

Normalized Metered Energy Consumption (“NMEC”) Rulebook Update Webinar

January 30, 2024



California Public
Utilities Commission

Agenda

- Introductions
- Groundrules
- Background and objectives
- Highlighted Rulebook changes and rationale
- Status of other Working Group recommendations



Groundrules

- Hold questions (or put them in the chat) until the presentation is done
- There will be time at the end of the presentation for Q&A
- During Q&A, please use the raise-hand function to indicate you want to ask a question

Background

- AB 802 (Williams 2015) allows for existing conditions baseline with Normalized Metered Energy Consumption in existing buildings, to tap into "Stranded Savings"
 - Stranded savings are energy efficiency opportunities being ignored because building and appliance codes are so stringent that incentives for above code savings are insufficient.
 - Stranded savings are projects that would never happen without programs
- Recent history:
 - Rulebook Version 2.0 2020: Added Population-Level NMEC Guidance
 - Rulebook Version 2.1: Updates focused on Site-Level NMEC
 - Working Group Report (2022)
 - NMEC Project Review Team feedback

Background (Continued)

- D.23-06-055, page 41
- “...some new energy efficiency programs will now be required to use ...meter-based method(s) ... unless using these methods is not feasible and/or cost-effective...:
 - New programs approved by this decision launching on or after January 1, 2024, except for third-party programs for which the request for proposals or request for abstracts is issued prior to October 1, 2023;
 - Uses a downstream delivery approach;
 - Is a resource acquisition retrofit program;
 - Is in the residential or commercial sector; and
 - Is eligible to use the NMEC rules (according to the NMEC Rulebook).”

Key Concepts

- Support achieving access to “stranded savings”.
- Savings measured from existing conditions baseline.
- Acceleration demonstrates that savings were “stranded”.
 - Should not incentivize to-code upgrades that would have happened anyway.
- Performance-based savings only partially mitigates ratepayer risk
 - Effective Useful Life estimation is essential and unavoidable.
 - Non-routine event issues remain unavoidable.

Objectives

- Provide guardrails to avoid bad outcomes, such as to-code retrofits that were done as part of normal operations (and not due to programs)
 - Maintain transparency and evaluability of NMEC projects
 - Allow reasonable flexibility to support successful NMEC implementation
 - Clarify ambiguities in the Rulebook, where possible
- *These objectives are Important given the metered savings initiative in D.23-06-055*

Highlights: Selected Proposed Changes to Rulebook and Rationale

Stakeholder Request to Completely Separate Custom Guidelines from NMEC Guidelines

- Custom rules were developed to ensure the quality of site-specific projects
- Severing all ties to existing custom guidance could lead to unequal treatment without rationale.
- The new draft rulebook has a section dedicated to articulating differences between Custom and NMEC, so that where different treatment makes sense it can be specified.

Clarified Program Influence Documentation Requirements

- Previous Rulebook was vague on program influence documentation requirements
- E-5115 is the current standard protocol for meeting the program influence requirements for site-specific projects.
 - Tiered requirements based on project size
 - Rulebook relieves requirement to demonstrate existing equipment viability
- NMEC is a measurement approach and not a delivery approach and should meet preponderance of evidence ("POE") standard
- NMEC's use of existing conditions baseline over the full measure life implies full acceleration. The rulebook does not require evidence of full EUL acceleration, but does require evidence meeting an Accelerated Replacement ("AR") standard.
- To the extent there should be adjustments to E-5115 to better suit NMEC, suggestions can be considered for inclusion in the final version of the rulebook.

Require Adjustments to Ex-Ante Claims for the Below Code Savings for Normal Replacement Measures

- Normal Replacement = Project would be installed as part of normal operations, not that measure is older than its EUL
- NMEC projects submitted with normal replacement measures need to take steps to align the ex-ante claim with reasonable expected savings.
 - Consistent with CPUC policy to pursue net savings
- If no adjustments are made and the CPUC accepts those claims, then CPUC is approving claims that are, by definition, overstated.
 - Note, there have been NMEC projects with 100% normal replacement measures.
- CPUC is open to providing reasonable allowances to minimize the technical burden of estimating these adjustments.

Separate Metering for Commercial Equipment where an NMEC Project is Installed at Industrial Facilities

- Industrial processes is much more energy intensive than commercial and can obscure commercial measures relatively easily.
- Separate metering ensures industrial process is not conflated with the commercial project

Working Group (“WG”) Recommendations

Itemized review of recommendations and outcomes

WG Recommendations: Issue 1: Calculation Rigor in Savings Estimates

- Recommendation: Remove Requirement to Use Deemed Methods wherever possible
- **Adopted**, in Section III, 1, D of Rulebook 2.1
 - NMEC project savings forecast ~~estimates may be based either on approved deemed measure workpapers or may be calculated using engineering or modeling methods consistent with Commission adopted custom project savings calculation guidelines. Methods~~ should be based on existing conditions baseline and must be documented in the Project M&V Plan and should; Forecast methods must be appropriate to the project type.
 - ~~Estimates should use DEER or workpaper values wherever possible~~

WG Recommendations: Issue 1: Calculation Rigor in Savings Estimates (Continued)

- Recommendation: Create a Site-specific NMEC Project Review team parallel to the Custom Project Review team to review methods proposed to determine site-level NMEC savings.
 - Not a component of Rulebook, but separate NMEC project review team is **adopted**
- Recommendation: Allow for actual load shapes to be reported
 - Creating this functionality is a goal, but will take substantial modifications to CET and reporting tools.

