

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Load Management program in the utility's portfolio.

5.4.1 Commercial Load Management Standard Offer Program

Table 77. Commercial Load Management Standard Offer Program Summary

Commercial Load Management SOP	Summary
Program description	Under the Commercial Load Management SOP, Oncor pays incentives to service providers and aggregators who work with local commercial and manufacturing facilities as well as self-sponsored commercial premises to achieve documented summer demand reductions in those facilities. The program is designed to assist businesses in reducing their summer energy demand and help meet the state's energy efficiency goals. The demand reductions must be verified by Oncor in order for the incentives to be paid. This is accomplished by reviewing data recorded by meters and calculating the amount of demand savings achieved through curtailment during the summer season. The incentive is paid directly to the service provider, aggregator, or self-sponsored commercial customer. Each project must achieve a total estimated demand savings of at least 100 kW during the summer demand period. Participating customer facilities must reduce load when called for by Oncor. To participate, facilities must be able to curtail load within 30 minutes, at any time, in response to ERCOT energy emergency alert (EEA) Levels 2. With the exception of the scheduled curtailment event, curtailments will be called during or in anticipation of an ERCOT EEA Level 2 event, or to assure Oncor grid stability (grid emergencies)

Target markets	• Market segments: Large commercial and industrial businesses
	• Eligibility criteria:
	  ○ Each project must achieve a total estimated demand savings of at least 100 kW during the on-peak demand period,
	  ○ A single project may involve the service provider identifying the total curtailable load at more than one customer facility,
	  ○ The project must be serviced by an Oncor interval data recorder (IDR) or advanced meter,
	  ○ The project must be located in Oncor's service area.
	• Applications: Via EEPM data tracking system

Marketing strategies and project sponsors	• Marketing strategies: Website and retailer partners, network and engagement with aggregation vendors. • Project sponsors: National or local ESCOs, REPs, or individual customers that identify interruptible load in their own facilities
Implementation and delivery	• Implementers: Third-party aggregator or individual customer
Measures/products, services, offerings	• Measure offerings: 2.6.2 Nonresidential Load Curtailment • Technical assistance: At the discretion of the project sponsor, not part of the program design • Incentives: are paid on a per kW-rate for actual curtailed load (or, in the event curtailment is not called, on a test event used to validate the availability of the load).

Commercial Load Management SOP	Summary
QA/QC	• Oncor does this by reviewing data recorded by electric meters and IDRs and calculating the demand savings achieved through the curtailment during the summer on-peak season.

Table 78 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 78. Commercial Load Management Standard Offer Program EM&V Plan[14]

Commercial Load Management SOP	Description	2024
Evaluation priority	The load management program is a *medium* priority in PY2024.	Medium
Key researchable issues	• Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data. Metered data review: Program rules require the installation of demand interval metering to record real-time participant demand profiles. A review of these data will verify program tracking data.	Census
	Data reviews: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates.	Census

5.4.2 Residential Load Management Standard Offer Program

Table 79. Residential Load Management Standard Offer Program Summary

Residential Load Management SOP	Summary
Program description	Oncor's Residential Load Management SOP provides incentives to participating service providers and aggregators to reduce peak electric demand at residential premises. The program engages Service Providers and Aggregators to provide demand response capability using remotely controlled load control devices in homes. The service providers will use various control strategies, such as pre-cooling and cycling, to reduce overall demand during the peak period. The participating providers are responsible for ensuring the presence of load control devices in participating residences. The actual demand savings will be determined by Oncor using advanced meter data in accordance with the Texas TRM. Program participants must be able to curtail load within 30 minutes, at any time, in response to ERCOT energy emergency alert (EEA) Level 2. With the exception of the scheduled curtailment event, curtailments will be called during or in anticipation of an ERCOT EEA Level 2 event, or to assure Oncor grid stability (grid emergencies).
Target markets	• The program targets single-family residential homes with central air conditioning using at least 1,000 kWh per month during the summer season.

[14] Includes Emergency Load Management Standard Offer Program.

Residential Load Management SOP	Summary
Marketing strategies and project sponsors	• Program vendor: Local and regional trade allies leveraged to recruit participants through AC system maintenance and sales ally networks.
Implementation and delivery	• The third-party vendor manages and controls implementation and DR event activation and utilizes trade ally subcontractors to sell and install DR thermostats.
Measures/products, services, offerings	• The third-party vendor manages and may offer competing air conditioner cycling options (30 percent, 50 percent, or 100 percent cycling) and perhaps employ pre-cool options to aid thermal carry through to aid participant persistence. • Incentives: are paid on a per kW-rate for actual curtailed load (or, in the event curtailment is not called, on a test event used to validate the availability of the load).
QA/QC	• Actual demand reductions will be determined by Oncor using advanced meter data.

Table 80 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 80. Residential Load Management Standard Offer Program EM&V Plan

Residential Load Management SOP	Description	2024
Evaluation priority	The residential demand response program is a *medium p*riority in PY2024.	Medium
Key researchable issues	• Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data.	Census
	Interval metered data review: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates in accordance with the TRM.	Census

5.5 RESIDENTIAL STANDARD OFFER

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Residential Standard Offer program in the utility's portfolio.

5.5.1 Home Energy Efficiency Standard Offer Program

Table 81. Home Energy Efficiency Standard Offer Program Summary

Home Energy Efficiency SOP	Summary
Program description	The Home Energy Efficiency SOP targets residential customers with existing homes. This program is designed to achieve energy and demand savings in the residential market with the installation of a wide range of energy-efficiency measures in homes and individually metered multi-family residences. Incentives are paid to Service Providers to help offset the cost of these energy efficiency measures. Oncor provides the incentive directly to the service provider. Incentives to customers vary by service provider, and no incentives for this program are paid directly to the customer by Oncor. Eligible energy-efficient measures include the replacement of air conditioning units, heat pumps, and attic insulation.
Target markets	• Market segments: Residential customers
	• Applications: Retrofit
Marketing strategies and project sponsors	• Marketing strategies: Oncor markets to trade organizations, cities and municipalities, manufacturers and distributors as well as project sponsors who develop their own marketing materials to be displayed via Oncor's website: https://oncor.com/takealoadofftexas
	• Project sponsors: General EESPs, REPs, contractors, energy service companies
Implementation and delivery	• Implementers: Oncor Standard Offer Program
Measures/products, services, offerings	• Measure offerings: Any Commission-approved measure included in the statewide Residential SOP template or any Commission-approved measure assigned a deemed savings value for the residential customer class is eligible under this SOP, including attic insulation, duct sealing, caulking/weatherstripping, air conditioning, heat pumps, water heaters, ENERGY STAR windows, refrigerators, dishwashers, clothes washers, solar window screens, window film, wall insulation, floor insulation, water heater jackets, and renewable energy sources • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the project sponsor, who then passes the rebates/incentives on at their discretion to end-use customer
QA/QC	• Post-on-site inspections, with confidence level at the program manager's discretion, usually around 15 percent of sites per contractor per invoice • Conducted by Oncor and contracted inspectors

Table 82 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 82. Home Energy Efficiency Standard Offer Program EM&V Plan

Home Energy Efficiency SOP	Description	2024
Evaluation priority	This program will receive a *medium* priority for PY2024 as the program has recently responded to TRM updates.	Medium
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	5

5.5.2 Residential Solar Photovoltaic Standard Offer Program

Table 83. Solar Photovoltaic Standard Offer Program Summary

Residential Solar PV SOP	Summary
Program description	The Solar Photovoltaic (PV) SOP provides incentives for the installation of solar systems that reduce customer energy costs, reduce peak demand, and save energy in existing residential customer structures. Incentives are paid to service providers based on savings calculations detailed in the Texas TRM for solar PV systems. Energy efficiency incentives are only eligible for projects that have or will include battery storage.
Target markets	• Market segments: Residential • Eligibility criteria: Residential system size between 3 $kW_{DC\ STC}$ to 15 $kW_{DC\ STC}$ • Applications: Retrofit

Marketing strategies and project sponsors	• Marketing strategies: Rely upon the marketing capabilities of the service providers to sell or lease the solar PV systems to eligible Oncor customers.
	• Project sponsors include:
	  ○ national or local ESCOs,
	  ○ national or local companies that provide energy-related services (e.g., contracting) or products,
	  ○ REPs, and
	  ○ self-sponsors whose commercial peak demand exceeds 50 kW.

Implementation and delivery	• Implementers: Utility Standard Offer Program

Residential Solar PV SOP	Summary
Measures/products, services, offerings	• Measure offerings: Solar PV • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the service provider, who then passes the rebates/incentives to the end-use customer at their discretion • Incentive values are calculated per-unit based on lifetime kW and kWh savings as defined by the Texas Technical Reference Manual.
QA/QC	• Pre-desk reviews for a census of projects • Post-on-site or desk inspections for a census of projects • Conducted by utility • The earlier pilot program required, "*All projects must include an electrical meter to measure the energy produced by the solar electric system.*" This data may be useful in evaluating the full program since the pilot and Solar PV SOP performance should be comparable.

Table 84 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 84. Residential Solar Photovoltaic Standard Offer Program EM&V Plan

Residential Solar PV SOP		2024
Evaluation priority	The Residential Solar SOP is a *high* priority in PY2024. The savings are from deemed measures.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are program goals established appropriately, and will they be met?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0

5.6 LOW-INCOME/HARD-TO-REACH STANDARD OFFER

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Low-Income and Hard-to-Reach program in the utility's portfolio.

