# MEMORANDUM

CALIFORNIA TECHNICAL FORUM

Date: May 16, 2022

To: Cal TF PAC

From: Arlis Reynolds, Ayad Al-Shaikh, and Annette Beitel, Cal TF Staff

Subject: Leveraging the eTRM for the Custom Projects

## I. Objective

Custom projects are important for achieving California's energy efficiency goals. However, custom project stakeholders have identified various challenges with the review and approval of custom projects. Hence, both the number and associated savings of custom projects have decreased over time.

Custom stakeholders have invested significant resources towards streamlining custom processes and improving outcomes. The CPUC has implemented strategies to improve Custom Project Review (CPR) and recently completed a process study to identify improvement opportunities for IOU due diligence review (DDR) processes.[1] CPUC, IOU, and implementer staff participate in working groups to increase statewide standardization, develop documentation to clarify CPUC and program policy, and implement other program improvements. Similarly, each IOU is investing in internal systems and tools to improve custom project review processes, cost-effectiveness and quality.

As Cal TF staff work to integrate POU custom tools and projects into the eTRM (2022 Cal TF Business Plan Goal 5), we examined how the eTRM can address existing challenges and enhance stakeholder efforts to streamline custom review/approval processes while concurrently increasing transparency and custom project quality—from custom project submittal through project approval.

This paper summarizes opportunities and benefits of using the eTRM for custom project submittals and review, both DDR and CPR. Specifically, migrating custom projects and review processes into the eTRM will result in more consistent and transparent custom project development and review, more streamlined project submittal and review workflows, higher quality project submittals, and improved alignment between custom projects and deemed measures and measure parameters, consistent with CPUC regulatory direction. Furthermore, migrating custom projects to eTRM would dramatically facilitate ex ante and ex post review and

[1] Process Study of IOU Custom EE Custom Program Due Diligence Reviews

analysis, as all custom project documentation and supporting tools and guidance would be housed in a single repository.

## II. Data Sources and Approach

To examine opportunities and benefits of the eTRM for the custom projects, Cal TF staff reviewed program materials and information from recent custom streamlining efforts, including:

- 2022 Process Study of the IOU's Custom Program Due Diligence Reviews,
- ESPI memos (2020 Final and 2021 Mid-Year),[2] and
- Materials from various CPR stakeholder engagement activities.[3]

For each issue and recommendation, Cal TF Staff analyzed how the eTRM could be used to address the challenge and/or implement the recommendation using existing eTRM capabilities developed for deemed measures, that could readily be adapted and leveraged for custom projects. For each opportunity, we identified potential benefits such as program cost savings, time savings, transparency, clarity, consistency, quality, and standardization.

See Attachments A through C for details of this eTRM opportunity and benefit analysis.

## III. Opportunities

The eTRM structure offers substantial opportunities to improve custom project processes and outcomes, similar to those implemented for the deemed measure packages. We describe the opportunities in three categories: 1) overarching enhancements, 2) workflow process improvements, and 3) improvements to custom project submittal quality.

***Overarching Enhancements***

- **Centralize and maintain custom project regulatory requirements and other custom project development guidelines and documentation** in the eTRM reference library making it more convenient and cost effective for stakeholders to access current documents and information. Cal TF Staff could also serve as a central resource for custom project technical support and training, as Cal TF Staff does for deemed.
- **Centralize and standardize DDR and CPR data tracking and reporting**, improving the consistency of project tracking data across IOUs and reducing the need for data requests and transfers. For example, incorporation of custom project submittals into the eTRM effectively eliminates the need for the IOU biweekly uploads to the CMPA.[4]
- **Standardize across IOUs custom project nomenclature**. The eTRM database ensures that measure numbering is consistent and follows established conventions, which does not currently exist across IOUs.

[2] Available at http://www.deeresources.com/index.php/espi
[3] Available at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/custom-projects-review-stakeholder-engagement-page
[4] IOUs produce and submit to the CPUC biweekly data tracking reports of custom projects in development, including key project details and current project status.

- **Standardize, clarify, and enforce measure- and project-specific data collection requirements** to ensure appropriate project data are collected to streamline ex ante and ex post project reviews and improve the rigor of savings claims.
- **Improve alignment between the custom project and deemed measure supporting data and parameters**, through consistent measure naming conventions, data tracking structures, workflow processes, and reference materials as well as direct links to CPUC support tables.
- **Improve data accuracy and consistency, and enable data validation, review, and transfers between systems** (e.g., IOU tracking and claims data, deemed savings tables, eTRM, CMPA, and CEDARS) by consolidating redundant data tracking and facilitating automated data transfers between systems.
- **House all custom project data in a single repository** for easy access by utility reviewers, ex ante reviewers, and ex post evaluators.