WG Recommendations: Issue 2: Permissible Project Types

- Recommendation: Eliminate and/or clarify ambiguous language from the Rulebook that may suggest that Normal Replacement Measure Application Types ("MATs" are not eligible.
 - **Adopted**
 - "NMEC projects must occur **in-at** existing buildings. ~~and should consist primarily of measures suitable to an existing conditions baseline~~" (Section II.1.B draft Rulebook 2.1)
- Recommendation: Through ongoing NMEC collaboration, allow for alternative approaches that can assess program influence.
 - Not developed enough for adoption
- Recommendation: Through ongoing NMEC collaboration, develop an NMEC-specific MAT
 - Not developed enough for adoption
 - Need to preserve MAT information to ensure appropriate EUL and ex-ante savings, e.g. Behavioral, Retrocommissioning and Operational Measures and Normal Replacement

WG Recommendations: Issue 2: Permissible Project Types (Continued)

- Recommendation: Through ongoing NMEC collaboration, create additional guidance on acceptable influence documentation
 - Not developed enough for adoption
 - Program Influence guidance is clarified in draft Rulebook 2.1
 - Leverages existing program influence documentation guidance for site-specific projects.
 - NMEC goes beyond accelerated replacement to applying existing conditions baseline over the full EUL. It is reasonable to expect that acceleration is demonstrated. Otherwise, any normal replacement project that meets other eligibility requirement could be incented.

WG Recommendations: Issue 2: Permissible Project Types (Continued)

- Recommendation: Industrial customers should be allowed to participate and implement all project types using the same criteria as other non-residential customers with no restrictions on project types.
 - Goes beyond the scope of the Rulebook. Sector eligibility set by Decision 16-08-019
- Recommendation: Permit PAs to count programs that follow the Strategic Energy Management Design Guide toward their third-party outsourcing targets.
 - Goes beyond scope of the Rulebook.
 - Third party program requirements issue

WG Recommendations: Issue 2: Permissible Project Types (Continued)

- Recommendation: Develop guidance to reduce “Grey area” project eligibility ambiguity until the CPUC can issue a decision
 - NMEC projects must occur **in-at** (*emphasis added*) existing buildings (Draft Rulebook 2.1, Section II,1,B)
 - Provides for adjacent facilities e.g., parking lots and exterior lighting
- Further clarification not possible in this staff led Rulebook update because the Rulebook must stay within the bounds of Decision language. (See D.16-08-019 Section 3.8)

WG Recommendations: Issue 3: Project Approval Timelines

- Recommendation: Limit project review timelines. Specify project reviews are advisory only.
 - Draft Rulebook 2.1 reiterates CPUC project reviews are advisory only. This is not a change.
 - PA reviews are a delegated authority, to allow PAs to meet responsibilities of maintaining a compliant portfolio.

WG Recommendations:

Issue 4/6: Modeling Acceptability Requirements

- Rulebook 2.0 states “Programs and/or projects targeting savings that comprise less than 10% of annual consumption must provide a rationale and explanation in the program and project-level M&V Plans of how savings will be distinguishable from normal variations in consumption.”
- Recommendation: Modify Rulebook language to Eliminate R^2 as a criterion and add ASHRAE’s FSU formulae as alternative.
- Draft Rulebook 2.1 Adopts FSU as eligibility criterion.
 - Uses FSU as the eligibility criteria instead of the current “10% savings”
 - Allows savings percentages higher and lower than 10% with sufficiently good model.

WG Recommendations: Issues 5,7,8

- Recommendation 5: Remove measure level analysis needed for EUL calculation.
 - Not feasible. EUL is not apparent in one year of metering. EUL is critical to Total System Benefit calculations and requires measure level analysis
- Recommendation 7: Refine criteria for calculating demand impacts
 - Agree this is a need. Not sufficiently developed for adoption.
- Recommendation 8: Update the minimum requirements for submetering equipment accuracy
 - Adopted

WG Recommendations: Issues 9, 10,11

- Recommendation 9: Suggested language corrections and specify default NTG values
 - Adopted language corrections.
 - Default NTG values evolving
- Recommendation 10: Add Reporting Requirements Section to Rulebook
 - Adopted.
- Recommendation 11: Offers redline changes to Section 2.A.1.b, under Program Level Measurement and Verification (M&V) Plan for Population-Level NMEC
 - Changes the reference to control groups. Adopted

WG Recommendations: Issues 12, 13,14

- Recommendation 12: Explicitly allow for simplified non-routine adjustment methodologies, such as where solar or electric vehicles are installed.
 - Recommendation not sufficiently developed for site-level projects, which may be large.
 - Specific approaches may be proposed in Population-level NMEC M&V Plans
- Recommendation 13: Add the following requirement to the population NMEC M&V Plan specification:
 - *“Description of any plans to integrate long-lasting energy efficiency deployment with other opportunities like demand response, and including a description of how measurement of energy efficiency and other savings will be disaggregated and paid for”*
 - Adopted.
- Recommendation 14: Through ongoing NMEC collaboration, develop a test suite for NMEC models, or support collaboration on open-source models.
 - Development of test suite not currently feasible due to CPUC resource constraints
 - Supportive of stakeholder led process

WG Recommendations: Issues 15,16,17

- Recommendation 15: The CPUC should ensure that data is provided to implement NMEC M&V plans based on, and in compliance with, the Rulebook.
 - Data sharing requirements adopted in D.23-02-002.
 - Data access issues go beyond scope of Rulebook
- Recommendation 16: CPUC staff and stakeholders should discuss options to provide implementers with customer qualification data or tools in a more efficient and timely manner:
 - Customer eligibility is specific to each program.
 - Eligibility assurance is a Portfolio Administrator responsibility
- Recommendation 17: CPUC staff should allow approaches for handling customer account changes (e.g., occupancy changes, account termination) by assigning a deemed value or pathway.
 - Reasonable approaches to handling such non-routine events may be proposed in the program M&V Plan, and are subject ex-post evaluation



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