5.6.1 Hard-to-Reach Standard Offer Program

Table 85. Hard-to-Reach Standard Offer Program Summary

Hard-to-Reach SOP	Summary
Program description	The Hard-to-Reach SOP targets residences with household incomes at or below 200% of the federal poverty guidelines. Premises that are qualified as low-income are validated utilizing the qualification requirements listed in Texas TRM volume 5. This program is designed to achieve energy and demand savings with the installation of a wide range of energy-efficiency measures. Service Providers implement energy-saving projects in homes located in Oncor's service area. Incentives are paid to the Service Providers to help offset the cost of the energy efficiency measures. Common improvements include ceiling insulation and air infiltration mitigation measures that are installed at low or no cost to the customer. Service providers must test for air leakage before and after installation when installing air infiltration measures. Oncor provides the incentive directly to the Service Provider. Qualifying measures are similar to those described for the Home Energy Efficiency SOP, plus air infiltration measures. Also included is the replacement of existing HV AC units in multifamily apartment complexes with high-efficiency heat pumps. The same income qualifications (household incomes at or below 200 percent of current federal poverty level guidelines) apply to the multifamily apartment program option.
Target markets	• Market segments: Low-income residential customers • Eligibility criteria: Participants must have a total annual household income at or below 200 percent of the federal poverty level. • Applications: Retrofit applications
Marketing strategies and project sponsors	• Marketing strategies: Oncor markets to trade organizations, and project sponsors develop their own marketing materials
Implementation and delivery	• Implementers: Oncor
Measures/products, services, offerings	• Measure offerings: Attic insulation, caulking/weatherstripping, HVAC (central air conditioning, heat pumps, window air conditioning), water heaters, showerheads, wall insulation, water heater jackets. • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the project sponsor, who then passes the incentives to the end-use customers at their discretion. Incentives are savings-based, paid on a $-per-kW + $-per-kWh saved basis.
QA/QC	• Post-on-site inspections, with confidence level at the program manager's discretion • Conducted by Oncor and contracted inspectors

Table 86 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 86. Hard-to-Reach Standard Offer Program EM&V Plan

Hard-to-Reach SOP	Description	2024
Evaluation priority	This program will receive a *medium* priority for PY2024 as the program has recently responded to TRM updates.	Medium
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	4

5.6.2 Low-Income Multi-Family Smart Thermostat Direct Install Market Transformation Program

Table 87. Low-Income Multi-Family Smart Thermostat Direct Install Market Transformation Program Summary

Low-Income Multi-Family Smart Thermostat Direct Install MTP	Summary
Program description	The Low-Income Multifamily Smart Thermostat Direct Install MTP is focused on replacing existing HV AC thermostats with ENERGY ST AR qualifying Smart Thermostats in multifamily properties with low-income residents and individually metered units. The targeted program will support efforts to reduce the energy burden for low-income customers and to increase awareness of the program, including outreach to property owners, managers, and service providers, as well as HVAC contractors, housing agencies, and community organizations. The goals of the program will be achieved through a cross-cutting multi-program outreach effort that will allow service providers a similar experience whether directly installing in commercial, residential, or hard-to-reach target markets.
Target markets	• Market segments: multifamily property owners, managers, and service providers, as well as HVAC contractors, housing agencies, and community organizations. • Eligibility criteria: premises identified as qualified low-income multifamily complexes per the low-income validation requirements listed in Texas TRM Volume 5.
Marketing strategies and project sponsors	• Marketing strategies: Outreach to leading property management companies in Texas, HVAC contractors that specialize in multifamily replacements, community organizations, and HVAC equipment manufacturers

Low-Income Multi-Family Smart Thermostat Direct Install MTP	Summary
Implementation and delivery	• Implementers: Program implementer (TBD)
Measures/products, services, offerings	• Measure offerings: 2.2.8 ENERGY STAR® Connected Thermostats • Incentives: $125 per qualified and installed thermostat
QA/QC	• Inspections conducted by the utility; alternative: a photo of the unit installed or another pre-approved method of installation verification. • If the project is low-income, then the Program implementer will review the documentation to validate the project's low-income status in compliance with the requirements listed in Texas TRM Volume 5.

Table 100 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 88. Low-Income Multi-Family Smart Thermostat Direct Install Market Transformation Program EM&V Plan

Low-Income Multi-Family Smart Thermostat Direct Install MTP	Description	2024
Evaluation priority	The Low-Income Multi-Family Smart Thermostat Direct Install MTP program is a *high* priority in PY2024.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0
	Consumption analysis: The EM&V team will conduct a targeted consumption analysis to evaluate energy and demand impacts. The PY2024 consumption analysis will help all stakeholders better understand the savings resulting from measures installed through this program and inform prospective updates to the TRM for PY2026.	Census
	Participant surveys: Interviews will be completed with participants and REPs	Census sample to meet 90/10

5.6.3 Low-Income HVAC Tune-up Market Transformation Program

Table 89. Low-Income HVAC Tune-up Market Transformation Program Summary

Low-Income HVAC Tune-Up MTP	Summary
Program description	The Low-Income HVAC Tune-Up MTP is designed to overcome market barriers that prevent low-income residential customers from receiving high-performance air-conditioning system tune-ups. The program offers system tune-ups to low-income qualified customers at little to no additional cost to the customer to help alleviate the energy burden that most low-income customers face during the summer months. The program is designed to work through local networks to offer key program components, including: • Training and certifying technicians on the tune-up and airflow correction services and protocols. • Paying incentives to contractors for the successful implementation of a tune-up and air flow correction services.
Target markets	• Market segments: Residential • Eligibility criteria: Hard-to-Reach residential customers per the low-income validation requirements listed in Texas TRM Volume 5
Marketing strategies and project sponsors	• Marketing strategies: The program implementer's marketing approach for the program includes: o Marketing the program through contractors o Working with existing low-income weatherization program participants o Marketing the programs through market allies o Collaborate with Oncor on marketing campaigns.
Implementation and delivery	• Implementers: CLEAResult
Measures/products, services, offerings	• Measure offerings: Residential air conditioner and heat pump tune-ups measure listed in the Texas TRM volume 2 and airflow correction services. • Incentives: Paid to HVAC contactors through implementer. Incentives for HVAC tune up are between $125 - $150 per system for multifamily units and $200 per system for single family units.
QA/QC	• The program implementer will contact the customer directly to verify that the system was serviced according to the program requirements. • A statistically significant percentage of projects (estimated at five to eight percent) submitted by program-enrolled contractors selected randomly will be inspected. In addition, automated error checks are incorporated into the program applications and the program's project database. • The program implementer will review and process 100 percent of the completed applications, isolating any documentation deficiencies or engineering issues before approving an incentive.

Table 100 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 90. Low-Income HVAC Tune-up Pilot Management Market Transformation Program EM&V Plan

Low-Income HVAC Tune-up Pilot MTP	Description	2024
Evaluation priority	The Low-Income HVAC Tune-up Pilot MTP program is a *high* priority in PY2024.	High

Low-Income HVAC Tune-up Pilot MTP	Description	2024
Key researchable issues	• Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0
	Consumption analysis: The EM&V team will conduct a targeted consumption analysis to evaluate energy and demand impacts. The PY2024 consumption analysis will help all stakeholders better understand the savings resulting from measures installed through this program and inform prospective updates to the TRM for PY2026.	Census
	Participant surveys: Interviews will be completed with HVAC tune-up participants	Census sample to meet 90/10

5.6.4 Targeted Weatherization Low-Income Standard Offer Program

Table 91. Targeted Weatherization Low-Income Standard Offer Program Summary

Targeted Weatherization Low-Income SOP	Summary
Program description	The Targeted Low-Income Weatherization SOP program is designed to meet the program requirements outlined in PURA §39.905 and TAC §25.181 by working with community action agencies and program implementers. Oncor is implementing TLIW SOP through the Texas Association of Community Action Agencies, which provides funds to designated federal Weather Assistance Program sub-recipient agencies, enabling them to provide weatherization services to residential electric distribution customers of Oncor who have household incomes at or below 200 percent of current federal poverty level guidelines Energy efficiency measures installed include aerators, ceiling insulation, air infiltration, central air conditioning units, central heat pumps, floor insulation, ENERGY STAR refrigerators, dishwashers, clothes washers and windows, showerheads, window air conditioning units, wall insulation, water heater jackets, and water heater pipe insulation. The TLIW SOP also includes the replacement of HVAC units in multifamily apartment complexes with high-efficiency heat pumps for income-qualifying customers. The Targeted Weatherization Low-Income SOP provides weatherization and energy-efficiency measures to residential customers that meet the Department of Energy's Weatherization Assistance program income-eligibility guidelines and cost-effectiveness criteria (savings-to-investment ratio). The utility contracts program implementers to conduct outreach, participant targeting, and program delivery, including home audits and installations.

