

PUBLIC UTILITIES COMMISSION

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Date: August 19, 2024

To: Southern California Gas (SoCalGas)

From: Lisa Paulo and Peter Biermayer, California Public Utilities Commission (CPUC)

Cc: R.13-11-005 Service Lists

Subject: MID-YEAR FEEDBACK - 2024 EX ANTE REVIEW (EAR) PERFORMANCE

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Pursuant to Decision (D).13-09-023, D.15-10-028, D.16-08-019, and D.20-11-013, California Public Utilities Commission (CPUC) Staff and consultants are providing the 2024 Ex Ante Review (EAR) Performance Mid-year Feedback on the investor-owned utilities (IOUs) respective activities as of June 30, 2024. D.20-11-013 placed a moratorium on EAR awards¹ but directed that EAR scoring and evaluation processes shall continue. The mid-year feedback focuses on specific accomplishments and issues or concerns identified as part of ongoing measure package and custom project reviews. This feedback will help the IOUs address these issues for the remaining year.

I. CPUC Staff Findings 2024 Mid-year Activities Feedback

The following sections of this memorandum provide a description of the findings, including areas of achievement and areas requiring improvement for both custom projects and measure packages review activities.

A. Custom Projects Review Overview

1. Summary of 2024 Mid-year Achievements

This feedback is based on 2 CPUC staff project review dispositions issued between January and June 2024. SoCalGas continues to demonstrate efforts to improve its performance. CPUC Staff's observations include:

- **Timing and timeliness of submittals.** SoCalGas continues to submit project documentation earlier than the SB 1131 timeline requirement.

2. Summary of Areas Requiring Improvement

Areas that were most problematic, frequent, and/or need improvement include:

- **Process, Policy, and Program Rules.** All three issues identified in the first half of 2024 were related to Process, Policy, and Program rules. The issues noted concerned CPUC policy and measure cost.

B. Measure Packages Review Overview

1. Summary of 2024 Mid-Year Achievements

CPUC staff observed strengths in SoCalGas's development and management of measure package submissions in the following area:

- **Collaboration.** SoCalGas engaged with measure package reviewers to document NTG updates for new food service measure packages that were included in the deemed portfolio within the last year. SoCalGas has also submitted measure packages with proactive comments

¹ The EAR awards were part of the Efficiency Savings and Performance Incentive (ESPI) awards.

included within the submission to update Effective Useful Life value based on the Residential and Commercial HVAC and Water Heating EUL study.

- **Leadership.** SoCalGas demonstrated leadership by expanding deemed measure offerings to add additional water heater type offerings to existing measure packages, such as showerheads, faucet aerators, and insulation. SoCalGas has continued to show responsiveness to Food Service implementers by submitting measure package plans for both gas and electric offerings.
- **Timeliness.** SoCalGas led the DEER2026 measure package submission process by submitting 35 DEER2026 measure packages in February 2024 ahead of planned submission date.

2. Summary of Areas of Improvement

CPUC Staff highlights the following direction for improvement:

- **Quality.** Measure package reviewers continue to find minor comments in measure packages that we encourage SoCalGas to continue to monitor. Minor comments include not updating static narrative tables like costs and code requirements, the addition of Tech IDs for PY2026 measure packages, general language on viable electric alternative policy, and the adjustments in the data collection requirements table resulting from the new midstream delivery types. SoCalGas was quick to implement these changes into future submissions to avoid repeated comments.
- **Cover Sheet.** SoCalGas should continue to conduct detailed review on the cover sheet prior to measure package submission within the eTRM. The cover sheet can provide aggregate changes to savings, NTG, or EULs that can be misrepresented. With the migration to EnergyPlus and future methodology updates, normalizing unit changes should also be considered for review.

II. Discussion

The following sections of this memorandum provide a detailed description of the findings, including, areas of achievement and areas requiring improvement for both custom projects and measure packages.

A. Custom Projects Performance Review

Each year, CPUC Staff reviews a selected sample of custom project energy efficiency program applications. The review findings and directions to the IOUs are presented in documents referred to as “dispositions”. This feedback is based on 2 CPUC project review dispositions issued between January and June 2024. It should be noted that the two dispositions issued were for the same project. The initial project was rejected and resubmitted.

