## Assessing the Role of Energy Efficiency Organizations on the Appliance Standard Development Process

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Energy efficiency standards for appliances can have broad impacts on the market and result in large energy savings. Developing these standards requires considerable effort and resources to identify requirements that balance efficiency, cost, and technological capability. Although government agencies develop the proposed and final rulemaking, energy efficiency organizations can provide much needed support through activities such as characterizing the availability of energy saving technology, providing testimony to refute arguments made against the proposed standard, and estimating costs. While these organizations' efforts influence the final adopted ruling, it is challenging to identify in what ways, and to estimate the qualitative or quantitative impact of these activities.

This poster presents the methodology and results from three studies to assess the impact of energy efficiency organizations' efforts to support the development of:

- 1. A state standard for battery chargers,
- 2. A federal standard for fluorescent lamp ballasts, and
- 3. A federal standard for external power supplies.

We interviewed energy efficiency organizations, manufacturers, and other stakeholders; reviewed documents that tracked the standard development process; and reviewed product compliance data. We then developed a framework to estimate the impact of all energy efficiency organizations, and the impact of individual organizations. Our analysis used a weighting method to quantitatively represent the importance of barriers, influential activities and the significance of each activity, and the role of an individual efficiency organization. This framework allowed us to qualitatively tease out the value of different organization's activities and provide a structured, but not statistically rigorous, approach to estimating the impacts of all energy efficiency organizations on a standard.

This poster presents results from each study, including qualitative approaches for all three evaluations, and the quantitative assessment of energy efficiency organizations' efforts for two of the standards. In addition, the poster present recommendations for organizations' activities to increase the impact of their standard development support, and interesting findings from our market research, including how the market responds to standards passed at the state level.

This poster will then use the example of estimating the impacts of energy efficiency organizations on standards to illustrate how limitations can, and should, be accepted for certain evaluations. Although we developed our assessments using technically rigorous methods, different assumptions and frameworks would have resulted in different estimates. While evaluation practices often estimate impact using sophisticated quantitative techniques, these methods can sometimes suggest a greater precision than may be appropriate. Strong heuristic methods, such as the one presented here, is sometimes the best that evaluators can develop. However such a method may still meet the evaluation objectives, and accepting the limits to quantitative assessments can enable more resources to be used for the actual energy savings work (e.g., more advocacy for standards), thereby generating greater savings.