Targeted Weatherization Low-Income SOP	Summary
Target markets	• Market segments: Residential HTR customers • Eligibility criteria: Participants must have a total annual household income at or below 200 percent of the federal poverty level. • Applications: Retrofit applications
Marketing strategies and project sponsors	• Marketing strategies: Project sponsors develop their own marketing materials. • Project sponsors: Texas Department of Housing and Community Affairs (TDHCA) sub-recipients and other not-for-profit community action and government agencies • Project sponsors: Designated federal Weather Assistance Program (WAP) sub-recipient agencies
Implementation and delivery	• Implementers: Texas Association of Community Action Agencies (TACAA) and EnerChoice
Measures/products, services, offerings	• Measure offerings: Attic insulation, duct sealing, and caulking/weatherstripping around doors and windows, central air conditioning units, central heat pumps, window air conditioning units, installation of ENERGY STAR refrigerators, solar window screens, wall insulation, water-saving devices, and water heater jackets • Technical assistance: At the discretion of the project sponsor, not part of the program design • Incentives: Provided to subrecipients that buys down the cost for end-use customers.
QA/QC	• Post-on-site inspections, with confidence level at the program manager's discretion • Conducted by Oncor, EnerChoice, and contracted inspectors

Table 92 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 92. Targeted Weatherization Low-Income Standard Offer Program EM&V Plan

Targeted Weatherization Low-Income SOP	Description	2024
Evaluation priority	Senate Bill 1434 requires transmission and distribution utilities to spend ten percent of their energy-efficiency budget on targeted low-income weatherization programs. This program is a *medium* priority for impact assessment in PY2024.	Medium
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census

Targeted Weatherization Low-Income SOP	Description	2024
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	2

5.7 RESIDENTIAL MARKET TRANSFORMATION

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Residential Market Transformation program in the utility's portfolio.

5.7.1 Multi-Family Smart Thermostat Direct Install Market Transformation Program

Table 93. Multi-Family Smart Thermostat Direct Install Market Transformation Program Summary

Multi-Family Smart Thermostat Direct Install MTP	Summary
Program description	The Multifamily Smart Thermostat Direct Install is focused on replacing existing HV AC thermostats with ENERGY STAR-qualifying Smart Thermostats in multifamily properties with a residential rate classification (individually metered). The program will support efforts to increase awareness of the program, including outreach to property owners, managers, and service providers, as well as HVAC contractors, housing agencies, and community organizations. The goals of the program will be achieved through a cross-cutting multi-program outreach effort that will allow service providers a similar experience whether directly installing in commercial, residential, or hard-to-reach target markets.
Target markets	• Market segments: multifamily property owners, managers, and service providers, as well as HVAC contractors, housing agencies, and community organizations. • Eligibility criteria: premises identified as residential multi-family complexes.
Marketing strategies and project sponsors	• Marketing strategies: Outreach to leading property management companies in Texas, HVAC contractors that specialize in multifamily replacements, community organizations, and HVAC equipment manufacturers
Implementation and delivery	• Implementers: EnerChoice
Measures/products, services, offerings	• Measure offerings: 2.2.8 ENERGY STAR® Connected Thermostats • Incentives: $125 per qualified installed smart thermostat
QA/QC	• Inspections conducted by the utility; alternative: a photo of the unit installed or another pre-approved method of installation verification. • If the project is low-income, then the Program implementer will review the documentation to validate the project's low-income status in compliance with the requirements listed in Texas TRM Volume 5.

Table 100 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 94. Multi-Family Smart Thermostat Direct Install Market Transformation Program EM&V Plan

Multi-Family Smart Thermostat Direct Install MTP	Description	2024
Evaluation priority	The Multi-Family Smart Thermostat Direct Install MTP program is a *high* priority in PY2024.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0
	Consumption analysis: The EM&V team will conduct a targeted consumption analysis to evaluate energy and demand impacts. The PY2024 consumption analysis will help all stakeholders better understand the savings resulting from measures installed through this program and inform prospective updates to the TRM for PY2026.	Census
	Participant surveys: Interviews will be completed with participants and REPs, if applicable	Census sample to meet 90/10

5.7.2 Residential New Home Construction Market Transformation Program

Table 95. Residential New Home Construction Market Transformation Program Summary

Residential New Home Construction MTP	Summary
Program description	Residential New Home Construction is a market transformation program designed to facilitate technical and financial assistance to home builders and energy raters to transform and deliver cost-effective energy savings on single-family new construction projects within the Oncor service territory. The program allows home builders and buyers the flexibility to take advantage of multiple technologies for efficient homes by incentivizing prescriptive measures, which include HVAC, heat pumps, smart thermostats, heat pump water heaters, ENERGY STAR EV supply equipment, ENERGY STAR appliances, and roof-mounted solar PV. The goal of the program is to increase the availability of high-performance new homes by aligning with nationally recognized above-code home programs such as ENERGY STAR-certified and DOE Zero Energy Ready (DOE ZER) single and multifamily homes.
Target markets	• Market segments: Residential home builders • Applications: New construction

Residential New Home Construction MTP	Summary
Marketing strategies and project sponsors	• Marketing strategies: Oncor plans to market the availability of this program in the following manner: ○ Program implementers market direct to homebuilders and home energy rating providers through existing networks, homebuilders associations, and email solicitations. ○ Oncor maintains the Take a Load off Texas website and provides printed collateral for remote and in-person solicitation..
Implementation and delivery	• Implementers: TRC Engineers, Inc
Measures/products, services, offerings	• Measure offerings: Whole House envelope, AHRI certified HVAC systems, ENERGY STAR Heat Pump Water Heaters, kitchen/laundry appliances, EVSE and solar PV. • Technical assistance: Oncor pays a stipend directly to RESNET HERS providers for providing program material and home energy efficiency guidance to homebuilders. HERS Raters are paid by homebuilders to act as their certified home energy experts. Program implementers provides best practices and guidance to HERS Raters, who in turn advise and consult homebuilders • Rebates/incentives: Fixed incentives for M&V based Whole House measure which requires eligibility with an above code certification program (ENERGY STAR and DOE Zero Energy Ready). Deemed measure incentives that target specific end uses are also available.
QA/QC	• Incentive application data is validated against the national RESNET HERS Registry of new homes, where only active, certified HERS Raters can submit. 10% of each Project is verified against field data for consistency with incentive application (a Project is a HERS Raters batch submission of homes). HVAC system efficiencies are validated against the AHRI database and appliance efficiencies are confirmed with the ENERGY STAR appliance database.

Table 96 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 96. Residential New Home Construction Market Transformation Program EM&V Plan

Residential New Home Construction MTP	Description	2024
Evaluation priority	The Residential New Home Construction MTP will receive a *low* priority for PY2024.	Low
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are program goals established appropriately, and will they be met?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census

5.7.3 Retail Platform Market Transformation Program

Table 97. Retail Platform Market Transformation Program Summary

Retail Platform MTP	Summary
Program description	The Retail Platform MTP provides incentives directly to residential customers through an online marketplace, in-store point-of-sale discounts, and retailer coupons for the purchase of ENERGY STAR-qualified products like smart thermostats, heat pump water heaters, room air conditioners, and more. The Program is partnership-based and delivers qualified product measures by contracting with major market manufacturers and through cooperation with their retail alliance partners. Oncor customers can find participating locations, obtain a coupon, or buy online by visiting www.smartsavingstx.com. **2024 Program Design Update:** Incentives will no longer be offered on LED light bulbs due to the sunsetting of the measure in the Texas TRM. A pilot component to engage Retail Electric Providers as a delivery method for smart thermostats was added mid-year in 2024.
Target markets	• Market segments: Residential customers located in Oncor's service territory • Applications: In-store purchases and online marketplace

Marketing strategies and project sponsors	• Marketing strategies: Oncor plans to market the availability of this program in the following manner:
	  ○ Oncor's program implementer contracts with major market manufacturers and their retailer alliance partners.
	  ○ Marketing strategies also include digital marketing via Google and Meta ads, and Takealoadofftexas.com website

Implementation and delivery	• Implementers: CLEAResult • REP pilot component: Oncor
Measures/products, services, offerings	• Measure offerings: Advance Power Strips, ENERGY STAR appliances, including; SHEMS, Clothes Dryers, Clothes Washer, Thermostat, Heat Pump Water Heaters, Room AC and Air Purifier, as well as LED nightlights and pipe insulation • Technical assistance: A dedicated team of four customer service specialists support RPP & Marketplace that can be reached via email or phone, info@smartsavingstx.com or (888) 881-9020. • Rebates/incentives: In-store and online discounts directly to the customer
QA/QC	• Shipping reports are received from manufacturers, and CLEAResults field representatives actively visit stores to guarantee that products arrive on time and are placed on the shelves correctly. The field reps take the initiative to move products and set up point-of-purchase (POP) displays while documenting their efforts with photographs. The manufacturer partners send CLEAResult point-of-sale (POS) data, they are required to include a signed certification that confirms the accuracy of this information. This requirement solidifies our trust in their reporting. The POS data delivers essential insights into the date of sale, models sold, quantities, and store locations, empowering us to make strategic decisions that drive success.

Table 98 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 98. Retail Platform Market Transformation Program EM&V Plan

Retail Platform MTP	Description	2024
Evaluation priority	The Retail Platform MTP will receive *high* priority for PY2024.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are program goals established appropriately, and will they be met?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	4
	Process interviews: The EM&V team will interview Oncor program design and delivery staff to understand successes and challenges of the REP pilot component.	3

5.8 PILOTS

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Pilot program in the utility's portfolio.

5.8.1 Commercial Winter Load Management Standard Offer Program (Pilot)

Table 99. Commercial Winter Load Management Standard Offer Program (Pilot) Summary

Commercial Winter Load Management SOP	Summary
Program description	The Commercial Winter Load Management SOP incentivizes participating service providers, aggregators, retail electric providers (REP), or end-use customers to curtail electric demand in the winter season. Participants must be available to curtail 24 hours a day, seven days a week, and be capable of curtailing load within 30 minutes' notice. The minimum load reduction that may be subscribed in the program is 100 kW. Participants must curtail a minimum of 90% of their contracted demand reduction across all events to be eligible for payment. Final program payments are determined by established program rules and TRM calculations. With the exception of the scheduled curtailment event, curtailments will be called during or in anticipation of an ERCOT EEA Level 2 event, or to assure Oncor grid stability (grid emergencies).

