What is Smart Grid DEEP

Smart Grid DEEP is North Carolina's future Smart Grid, Distributed Energy, and Efficiency Program. Smart Grid DEEP is part of North Carolina's road to a modern, low carbon economy. Smart Grid DEEP is a center of excellence developing North Carolina's clean power plan. Smart Cities and Towns goes further by making our municipalities generally more sustainable. Smart Grid DEEP / Smart Cities and Towns enhance municipal and state capabilities for competing on sustainability performance criteria. Without statewide and national collaboration around sustainability performance, genuine success is less likely.

NC Smart Grid DEEP will utilize modern CleanTech and sustainability techniques to make the North Carolina economy more resilient in the face of human-caused climate change. Smart Grid DEEP / NC Smart Cities and Towns improves our carbon budget and adds to our sustainable marketplace capabilities. How sustainable our cities and towns are forms the new competitive edge. Sustainability means improving future conditions for our people, economy, and necessary environmental requirements for future generations beyond pure profit needs today.

US carbon emissions were 5.4 billion metric tons metric tons in 2011 according to the Energy Information Agency. North Carolina's carbon emissions were 123 million metric tons. Given the nature of airborne carbon 'stickiness' in the atmosphere and the International Panel on Climate Change finding that going past one trillion metric tons will cause an extremely dangerous 3.6 F average global temperature rise initiating a range of essential climate variables, North Carolina has a role in mitigating our carbon budget.

NC Smart Grid DEEP will be designed to support a carbon drop of 40 percent from North Carolina's electricity power generation and imported electricity from the 2011 level of 75 million metric tons of carbon, or a threshold of 30 million metric tons of airborne carbon, by 2030. This is a higher goal than the EPA Clean Power Plan. One of the key reasons to seek sustainable ways to exceed expectations on low carbon economic development is to expand our statewide capabilities to export CleanTech products and CleanTech expertise across the nation and globe. Obviously North Carolina communities benefit by becoming more sustainable and by growing sustainability-oriented opportunities for skilled work and resulting higher incomes. Finally, carbon economics will incentivize these strategies and states highly competent in CleanTech and other sustainability strategy will be rewarded.

North Carolina's overall energy-related carbon emissions, including automotive gasoline, were 150 million metric tons according to the Energy Information Agency. There are a range of areas North Carolina can find carbon reducing strategies beyond electricity generation.

The Smart Grid DEEP Consortium is being organized to further support these activities.

Smart Grid DEEP / Smart Cities and Towns strategy map with research indicated

For further details on Smart Grid DEEP and the Smart Grid DEEP Consortium please join Sustain NC:

http://sustainnc.com/strategy/

Next Steps: Smart Grid DEEP Consortium event details

1) Details for the first Smart Grid DEEP Consortium event at UNCA have been submitted to the UNC Asheville chancellor, provost, and Director of Sustainability, Sonia Marcus. Sonia Marcus is also chairperson over the City of Asheville Sustainable Advisory Committee on Energy and the Environment (SACEE) and advises the city on clean power plan / electrical grid modernization issues.

The UNCA chancellor and provost have established that the UNCA Smart Grid DEEP Consortium event cannot proceed without a green light from Sonia. Sonia has provided no comment either way. She and SACEE members were encouraged to act at the October 21, 2015 SACEE meeting.

The first Smart Grid DEEP Consortium event at UNCA should be marketed under this theme:

NC Clean Power Plan and Grid Modernization Basics for WNC municipalities

2) As an organization, Smart Grid DEEP Consortium has similarities to the UNC Energy Leadership Challenge. The UNC Energy Leadership Challenge consortium is developing its capabilities in conjunction with the Rocky Mountain Institute (RMI) Electricity Innovation Lab (eLab). The RMI eLab is a potential Smart Grid DEEP Consortium member. Sonia has a list of potential Smart Grid DEEP Consortium members who would attend the event and continue to work on these challenges via ongoing Smart Grid DEEP Consortium activities. SACEE, city council, and COA staff are all invited to join the Smart Grid DEEP Consortium.

Thank you,

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