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Quadrennial Energy Review - Second Installment
"Electricity: Generation to End-Use"
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- Good afternoon. I'm Bruce Edelston, Vice President of Energy Policy for Southern Company.
- Southern Company is a leading U.S. producer of clean, safe, reliable and affordable electricity headquartered here in Atlanta. We are the parent company to electric utilities operating in four Southeastern states and a growing competitive generation company, Southern Power, which provides wholesale power nationwide. We are also an operator of three nuclear generating plants through our Southern Nuclear subsidiary and provide fiber optics and wireless communications through subsidiaries Southern Telecom and SouthernLINC Wireless.
- Our four retail operating subsidiaries - Alabama Power, Georgia Power, Gulf Power, and Mississippi Power – together serve 4.5 million customers with approximately 44,000 megawatts of generating capacity.
- Southern Company also recently acquired PowerSecure International; a North Carolina Company engaged in providing energy services, including distributed generation, energy efficiency, and utility infrastructure development across the U.S. We have also announced the proposed acquisition of AGL Resources - the nation's largest gas distribution company which brings us into the gas sector for the first time, other than as one of the nation's largest consumers of natural gas.
- All four of our regulated retail subsidiaries own and operate generation, transmission, distribution and customer service and sales in a vertically-integrated structure, in franchised service areas, regulated by state public service commissions. Retail regulation is based on cost of service in these jurisdictions.
- The Southeast also has very active and competitive wholesale markets. While we are not a part of a centralized market under a regional transmission organization, a very vibrant wholesale market still exists that works on the basis of bilateral and multilateral contracts among trading parties. There are publicly available indexes for standard products which provide price transparency and further liquidity within these wholesale markets.
- The Southeast wholesale energy market includes over 60 participants comprising buyers and sellers from every industry group—investor owned utilities, federal utilities, municipal utilities, distribution cooperatives, merchant generators, and energy marketers and traders. On average, these varied participants transact at least 49,000 MWh of energy in this market each day in numerous different products — long-term energy, daily energy, hourly energy, peak-period energy, weekly on-peak energy strips, weekly off-peak energy strips, and more.

- As the background briefing memo for this phase of the QER duly noted, the Southeast is one of just a few areas of the country where vertically integrated regulated franchised retail markets and bilateral wholesale markets constitute the predominant market and regulatory structure.

- Because of a very limited amount of time today, I want to focus on what I believe distinguishes our situation from many others that DOE has heard from in the context of this round of QER meetings and hopefully clear up any misconceptions which may exist. For example, the Briefing Memo points to a "patchwork of rate and regulatory mechanisms and structures that govern electricity markets and the associated investments in the maintenance, expansion and modernization of the system - complexities, on top of those associated with innovation and the introduction of new technologies, that may add barriers to investment."

- We hope to convince you that the market and regulatory structure here in the Southeast - not only isn't a barrier to new investment - but rather effectively supports our investment needs at a low cost to customers. We believe we are well positioned to meet the financing and other needs of a rapidly changing industry.

- The current market and regulatory structures in the Southeast have allowed us to meet the needs of customers while adapting to changing external requirements, such as increasing regulation of greenhouse gas emissions and rapidly changing technology that gives customers new options at affordable costs. Let me provide just a few examples:

- Southern Company is the only utility in the country that is truly adopting an "all of the above energy strategy". It's portfolio includes:

    - New nuclear (Vogtle Units 3 and 4);

    - 21st Century Coal (the Kemper County, MS CCS facility)

    - Natural gas (we shifted from generating 71 percent of electricity from coal and 11 percent from natural gas in 2005 to 46 percent from natural gas and 34 percent from coal in 2015. In addition, our proposed acquisition of AGL Resources is designed in part to give us better skills and expertise in the gas business as we see it only increasing in importance over time)

    - Energy efficiency - Southern Company's retail subsidiaries are helping customers find new ways to use electricity more efficiently. We have developed relationships with NEST, Tesla and Google to try out new technologies. As a system, we have saved over 2.7 billion kWhs of energy use – enough energy to power over 1,000,000 homes – through a portfolio of incentive programs for residential and business customers, critical peak pricing programs, and audits. And on the demand response-side, we have avoided the construction of over 2,300 MW of generating capacity.

    - Renewables – We were admittedly somewhat late to the renewable development game, mostly because until recently, the economics did not work for us and our customers. But recent gains – particularly in solar PV technology – have made renewables a more costeffective option - particularly for larger-scale solar. Our retail subsidiaries have added over 2,000 MW of renewables in their four service areas since 2012.

  - And Southern Power, our unregulated subsidiary, has developed an additional 2,000 MW across the country in that same period becoming one of the nation's largest wholesale providers of renewable energy.

  - Southern Company is also proud to be the only utility working on renewable projects with all four branches of the U.S. Military

  - And Southern Company is not resting on our past accomplishments – we have the only proprietary, in-house R&D research program in the industry that is focusing on developing the next generation of clean, safe, reliable and affordable generation, delivery systems, and technology to improve efficiency and productivity of energy use.