Target markets	• Market segments: Large commercial and industrial businesses
	• Eligibility criteria:
	  ○ Each participant must subscribe at least 100 kW of load reduction.
	  ○ Capable of curtailing within 30 minutes of notification.
	  ○ The project must be serviced by an Oncor interval data recorder (IDR) or advanced meter.
	  ○ The project must be located in Oncor's service area.

Marketing strategies and project sponsors	• Marketing strategies: Direct outreach to customers, aggregation groups, and REPs. Account management organization to offer to managed accounts.

Commercial Winter Load Management SOP	Summary
Implementation and delivery	• Implementers: Third-party implementer or individual customer
Measures/products, services, offerings	• Measure offerings: 2.6.2 Nonresidential Load Curtailment • Incentives are paid on a per kW-rate for actual curtailed load (or, in the event curtailment is not called, on a test event used to validate the availability of the load).
QA/QC	• Oncor does this by reviewing data recorded by electric meters and IDRs and calculating the demand savings achieved through the curtailment during the winter peak season.

Table 100 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 100. Commercial Winter Load Management Standard Offer Program (Pilot) EM&V Plan

Commercial Winter Load Management SOP	Description	2024
Evaluation priority	The load management program is a *medium* priority in PY2024.	Medium
Key researchable issues	• How should utilities perform curtailment test with respect to a dual peak demand period? Are there outside regulations that prevent generator-based curtailments from testing during early morning or later evening hours? • Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data. Metered data review: Program rules require the installation of demand interval metering to record real-time participant demand profiles. A review of these data will verify program tracking data.	Census
	Data reviews: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates.	Census

5.8.2 Residential Winter Load Management Standard Offer Program (Pilot)

Table 101. Residential Winter Load Management Standard Offer Program (Pilot) Summary

Residential Winter Load Management SOP	Summary
Program description	The Residential Winter Load Management SOP is designed to help residences reduce their winter energy demand on the Oncor grid when needed and help meet state energy efficiency goals. Incentives are paid to residential participants who curtail their electricity demand during a scheduled curtailment event and during called curtailments throughout the winter period, which can occur 24/7 from December 1, 2023, through May 31, 2024. The peak period is defined as 6:00 a.m. to 10:00 a.m. and 6:00 p.m. to 10:00 p.m. The program is designed to be a load-shedding resource that helps prevent rolling curtailments during grid emergencies. The program is called when ERCOT anticipates or is in an EEA level 2 grid emergency. An EEA-2 is called just prior to rolling outages at EEA-3. With the exception of the scheduled curtailment event, curtailments will be called during or in anticipation of an ERCOT EEA Level 2 event, or to assure Oncor grid stability (grid emergencies).

Target markets	• Market segments: REPs
	A project is a group of eligible sites submitted by a participant. The project is assigned a unique identifier.
	• Eligibility criteria:
	  ○ A project must include potential demand savings from at least 500 residential customers during the winter period. The minimum project size may be adjusted by Oncor based on program performance requirements.
	  ○ Each eligible site is defined as an individual ESIID and meets the following criteria:
	  ▪ Located within the Oncor service territory.
	  ▪ Has an Oncor advanced metering infrastructure (AMI) or interval data recorder (IDR) meter to measure electricity demand.
	  ▪ On a residential service rate class.
	  ▪ Does not participate in an Electric Reliability Council of Texas (ERCOT) load curtailment program while enrolled in the Oncor program.
	  ▪ The residential customer has agreed to participate in a load management program.

Marketing strategies and project sponsors	• Marketing strategies: Outreach through REPs.
Implementation and delivery	• Implementers: Third-party implementer or individual customer
Measures/products, services, offerings	• Measure offerings: 2.6.1 Residential Load Curtailment • Incentives are paid on a per kW-rate for actual curtailed load (or, in the event curtailment is not called, on a test event used to validate the availability of the load).
QA/QC	• Oncor does this by reviewing data recorded by electric meters and IDRs and calculating the demand savings achieved through the curtailment during the winter peak season.

Table 100 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 102. Residential Winter Load Management Standard Offer Program (Pilot) EM&V Plan

Residential Winter Load Management SOP	Description	2024
Evaluation priority	The load management program is a *medium* priority in PY2024.	Medium
Key researchable issues	• How should a dual peak period inform scheduling test events? • Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data. Metered data review: Program rules require the installation of demand interval metering to record real-time participant demand profiles. A review of these data will verify program tracking data.	Census
	Data reviews: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates.	Census

6.0 TNMP

This section addresses the energy efficiency and load management portfolio for TNMP. The overall portfolio[15] is summarized below, followed by details for each program in the portfolio.

6.1 PORTFOLIO OVERVIEW

Table 103 shows the projected energy and demand savings for the TNMP programs for PY2024.

Table 103. TNMP—PY2024 Projected Demand and Energy Savings

Program category	Program name	Program type	PY2024 demand savings (kW)	Percentage of total portfolio (demand)	PY2024 energy savings (kWh)	Percentage of total portfolio (energy)
Commercial MTP	Small Business MTP	Small Business DI	600	4	1,392,875	10
Commercial MTP	SCORE/CitySmart MTP	CitySmart/SCORE/ Government MTP	680	4	2,880,000	20
Commercial MTP	Commercial Solutions MTP	Commercial Solutions MTP	875	5	4,595,000	32
Commercial Load Management	Winter Load Management Pilot	Commercial Load Management SOP	1,500	9	1,500	0
Commercial Load Management	Summer Load Management	Commercial Load Management SOP	10,000	61	10,000	0
LI/HTR SOP	Hard-to-Reach (HTR) SOP	HTR SOP	473	3	817,000	6
LI/HTR SOP	Low-Income Weatherization	Low-Income/HTR Weatherization Programs	498	3	850,943	6
Residential MTP	High-Performance Homes MTP	New Home Construction MTP	532	3	1,453,177	10
Residential SOP	Residential SOP	Residential SOP	1,258	8	2,448,000	17

Next, we present two summary tables for each program in the TNMP portfolio. Each table provides a high-level overview of the applicable programs. The overview is based on a review of program documentation and discussions with utilities, PUCT, and implementation contractors. This information is followed by the Evaluation, Measurement, and Verification (EM&V) Plan for the program, which includes the evaluation priority, key researchable questions, and EM&V activities.

[15] See Texas-New Mexico Power's Application to Adjust Its Energy Efficiency Cost Recovery Factor filed on May 31, 2024, under Docket Number 56657.

In addition to program-specific researchable questions listed in the EM&V Plan, the following researchable issues will be investigated portfolio-wide:

- What are the drivers of differences, if any, between claimed and evaluated savings?
- Are the program provisions for quality assurance and control adequate?

6.2 COMMERCIAL MARKET TRANSFORMATION

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Commercial Market Transformation program in the utility's portfolio.

6.2.1 Commercial Solutions Market Transformation Program

Table 104. Commercial Solutions Market Transformation Program Summary

Commercial Solutions MTP	Summary
Program description	The Commercial Solutions MTP targets commercial customers (other than governmental and educational entities) that do not have the in-house expertise to (1) identify, evaluate, and undertake energy efficiency improvements, (2) properly evaluate energy efficiency proposals from vendors, or (3) understand how to leverage their energy savings to finance projects. Incentives are paid to TNMP customers or third-party contractors for eligible energy efficiency measures that are installed in new or retrofit applications, resulting in savings as defined by the Texas Technical Reference Manual ("TRM").
Target markets	• Market segments: Commercial facilities (other than government and education) • Eligibility criteria: Commercial facilities within TNMP's service territory • Applications: Retrofit or new construction projects
Marketing strategies and project sponsors	• Marketing strategies: TNMP plans to market the availability of this program in the following manner: o contract with a third-party implementer to conduct outreach and planning activities; o target a number of customer participants; o conduct workshops for program participants and industry professionals as necessary to explain elements of the program, such as responsibilities of the participants, project requirements, incentive information, and the application and reporting process; o participate in regional outreach activities as may be necessary; and o attend appropriate industry-related meetings to generate awareness and interest. • Project sponsors: Partner required
Implementation and delivery	• Implementers: CLEAResult is the third-party implementer.
Measures/products, services, offerings	• Measure offerings: HVAC, lighting, motors, window film, roofing, fuel switching, or others that may require M&V planning and metering • Technical assistance: Includes communications support in addition to identification and evaluation of energy efficiency measures • Rebates/incentives: Provided to the end-use customer or project sponsor o kW (demand savings): $50–$200 per kW (varies by measure type) o kWh (energy savings): $0.02–$0.04 per kWh (varies by measure type)

Commercial Solutions MTP	Summary
QA/QC	• Pre- and post-on-site inspections for 100 percent of projects • Pre- and post-inspection conducted by a third-party implementer • In addition, some verification conducted by the utility

Table 105 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 105. Commercial Solutions Market Transformation Program EM&V Plan

Commercial Solutions MTP	Description	2024
Evaluation priority	The Commercial Solutions MTP is a *high* priority in PY2024. The majority of savings are from deemed measures with some custom measures.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace? • Is the current mixture of rebated measures still appropriate, or could some measures be included or removed? • What changes to the program design and delivery may improve program performance? • Have the changes in equipment baselines affected the program's ability to meet goals? Are there viable strategies the program can adopt to adapt to the changing codes and standards climate to meet and exceed set goals given the new baselines?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	3
	Participant surveys: Interviews will be completed with participants for smart thermostats and for HVAC tune-ups	Census sample to meet 90/10

