Utility Adaptation Case Study for the Carolinas Region

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Adapting to climate change and managing climate risk involves complex decisions in the energy sector. This case study involved supporting these decisions with location–specific climate statistics derived from the latest scientific climate modeling. We translated these changes in climate variables (temperature, precipitation, etc.) into changes related to potential decreases in cooling capability at thermo–electric power plants due to higher water temperature and decreased water availability in the Carolinas region. Decreases in cooling capacity will limit generating capacity unless adaptation planning takes these decreases into account. We present quantitative analyses that screen across plant locations in the region to prioritize sites for more detailed analysis.