

EE Cost Effectiveness Tests

Regulatory History

Standard Practice Manual (SPM)

- Last Update of main manual 2001
- TRC and PAC adopted via EE Policy Manual by Decision

SPM Methodology Clarifications and Updates

1. D.06-06-063 - Rebates versus Direct Install and Payment to Others/Early Retirement
2. D.07-09-043 – Application of Net-of-Freeriders (NFR = NTG) for different deliver mechanisms
3. D.12-05-015 – Treatment of future avoided participant cost for early retirement or accelerated replacement

TRC and PAC Costs

- SPM Costs

- TRC: the program costs paid by both the utility and the participants plus the increase in supply costs for the periods in which load is increased. Thus all equipment costs, installation, operation and maintenance, cost of removal (less salvage value), and administration costs, no matter who pays for them, are included in this test.
- PAC: the program costs incurred by the administrator, the incentives paid to the customers, and the increased supply costs for the periods in which load is increased.

TRC Program Versus Participant Costs

- Program costs:
 - include all utility costs (EE, rate base or otherwise) including SPM rebates (dollar rebates or bill reduction given to participating ratepayers)
- Participant costs:
 - Initial capital costs (or present worth of the mortgage payments), including sales tax
 - Ongoing operation and maintenance costs
 - Removal costs, less salvage value
 - Less SPM rebates (direct payments or bill credits) – can cause negative participant cost if rebate exceeds measure cost, thus that case requires justification and approval

Measure Cost Sources

- DEER
- Program Administrators
 - Data from customer project invoices and other research
 - in workpapers for deemed non-DI and claims for custom and DI)
 - ALJ Ruling dated 9/2/2005 in R. 01-08-028, Appendix 3
“Program administrators have the responsibility to budget for and collect all data on program costs, measure installation and commitments on an annual basis. In addition they must provide estimates of the incremental measure cost of all measures installed or services delivered if there is no corresponding measure in the DEER data base.”

Cost Formulation Clarifications

- Clarifications in D.06-06-063 and D.07-09-043
 - Customer Installed versus Direct Install (Participant versus Program costs)
 - Attribution (NTG) applied to Participant Costs
- Clarification in D.12-05-015
 - Participant Costs in Early Retirement or Accelerated Replacement (Dual baseline) projects use full cost for installed measure minus future costs for standard replacements discounted back RUL years to project installation date.

Cost Formulation

- D.12-05-015 at 346 (only two baseline cases)
In D.11-07-030, we adopted an approach to establishing a baseline for ex ante gross savings values.⁴⁹¹ This approach requires the review of the evidence related to one of the two baseline choices: (1) the pre-existing equipment used in the early retirement case; or (2) new equipment that is feasible to use and is code-compliant or an industry standard practice. Evidence relating to the reasons for the equipment replacement is used to make the baseline choice.

⁴⁹¹ D.11-07-030, Appendix I to Attachment B.

Cost Formulation

- D.12-05-015 at 349 (description of cost for ER)

“The measure or project cost utilized in an early-retirement case is the full cost incurred to install the new high-efficiency measure or project, reduced by the net present value of the full cost that would have been incurred to install the standard efficiency second baseline equipment at the end of the remaining-useful-life period. Thus, the early-retirement cost is higher than the incremental cost used in a replace-on-burnout or normal-replacement case, only by the time value of the dollar amount of the standard equipment full installed cost, using our adopted cost-effectiveness discount rate to calculate that time valuation. As with all measures, our policy expects that incentives offered for early retirement will not exceed the actual early retirement cost.”

(So, as with ROB/NC/etc. cases, incentive not to exceed TRC cost without justification and approval)

Cost Formulation

ProjCost_{Total} = project total cost

ProjCost_{Future} = project total cost for standard future installation absent program acceleration

ProjCost_{incremental} = incremental project cost over code/ISP

D = discount rate (IOU after tax Cost-of-Capital)

RUL is the remaining life of existing or replaced equipment

TRC Participant ProjCost =

$$\text{ProjCost}_{\text{Total}} - ((\text{ProjCost}_{\text{Total}} - \text{ProjCost}_{\text{incremental}})/(1+D)^{\text{RUL}})$$

ProjCost_{DirectInstall} = ProgramPaid (IOU contractor Cost plus any added incentive to customer) + ParticipantPaid (any copay less any incentive)

TRC ProjCost_{DirectInstall} =

$$\text{ProgramPaid} + [\text{ParticipantPaid} - ((\text{ProjCost}_{\text{Future}})/(1+D)^{\text{RUL}})]$$

[] amount not less than zero – cannot negate program costs

Participant Cost Attribution

- Only costs related to the EE project should be included
 - Product or feature choices not related to EE should be removed or included in baseline product so they cancel out (not always obvious or easy to determine)
- Program attribution (NTG) can be cost specific
 - Policy allows for separate energy and cost NTG values (have not been separately developed in past evaluation activities)