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SB 350 EE Targets: Design Issues

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Energy Efficiency Target Design Questions

- Target Applicability
  - Utility-specific or Statewide-only?
- Interpreting Constraints
  - Cost-effective and Feasible
- Accounting
  - Fuel substitution/Fuel switching
- Numeric starting point issues
  - 2014 or 2015 AAEE projections?
  - Extrapolating to 2030
  - How do the energy efficiency (EE) targets apply to both POUs or IOUs?

EE Target Setting Framework

Utility-Specific

- Potential increased utility responsibility
- Will likely require change in oversight of EE planning, procurement, and monitoring of EE by CEC and CPUC over LSEs and/or utilities

Statewide-only

- Agencies would likely need to develop new programs and approaches to achieve EE targets
- Focus on innovative market activities that encourage end-use consumers to participate

Defining Cost Effective

Option	Implications
Utility Total Resource Cost Test *(judges Cost-Effectiveness (C/E) by comparison to "avoided cost" for marginal additions)*	• Standard test used to authorize IOU EE portfolios • Recent refresh efforts at CPUC finding lower avoided costs, thus a reduced amount of C/E EE
Customer Pocket Book Test *(judges C/E by calculating discounted net benefit to participant)*	High retail rates and low avoided costs means that large EE penetration levels imply major revenue shortfalls
Societal Test *(judges C/E by including additional benefits by valuing externalities, and giving greater credit to further out benefits by a smaller discount rate)*	• Likely to imply the highest level of EE found to be C/E • Controversy over the "valuing" of externalities • Consistent with GHG reduction goals

Defining Feasibility

Interpretations of Feasible	Implications
a. Not a functional constraint on analyses - the term is just “stylistic” language, and the binding constraint is “cost-effective”	Difficult to define and demonstrate feasibility
b. Constrain use of emerging technologies to those actually likely to be introduced into the mass market	CEC/CPUC have to undertake more extensive technology performance and cost studies to better understand technology evolution through time
c. Constrains use of additional program delivery mechanisms to those which are “feasible”, if narrowly defined	Would not allow CEC/CPUC to rely upon incremental savings from novel program delivery mechanisms that would be operated in parallel with utility programs and standards
d. Both (b) and (c)	d. Both (b) and (c)

Accounting for Fuel Substitution/Switching

Interpretation	Implications
a. Fuel substitution from natural gas to electricity for utility customers counts as energy efficiency if there are net GHG emission reductions	• Requires utilities/agencies to develop fully built out resource plans to 2030 or beyond • Special implications for natural gas only utilities
b. In addition to (a), fuel switching from transportation fuels to electricity counts as energy efficiency if there are net GHG emission reductions as a result *Issue: Does PRC 25310(a) preclude transportation fuel switching?*	• Same as alternative (a) • Utilities would be encouraged to pursue transportation electrification as a result of receiving credit toward SB 350 EE targets • ARB may need to develop protocols for "credit" from displaced fossil fuels used in transportation

Starting Point for Analyses

- SB 350 directs doubling of 2014 AAEE projections and POU goals by 2030
- Issues to be resolved:
  - How are existing projections extrapolated?
  - How do EE targets apply to both IOU and POU projections?
  - Are 2015 IEPR AAEE Projections Better?
  - Over how many years will the ramp up to doubling by 2030 take place?

EE Measure-Specific Analyses

- The requirement that targets be cost-effective implies that specific EE measures should be evaluated
- EE Measure C/E Underway in Potential Studies (Navigant)
  - CPUC funded for IOUs: due March 2017
  - POU funded: due Early 2017
- If the contractual scope of these studies is not "sufficient," are there time and resources for additional studies?

Proposed EE Target Development Process

- Phase 1(July 2016 to January 2017)
  - Establish a basic framework for targets and resolve key design elements
- Phase 2 (by August 2017)
  - Develop a Complete Proposal
- Phase 3(by November 2017)
  - Review by stakeholders
  - Agencies establish EE targets