The comments below are organized by the five metric areas prescribed in D.16-08-019. No scores

are provided for these metrics in the mid-year memo. All feedback provided at this time is qualitative.

1. Timeliness of Submittals

Two projects were selected for review during the first half of 2024 which had initial project documentation due before June 30, 2024. For both projects, SoCalGas submitted their initial documents before the SB1131 deadline.

2. Content, Completeness, and Quality of Submissions

The two projects selected in the first six months of 2024 were CPR 906 and CPR 943. CPR 906 was rejected due to CPUC policy issues related to a 2016 steam trap memo issued by CPUC. This project was resubmitted as CPR 943 after a discussion between SCG and CPUC staff. CPR 906 had issues related to CPUC policy (which resulted in the rejection) and missing documentation on the measure cost. The resubmission only had one issue related to CPUC policy urging SCG to include all documentation indicating compliance with the 2016 steam trap memo.

Table 1 below summarizes the three action items identified across two dispositions issued between January 1, 2024, and June 30, 2024.

Table 1: Summary of Categorized Action Items for Custom Projects

Issue Area	Action Categories	Summary of CPUC Staff Required Action by the PA:	Summary of CPUC Staff Notes or Instructions:	Percent of Total Actions
Issues Related to Gross Savings Impacts	Analysis assumptions	0	0	0%
	Calculation method	0	0	0%
	Calculation tool	0	0	0%
	M&V plan	0	0	0%
	Subtotals	0	0	0%
Process, Policy, Program Rules	Baseline	0	0	0%
	CPUC Policy	2	0	67%
	Did not follow previous CPUC guidance	0	0	0%
	Eligibility	0	0	0%
	ER preponderance of evidence	0	0	0%
	EUL/RUL	0	0	0%
	Incentive calculation	0	0	0%
	Measure cost	1	0	33%
	Measure type	0	0	0%
PA program rules	0	0	0%	

	Self generation	0	0	0%
	Subtotals	3	0	100%
Documentation Issues	Continue Document Upload	0	0	0%
	Missing Documents	0	0	0%
	Missing required information	0	0	0%
	Project scope unclear	0	0	0%
	Subtotals	0	0	0%
Issues Related to Net Impacts	Program influence	0	0	0%
	Subtotals	0	0	0%
Other Issues	Other 1	0	0	0%
	Subtotals	0	0	0%
	Grand Total	3	0	100%

3. Proactive Initiative of Collaboration

Commission Staff found that SoCalGas continues to take an active and engaged role in bi-weekly meetings as necessary. For the project that was initially rejected and approved upon resubmission. SoCalGas reflected that an earlier discussion with CPUC staff could have alleviated and addressed reviewers' questions to the project narrative prior to the initial submission.

4. PA's Due Diligence, Quality Assurance, and Quality Control (QA/QC)

Project and measure level disposition performance results reviewed under Metric 2 are used as a proxy for the level of QA/QC occurring by the PA. There were two projects reviewed in the first 6 months of 2024 – CPR 906 and CPR 943. CPR 906 was rejected per 'Statewide Steam Trap Replacement Disposition,' issued by CPUC staff on November 8, 2016. According to this directive, customers who have already received incentives for steam trap replacements under any deemed or customized energy efficiency program post-January 1, 2010, are ineligible for further incentives for such replacements. Given the customer's history of receiving steam trap replacement incentives at this customer site in 2021, CPR project 910 was rejected. However, after the rejection disposition was issued, SCG explained during the biweekly meeting that this project is phase 2 of the original 2021 steam trap project and that the customer had planned the entire scope in 2021 but was unable to complete it initially. Given that this was a phased project, on CPUC Staff direction, SCG resubmitted the project (as CPR 943) and provided additional documentation and narrative explaining the project phasing. The resubmission was allowed to proceed with exceptions as noted in the review.

5. PA's Responsiveness

When reviewed at a portfolio level, CPUC Staff assesses the time series of rejections and exceptions, the alignment of program policy and procedures with the number of rejections and exceptions based on eligibility and attribution, and the adaption to changes in rules over time. As noted earlier, regarding the project that was initially rejected and approved with exceptions upon resubmission, SoCalGas plans to have regular open communication with reviewers via the bi-weekly meetings to streamline the Custom Project Review (CPR) process.

