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Black&Veatch Report:

1. In the Executive Summary the report mentioned that the near term (10-15 years) potential based on current technology was considered. Given that several of these technologies including offshore wind power and solar are still emerging technologies, it may be best not only investigate the existing technologies in the market but also the emerging technologies. The report could summarize where the emerging technologies are heading and what are the anticipated cost of these technologies 10 years out. For example, 10 years ago wind technology was not competitive in many parts of the Midwest. More recently new technologies were developed that allowed wind power to become competitive in states like Illinois, Indiana and others. Had those states limited their analysis of the potential impact of the wind market to the existing technologies of the day, they would have missed out on numerous economic development opportunities that arose as a result of the growing wind power market.

2. I do not think that the social and economic development benefits of these technologies should be ignored in this analysis. One of the advantages of new distributed technologies like renewable energy is that they promote local economic development. Ignoring these benefits does not paint an accurate picture of the advantages that come with some of these technologies. South Carolina has no indigenous fossil fuel resources to develop whence all energy is imported into the state whether it is coal, natural gas or oil products whence billions of dollars are sent out of the state to pay for these fuels. Developing the indigenous resources would keep some of those dollars local and promote economic development.

3. The report mentions that there are challenges in integrating offshore wind power into the existing transmission systems yet fails to expand on what these challenges may be. South Carolina has significant residential, commercial and industrial development along its coast and thus a fairly robust transmission system as mentioned in the report as well as a sizeable demand for energy. There may be challenges in integrating the full amount of offshore energy estimated in the report but the real question is how much could be integrated without major upgrades. This may still be significant.

4. The report states that there are 20% system loses for offshore wind power. What losses account for this estimate? Where was the data obtained from?

5. Table 2-1 mentions the planned solar facility in Charleston. That plant has been built and being operated by SCE&G. The report should reflect that.

6. The report states that 10% of the potential development of offshore wind power at 12-50 nautical miles and 5% at 3-12 nautical miles can be developed because of the aesthetic issues. Studies have been done that have shown that much beyond 5-7 nautical miles the wind turbines would not be visible from land because of the coastal haze along the SC coast. This work has been done by Santee Cooper. I don't think these estimates are substantiated by any data and are very conservative.

ORS Cost Analysis:

7. The most striking claim in this report which needs further investigation is the claim that offshore wind power would cost 3.1% more to construct in South Carolina versus North Carolina. If you take a look at the key cost drivers for offshore wind power including (1) water depths, (2) distance to strong transmission systems, (3) port facilities near planned development and (4) demand for power near the point of generation; South Carolina's conditions in all these categories exceed those in North Carolina. Most of North Carolina's offshore wind resources lie along the Outerbanks which have a week transmission system that would require a lot of upgrades to handle any sizeable commercial offshore wind projects, whence the cost of upgrading the transmission system would be higher. The population density along its coast is less than that of South Carolina whence the energy demand centers are further inland. Finally the port facilities to support development lie mainly in the Wilmington area while South Carolina has facilities centrally located in Georgetown and Charleston that can support development. This claim of South Carolina being at a disadvantage to North Carolina should be examined further.