Wall Street Sees Potential Value of Green in DR, EE and Alternative DG Solutions- But Will the Industry Step Up To the Challenge?

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The Distributed Energy Financial Group, LLC (DEFG) recently conducted research to evaluate whether innovative solutions for meeting future energy needs such as Demand Response (DR), Energy Efficiency (EE) and alternative Distributed Generation (DG) (e.g., photovoltaic cells, wind, energy storage, etc.) would become a sustainable and viable part of the future energy infrastructure. As part of the research we interviewed Wall Street utility analysts to obtain a financial perspective on how investing in these options could impact Wall Street's view of a utility.

Our research found that the primary focus of Wall Street when evaluating companies is earnings and that Wall Street's attitude towards investment on DR, EE and DG activities is becoming more favorable. This change is occurring because utilities are being allowed to earn on these investments, and there is a growing recognition that these investments assist in managing business risk as well as contribute to the sustainability of the business.

When viewing DR, EE and DG activities Wall Street analysts consider the size of the effort to determine if it will have any financial impact. They also look for demonstrated leadership and commitment through actions that deliver results. Specific areas they focus on when considering the impact of DR, EE and DG include:

- First and foremost the ability to earn a return on the DR, EE and alternative DG investments
- Fixed costs and revenue recovery which is independent of energy sales, to manage the risk of earnings recovery on existing assets
- Certainty of rules so the financial impacts and risks can be accurately modeled
- Proven track record of both execution and recovery
- The capability of these options to improve the environmental footprint and manage risks
- The goodwill impact these activities will have with regulators as well as the community

Companies actively pursuing these activities, with the appropriate earnings recovery, can be viewed as being responsive to the challenge of creating a sustainable business, taking advantage of cost reduction and new technology opportunities, and increasing the value of the product they are offering.

Based on these findings from our Wall Street analyst interviews, the trends in the utility industry, and recent regulatory/policy decisions in California, Colorado, New York, and New Jersey, DEFG believes that legislators and regulators have a key role in enabling the sustainability and viability of utility-driven DR, EE and DG programs. This role has three primary dimensions:

- **Provide Financial Support-** To attract capital, regulators will have to establish a level playing field between DR, EE and alternative DG resources and traditional infrastructure investments with respect to earnings and risk:
    - *Energy Efficiency and Distributed Generation:* To reduce the risk of non-recovery of earnings on existing assets associated with EE and DG options, regulators will have to provide fixed costs and revenue recovery that is independent from sales
    - *Demand Response:* Implementing innovative DR solutions will require new technologies and Advanced Metering Infrastructure (AMI). Regulatory support for prudent infrastructure investments will be required to achieve sustainability
- **Set the Platform-** Legislators and regulators will have to provide guidance to address the heightened concern regarding energy costs, security and reliability issues and environmental protection. Aligning regulatory and legislative policies will reduce confusion and improve the speed of implementation. Establishing clear rules will reduce the financial risk for investors and attract capital. In addition a number of new frameworks will be required as a result of these new options, including carbon trading and carbon and solar markets just to mention a few. Regulators and legislators will be the key to establishing an effective platform so that utilities can execute and deliver value.
- **Establish the Risk Level-** There are new risks associated with DR, EE and DG options, such as price increases to support infrastructure investment, experiments with new products and services (e.g., real time and critical peak pricing), investment in innovative technologies (e.g., AMI and communications protocol), and the use of market based solutions (i.e., Solutions where customers have a participation choice) to meet projected firm load growth. The regulator will determine how much risk the consumer is willing and able to accept. That risk level will be critical in determining whether DR, EE or alternative DG options become sustainable or just remain programs like they were in the late 1980s. The risk level will also determine the amount of innovation introduced into the market through a regulatory environment.

Regulators' should be interested in supporting DR, EE and alternative DG options if they provide value to a utility's customers. This value comes from giving customers a choice in the way they consume and manage their energy, reducing their energy bill and in providing customers with a more environmentally friendly product. These are all very important attributes in this time of rising energy prices, concerns about resource adequacy and concerns about climate change.

The first hurdle to overcome to achieve sustainability for DR, EE and alternative DG options is to create a level playing field as the utility considers innovations in traditional investments. This will attract capital and assure the proper allocation of capital to these options. Creating this level playing field includes a number of components:

- **Fixed cost and revenue recovery** to decouple earnings on existing assets from sales levels. For Wall Street this reduces the risk associated with future earnings if EE and DG activities, that reduce sales, are pursued. For utility employees and customers, it provides clarity in mission and message. There are a number of ways to achieve fixed costs and revenue recovery including; bi-annual rate reviews, narrow scope rate cases, lost revenue adjustments, infrastructure recovery riders and decoupling mechanisms based on specific cost and revenue performance metrics

- **Quick recovery of expenses** associated with DR, EE and DG activities including the creation of cost recovery riders

- **Creation of a regulatory asset for non-expense items** and receiving a rate of return similar to traditional investments on this asset. This would indicate to Wall Street that there will be increased earnings from these investments, attracting capital

- **Recovery of Allowance for Funds Used for Conserving Energy (AFUCE)** could be created to allow a treatment similar to the traditional Allowance for Funds Used During Construction (AFUDC). As a result interest charges on DR, EE and alternative DG investment would not create a drag on corporate earnings

- **Alignment of depreciation rates with the life expectancy of the newer technology investments** Most of today's technologies have shorter life expectancies than traditional investments. The rapid advancement of technology is further increasing the rate of depreciation

- **Accelerated depreciation and recovery for assets that are being replaced** by newer technologies before their full life expectancy. Existing capital investment may still be usable but not provide the DR, EE and DG capability. This is a cost barrier that could prevent the rapid movement to newer technologies. Accelerated depreciation and assurance of the recovery of the remaining value from existing assets removes this barrier and reduces the risk associated with implementing DR, EE and DG solutions and supporting infrastructure.

In conclusion, recent DEFG research indicates that an opportunity exists for DR, EE and alternative DG to become a sustainable and viable part of the future energy infrastructure. This opportunity is supported by Wall Street paying attention to these solutions as a means to increase earnings and assist in managing the business. These options are also one of many responses a utility will have to assure the sustainability of its business. Regulators will play a key role in the development of this opportunity. At a minimum, a level playing field must be established between DR, EE and alternative DG options and traditional investments for sustainability to take place. This will require leadership from both the utilities and regulators. The question is will the industry step up to the challenge?