B. Measure Packages Performance Review

SoCalGas had fifty-seven measure packages disposed in the first half of 2023 and has eighteen measure packages currently under detailed review. Those measure packages were updates triggered by Resolution E-5221 which included including costs and eTRM permutation and value table updates.

The comments below are organized by the five scoring metric areas created in D.16-08-019. The narrative includes observations common to multiple measure packages and feedback related to the measure package development process as well as direction for future measure packages.

Specific measure package feedback is provided in tables in Attachment A, at the end of this document. The first table, the Measure Package Reviews table provides feedback on the five measure packages that were disposed in the first half of 2024. The second table, the Measure Package Submissions table, lists all measure packages submitted by SoCalGas during the review period that were not scored. The Staff acknowledges that measure package development may have been supported by multiple PAs; however, at the time of this mid-year review, feedback is directed to the submitting PA, with the assumption that they have led the development.

1. Timeliness of Submittals

SoCalGas has been timely with measure package submissions and responses to measure package comments through the measure log. SoCalGas has quickly developed measure packages once receiving measure package plan feedback from the Ex Ante Review Team. SoCalGas submitted thirty-five measure packages in February 2024 before the anticipated submission date to begin the DEER2026 measure package review and approval process.

2. Content, Completeness, and Quality of Submissions

SoCalGas has generally met requirements for content, completeness, and quality of measure package submissions. In 2024, SoCalGas had many measure package updates that required relatively minor permutations updates and cost updates and was able to meet expectations with nearly all submittals. SoCalGas also submitted ten mid-cycle measure package updates to update NTG IDs and add new offerings. The mid-cycle updates were well documented and received minimal clarifying comments if any.

3. Proactive Initiative of Collaboration

SoCalGas has been proactive to engage with the CPUC staff early and often as in its updates to measure packages. SoCalGas has submitted measure package plans when necessary for measure package revisions, or when requesting early feedback on new measure packages, like the Weather Sealing, Gas Water Heater Controller, Range Oven, Smart Home Water Monitor, Refrigerated Prep Table, and Pasta Cooker measure packages. SoCalGas schedules necessary meetings to discuss new data or additional information when requested by CPUC staff, specifically to discuss the Water Heater Controller measure package plan. In addition, SoCalGas collaborated effectively with the Ex Ante Review Team to document NTG ID changes for DEER2026 measure packages and among all

stakeholders during the EnergyPlus office hours for DEER2026 updates. SoCalGas has been an active participant in the Energy Plus commercial prototype office hours for the development of the Frequently Asked Questions (FAQ) document.

4. PA's Due Diligence, Quality Assurance, and Quality Control (QA/QC)

SoCalGas demonstrated their due diligence and QA/QC improvements in new measure packages by prospectively correcting common feedback on measure package savings assumptions in the more recent submittals. Ex Ante Review comments made on earlier submissions like viable electric alternative policy, populating Tech IDs in the permutations, and adding midstream delivery to the data collection requirements have been corrected in more recent submittals. SoCalGas continues to find opportunities to streamline templates and provide consistency across the deemed measure package portfolio.

5. PA's Responsiveness

SoCalGas has demonstrated leadership and responsiveness when introducing new measures, new measure packages, or new data for measure package revisions. In addition, SoCalGas has demonstrated leadership by supporting the Food Service program implementers in developing electric savings measure packages. SoCalGas has also assisted the Ex Ante Review Team with swift responsiveness to review the Restricted Permutation flag in the eTRM to document gas measure cost effectiveness as it pertains to the viable electric alternative policy.

III. Attachments

Attachment A: Measure Package Feedback contains the measure package summary tables showing the qualitative components for each metric.

Questions or comments about the feedback should be directed to Lisa Paulo (lisa.paulo@cpuc.ca.gov) or Peter Biermayer (peter.biermayer@cpuc.ca.gov). Note that pursuant to D.13-09-023, CPUC Staff will schedule a meeting with SoCalGas staff to discuss this memorandum.

