

Consensus Marginal Economic Potential Study Scope (June 11, 2014) - Energy Efficient Potential:

{This text would be incorporated into a larger scope of work for a potential study. The exact language may change based in part on future review by the utilities’ legal counsel. It is not intended to replace existing scope language regarding economic, market and program potential analyses.}

In addition to the traditional analyses, vendor should also propose a marginal benefit-cost analysis as described below. This analysis would compare the marginal benefit against the marginal cost for incremental improvements in measure efficiency. It is expected that such an analysis may not be appropriate for the entire universe of measures that a typical potential study contains, either because some categories of measures may have no correlation between incremental measure cost and marginal savings, because the quality of available data on incremental costs and savings for different levels of efficiency is inadequate, and/or because the level of savings potential from some categories of measures is not great enough to warrant this level of analysis. Thus, the vendor should identify a subset of measures for which such an analysis would yield useful results, focusing in particular on measures with the highest contribution to the overall savings potential.

The objective of this marginal analysis is to more accurately estimate the economic energy efficiency potential; this level identifies, using a bottom-up approach, the level of energy efficiency that maximizes the available net benefits under the prevailing cost-benefit structure.

The proposal should include a description of the vendor's approach toward a marginal analysis; this approach should:

- 1) Identify likely candidate technologies/end uses for which a marginal analysis would be suitable,
- 2) Identify sources of data that the vendor would rely upon to support such an analysis, and
- 3) Provide a separate estimate of costs to conduct such an analysis.

An illustrative example of marginal analysis of residential air-source heat pump is provided here:

#	Measure Efficiency Scenario	NPV of Lifetime Incremental Benefits over Baseline	marginal benefit	Incremental Cost per Unit over Baseline	marginal cost	Net Benefit versus baseline	Marginal Net Benefit versus Previous Scenario
1	ASHP 14.5- 14.9 SEER	\$669	\$669	\$473	\$473	\$196	\$196
2	ASHP 15.0- 15.9 SEER	\$930	\$261	\$629	\$156	\$301	\$105
3	ASHP 16.0+ SEER	\$1,131	\$200	\$944	\$315	\$187	-\$115

In this example, all three scenarios provide net benefits versus the baseline; however, the third scenario (ASHP 16.0+ SEER) yields negative incremental net benefits relative to the second scenario. Under some approaches to estimating economic potential, the third scenario would qualify as the most efficient

technology; however, under the marginal analysis the second scenario would be considered the most efficient qualifying technology. Its unit savings and costs would be utilized in a similar manner to scenario 3, except that the result of such an analysis would yield a maximum-benefits potential.