***Workflow Process Improvements***

- **Facilitate complete project submittals** through intake templates that clarify required documentation and controls that require documentation fields to be complete before a project can be submitted. Data validation functions can help ensure submitted data and documents are accurate, consistent, and use the most recent versioning.
- **Create transparency for DDR and CPR (from project submittal to approval)** through automated workflow tracking for application intake, review, and approval processes starting with utility review through the ex ante team review. Workflows will follow a standardized process that is clear and consistent for all stakeholders (with appropriate variation based on project type and size), that clarifies user assignments and requests, and that ensures each step is completed before a subsequent step can begin. Project submitters will be able to see where their project is in the review process, and any issues that are identified and need addressed.
- **Centralize and organize project information** in a consistent, accessible, and searchable format with appropriate access and privacy controls. Stakeholders can access project information in one place (e.g., workflow status and project history and communication), enhancing transparency and collaboration among stakeholders.
- **Facilitate and enforce established timelines** through automated workflow functions and notifications to stakeholders about anticipated and elapsed timeframes.
- **Enable automated tracking and reporting of performance metrics,** such as submitted, reviewed, and approved projects in process and measured timeframes for steps in the workflow process (e.g., IOU and CPR reviews of project packages).
- **Enable automated notifications**, improving communication among stakeholders about project status, user assignments, and timelines.
- **Facilitate and reduce costs and time for ex ante and ex post evaluations** through housing project data in a single repository and automatically reporting key project data selected by ex ante or ex post reviewers across the range of custom projects so they can review project documentation and minimize supplemental data requests.

### *Improvements to Custom Project Submittal Quality*

- **Embed approved calculation tools** for custom measures with common calculation methods, with versioning control and data validation functions to ensure custom projects used the appropriate versions of calculation tools and to improve accuracy of data inputs. The eTRM could also enable embedded calculations to further control quality and accuracy, a feature Cal TF is testing using POU custom tools.
- **Enable automated data validation and expanded review.** Through its relational database structure and calculation features, the eTRM enables automated data validation to ensure data accuracy and flag potential errors. For example, eTRM functions can connect directly with reference tables to auto-populate and/or provide quality control reviews based on measure information.
- **Incorporate default values and data references** to improve accuracy of common parameters. The eTRM can offer default values appropriate for a particular measure.
- **Incorporate embedded references to appropriate technical and policy guidance documents**, providing easy access to reference materials for clarification on CPUC policy, industry standard practice, PA program rules, etc.

In addition to these specific quality improvement opportunities, the efficiencies and benefits gained from overarching and workflow process improvements free up stakeholder resources to focus on technical and policy aspects that require more customized attention.

The opportunities in this memo are based on an initial review of custom issues and comparison to existing eTRM functions that could be adapted and leveraged for custom projects. Cal TF staff will examine additional opportunities to improve program processes and outcomes.

## I. Benefits and Likely Outcomes

### *Benefits from the Cal TF Business Plan*

Cal TF staff identified six benefits from development of POU Custom Measures for the eTRM (2022 Business Plan, Goal 5). These same benefits will be achieved through eTRM integration for the IOU custom programs:

- **Cost savings**, from workflow efficiencies and elimination of redundant or manual tasks.
- **Time savings**, from improved workflow efficiencies, automation of manual processes, and centralization of program and project data.
- **Customer Experience**, improved through standardization of program processes, centralization and access to information, and transparency in project status.
- **Standardization**, from incorporation of program processes and materials into the statewide eTRM structure, including improved alignment with deemed measures.
- **Transparency**, improved through centralization of program and project data; accessible and user-friendly dashboards showing project history, status, and communication; and automated tracking and reporting of program activity and key performance metrics.
- **Stakeholder Engagement**, improved through enhanced communication and collaboration tools, centralized program resources, and centralized data tracking.