Attachment A: Measure Package Feedback

The table below lists the ID numbers associated with each measure package submission or disposition. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each measure package. The qualitative feedbacks are designated as follows:

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWFS024	2	Hot Food Holding Bins, Commercial	Mid-cycle measure package update to update NTG ID value to sector default values instead of new technology NTG ID. Measure package approved without comments.
SWFS025	2	Radiant Conveyor Toaster, Commercial	Mid-cycle measure package update to update NTG ID value to sector default values instead of new technology NTG ID. Measure package approved without comments.
SWFS026	2	Cooktop, Commercial	Mid-cycle measure package update to update NTG ID value to sector default values instead of new technology NTG ID. Measure package approved without comments.
SWWH019	5	Faucet Aerator, Commercial	Mid-cycle measure package update to add heat pump water heater and electric water heater offerings. Measure package approved without comments.
SWWH026	3	Water Heater Pipe Wrap, Residential	Mid-cycle measure package update to add heat pump water heater and electric water heater offerings. Measure package approved without comments.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWWH002	4	Low-Flow Showerhead, Residential	Mid-cycle measure package update to add heat pump water heater offerings. Measure package approved after addressing two minor clarifying comments on MAT applicability and footnote error in the data collection requirements section.
SWWH003	3	TSV with and without an Integrated Low-Flow Showerhead, Residential	Mid-cycle measure package update to add heat pump water heater offerings. Measure package approved after addressing two minor clarifying comments on MAT applicability and footnote error in the data collection requirements section.
SWWH020	5	Low-Flow Showerhead, Commercial	Mid-cycle measure package update to add heat pump water heater and electric water heater offerings. Measure package approved after addressing two minor clarifying comments on MAT applicability and footnote error in the data collection requirements section.
SWWH001	4	Faucet Aerator, Residential	Mid-cycle measure package update to add heat pump water heater offerings. Measure package approved after addressing one minor clarifying comment on footnote error in the data collection requirements section.
SWWH017	5	Hot Water Pipe Insulation, Nonresidential & Multifamily	Mid-cycle measure package update to add heat pump water heater and electric water heater offerings. Measure package approved after addressing one minor clarifying question on adding permutation fields and narrative language on the water heater type per offering.
SWBE007	4	Wall Insulation, Residential	DEER2026 measure package update to include delivery type updates, measure impact type updates, and data collection requirement updates. Measure package approved after two minor comments on the data collection requirements and use of rWtd HVAC type.
SWBE006	4	Ceiling Insulation, Residential	DEER2026 measure package update to include delivery type updates, measure impact type updates, and data collection requirement updates. Measure package approved after two minor comments on the data collection requirements and use of rWtd HVAC type.
SWFS025	3	Radiant Conveyor Toaster, Commercial	DEER2026 measure package update to include delivery type updates and measure impact type updates. Measure package approved after two minor comments on the data collection requirements and to populate Tech IDs in the permutations.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWFS026	3	Cooktop, Commercial	DEER2026 measure package update to include delivery type updates and measure impact type updates. Measure package approved after three minor comments on the data collection requirements, populating Tech IDs in the permutations, and adding general language on viable electric alternative policy.
SWFS011	7	Fryer, Commercial	DEER2026 measure package update to include cost updates, delivery type updates, and measure impact type updates. Measure package approved after four minor comments on the data collection requirements, populating Tech IDs in the permutations, adding general language on viable electric alternative policy, and adding additional details to the cover sheet.
SWRE001	4	Pool Cover, Commercial	DEER2026 measure package update to include cost updates, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, populating Tech IDs in the permutations, building type aggregation, and adding referencing the latest code standards.
SWAP005	4	Ozone Laundry, Commercial	DEER2026 measure package update to include cost updates, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, populating Tech IDs in the permutations, and correcting typo in measure case labor cost section.
SWFS029	2	Rotisserie, Gas, Commercial	DEER2026 measure package update to update NTG ID value to sector defaults instead of new technology NTG ID, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, populating Tech IDs in the permutations, and adding general language on viable electric alternative policy.
SWHC002	4	Intermittent Pilot Light, Residential	DEER2026 measure package update to include cost updates, delivery type updates, EUL updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, populating Tech IDs in the permutations, correcting text and references for cost updates, updating the hourly rate to newer data, and citing the most recent code requirements.
SWHC031	4	Furnace, Residential	DEER2026 measure package update to include delivery type updates, EUL updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements and citing the most recent code requirements.
SWHC047	5	Gas Fireplace, Residential	DEER2026 measure package update to include cost updates, delivery type updates, EUL updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, eligibility language, citing the most recent code requirements, and adding general language on viable electric alternative policy.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWHC057	2	Space Heating Gas Absorption Heat Pump, Multifamily	DEER2026 measure package update to update NTG ID value to sector defaults instead of new technology NTG ID, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements, populating Tech IDs in the permutations, and requesting additional cost documentation.
SWAP004	4	Clothes Washer, Residential	DEER2026 measure package update to update the data collection requirements, cost data, measure impact types, and delivery types. Measure package approved after clarifying source date of cost data, and data collection requirement applicability.
SWHC058	2	Patio Heater, Gas, Commercial and Residential	DEER2026 measure package update to update the NTG ID value to sector defaults instead of new technology NTG ID, delivery type updates, and measure impact type updates. Measure package approved after populating Tech IDs, adding general language on viable electric alternative policy, and a minor comment on the data collection requirements.
SWFS017	4	Automatic Conveyor Broiler, Commercial	DEER2026 measure package update to update the cost data, delivery type updates, and measure impact type updates. Measure package approved after adding Tech IDs into permutations, clarifying comment on the data collection requirements, adding general language on viable electric alternative policy, and minor edits to the life cycle section language.
SWFS005	5	Steamer, Commercial	DEER2026 measure package update to update the delivery types, measure impact types, and data collection requirements section. Measure package approved after populating Tech IDs, adding general language on viable electric alternative policy, and a minor edit to the data collection requirements section.
SWFS014	4	Rack Oven, Gas, Commercial	DEER2026 measure package update to update the delivery types, measure impact types, cost data, and operating assumptions. Measure package approved after populating Tech IDs, adding general language on viable electric alternative policy, data collection requirements clarification, and minor edits to the life cycle section language.
SWBE001	5	Greenhouse Heat Curtain	DEER2026 measure package update to update the cost data, add data collection requirements, update measure impact type and delivery type. Measure package approved after populating Tech IDs into permutations, data collection requirements clarification, minor edits to the life cycle section language, and minor language additions to the cost section to clarify the methodology.
