Session 1A

ARRA

Moderator: Carla Frisch, US DOE

PAPERS:

Better Buildings, Better Market Effects? Estimating the Market Effects of the Better Buildings Neighborhood Program
Greg Clendenning and Lynn Hoefgen, NMR Group

Better Buildings Neighborhood Program: An Economic Impact Analysis of a Whole-Building Retrofit Program
Matthew Koson and Stephen Grover, Evergreen Economics

Apples to Audits: Challenges Affecting the Reliability of Performance Metrics for ARRA-Funded Energy Programs
Jaime Rossman and Alicia LeDuc, Washington State Department of Commerce, Research & Evaluation Services Unit

Quantifying the Outcomes of Clean Energy Policy Support Programs: the Experience of the State Energy Program National Evaluation
Timothy Pettit, DNV KEMA Energy & Sustainabiilty

SESSION SUMMARY:

The American Recovery and Reinvestment Act (ARRA) of 2009 provided an unprecedented spike in U.S. public sector energy efficiency investment, uniquely bound by discrete funding start and end dates. Both the breadth of investment and clear timing make ARRA a well-defined 'experiment' from an evaluator's perspective. This session previews early results from national and state program evaluations, and highlights what worked (or not) in estimating those results.

Clendenning et al present the preliminary findings from an ongoing market effects evaluation of the $500M ARRA Better Buildings Neighborhood Program. To examine potential effects, the team surveyed hundreds of participating and non-participating contractors and distributors. Preliminary evidence shows positive market effects attributable to the BBNP grantee programs including contractors adopting energy-efficient practices, increased availability of trained contracts, and more supplier and distributor emphasis on efficiency business and materials. Positive impacts were also observed from nonparticipant actions.

Koson et al examine the economic results of the Better Buildings Neighborhood Program's (BBNP). The preliminary analysis finds BBNP has resulted in energy savings, increased economic output, personal and business income, jobs, and increased tax revenue. Program economic impacts greatly exceeded cost of program implementation. The paper focuses on methods including use of the IMPLAN model and estimation of measure spending, energy savings, and direct and secondary net economic impacts. Quantitative results are provided in detail and could be a useful benchmark for other whole-building retrofit programs. Both the

results and methods help explore the job creation potential (and estimation methods) associated with energy efficiency programs.

Rossman et al examine the implementation of ARRA energy programs in Washington State and presents a case for desk-based evaluation tools. The paper explains that although methodologically-rigorous EM&V-style evaluations are the most accurate and complete approaches, they may not work in every case. When portfolio-based, output indicator approaches employing energy saving coefficients are used to estimate energy impacts, they are often criticized as failing to replicate the precision of traditional evaluation methods. These avenues of concern, while valid, do not obviate the need within the energy policy and program community for low-cost, desk-based evaluation protocols that may be "good enough" to meet the needs of a pool of program implementers expanding beyond utility rate-payer incentive programs. ARRA, by design or not, provided an opportunity to test this approach and can inform other efforts going forward.

Pettit et al address the unique challenges associated with linking Clean Energy Policy Support programs and the implementation of energy-saving measures by targeted groups. The paper presents methods used in a current study of state-level policy support programs, part of a broader national evaluation of the ARRA State Energy Program. Data collection, counterfactual development, design decisions, and impacts methods are presented for three policy support areas: state policy design and pilots to increase municipal building stock efficiency or advance the market for renewable technologies; assessments of renewables technologies for inclusion in state renewable portfolio standards; and, legal and regulatory support to facilitate increased usage of efficiency and renewable energy resources and associated portfolio standards. Findings are not yet available but other evaluators may be interested in the approach.