### *Outcomes Improving Custom Project Performance*

Cal TF staff identified the following likely outcomes of using the eTRM structure for custom projects and program activities based on the opportunities and benefits described above:

- **Transparency during DDR and CPR processes, clarity of requirements, and reduced frustration** for both customers and custom project stakeholders.
- **Improved cost-effectiveness of custom programs.** Improved workflow functions and efficiency will reduce the costs and timeframes for project development, review, and approvals. Centralizing workflow administration, program documentation, resources, and data tracking will reduce the cost of IOU-specific systems and redundant activities.
- **Increased custom program throughput and savings.** Streamlined and predictable workflows with enhanced transparency and communication enabled through the eTRM structure will improve stakeholder confidence in program processes and outcomes. Improved confidence among stakeholders will result in increased program activity.
- **Improved quality of custom project submittals.** The reduced administrative burden on program stakeholders enables stakeholders to focus resources on program, policy, and technical reviews and communication to improve project quality.
- **Increased participation by implementers, including small and diverse organizations.** The centralization, improved accessibility and clarity of program requirements and processes, and improved workflow efficiency reduce barriers to participation. Cal TF can further reduce barriers by providing training and technical support, similar to Cal TF service for eTRM users and deemed program activities.
- **Improved ESPI scores.** Benefits of eTRM integration cover each ESPI metric area,[5] and use of the eTRM structure to track ESPI scoring enables more frequent assessment of both progress and remaining issues to overcome. Continued ESPI scoring provides a strong foundation from which to measure improvements in program performance.
- **Reduced time and cost for ex ante and ex post reviewers** since all custom project documentation will be located in a single repository, and different project parameters of interest to evaluators readily can be sampled and varied over time depending on needs and findings of the evaluation team.

## II. Cal TF Staff Next Steps

As the Cal TF team proceeds with activities for Business Plan Goal 5, we will continue to define opportunities and benefits of using the eTRM structure for the IOUs' custom project development and review, examine requirements, and solicit input and comment from key stakeholders, including the Cal TF Policy Advisory Committee (PAC), IOU custom program and reporting staff, evaluators, the CPUC and CPR staff, existing eTRM stakeholders, and implementers/Cal TF members interested in custom program activities from project submittal to

[5] ESPI metric areas for custom performance: 1) Timeliness of Submittals, 2) Content, Completeness, and Quality of Submissions, 3) Proactive Initiative of Collaboration, 4) PA's Due Diligence, Quality Assurance, and Quality Control, and 5) PA's Responsiveness.

approval.  We will work closely with the POUs to ensure their objectives for custom and standard deemed projects are considered and appropriately aligned. In addition, we plan to:

- Determine how features that are already developed for deemed measures could be leveraged and/or adapted for custom projects, including 1) workflow features, 2) automated notification, 3) reporting, and 4) the eTRM measure reference library;
- Refine the specific additional data fields that would be needed to enter custom projects into the eTRM; and
- Define security requirements to ensure all custom project data will be secure.

The Cal TF team will outline an approach to maximize benefits from the eTRM for custom programs for review and discussion with the PAC.

## Attachment A: Examples of eTRM solutions to issues identified through EPSI Performance Reports

The ESPI memos include a summary of action items to show the types of issues the CPR team observed during CPR reviews as well as specific examples of "project and measure-level deficiencies." Cal TF compiled and reviewed these summaries for each IOU from the 2020 Final ESPI memos and examined how the eTRM structure could avoid and/or mitigate each issue.

Table A-1 shows the distribution of CPR Actions by Issue Area from the 2020 final ESPI reports.

**Table A-1. Distribution of Reported CPR Actions by Issue Area (ESPI, 2020 Final)**

| Issue Area | Percentage of Total Actions |
|---|---|
| Issues Related to Gross Savings Impacts | 48% |
| Process, Policy, Program Rules | 27% |
| Documentation Issues | 9% |
| Issues Related to Net Impacts | 5% |
| Other Issues | 11% |

Table A-2 shows specific examples of issues from the ESPI memos and describes how the eTRM structure could help eliminate or mitigate each.

**Table A-2. Examples of Project/Measure Deficiencies and eTRM Opportunity**

| Examples of Deficiencies | eTRM Improvement Opportunity |
|---|---|
| Incomplete Documentation of Program Influence | eTRM structure clarifies required documentation, and controls ensure complete project submittals by requiring all documentation fields to be complete before a project can be submitted. Additional quality control features ensure submitted documentation are appropriate, use the right versions, etc. |
| Savings Calculations Not Provided | eTRM workflow functions and data validation features ensure all required documents and materials are provided before a project can be submitted. |
| Incorrect Measure EUL | eTRM functions can connect directly with reference tables to auto-populate and/or provide quality control reviews based on selected measure types. |
| EUL Does Not Exceed Simple Payback | eTRM functions can provide quality controls for input fields to auto-identify errors (e.g., comparing SPB and EUL inputs). |
| Project Not Authorized Prior to Implementation | eTRM structure enforces required actions (e.g., required documents or stakeholder approval) to be completed before enabling a subsequent step and provides clear, accessible information about a project status. This structure eliminates confusion about project status and enhances communication through automated notifications when a project is cleared to proceed to the next step. |