SWBE002	5	Greenhouse Infrared Film	DEER2026 measure package update to update the cost data, add data collection requirements, update measure impact type and delivery type, and update tech type from DEER. Measure package approved after populating Tech IDs into permutations, data collection requirements clarification, minor edits to the life cycle section language, and two other minor typos.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWPR003	3	Steam Trap, Commercial	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, and delivery types. Measure package approved after populating Tech IDs into permutations, clarifying comment on data collection requirements, updating cost section narrative and cost data reference so they are aligned.
SWPR007	2	Steam Boiler Economizer, Industrial	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, and delivery types. Measure package approved after populating Tech IDs into permutations, clarifying comment on data collection requirements, minor typos in code requirements section, and clarifying comments on cost data reference and narrative.
SWAP012	3	Gas Dryer Modulating Valve, Commercial and Multifamily	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, delivery types, and energy savings calculations inputs like operating days and number of loads per day. Measure package approved after clarifying comment on data collection requirements, populating Tech IDs, minor revision to life cycle section in narrative, and an update to the static cost table in the narrative.
SWWH021	2	Recirculation Pump Timer, Commercial	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, delivery types, and energy savings calculations inputs like hours of operation and days of operation with DEER Water Heater Calculator load curve data. Measure package approved after populating Tech IDs, adding reference for material costs, and minor clarifying comment on data collection requirements.
SWWH018	5	Hot Water Tank Insulation, Nonresidential & Multifamily	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, delivery types, and updating Title 24 reference. Measure package approved after clarifying comments on code reference and data collection requirements, minor typo, and populating Tech IDs.
SWWH032	2	Solar Thermal Water Heating System, Residential	DEER2026 measure package update to update the data collection requirements, measure impact type, and delivery types. Measure package approved after clarifying comment on the cost data and minor typo in the data collection requirements section.
SWWH010	3	Boiler, Multifamily	DEER2026 measure package update to update preponderance of evidence reference, data collection requirements, measure impact type, and delivery types. Measure package approved after minor typo in the data collection requirements section, clarifying the code reference, and adding general language on viable electric alternative policy.
SWWH011	3	Central Storage Water Heater, Multifamily	DEER2026 measure package update to update preponderance of evidence reference, data collection requirements, measure impact type, and delivery types. Measure package approved after minor typo in the data collection requirements section and adding general language on viable electric alternative policy.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWFS027	2	Soup Well, Electric, Commercial	DEER2026 measure package update to update NTG ID value to sector defaults instead of new technology NTG ID, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements and populating Tech IDs.
SWFS003	5	Combination Oven, Commercial	DEER2026 measure package update to update the operating hours per day and operating days per year, update delivery types, and update the measure impact type. Measure package approved after minor typo in the data collection requirements section, adding Tech IDs into permutations, and adding general language on viable electric alternative policy.
SWAP017	4	Oven, Gas, Residential	DEER2026 measure package update to update the measure impact type and delivery types. Measure package approved after clarifying comment on the data collection requirements section, populating Tech IDs into permutations, and adding general language on viable electric alternative policy.
SWAP006	5	Dishwasher, Residential	DEER2026 measure package update to update data collection requirements, measure impact type, and delivery types. Measure package approved after one clarifying comment on data collection requirements.
SWFS013	4	Low-Flow Pre-Rinse Spray Valve	DEER2026 measure package update to update measure impact type and delivery types. Measure package approved after clarifying comment on data collection requirements and populating Tech IDs into the permutations.
SWFS018	6	Undercounter Dishwasher, Commercial	DEER2026 measure package update to update measure impact type and delivery types. Measure package approved after clarifying comment on data collection requirements and populating Tech IDs into the permutations.
SWFS028	2	Steam Table, Electric, Commercial	DEER2026 measure package update to update NTG ID value to sector defaults instead of new technology NTG ID, delivery type updates, and measure impact type updates. Measure package approved after clarifying comments on the data collection requirements and populating Tech IDs.
SWHC054	2	Heat Recovery Ventilation, Residential	DEER2026 measure package update to update measure impact type and delivery types. Measure package approved after clarifying comment on data collection requirements, populating Tech IDs into the permutations, and clarifying the data source behind the cost values.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWRE003	4	Heater for Pool or Spa, Commercial and Multifamily	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, and delivery types. Measure package approved after clarifying comments on data collection requirements, populating Tech IDs into the permutations, adding general language on viable electric alternative policy, clarifying comment on code reference, and minor language edits in the lifecycle section of the narrative.
SWFS024	3	Hot Food Holding Bins, Commercial	DEER2026 measure package update to update measure impact type and delivery types. Measure package approved after clarifying comment on data collection requirements and populating Tech IDs into the permutations.
SWRE004	4	Pool Heater, Residential	DEER2026 measure package update to update the cost data, data collection requirements, measure impact type, and delivery types. Measure package approved after clarifying comments on data collection requirements, populating Tech IDs into the permutations, adding general language on viable electric alternative policy, clarifying comment on code reference, and minor language edits in the lifecycle section of the narrative.
SWWH033	3	Gas Heat Pump Water Heater, Multifamily	DEER2026 measure package update to update building vintage in permutations, data collection requirements, measure impact type, delivery types, and updated NTG ID to use sector defaults. Measure package approved after populating Tech IDs into permutations, clarifying comments on hot water draw profiles in EnergyPlus and DEER Water Heater Calculator, and adding general language on viable electric alternative policy.
SWFS030	1	Pressure Fryer, Commercial	First version of measure package. New measure package approved after a minor typo, clarifying comment on lab test data population, and clarifying comment on methodology used to calculate incremental measure costs.
SWWH034	3	Solar Thermal Water Heating System, Commercial and Multifamily	DEER2026 measure package update to update data collection requirements, measure impact type, delivery types, and multifamily building type in permutations. Measure package approved after minor clarifying comment on data collection requirements section, populating Tech IDs into permutations, and clarifying comment on the base case cost methodology.
SWWH023	3	Diverting Tub Spout with TSV, Residential	DEER2026 measure package update to add new heat pump water offerings, update calculation to use DEER Water Heater Calculator peak period usage factor, update cost data, update data collection requirements, update delivery types, and update measure impact type. Measure package approved after clarifying comments on data collection requirements section, updating references to use most current version of DEER Water Heater Calculator, and populate Tech IDs into permutations.
SWWH004	4	Laminar Flow Restrictor, Commercial	DEER2026 measure package update to add new heat pump water and electric resistance water heater offerings, update cost data, update delivery types, and update measure impact type. Measure package approved after clarifying comments on data collection requirements section, updating references to use most current version of DEER Water Heater Calculator, clarifying comment on the remaining useful life portion of the lifecycle section, and populate Tech IDs into permutations.