6.2.2 SCORE/CitySmart Market Transformation Program

Table 106. SCORE/CitySmart Market Transformation Program Summary

SCORE/CitySmart MTP	Summary
Program description	The SCORE/CitySmart MTP provides energy efficiency and demand reduction solutions for school and local government customers. The program is designed to help educate and assist these customers in lowering their energy use by facilitating the integration of energy efficiency into their short and long-term planning, budgeting, and operational practices. The program provides assistance in areas such as energy master planning; energy performance benchmarking; and identifying, assessing, and implementing energy efficiency measures. Energy efficiency improvements include capital-intensive projects and implementing operational and maintenance practices and procedures. Financial incentives are provided for energy efficiency measures that reduce peak electricity demand.
Target markets	• Market segments: Education and government facilities • Eligibility criteria: Education and government facilities within TNMP's service territory • Applications: Retrofit or new construction projects

Marketing strategies and project sponsors	• Marketing strategies: TNMP plans to market the availability of this program in the following manner:
	  ○ Coordinates with internal resources (i.e., employees, designers, and customer liaisons);
	  ○ contract with a third-party implementer to conduct outreach and planning activities;
	  ○ target a number of customer participants;
	  ○ participate in regional outreach activities as may be necessary; and
	  ○ attend appropriate industry-related meetings to generate awareness and interest.
	• Project sponsors: Utility

Implementation and delivery	• Implementers: CLEAResult is the third-party implementer.
Measures/products, services, offerings	• Measure offerings: HVAC, lighting, motors, variable frequency drives, window film, roofing, or others that may require M&V planning and metering • Technical assistance: Includes communications support, financing assistance, performance benchmarking, and energy master planning workshops, in addition to identifying energy efficiency measures. • Rebates/incentives: Provided to the end-use customer
QA/QC	• Pre- and post-on-site inspections for 100 percent of projects • Pre- and post-inspection conducted by a third-party implementer • In addition, some verification conducted by the utility

Table 107 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 107. SCORE/CitySmart Market Transformation Program EM&V Plan

SCORE/CitySmart MTP	Description	2024
Evaluation priority	The SCORE/CitySmart MTP is a *high* priority in PY2024. The majority of savings are from deemed measures with some custom measures.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace? • Is the current mixture of rebated measures still appropriate, or could some measures be included or removed? • What changes to the program design and delivery may improve program performance? • Have the changes in equipment baselines affected the program's ability to meet goals? Are there viable strategies the program can adopt to adapt to the changing codes and standards climate to meet and exceed set goals given the new baselines?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	3
	Participant surveys: Interviews will be completed with participants for smart thermostats and for HVAC tune-ups	Census sample to meet 90/10

6.2.3 Small Business Market Transformation Program

Table 108. Small Business Market Transformation Program Summary

Small Business MTP	Summary
Program description	The Open for Small Business MTP assists small business customers that do not have the in-house capacity or expertise to (1) identify, evaluate, and undertake energy efficiency improvements; (2) properly evaluate energy efficiency proposals from vendors; or (3) understand how to leverage their energy savings to finance projects. Financial incentives are provided directly to the contractor, thereby reducing a portion of the project cost for the customer. Small-sized customers (<200 kW) tend to implement smaller projects with lower savings, which creates program cost-effectiveness challenges to providing one-on-one technical assistance to this market. The Small Business MTP provides the direct support, tools, and training necessary to contractors to pursue small commercial customers.

Small Business MTP	Summary
Target markets	• Market segments: Small commercial facilities • Eligibility criteria: Small commercial facilities within TNMP's service territory and with peak demands ≤200 kW • Applications: Retrofit

Marketing strategies and project sponsors	• Marketing strategies: TNMP plans to market the availability of this program in the following manner:
	  ○ maintain a website containing the requirements for project participation, forms required for project submission, and the links to databases containing currently-available funding; and
	  ○ leverage small business associations, government agencies, and service providers to serve program customers.
	• Project sponsors: Contractors

Implementation and delivery	• Implementers: CLEAResult is the third-party implementer.
Measures/products, services, offerings	• Measure offerings: HVAC (and controls), lighting (and controls), roofing, refrigeration, and food service • Technical assistance: Energy assessment provided by the contractor • Rebates/incentives: Provided to the contractor ○ kW (demand savings): $550–$700 per kW (varies by measure type) • Program direct install: Direct install approach
QA/QC	• Pre- and post-on-site inspections for 100 percent of projects of the first five projects, and ongoing 100 percent of documentation and 20 percent of installations • Pre- and post-inspection conducted by a third-party implementer • In addition, some verification conducted by the utility

Table 109 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 109. Small Business Market Transformation Program EM&V Plan

Small Business MTP	Description	2024
Evaluation priority	The Small Business MTP is a *low* priority in PY2024. The savings are from deemed measures.	Low
Key researchable issues	• What are the challenges and opportunities to serve this hard-to-reach business sector? • How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace? • Is the current mixture of rebated measures still appropriate, or could some measures be included or removed? • What changes to the program design and delivery may improve program performance? • Have the changes in equipment baselines affected the program's ability to meet goals? Are there viable strategies the program can adopt in order to adapt to the changing codes and standards climate to meet and exceed set goals given the new baselines?	
Program evaluation approach	Program tracking system review: Review tracking data for a sample of projects. Ensure all project activity is included and check for consistency with reported savings in annual utility reports.	Census
	Desk reviews: For a sample of projects, review savings calculations, along with other available project documentation, to independently estimate energy savings and develop project-level realization rates.	0
	Participant surveys: Interviews will be completed with participants for smart thermostats and participants and contractors for HVAC tune-ups	Census sample to meet 90/10

6.3 LOAD MANAGEMENT

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Load Management program in the utility's portfolio.

6.3.1 Summer Load Management SOP

Table 110. Summer Load Management Standard Offer Program Summary

Summer Load Management SOP	Summary
Program description	The Summer Load Management Program ("SLMP"), formerly the Load Management SOP) was launched in 2009 in accordance with 16 TAC § 25.181, which authorizes participating Project Sponsors (customers or third-party sponsors) to provide on-call, voluntary curtailment of electric consumption during peak demand periods in return for incentive payments. The program has been renamed to avoid confusion with the Winter Load Management Pilot Program. Incentives are based on verified demand savings that occur at TNMP distribution sites or eligible institutional customers' sites as a result of calls for curtailment. Customers are not required to produce a specific level of curtailed load but will only receive payments for the lesser of the amount of curtailed load produced or contracted.

Target markets	• Market segments: Commercial and industrial businesses
	• Eligibility criteria:
	  ○ TNMP prefers that project sponsors be capable of providing at least 50 kW of peak demand reduction at each site for which load reduction is offered into the program. However, TNMP may accept applications, including sites providing less than 50 kW of peak demand reduction to meet its peak load reduction targets.
	  ○ Customers must have an interval data recorder or AMS meter.
	  ○ All included project sites must be nonresidential customers of TNMP taking service at the distribution level or nonprofit customers or government entities, including educational institutions.
	• Applications: Accepted annually

Marketing strategies and project sponsors	• Marketing strategies: TNMP plans to market the availability of this program in the following manner:
	  ○ maintain a website containing the requirements for project participation, forms required for project submission, and the links to databases containing currently-available funding; and
	  ○ leverage of retail providers.
	• Project sponsors: National or local EESPs, REPs, or individual customers identifying interruptible load in their own facilities.

Implementation and delivery	• TNMP is the program implementer.
Measures/products, services, offerings	• Measure offerings: N/A • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: TNMP will pay a participating customer (or the project sponsor, if different) $40 per kW of verified curtailed load each year of participation

Summer Load Management SOP	Summary
QA/QC	• TNMP will verify actual demand savings from interruptions.

Table 111 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 111. Summer Load Management Standard Offer Program EM&V Plan

Summer Load Management SOP	Description	2024
Evaluation priority	The load management program is a *medium* priority in PY2024.	Medium
Key researchable issues	• Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data. Metered data review: Program rules require the installation of demand interval metering to record real-time participant demand profiles. A review of these data will verify program tracking data.	Census
	Data reviews: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates.	Census

6.3.2 Winter Load Management Standard Offer Program

Table 112. Winter Load Management Standard Offer Program Summary

Winter Load Management Standard Offer Program	Summary
Program description	The TNMP Winter Load Management Standard Offer Program ("WLMPP") was launched in December 2021 with an operating period of December 1, 2021-February 28,2022 in accordance with Senate Bill 33, which, among other things, requires the Commission to "allow a transmission and distribution utility to design and operate a load management program for nonresidential customers to be used where the independent organization certified under [PURAI Section 39.151 for the ERCOT power region has declared a level 2 Emergency or higher level of emergency or has otherwise directed the transmission and distribution utility to shed load." The WLMPP operated from December 1,2022-February 28, 2024, under the energy efficiency portfolio in accordance with 16 TAC § 25.181, which authorizes participating Project Sponsors (customers or third-party sponsors) to provide on-call, voluntary curtailment of electric consumption during peak demand periods in return for incentive payments. Incentives are based on verified curtailed demand savings that occur as a result of calls to request curtailment. Customers are not required to produce a specific level of curtailed load but will only receive payments based on verified demand savings of the contracted amount of curtailable load.

