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- In California, utility incentives are either deemed or customized. For customized incentives, energy savings for each individual installation is evaluated separately. Customized incentives are primarily used for large projects such as chillers where the energy savings and cost of the project justifies the large amount of resources used in evaluating it. For deemed incentives, a reasonable or average amount of energy savings is claimed for a product category. Plug load measures are typically deemed incentives because individually they consume very little energy but the aggregate savings from total sales can be substantial.

- Utilities can use several metrics to evaluate the cost effectiveness of their programs. The most commonly used one is the total resource cost (TRC). Generally speaking, the TRC is the ratio of avoided energy costs over the incremental cost of the product. A $TRC > 1$ is cost effective, and a $TRC < 1$ is not cost effective. The TRC can be evaluated in the product level or the portfolio level. In a portfolio of products, some products may have a $TRC < 1$, but the TRC of the entire portfolio must be > 1 . Since energy savings directly feed in the TRC, different savings estimates for each manufacturer's APS product can result in a different TRC for each one.

- Delivery channels for incentive programs can be upstream, midstream, downstream, or direct install. Upstream programs incent manufacturers to include more efficient features in their products. We are looking into launching upstream programs for products such as game consoles. Midstream programs target retailers to stock more efficient products. Downstream programs target the consumers directly. For example, a typical downstream program is when a consumer picks up an Energy Star product from a store shelf and applies for a rebate. In a direct install program, the utility or a third party installs the product in the customer's residence. Downstream and direct install programs are the most common. Midstream and upstream programs are rare due to the difficulty in evaluating such programs.

- "Work papers" are documents that the California utilities submit to our regulators, the CPUC's Energy Division, to justify the energy savings that we claim for our Energy Efficiency programs. Typically, our work papers take a broader approach than what we intend for Tier 2 APSs. The reason is twofold: 1) There is no certifying body like Energy Star for advanced power strips and 2) Tier 2 APS falls into what we call a control measure, where the savings depend heavily on consumer behavior. Take for example, televisions. Utilities can simply incent any television that carries an Energy Star label. Energy savings can be calculated using delta in the power usage of the Energy Star and inefficient television. The effectiveness of Tier 2 APS products depends on consumer behavior patterns, hence the need for field studies.

- We need to think about the amount of rigor we should use in evaluating Tier 2 APS products. Putting too much rigor in evaluation can be both costly and time consuming. If it takes too long to evaluate a product, we run the risk of not capturing the energy savings in the early portion of the market adoption curve. On the other hand, the evaluation must also be rigorous enough to allow utilities to justify our programs to our regulators. If we cannot sufficiently defend our savings estimates to our regulators, then the program will be in jeopardy.