Measure Package Review – All Disposed in 2024			
SW MP ID	Rev	Title	Comments
SWWH020	6	Low-Flow Showerhead, Commercial	DEER2026 measure package update to update data collection requirements, update costs data, measure impact type, and delivery types. Measure package approved after minor clarifying comment on data collection requirements section, populating Tech IDs into permutations, and referencing the most current version of the DEER Water Heater Calculator.
SWFS008	3	Conveyor Oven, Gas, Commercial	DEER2026 measure package update to update cost data, baseline and measure case tested units, operating hours per day and operating days per year assumptions, delivery type updates, and measure impact type update. Measure package approved after adding general language on viable electric alternative policy, clarifying comment on the data collection requirements section, and clarifying the baseline versus efficient threshold in the cost data spreadsheet.
SWWH019	6	Faucet Aerator, Commercial	DEER2026 measure package update to update cost data, data collection requirements, measure impact type, and delivery types. Measure package approved after clarifying comments on data collection requirements, updating references to use most current version of the DEER Water Heater Calculator, and populating Tech IDs into the permutations.
SWWH034	2	Solar Thermal Water Heating System, Commercial and Multifamily	Measure package updated to add commercial offerings. Measure package approved after minor comments confirming data collection requirements, hot water loads and assumptions, and confirmation of the modeling data sources.