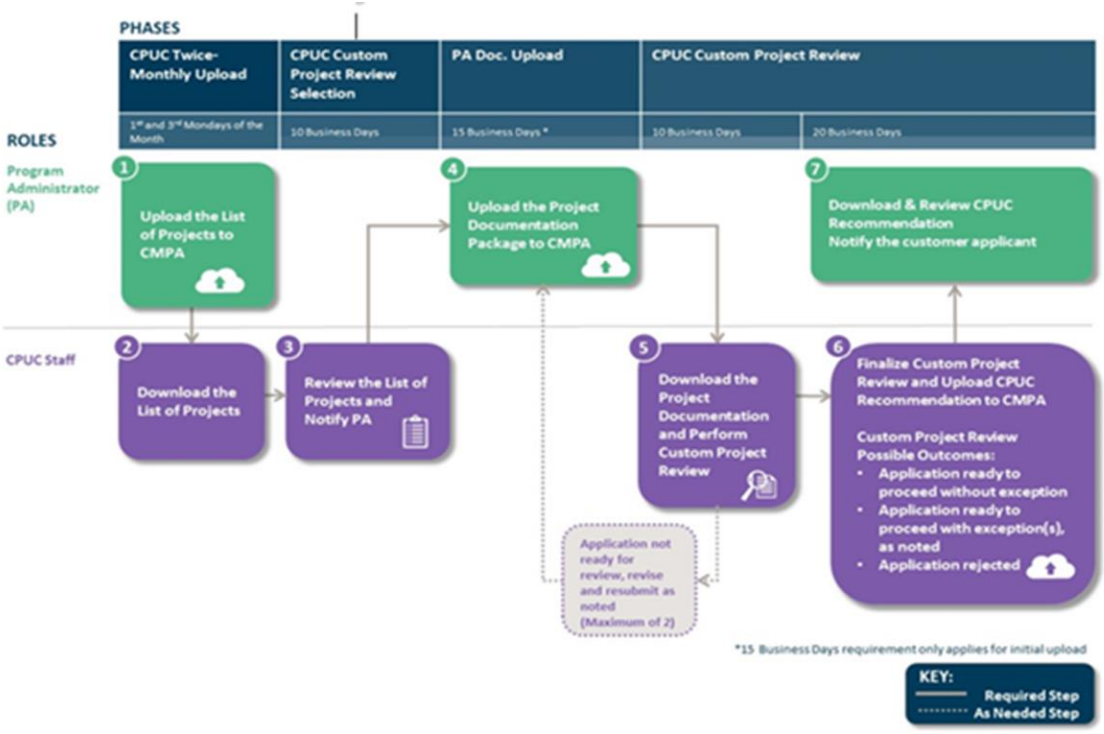
## Attachment B: eTRM Opportunities and Benefits for the Custom Project Review Process

The CPUC and CPR review team have improved the clarity and timeliness of the CPR process. Figure B-1 describes the CPR process, including the maximum timeframe and assigned stakeholder (PA or CPUC) for each step of the process.

The Cal TF team explored how integration with the eTRM structure could further improve the CPR process and found substantial opportunity for additional benefits including 1) cost and time savings through the potential elimination of data transfer tasks and 2) enhanced transparency and communication among stakeholders regarding project status and review requests.

Table B-1 (next page) describes the eTRM opportunity and benefits for each step of the CPR process.

**Figure B-1. Summary of FY14-15 CPP Evaluation Results**




Source: Custom Projects Review Home Page (ca.gov)

