

**SESSION TITLE:**

Getting Big Enough to Matter: How much aggregation is needed to best attract equity and investments?

**SPEAKER SUMMARIES:**

Thomas Dreessen, CEO, Energy Efficiency Project Investment Company, Ltd.

- In his opening remarks, Mr. Dreessen noted that, paradoxically, renewable energy projects obtain financing more easily than energy efficiency projects, notwithstanding their substantially higher risks. Mr. Dreessen suggested that this difference occurs because the business model for renewable energy (RE) projects is comparatively straightforward: RE projects sell kilowatt hours, and they tend to be large-scale investments, as opposed to energy efficiency projects that are typically smaller in scale.

Bruce Ray, Director of Governmental and Regulatory Affairs, Johns Manville

- Mr. Ray discussed how aggregation of small-scale, individual energy efficiency projects (e.g., re-insulating single family homes) can reduce complexity and uncertainty for investors. To maximize investment, Mr. Ray posited that the key is to present investors with large numbers of simple projects that use established technologies and products.

Kyung-Ah Park, Managing Director and Head of Environmental Markets Group, Goldman Sachs

- Ms. Park explained that there is a tremendous opportunity for investment in energy efficiency but that existing projects are too small in scale to attract institutional investors. As such, Ms. Park suggested that it is necessary to create a demand pipeline for energy efficient projects, standardize underwriting criteria, improve performance data on energy efficient projects, and educate investors, credit rating agencies, and financial institutions to encourage aggregation and to attract investors.

Jeff Eckel, President & CEO, Hannon Armstrong

- Mr. Eckel observed that aggregation is most likely to succeed when there are standardized contracts in place, providing lenders and investors with a simple, transparent investment vehicle. Mr. Eckel further noted that interest rate and tax subsidies are not good options to grow energy efficiency markets because such subsidies add complexity and uncertainty from an investor's viewpoint. He emphasized that such financial incentives are not generally needed because the energy efficiency investments are typically cost-effective.

**SESSION WRAP-UP**

This panel focused on the extent to which aggregating smaller energy efficiency projects into a larger investment portfolio can attract large-scale investments, and how large these portfolios must be to attract investors. The panelists acknowledged that energy efficiency projects generally tend to attract less investment than renewable energy projects. Although energy efficiency projects have proven to be commercially viable and do not require subsidies necessary for renewable energy projects, the renewable energy sector operates under a comparatively simple business model. Whereas renewable energy projects are focused on generating and selling kilowatt hours, energy efficiency investments involve multiple components, including different types of facilities and technologies. Panelists suggested that aggregation is a promising tool to overcome these challenges, because it reduces uncertainty for the investor and provides a large-scale investment vehicle.

Accordingly, the panel discussed how much aggregation is needed, or in other words, how large the aggregated energy efficiency investment portfolio must be to attract institutional investors. Noting that there is



no hard and fast dollar amount that can answer such a question, the panel suggested that \$25 to \$100 million is a likely threshold, depending on the investor and his competing investment options. Mr. Ray provided residential insulation retrofits as an example where aggregation could be used to attract significant private investment. Since more than 50 million homes in the United States are not insulated (and many have similar design characteristics), pooling these projects into one large energy efficiency project could be attractive to investors insofar as this approach would involve a large number of simple projects using proven products and technologies. Further, aggregating these projects improves the reliability of performance monitoring because the amount of energy saved across all of the homes is measured rather than measuring a single home's energy savings over time. Reducing the uncertainty involved in quantifying energy savings through efficiency projects is critical to attracting investors, and aggregation provides a tool to accomplish that goal.

Although aggregation is widely perceived as a potential catalyst to attracting more investment in energy efficiency, significant barriers remain. Ms. Park suggested that four key elements must be met for aggregation to make a significant impact in the energy efficiency market. First, a demand pipeline for energy efficiency projects must be created in order for these investments to pay off over a 5 to 10 year term. Second, the underwriting criteria for energy efficiency projects must be standardized to facilitate repackaging them into an aggregated portfolio. Third, performance data for energy efficiency projects must be improved, including both data on the energy savings accomplished as well as the creditworthiness of counter-parties and service providers themselves. Finally, investors, credit rating agencies, and financial institutions must be educated about the market opportunity presented by aggregating energy efficiency projects.

In closing, the panel noted that there are various aggregation strategies but that none will succeed unless there is reliable, scalable demand for energy efficiency projects. From a financing standpoint, investors will participate in a market if it is clear that there is money to be made; as such, significant attention must be directed toward creating demand. This is another area where reliable information about energy efficiency performance could go a long way insofar as data regarding energy savings could facilitate demand.

## **ACTION ITEMS & TAKEAWAYS**

- Industry leaders should collaborate to create a database to capture relevant energy efficiency performance metrics.