  - We have also established an innovation center here on the Georgia Tech campus to focus on commercializing new technology or regulatory ideas. I believe the Secretary had the opportunity to visit that Center earlier today. And recognizing that we won't invent all of the needed technologies, we have formed a venture capital fund along with several other major utilities to provide investment in promising start-up companies.

- In its Briefing Memo, the Department points several times to the need for increased planning coordination among generation, delivery and end use technology developers to ensure optimal expansion of the overall electric system on behalf of customers. We are glad DOE recognizes this need, as it's one that has always been a central fundamental principle to us – but that we believe may have been lost in the rush to markets over the past few decades.

- Southern Company and all four of our retail subsidiaries utilize integrated resource planning in some manner to determine the best mix of new resources – both supply-side and demand-side, along with grid options – to meet the future needs and desires of our customers while also focusing on environmental requirements and the affordability of our plans.

- The use of integrated resource planning by vertically integrated utilities, and the increased likelihood of cost recovery based on approval of those plans, allows us to take advantage of technological developments that may benefit all our customers. These same investments might not be made in other areas where prospective market revenues may be too uncertain, or may be risky due to price volatility. Of course, our investment in new nuclear plants is the most obvious example, but the same principle holds true for all the investments we make on behalf of the customers of our regulated utilities.

- We recognize that customer needs and desires are changing – but perhaps not quite as quickly in this region as in other parts of the country. This is partly due to lower rates here – we have consistently maintained rates more than 10 percent below national averages. We also have maintained a very sharp customer focus, which has led our operating companies to have some of the highest customer satisfaction ratings in the industry. As the industry changes in response to changing customer needs and changing public policy expectations, we need to maintain this customer focus.

- Thus, for example, while we believe distributed renewable generation is not currently the most economic choice for most of our customers, we also understand that customers may desire attributes of their electricity other than price, and thus we are prepared to arrange or offer DG alternatives to customers who want them.
- The constructive regulatory environment in the Southeast is also a critical component in our success and has worked well in ensuring a proper balance between our customers' desire for reliable power at affordable rates and fair returns for our shareholders.
- The regulatory environment within which we operate is critical to our ability to finance new energy projects and expand our services and geographic footprint as we move forward.
- The regulatory environment provides us with stability and predictability in our revenues and earnings. We can leverage this stable and predictable environment to allow a smaller portion of equity in our capital structure than many other businesses that are also capital intensive and also need a steady flow of capital investment.
- For example, the oil and gas E&P sector, which requires annual capital about 1.2 times its annual flow of revenue, must maintain equity levels of around 75% on average to attract the necessary capital investment. Other businesses relying on commodity price swings have similar kinds of equity requirements.
- Southern Company on the other hand, which is even more capital intensive than oil and gas exploration – requiring annual capital at about 5 times annual revenue - can maintain a debt to equity ratio of 55 to 45 and still maintain the ability to attract debt and equity at reasonable rates.
- Regulation also allows for the smoothing of large investments that can be depreciated over long periods of time – again an advantage, we believe for encouraging investment.
- Why is all this important? For one simple reason. While our capital structure doesn't contribute an additional penny to our margins, the savings are passed directly through to customers. So in terms of financing new technologies or grid improvements, for example, we can do it at a relatively low cost to our customers –and because of our capital structure, because of our size and scale, and because of our record with investors we can attract capital for new investment.
- In fact, one of the reasons that PowerSecure International decided to combine with us was the fact that as part of a very large financially healthy company, with a significant balance sheet behind it, they will be able to sell to customers who may previously been worried about their dependability, financial capability, or long-term viability. So our combination provided a win-win for them and for us.

- We have not had any significant problem in securing financing for the very diverse types of projects and acquisitions I mentioned we are involved in. This is not in spite of, but it is because of our market structure and regulatory environment. We believe we provide our shareholders with a high quality investment at a relatively low risk, while at the same time providing value to customers. And we also provide a good counter-party for purchased power arrangements from third parties – be it from traditional resources or new technologies - who have assurance that market volatility or uncertain and changing market rules won't damage their long-term viability.

- Being a vertically-integrated, regulated company for the most part – rather than disadvantaging new and diverse investment – gives us additional capabilities that many companies don't have and will allow us and our partners to continue to grow, even in the face of lower growth in overall electricity demand than we have previously experienced.

- I could go on about what Southern Company is doing to react to a changing utility environment, but I know we want time for discussion. Let me close by referring to a statement in the Pre-Briefing Memo with which we wholeheartedly agree –" Investments in power system asset replacement; connecting new sources of electricity to demand centers; upgrading for resilience, efficiency and consumer choice; and reducing carbon and other emissions are central to modernizing the power system and meeting key energy security, economic and environmental goals."

- Southern Company, and other utilities in the Southeast, are fully prepared to meet this challenge.