Winter Load Management Standard Offer Program	Summary

Target markets	• Market segments: Commercial and industrial businesses
	• Eligibility criteria:
	  ○ TNMP prefers that project sponsors be capable of providing at least 50 kW of peak demand reduction at each site for which load reduction is offered into the program. However, TNMP may accept applications, including sites providing less than 50 kW of peak demand reduction to meet its peak load reduction targets.
	  ○ Customers must have an interval data recorder or AMS meter.
	  ○ All included project sites must be nonresidential customers of TNMP taking service at the distribution level or nonprofit customers or government entities, including educational institutions.
	• Applications: Accepted annually

Marketing strategies and project sponsors	• Marketing strategies: TNMP plans to market the availability of this program in the following manner:
	  ○ Utilize mass electronic mail (e-mail) notifications to keep potential participants interested and informed
	  ○ Maintain a website containing the requirements for project participation, forms required for project submission, and the links to databases containing currently-available funding.
	• Project sponsors: National or local EESPs, REPs, or individual customers identifying interruptible load in their own facilities.

Implementation and delivery	• TNMP is the program implementer.
Measures/products, services, offerings	• Measure offerings: N/A • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: TNMP will pay a participating customer (or the project sponsor, if different) $40 per kW of verified curtailed load each year of participation
QA/QC	• TNMP will verify actual demand savings from interruptions.

Table 111 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 113. Winter Load Management Standard Offer Program EM&V Plan

Winter Load Management Standard Offer Program	Description	2024
Evaluation priority	The load management program is a *medium* priority in PY2024.	Medium
Key researchable issues	• Are sponsor-provided savings inputs and parameters accurate? • Are utility verification regimes sufficient and reliable?	

Winter Load Management Standard Offer Program	Description	2024
Program evaluation approach	Program tracking data review: Review data for accuracy and alignment with demand interval metered data.	Census
	Metered data review: Program rules require the installation of demand interval metering to record real-time participant demand profiles. A review of these data will verify program tracking data.	
	Data reviews: Review participant interval-load data. Periods ahead of, during, and following load interruption notices will verify load reduction and persistence during demand response events and provide a comparison to similar-condition non-interrupt baseline days to validate impact estimates.	Census

6.4 RESIDENTIAL MARKET TRANSFORMATION

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Residential Market Transformation program in the utility's portfolio.

6.4.1 High-Performance Homes Market Transformation Program

Table 114. High-Performance Homes Market Transformation Program Summary

High-Performance Homes MTP	Summary
Program description	The High-Performance Homes MTP provides financial incentives and other types of assistance to production and custom homebuilders who commit to constructing homes within the TNMP service territory that meet program specifications. The homebuilder's primary responsibility is to design, build, and market homes that comply with program requirements and achieve a five percent kWh savings or greater over the Texas baseline. The rater's primary responsibility is to work with homebuilders to facilitate the construction of ENERGY STAR®-certified and high-performance homes that meet the performance requirements for the program. Incentives are paid to builders to improve the home's overall efficiency compared to the Texas baseline home defined in the Texas TRM. The program includes an alternate qualification method for midstream HVAC installations that focuses solely on the HVAC systems in new homes.

High-Performance Homes MTP	Summary

Target markets	• Market segments: Homebuilders, raters, and HVAC contractors
	• Eligibility criteria: TNMP's program is for builders and raters who build new homes in TNMP's service territory. To be eligible, builders must:
	  ○ submit required documentation from energy-rating software,
	  ○ provide a copy of Air Conditioning, Heating, and Refrigeration Institute certificates, and
	  ○ provide ENERGY STAR certificates, if applicable.
	  ○ Midstream HVAC homes must meet a minimum SEER/HSPF requirement.
	• To be eligible for payment, homes must:
	  ○ be located within TNMP's service territory;
	  ○ have achieved five percent kWh savings over the Texas residential baseline home, and
	  ○ not have received an incentive from any other utility or another TNMP program.
	• Bonus incentives are available for:
	  ○ foam encapsulated envelope, R-13 walls, and R-21 ceiling;
	  ○ ENERGY STAR Version 3.1 certification; and
	  ○ right-sized HVAC.
	• Applications: New home construction applications

Marketing strategies and project sponsors	• Marketing strategies: TNMP markets the availability of its programs in the following manner:
	  ○ utilizing mass electronic mail (email) notifications to keep potential builders interested and informed;
	  ○ maintaining a website with detailed builder eligibility, end-use measures, incentives, and procedures; and
	  ○ participating in statewide outreach activities, as may be available.
	• Project sponsors: N/A

Implementation and delivery	• Implementers: ICF is the third-party implementer; Frontier Energy is the data source.
Measures/products, services, offerings	• Measure offerings: This is a whole-house program based on achieving a five percent kWh savings or having a valid ENERGY STAR Version 3.1 certificate. • Technical assistance: Builders must work with raters. • Rebates/incentives: Paid directly to participating builders (whole house option) or HVAC contractors (midstream option)
QA/QC	• QA/QC conducted by ICF; three percent post-on-site inspection; ten percent sample of all paperwork turned in.

Table 115 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 115. High-Performance Homes Market Transformation Program EM&V Plan

High-Performance Homes MTP	Description	2024
Evaluation priority	The program is receiving a *high* evaluation priority in PY2024.	High
Key researchable issues	• How is the program adapting to the changing codes and standards climate? Are there viable strategies the program can adopt to meet and exceed set goals given the new baselines? Have changes in residential baselines affected the program's ability to meet goals? • How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Are goals established appropriately, and will they be met? • To what degree is the program encouraging adopting energy-efficient technologies that would otherwise not have occurred?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of homes, review the energy model inputs, savings claims, and supporting documentation.	0
	Process surveys: interviews with builders and raters	3

6.5 RESIDENTIAL STANDARD OFFER

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Residential Standard Offer program in the utility's portfolio.

6.5.1 Residential Standard Offer Program

Table 116. Residential Standard Offer Program Summary

Residential SOP	Summary
Program description	The Residential SOP provides incentives for the retrofit installation of a wide range of measures that reduce energy costs, reduce peak demand, and save energy in residential facilities.
Target markets	• Market segments: Residential customers <100 kW maximum demand • Applications: Retrofit applications

Residential SOP	Summary
Marketing strategies and project sponsors	• Marketing strategies: TNMP markets the availability of its programs in the following manner: ○ utilize mass email notifications to keep potential project sponsors interested and informed; ○ maintain internet website with detailed project eligibility, end-use measures, incentives, procedures, and application forms; ○ attend appropriate industry-related meetings to generate awareness and interest; ○ participate in state-wide outreach activities as may be available; and ○ conduct workshops as necessary to explain elements such as the responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process. Project sponsors develop their own marketing materials. • Project sponsors: A wide range of contractors, service companies, community agencies, and other organizations or local companies that provide energy-related products.
Implementation and delivery	• Implementers: Frontier Energy
Measures/products, services, offerings	• Measure offerings: Commission-approved measures included in the statewide TRM for the residential customer class are eligible under this SOP, including attic insulation, caulking/weatherstripping, air conditioning, heat pumps, water heaters, ENERGY STAR windows, refrigerators, dishwashers, clothes washers, solar window screens, wall insulation, floor insulation, water heater jackets, and renewable energy sources. • Technical assistance: At the discretion of the program manager, not part of the program design • Rebates/incentives: Provided to the project sponsor, who then passes rebates/incentives to the end-use customer at their discretion
QA/QC	• Pre- and post-on-site inspections for ten percent of submitted invoices • Conducted by Frontier Energy

Table 117 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 117. Residential Standard Offer Program EM&V Plan

Residential SOP		2024
Evaluation priority	This program will receive a *high* priority for PY2024 as the program has recently responded to TRM updates.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	

Residential SOP		2024
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of homes, review the energy model inputs, savings claims, and supporting documentation.	2

6.6 LOW-INCOME/HARD-TO-REACH STANDARD OFFER

This section includes a program summary and the details of the activities to be performed as part of the evaluation of each Low-Income and Hard-to-Reach program in the utility's portfolio.

6.6.1 Hard-to-Reach Standard Offer Program

Table 118. Hard-to-Reach Standard Offer Program Summary

Hard-to-Reach SOP	Summary
Program description	The Hard-to-Reach SOP pays project sponsors for certain measures to be installed in primarily retrofit applications, specifically for customers with total annual household incomes at or below 200 percent of the federal poverty level. The utility has a limited group of participating project sponsors determined through a selection process based on an application process, including customer feedback.
Target markets	• Market segments: HTR residential customers • Eligibility criteria: Participants must have a total annual household income at or below 200 percent of the federal poverty level. Multifamily residences will qualify if at least 75 percent of residences qualify. • Applications: Retrofit
Marketing strategies and project sponsors	• Marketing strategies: TNMP markets the availability of its programs in the following manner: o utilizes mass email notifications to keep potential project sponsors interested and informed; o maintain a website with detailed project eligibility, end-use measures, incentives, procedures, and application forms; o attend appropriate industry-related meetings to generate awareness and interest; o participate in state-wide outreach activities as may be available; and o conduct workshops as necessary to explain elements such as the responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process. Project sponsors develop their own marketing materials. • Project sponsors: A wide range of contractors, service companies, community agencies, and other organizations.
Implementation and delivery	• Implementers: Frontier Energy is the third-party implementer.

Hard-to-Reach SOP	Summary
Measures/products, services, offerings	• Measure offerings: Envelope measures (insulation, attic encapsulation, cool roof, windows), HVAC measures (air conditioning, A/C tune-ups, variable speed drives), water heating (clothes washers, low-flow showerheads and faucet aerators, heat pump water heater), refrigerators, LEDs. • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the project sponsor, who then passes rebates/incentives to the end-use customer at their discretion
QA/QC	• Pre- and post-on-site inspections for ten percent of submitted invoices • Conducted by Frontier Energy

Table 119 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

Table 119. Hard-to-Reach Standard Offer Program EM&V Plan

Hard-to-Reach SOP	Description	2024
Evaluation priority	This program will receive a *high* priority for PY2024 as the program has recently responded to TRM updates.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	
Program evaluation approach	• Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	• Desk reviews: For a sample of homes, review the energy model inputs, savings claims, and supporting documentation.	1

6.6.2 Low-Income Weatherization Program

Table 120. Low-Income Weatherization Program Summary

Low-Income Weatherization Program	Summary
Program description	The Low-Income Weatherization program provides weatherization and energy-efficiency measures to residential customers that meet the Department of Energy's (DOE) Weatherization Assistance program income-eligibility guidelines and cost-effectiveness criteria (savings-to-investment ratio). The utility contracts with Frontier Energy, which then contracts with local government organizations and not-for-profit agencies to deliver weatherization services.

