

SESSION 2A

RENEWABLES AND RENEWABLE PORTFOLIO STANDARDS

Moderator: Larry Pakenas, NYSERDA

PAPERS:

Using Evaluation to Advance Funding for the RPS Program

Carole Nemore, NYSERDA

Attribution Analysis for Renewable Portfolio Standard (RPS) Programs: Challenges Encountered Evaluating New York's RPS

Nicole Wobus, Summit Blue Consulting, LLC

Frank Stern, Summit Blue Consulting, LLC

Brent Barkett, Summit Blue Consulting, LLC

Carole Nemore, NYSERDA

Evaluating the Impacts of Customer-Sited Renewable Energy Systems: Methods and Challenges

Brian Dunn, KEMA

Bobbi Tannenbaum, KEMA

Doug Kneale, KEMA

SESSION SUMMARY:

This session will focus on the processes used to confirm renewable portfolio standard (RPS) program achievements and benefits, and the challenges posed by adapting energy efficiency evaluation methods for this purpose. Thirty-three states have begun RPS programs to intentionally increase the proportion of renewable energy provided to customers of their utilities' electricity portfolios. Many of these initiatives are supported by public programs funded by electricity surcharges, so policymakers want solid assurance that the investments made in renewable generation are showing or have a strong potential to show energy, economic, and environmental benefits attributable to these programs. A thorough and objective evaluation of the programs can serve as a tool for providing such evidence.

The first paper discusses the RPS Program in New York and the approach used to address the evaluation requirements contained in the Public Service Commission Order adopting the RPS, which called for a mid-course review in 2009 of the Program's implementation and achievements. The Order directed the investor-owned utilities to collect funds from ratepayers that would suffice for achieving about one-half of the intended goal of 25% renewable generation by 2013. The review would be used to inform the Commissioners and other interested stakeholders about the future cost to fully achieve the RPS goal. Evaluation reports were developed by two independent consultants that address the Program's influence on the development of renewable generation in New York and its macroeconomic effects on the State's economy.

The second paper is an overview of the attribution analysis portion of the 2009 mid-course review of the New York RPS. Attribution analysis was included in the plans for a comprehensive market conditions assessment for the Program; however, due to some unique characteristics of large-scale renewable energy projects and given that attribution was only one of many goals for the mid-course review, the consultant was limited in its ability to conduct a rigorous analysis of the Program's net impacts. Rather, an evaluation of the Program's broader influence on market activity was

completed. A spillover analysis was also included after a conservative and viable estimating method was identified.

The final paper examines the methods and challenges associated with estimating and verifying the energy production and demand savings from three renewable energy technologies, *i.e.*, photovoltaics, wind, and biogas (anaerobic digester) systems. Four programs that offer incentives for customer-sited renewable energy systems were recently evaluated to verify program-reported energy savings and peak demand reductions. Even when available, metered data for renewable energy systems have some limitations due to, for example, seasonal variation of energy production and the type and grade of meter used. Metered data for demand savings is typically never available due to the high cost of obtaining it. The consultant has developed standard methods for estimating and verifying these clean energy benefits in the absence of metered data. The paper shows the differences between the program-reported and available metered data, and the impacts using consultant's methodology.