PG&E Project Development (PD) Protocol, V3, April 2017

**Tim Xu, PG&E Customer Energy Solutions EE Programs, Email:** [**TTX1@PGE.com**](mailto:TTX1@PGE.com)

# About this Protocol

This PD protocol is developed for use as a reference to guide custom project stakeholders including account representatives, implementers, and engineers in the effort to gather information necessary for assessing project/measure type, project/measure eligibility, influence, and appropriate baseline. It’s built upon experience in reviewing past calculated projects in core and 3P programs. It’s intended to inform important steps for the custom developer/implementer to take before significant effort would be invested in engineering calculations and M&V plans. It’s also intended to guide communications with the customers, vendors, and/or designers for project teams to exercise program influence when appropriate.

# PD Protocol

**Step 1.** Because custom projects often involve unique (or semi-unique) equipment or a combination of equipment per customer’s specific needs in process or production, often broad market-based ISP studies on such measures don’t exist or may not be applicable. In addition, CPUC reports and dispositions say we need to do better, while stakeholders want more clarity on compliance and review criteria. It’s expected that the project team gather and document the following information, which is necessary for element assessment and reviews, before the team invests in significant effort in detailed engineering calculations and M&V plans.

* What’s really driving the project? First, describe a set of problems that the customer is trying to resolve, e.g., what are the business needs and wants of production, maintenance, reliability, capacity, competitiveness, productivity, regulations, etc.? Second, describe project evolution (business plans and stages) and range of motivators for the project development. [Note] The documentation needs to describe the main factors (including energy and non-EE factors) that the customer considered when it plans/designs/selects the project to meet its business needs. It’s understandable that energy efficiency, among many other factors, wouldn’t necessarily be the only or top factor.
* What are the common maintenance issues of existing system (if any) and the equipment involved? Describe barriers that the customer faces (if any) to adopting the new efficiency measure(s). What are the resources being looked for?
* Has the customer updated any of its existing measures/systems to another measure/system recently? If yes, when was it? Please explain the reasons for switching to the new measure/system.
* When and how did the implementer/engineer get involved in the specific custom project (e.g., in which stage of the custom project development), and what values does the implementer/engineer bring to the customer in the specific custom project. **[Note]** Simply providing estimates of potential savings alone for the customer doesn’t automatically qualify for program influence.
* What is the range of alternative solutions that the customer considered if any that also meet the customer’s needs? Understand and describe the range of vendors, equipment efficiency, capacity, and costs.
* What is the range of regulations (e.g., code, standards) applicable to the relevant process functionality and the EEM?

The project development documentation should include a list of eligible measures and alternative options and evaluate the appropriate baseline for each EEM. Through interactions with the customer using the above-mentioned questions to guide the conversations with the customer, the project team should gather necessary information to justify project/measure type, assess project/measure eligibility, validate and document influence, and start to assess appropriate baselines.

**Step 2.** After project/measure type, eligibility, and influence are validated, and there are more than one options meeting the customer’s needs, the team can start collecting data for use in appropriate baselines justification, esp. when there is no existing ISP study report for the EEM being considered. In this case, additional investigations may be needed to understand common practice of some specific EEMs, i.e., interviews with vendors/designers to understand today’s sales trend of the EEM. Recommendations for appropriate baseline should be made prior to detailed engineering calculations of savings.

For custom projects proposed to implement off-the-shelve energy efficient products for specific custom functions, which don’t necessarily reach thresholds that trigger an ISP study, it’s expected that the project team gather data and understand today’s market procurement/installation trends by contacting a handful of vendors and suppliers, so that appropriate baseline can be substantiated. While often market saturation data is a first step to understand the market; ISP judgment isn’t equivalent to in-situ market saturation. It’s the today’s market sales trend (not in-situ saturation) that determines whether a specific measure is standard practice in a specific application/industry (e.g., purchase, installation, sales). Asking the right questions would help to justify whether or not a measure is standard practices. Questions for vendors/suppliers (and sometimes, designers/manufacturers when applicable) should include:

* How often have you sold EEM-X vs. other alternative products (to a specific segment) within the last 12 months? What would you recommend as the base proposal to similar customers today?
* How often do customers/industry select EEM-X product vs. other alternative products within the last 12 months?
* How likely customers in the specific segment would purchase and install EEM-X today? What are the reasons for and what are the barriers against today’s procurements/installation of EEM-X?

Relevant questions for customers include:

* How often do you select the EEM-X product vs. other alternative products to meet your production/process need within the last 12 months?
* How likely would you purchase and install EEM-X today? What are the reasons for and what are the barriers against your today’s decision on installing this EEM?

**[Notes]** In custom projects, if a specific efficiency measure is the only option that meets the customer’s needs, it’s considered an ISP-by-default, in which case no incentive shall be considered for adopting this measure. If the project team believes that the customer has the other option of simply doing nothing and wishes to use existing equipment as the baseline, then the project team needs to provide documents expected & required for accelerated replacement (e.g., ER) or normal replacement projects, in compliance with the custom policies in order to justify the appropriate baselines. In any case, the project documentation needs to confirm and state that baseline options used for a custom project must meet the customer’s minimum technical, functional, and economic requirements, and that the proposed measure option must be the more costly, more efficient option which exceeds the minimum requirements.