



Assessment of Transmission Requirements in New Jersey Including PSE&G Retirements and Potential Retirement in 2009 of Oyster Creek



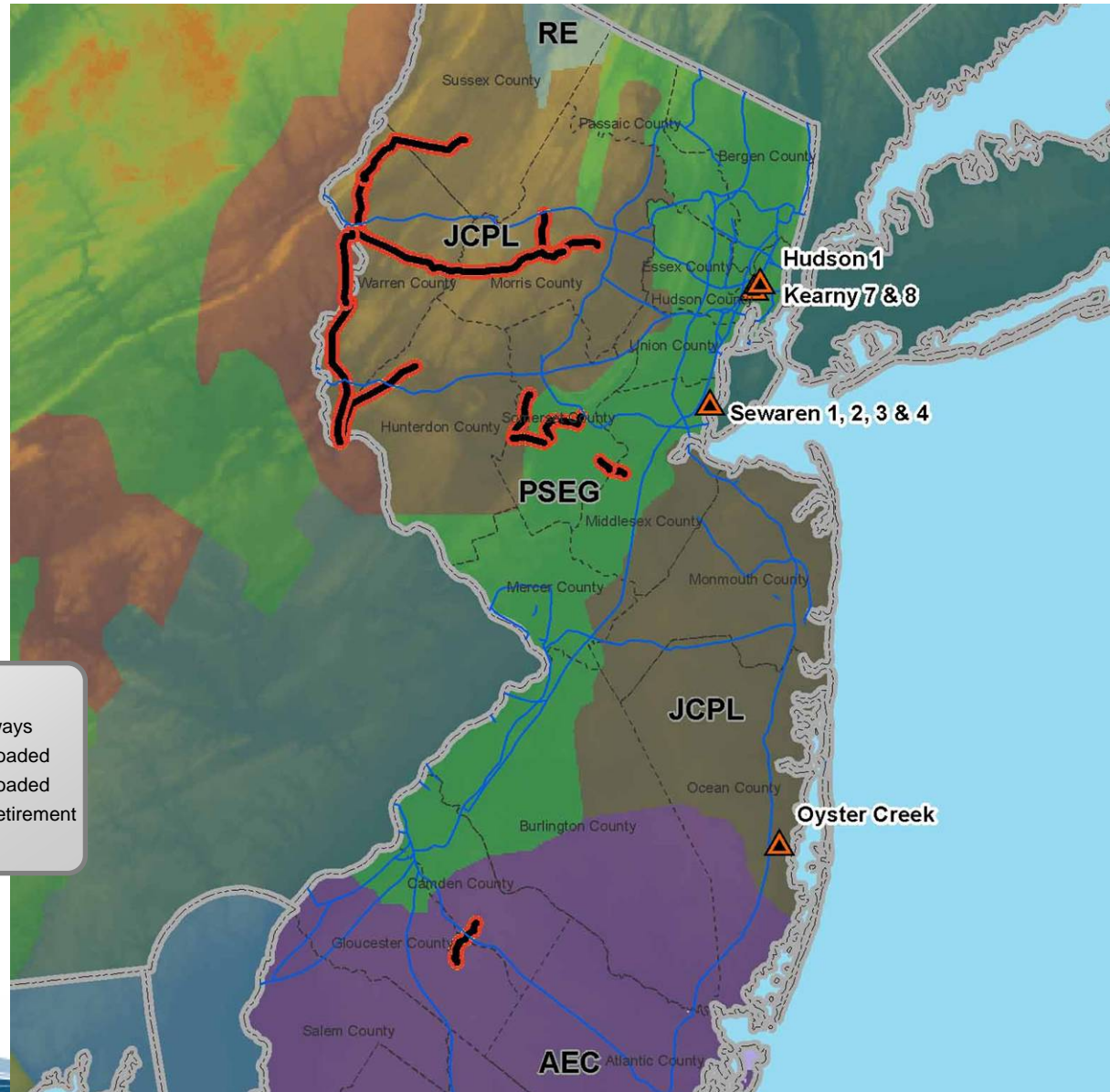
The information provided herein was requested by the NJ Board of Public Utilities to assist in completing a due diligence review for a potential retirement of the Oyster Creek nuclear station. Analysis was performed by PJM as a result of that request, and is intended to be used solely for that purpose. This analysis does not represent any knowledge of or a determination by PJM with respect to the future status of the Oyster Creek nuclear station.

The analysis is limited to identifying potentially overloaded bulk power transmission lines (voltage levels of 230 kV and 500 kV) and high level estimates for typical transmission facility solutions. Local transmission impacts (voltage levels below 230 kV) are outside the scope of this study.