Measure Package Submittals – All Submitted in 2024		
SW MP ID	Title	Comments
SWFS024-02	Hot Food Holding Bins, Commercial	Interim approval.
SWFS025-02	Radiant Conveyor Toaster, Commercial	Interim approval.
SWFS026-02	Cooktop, Commercial	Interim approval.
SWFS012-03	Exhaust Hood Demand Controlled Ventilation, Commercial	Interim approval.
SWWH019-05	Faucet Aerator, Commercial	Interim approval.
SWWH026-03	Water Heater Pipe Wrap, Residential	Interim approval.
SWWH002-04	Low-Flow Showerhead, Residential	Interim approval.
SWWH003-03	TSV with and without an Integrated Low-Flow Showerhead, Residential	Interim approval.
SWWH020-05	Low-Flow Showerhead, Commercial	Interim approval.
SWWH001-04	Faucet Aerator, Residential	Interim approval.
SWWH017-05	Hot Water Pipe Insulation, Nonresidential & Multifamily	Interim approval.
SWBE007-04	Wall Insulation, Residential	Interim approval.
SWBE006-04	Ceiling Insulation, Residential	Interim approval.
SWFS025-03	Radiant Conveyor Toaster, Commercial	Interim approval.
SWFS026-03	Cooktop, Commercial	Interim approval.
SWFS011-07	Fryer, Commercial	Interim approval.
SWRE001-04	Pool Cover, Commercial	Interim approval.

Measure Package Submittals – All Submitted in 2024		
SW MP ID	Title	Comments
SWAP005-04	Ozone Laundry, Commercial	Interim approval.
SWFS029-02	Rotisserie, Gas, Commercial	Interim approval.
SWHC002-04	Intermittent Pilot Light, Residential	Interim approval.
SWHC031-04	Furnace, Residential	Interim approval.
SWHC047-05	Gas Fireplace, Residential	Interim approval.
SWHC057-02	Space Heating Gas Absorption Heat Pump, Multifamily	Interim approval.
SWAP004-04	Clothes Washer, Residential	Interim approval.
SWHC058-02	Patio Heater, Gas, Commercial and Residential	Interim approval.
SWFS017-04	Automatic Conveyor Broiler, Commercial	Interim approval.
SWFS005-05	Steamer, Commercial	Interim approval.
SWFS014-04	Rack Oven, Gas, Commercial	Interim approval.
SWBE001-05	Greenhouse Heat Curtain	Interim approval.
SWBE002-05	Greenhouse Infrared Film	Interim approval.
SWPR003-03	Steam Trap, Commercial	Interim approval.
SWPR007-02	Steam Boiler Economizer, Industrial	Interim approval.
SWAP012-03	Gas Dryer Modulating Valve, Commercial and Multifamily	Interim approval.
SWWH021-02	Recirculation Pump Timer, Commercial	Interim approval.