Low-Income Weatherization Program	Summary
Target markets	• Market segments: Low-income residential customers • Eligibility criteria: Receives electric power service through the utility's system; meets DOE income-eligibility guidelines (i.e., 200 percent of the federal poverty level); qualified through service provider's guidelines • Applications: Retrofit applications
Marketing strategies and project sponsors	• Marketing strategies: Low-income advocates throughout TNMP's service territory will be called upon to participate. Workshops and database training will occur, and updates to policies and procedures will occur annually, as needed. • Project sponsors: Texas Department of Housing and Community Affairs (TDHCA) sub-recipients and other not-for-profit community action and government agencies
Implementation and delivery	• Implementers: Frontier Energy
Measures/products, services, offerings	• Measure offerings: Attic insulation, central air conditioning replacement, CFLs, electric water heater measures, infiltration control, refrigerator replacement, solar screens, wall insulation, and window air conditioning replacement • Technical assistance: At the discretion of the project sponsor, not part of the program design • Rebates/incentives: Provided to the project sponsor, who then passes rebates/incentives on at their discretion to the end-use customer.
QA/QC	• Pre- and post-on-site inspections for 100 percent of submitted invoices • Conducted by Frontier Energy

Table 121 documents the key researchable issues to be addressed in the evaluation, along with the impact methodologies and primary data collection activities.

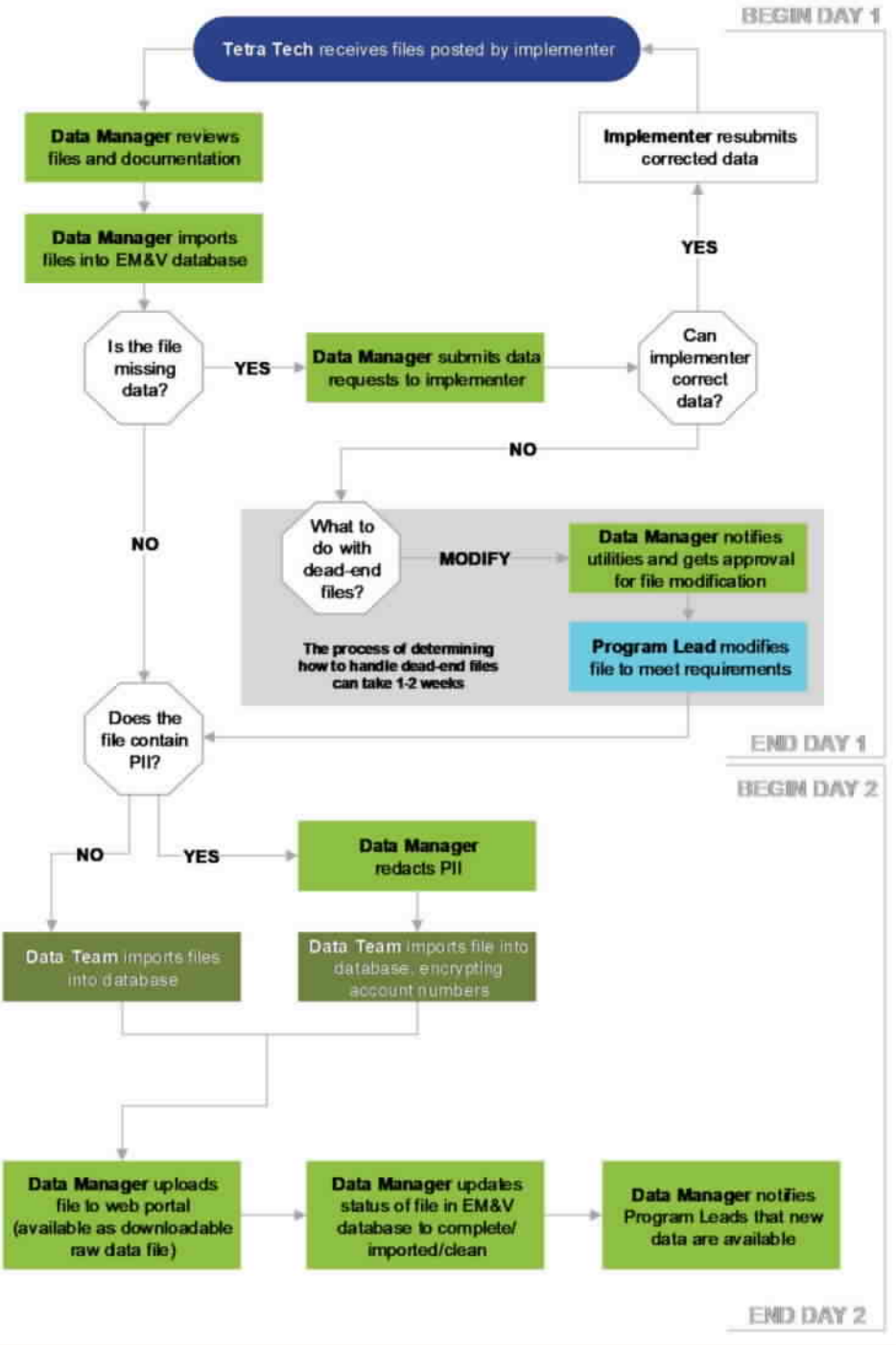
Table 121. Low-Income Weatherization Program EM&V Plan

Low-Income Weatherization Program	Description	2024
Evaluation priority	Senate Bill 1434 requires transmission and distribution utilities to spend ten percent of their energy-efficiency budget on targeted low-income weatherization programs. This program is receiving a *high* priority for PY2024.	High
Key researchable issues	• How is program data handled? Is all data being tracked accurately and effectively? How does the program manage and store supplemental data? Is there room for improvement to make the data entry and storage process more streamlined and effective? • Which measures have been installed, and what type of equipment did they replace?	
Program evaluation approach	Program tracking system review: Review tracking data for accuracy and confirm that estimated savings concur with TRM.	Census
	Desk reviews: For a sample of homes, review the energy model inputs, savings claims, and supporting documentation.	1

APPENDIX A DATA MANAGEMENT PROCESS

Figure 2 details the data management process.

Figure 2. Data Management Process



APPENDIX B COST-EFFECTIVENESS CALCULATIONS

This appendix describes the calculations that will be used for modeling cost-effectiveness. This approach provides the PUCT with a consistent methodology for evaluating cost-effectiveness across the utilities.

A.1 APPROACH

The approach to the EM&V team's benefit-cost testing is based on 16 Tex. Admin. Code § 25.181, where costs and benefits are defined in section (d):

> *"The cost of a program includes the cost of incentives, measurement and verification, any shareholder bonus awarded to the utility, and actual or allocated research and development and administrative costs. The benefits of the program consist of the value of the demand reductions and energy savings, measured in accordance with the avoided costs prescribed in this subsection. The present value of the program benefits shall be calculated over the projected life of the measures installed or implemented under the program."*

This description is consistent with the PACT. Based on this definition, we will collect actual program year costs reported in the utilities' Energy Efficiency Plan and Reports. The program benefits must be calculated at a measure level in order to apply individual effective useful lives. Therefore, the savings will be derived from the EM&V database, which is a comprehensive, centralized source of the utilities' program tracking data.

The present value of the benefits is calculated separately for energy savings and demand reductions, as follows:

$$PV = \frac{AC}{WACC - E}\left[1 - \left(\frac{1+E}{1+WACC}\right)^{n}\right]$$

Where:

AC is the avoided cost of the benefit (energy savings or demand reductions).

The discount rate, *WACC*, is the utility's weighted average cost of capital.

E is the escalation rate.

n is the effective useful life of the measure.

The EM&V team has provided results for benefit-cost calculation using an escalation rate of two percent and without an escalation rate.

The benefit-cost ratio is calculated as:

$$BC = \frac{PV_e + PV_d}{C}$$

Where:

PV_e is the present value of the avoided energy costs.

PV_d is the present value of the avoided demand costs.

C is the total program cost, including incentives, administrative, EM&V, shareholder bonus, and research and development (R&D) costs.

Some costs are reported by the utilities at the portfolio level, such as R&D and shareholder bonus costs. These costs are attributed to individual programs based on each program's incentive costs as a percentage of the portfolio. EM&V costs are distributed among utility programs by the EM&V team based on the programs' share of energy savings and evaluation priority.

A.2 SAVINGS-TO-INVESTMENT RATIO

Targeted low-income energy efficiency programs are run by all unbundled transmission and distribution utilities—specifically, the ERCOT utilities. These programs are evaluated using the savings-to-investment ratio (SIR) rather than the PACT described above.

The SIR is significantly different in both the benefits and costs included. The benefits are comprised of the customer's avoided energy costs, which means that the retail electric rate is used rather than the utility's avoided cost, and there is no cost associated with avoided demand. Rather than the WACC, the SIR uses a societal discount rate of three percent. The only costs included are the incentives paid to the weatherization agencies.