**Table B-1. Summary of eTRM Opportunities and Benefits for the CPR Review**

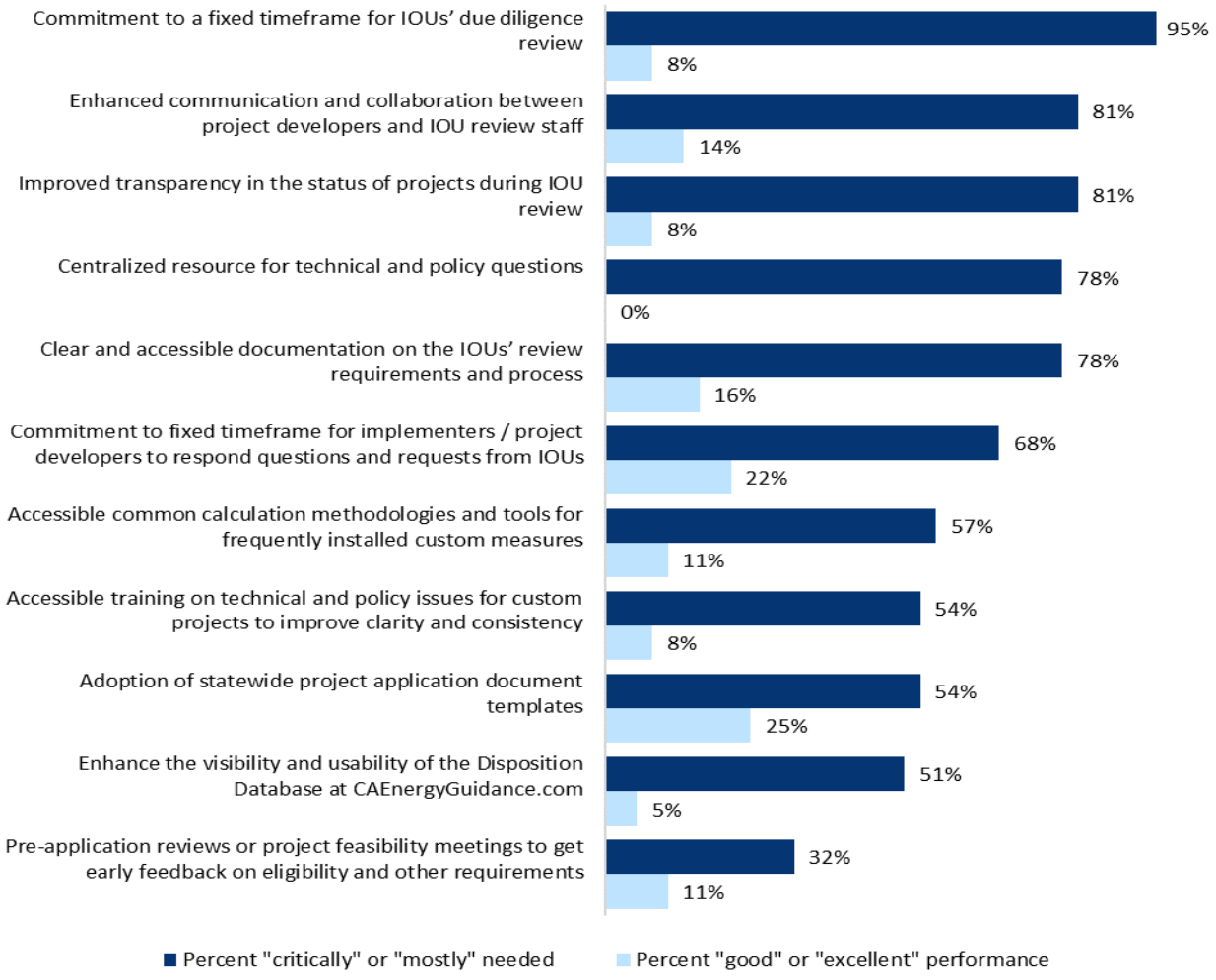
| Step | Role & Description | eTRM Opportunity | Cost Savings | Time Savings | Standardization | Transparency |
|---|---|---|---|---|---|---|
| 1 | PA: Upload project list to the CMPA | Eliminate the need for data uploads as data would already be in the eTRM. | X | X | X | X |
| 2 | CPUC: Download project list | Eliminate the need for data download as data would already be in the eTRM. | X | X | X | |
| 3 | CPUC: Review project list and notify PA and appropriate stakeholders | Simplify. The CPUC team can use eTRM workflow functions to indicate and send automatic notifications about which projects are selected for CPR. The eTRM can also provide automated notifications and status change for projects not selected for CPR and that may proceed to next workflow step. | | X | | X |
| 4 | PA: Upload project package to the CMPA | Eliminate/Simplify. Since project submittal data would already be in the eTRM, eliminate this step if IOU doesn't require additional review or redacting of project materials. Otherwise, simplify this step if IOUs require submittal modifications prior to CPR. | X | X | X | X |
| 5 | CPUC: Download project package and perform CPR | Eliminate the need for download since project data are already in eTRM; improve transparency and customer experience with clear and available information about CPR review status and any questions or requests that come up. | X | X | | X |
| 5a | CPUC: If needed, issue 1st SDR | Reduce time and improve transparency through workflow functions. | | X | | X |
| 5b | PA: Resolve SDR and resubmit | Reduce time and improve transparency through workflow functions. | | X | | X |
| 5c | CPUC: If needed, issue 2nd SDR | Reduce time and improve transparency through workflow functions. | | X | | X |
| 5d | PA: Resolve SDR and resubmit | Reduce time and improve transparency through workflow functions. | | X | | X |
| 6 | CPR: Finalize CPR and upload CPUC recommendation to CMPA | Simplify using eTRM workflow functions to indicate project review is finalized, communicate final disposition, and notify PA and appropriate stakeholders. Eliminate need for upload since data are already in eTRM system | X | X | X | X |
| 7 | Download and review CPUC recommendation; notify the customer applicant | Eliminate steps through automated workflow functions. (A PA may want to review disposition before notification is sent to other stakeholders, but this step can still be automated through workflow functions.) | X | X | | X |