Measure Package Submittals – All Submitted in 2024		
SW MP ID	Title	Comments
SWWH018-05	Hot Water Tank Insulation, Nonresidential & Multifamily	Interim approval.
SWWH032-02	Solar Thermal Water Heating System, Residential	Interim approval.
SWWH010-03	Boiler, Multifamily	Interim approval.
SWWH011-03	Central Storage Water Heater, Multifamily	Interim approval.
SWFS027-02	Soup Well, Electric, Commercial	Interim approval.
SWFS003-05	Combination Oven, Commercial	Interim approval.
SWAP017-04	Oven, Gas, Residential	Interim approval.
SWAP006-05	Dishwasher, Residential	Interim approval.
SWFS013-04	Low-Flow Pre-Rinse Spray Valve	Interim approval.
SWFS018-06	Undercounter Dishwasher, Commercial	Interim approval.
SWFS028-02	Steam Table, Electric, Commercial	Interim approval.
SWHC054-02	Heat Recovery Ventilation, Residential	Interim approval.
SWRE003-04	Heater for Pool or Spa, Commercial and Multifamily	Interim approval.
SWFS024-03	Hot Food Holding Bins, Commercial	Interim approval.
SWRE004-04	Pool Heater, Residential	Interim approval.
SWWH033-03	Gas Heat Pump Water Heater, Multifamily	Interim approval.
SWFS030-01	Pressure Fryer, Commercial	Interim approval.

Measure Package Submittals – All Submitted in 2024		
SW MP ID	Title	Comments
SWWH034-03	Solar Thermal Water Heating System, Commercial and Multifamily	Interim approval.
SWWH023-03	Diverting Tub Spout with TSV, Residential	Interim approval.
SWWH004-04	Laminar Flow Restrictor, Commercial	Interim approval.
SWWH020-06	Low-Flow Showerhead, Commercial	Interim approval.
SWFS008-03	Conveyor Oven, Gas, Commercial	Interim approval.
SWWH019-06	Faucet Aerator, Commercial	Interim approval.
SWWH006-08	Tankless Water Heater, Commercial	Under detailed review.
SWWH007-06	Storage Water Heater, Commercial	Under detailed review.
SWWH005-07	Boiler, Commercial	Under detailed review.
SWWH026-04	Water Heater Pipe Wrap, Residential	Under detailed review.
SWFS001-04	Convection Oven, Commercial	Under detailed review.
SWWH013-04	Tankless Water Heater, Residential	Under detailed review.
SWWH012-04	Storage Water Heater, Residential	Under detailed review.
SWWH003-04	TSV with and without an Integrated Low-Flow Showerhead, Residential	Under detailed review.
SWWH001-05	Faucet Aerator, Residential	Under detailed review.
SWWH002-05	Low-Flow Showerhead, Residential	Under detailed review.
SWWH017-06	Hot Water Pipe Insulation, Nonresidential and Multifamily	Under detailed review.

Measure Package Submittals – All Submitted in 2024		
SW MP ID	Title	Comments
SWFS002-05	Door-Type Dishwasher, Commercial	Under detailed review.
SWFS019-04	Underfired Broiler, Commercial	Under detailed review.
SWHC001-05	Wall Furnace, Residential	Under detailed review.
SWHC004-07	Space Heating Boiler, Commercial & Multifamily	Under detailed review.
SWWH015-04	Demand Control for Centralized Water Heater Recirculation Pump, Multifamily & Commercial	Under detailed review.
SWWH016-04	Domestic Hot Water Loop Temperature Controller, Multifamily & Commercial	Under detailed review.
SWFS004-03	Griddle, Commercial	Under detailed review.