Average retail rates paid by customers will be updated annually based on data from the Energy Information Administration, the Bureau of Labor Statistics, and the PUCT.

A.3 NET SAVINGS

EM&V researched net-to-gross (NTG) ratios as described in this EM&V Plan will be used to calculate cost-effectiveness based on net savings at the IOU program-level.

APPENDIX C QA/QC PROTOCOLS

This appendix documents the quality assurance/quality control (QA/QC) protocols established for the PUCT Evaluation, Measurement, and Verification (EM&V) team for reporting claimed and evaluated impacts. Although quality control is a function of all evaluation stages (e.g., populating the EM&V database, sampling, and analysis), this appendix focuses on the QA/QC processes within the reporting stage. A QA/QC team, led by the Tetra Tech reporting lead, is developed and accountable for ensuring all QA/QC protocols are being followed.

Below, we summarize the specific activities that are subject to QA/QC processes. Note that these QA/QC processes focus on the accuracy of data; this section does not address methodological issues.

Accuracy of ex-ante program data. The EM&V team is housing data, analysis, and reporting functions within the EM&V database. Data is provided by program implementers, read into the database in raw form, and organized for analysis. The database centrally stores the claimed (ex-ante) savings, which are used for sampling and reporting those claimed savings. Data is provided to the EM&V team quarterly. The EM&V team characterizes the data received in terms of energy savings, demand reductions, and participants served, and reports the information within the detailed research plans; these detailed research plans are delivered to the utilities for review and confirmation that the population data is accurate. Inaccurate population data may indicate missing data, errors in the data importation process, or misunderstanding of the data fields.

- Responsibility: program leads
- Accountability: QA/QC team
- Consulted: utility staff, implementation contractors, and EM&V project manager

Application of verification rates and net-to-gross (NTG) ratios. The impacts are generated in the EM&V database. The database categorizes measure-level information in the format it was provided to the EM&V team per the data acquisition process. Although projects may be sampled and verified at the measure level, the EM&V team conducts impact evaluations to obtain and report verification and NTG estimates at the utility and program-type level, which is then aggregated and reported at the program-group level.

These impact estimates are provided by the program leads and stored in two locations. First, the program leads enter the impact results within an Excel tracking sheet stored on the SharePoint site. The Excel tracking sheet includes the following fields: program year (PY), utility, program group, program type, measure group, program lead, verification rate, NTG ratio, report source of verification rate, report source of NTG ratio, and modification date. Only one sheet maintains current impact information. If data is updated throughout the process, the outdated records are moved to a separate worksheet within that file. Doing so ensures that one sheet maintains the correct rates and any modifications are documented, including the reason for the modification.

Second, the EM&V database includes an interface where program leads directly enter their impact results. These results are then stored and applied against the claimed savings to calculate the evaluated gross and evaluated net results for the annual reporting.

By creating a two-stage impact reporting process, the EM&V team has built a point of verification of the data into the process. The evaluated and net savings results are directly calculated out of the EM&V database using the rates supplied within the web interface. The EM&V team then verifies that the results are as expected using the values documented within the Excel impact reporting file. Should the results differ, the QA/QC team may refer to the original source to verify the results.

- Responsibility: program leads
- Accountability: QA/QC team
- Consulted: impact leads, EM&V data lead, and project manager

Accuracy of reported savings. As documented in the report outline, program impacts are aggregated and reported in various ways. At the most aggregate level, the data is reported by program group overall and then by utility. At the most granular level, the data is reported by program group for each utility. The annual report, therefore, represents impacts in over 100 tables. It is critical to spend considerable time conducting QA/QC against those reported values.

The EM&V database calculates the full-year claimed savings by utility, program type, and program group. Although claimed savings are documented in quarterly detailed research plans, adjustments made in claimed savings often occur throughout the year. Therefore, it is necessary to calculate the full PY claimed savings and verify our results against the utility-claimed data, which is reported to the PUCT. The EM&V team requests that the utilities provide their draft claimed savings to verify against the reported claimed savings within the EM&V database. Any differences in the evaluation and utility claimed savings are clearly documented within the report.

All results tables are cross-referenced to ensure the results true up and are consistent with each other. For example, the sum of all residential MTPs evaluated net savings documented within the utility-specific sections should equal the residential MTP results captured in Technical Reference Manual (TRM) Volume 1. The QA/QC team develops a checklist of tables that are cross-checked against which sources (i.e., EM&V database, EEPRs, etc.) and systematically goes through this checklist throughout the report-proofing process.

Although not a specific QA/QC function, the team's development of these reporting functions with the overarching goal of ensuring transparency inherently allows for ad hoc QA/QC checks by the PUCT, utilities, implementation contractors, or other interested parties. For example, the EM&V database can export results and resulting calculations within easy-to-use Excel files. In addition, impact-related reports tie back to results clearly for a secondary review.

- Responsibility: utilities (for providing claimed savings) and program leads (for verifying claimed impacts provided)
- Accountability: QA/QC team (for final review and cross-checks of impact tables)
- Consulted: impact leads, EM&V data lead, utilities, and EM&V project manager.

APPENDIX D EM&V TEAM STAFFING

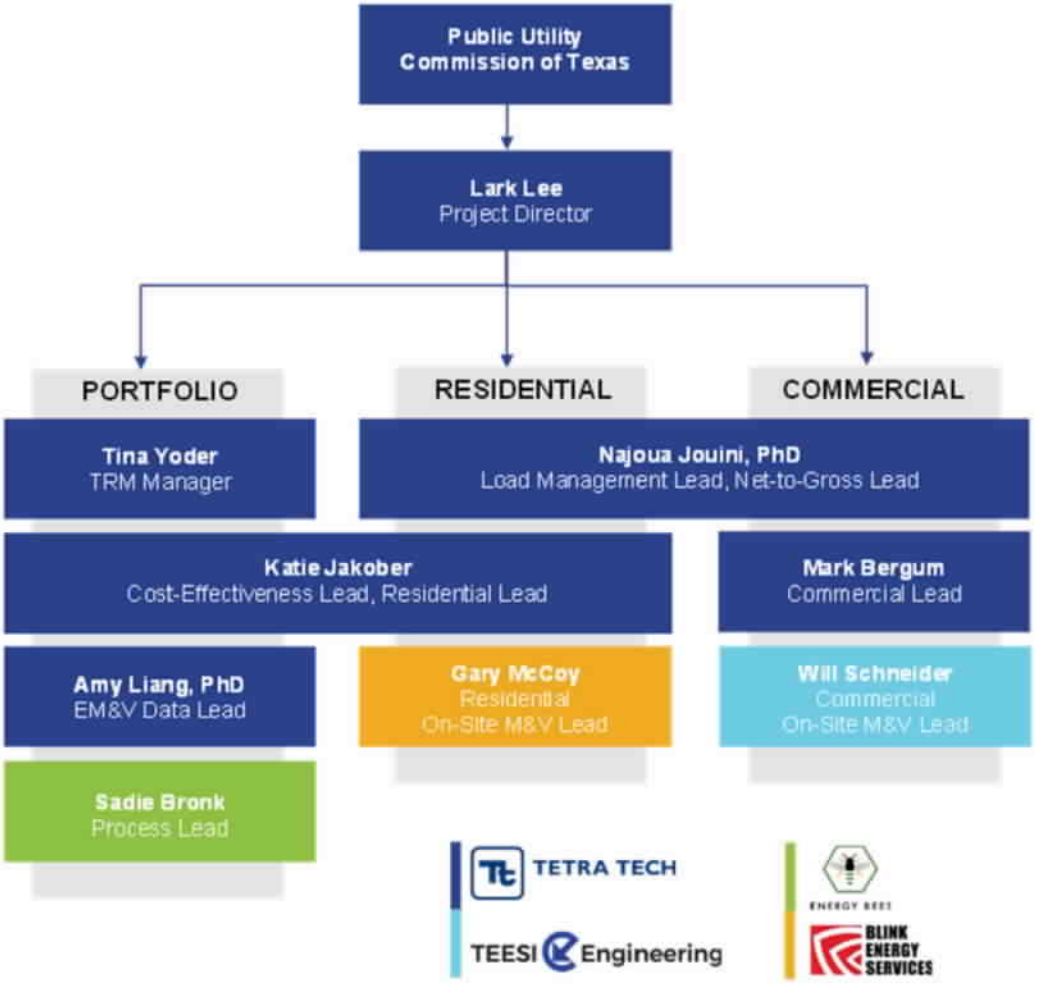
This appendix summarizes the EM&V team organization by task and team member for PY2024.

D.1 TEAM ORGANIZATION

The EM&V team brings substantial expertise and resources, but the effective structure of the EM&V team is equally important. Effective management ensures strong communication and responsiveness to the PUCT, utilities, and other stakeholders. Based on our experience managing other portfolio evaluations of similar size and scope and the strong, established working relationships among the EM&V team members, we developed a staffing and subcontracting plan to operate as one fully integrated team.

The management plan in the organizational chart below (Figure 3) was strategically developed to ensure quality and clear lines of responsibility and accountability.

Figure 3. EM&V Team Organizational Chart



The project director is the primary point of contact for the PUCT and takes the lead in evaluation planning, reporting, and representing the EM&V team. She orchestrates the project by ensuring the

EM&V team understands the PUCT's needs and that resources are in place to meet these needs. Due to the breadth and depth of the EM&V effort, the project director is supported by the leads for the following areas: EM&V data, residential and nonresidential sectors, TRM, load management and net-to-gross, and process. This structure optimizes the use of our team's deep technical expertise while maintaining consistency and realizing cost efficiencies.