## Attachment C: eTRM Opportunities and Benefits for Stakeholder-Ranked Custom Process Improvement Recommendations

The 2022 Process Study of IOU's EE Custom Program Due Diligence Reviews for custom projects included a survey of custom program implementers and project developers ("stakeholders"). In the survey, stakeholders ranked a list of DDR improvement recommendations based on current performance and need. Figure C-1 shows stakeholders' rankings regarding the need and current performance of recommendations to improve the IOU's DDR processes.

Cal TF staff examined the opportunity and benefits for the eTRM structure to address each recommendation included in this stakeholder survey. Table C-1 (next page) summarizes how the eTRM structure could implement each recommendation.

**Figure C-1. Ranked Necessity of Improvements to DDR Process and Current IOU Performance based on Survey of Custom Program Implementers and Project Developers**




Source: Process Study of IOU Custom EE Custom Program Due Diligence Reviews (Figure 12)

**Table C-1. Summary of eTRM Opportunities and Benefits for Process Improvements Ranked by Custom Program Stakeholders**

| Rank | Role & Description | eTRM Opportunity | Cost Savings | Time Savings | Standardization | Transparency |
|---|---|---|---|---|---|---|
| 1 | Commitment to a fixed timeframe for IOUs due diligence review | eTRM workflows facilitate timed workflows with automated tracking and reporting of time and user notifications regarding assignments and/or remaining time. | | X | X | X |
| 2 | Enhanced communication and collaboration between project developers and IOU review staff | eTRM database and workflow functions keep all project information and historical decisions/discussion in the same place; provides a valuable platform for communication/collaboration throughout project development/review | X | X | X | X |
| 3 | Improved transparency in the status of projects during IOU review | eTRM workflow functions provide 24/7 access to project status for stakeholders with appropriate permissions | | X | | X |
| 4 | Centralized source for technical and policy questions | eTRM provides a central location for information and can facilitate workflow "flags" to request clarification from appropriate technical/policy users.<br>Cal TF framework can provide centralized technical/policy support | X | | X | X |
| 5 | Clear and accessible documentation on the IOUs' review requirements and process | eTRM workflow structure provides clarity, definition, and controls on required documentation and required process steps; clarifies the assignments and can provide reminders to users | X | X | X | X |
| 6 | Commitment to a fixed timeframe for implementers / project developers to respond to requests for information/clarification | Commitment to fixed timeframe is a separate action; eTRM workflows collect data and controls to implement and measure fixed timeframes | | X | X | X |
| 7 | Accessible common calculation methods & tools for frequently installed custom measures | eTRM can provide centralized storage for the latest approved versions of calculators as well as data validation functions for data quality reviews. | | | X | X |
| 8 | Accessible training on technical and policy issues for custom projects to improve clarity and consistency | eTRM can provide a central location for training material and can embed references to key resources throughout the workflow process<br>Cal TF framework can provide centralized technical/policy support | X | X | X | |
| 9 | Adoption of statewide project application document templates | eTRM workflow functions provide a consistent SW process with clear, consistent documentation requirements | X | X | X | |
| 10 | Enhance the visibility and useability of the Disposition Database | eTRM can centralize and organize key data, communications, policy clarifications, etc. in a searchable format for easy access and reference during project development, submittal, and review. | | | X | X |
| 11 | Pre-application reviews or project feasibility meetings to get early feedback on eligibility and other requirements | eTRM functions can 1) include pre-application or early opinion workflow; 2) document and consolidate Q&A and decisions/recommendations; and 3) facilitate workflow "flags" to request clarification from appropriate technical/policy resources | | | X | X |