Estimates are generic, based on typical per unit costs, and do not attempt to quantify more highly variable cost elements, such as right of way acquisition, associated with specific solutions.



- PSE&G announced the retirement of Kearny 7&8; Hudson1; Sewaren 1,2,3 & 4 (total of 1136 MWs) by December 2004.
- Pursuant to PJM's generation retirements procedure, PJM conducted planning analysis to identify reliability impacts associated with those retirements.



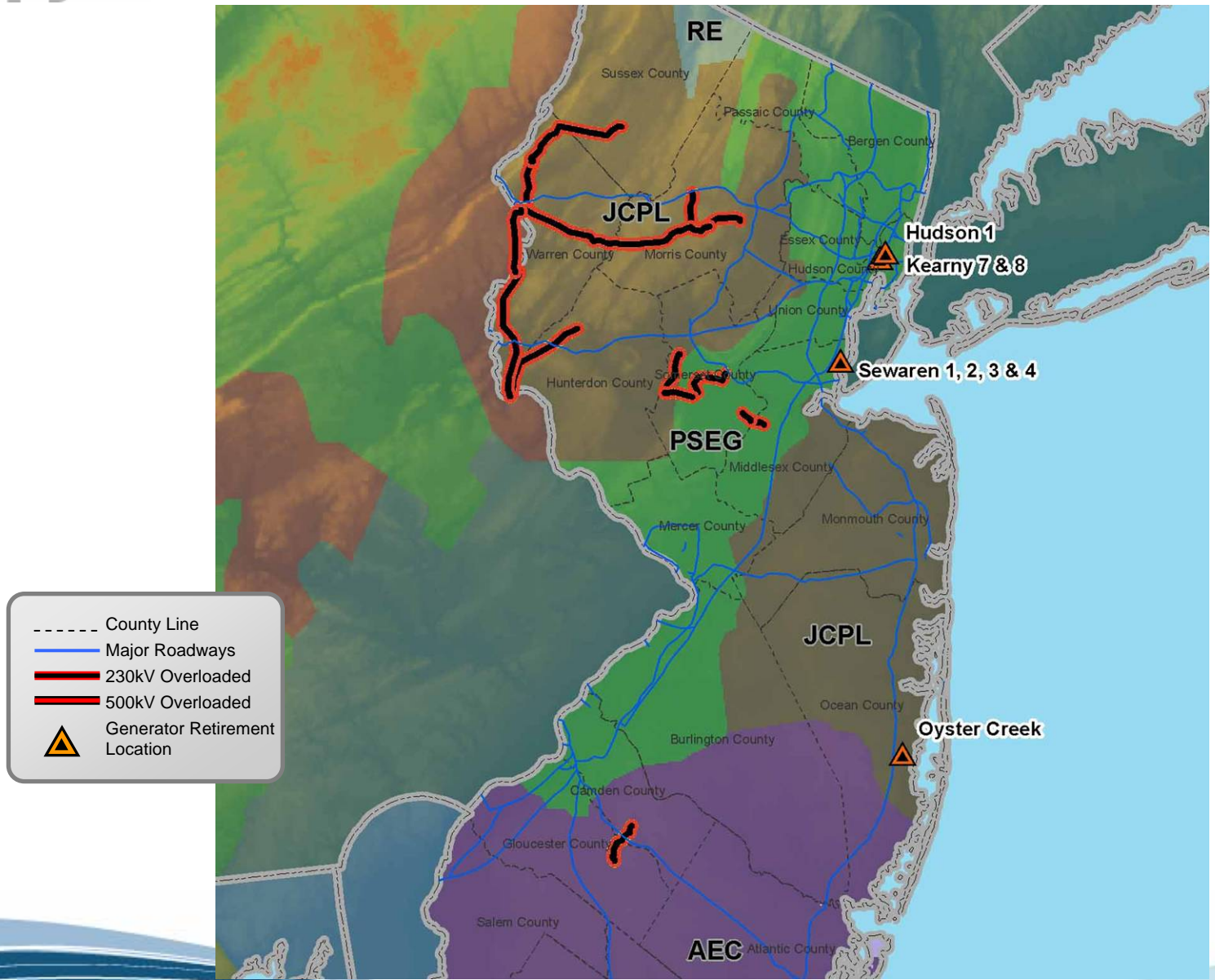
- County Line
- Major Roadways
- 230kV Overloaded
- 500kV Overloaded
- ▲ Generator Retirement Location



- Present studies indicate that new transmission lines will probably be required in the proximity of the Warren, Morris and Somerset Counties to accommodate the PSE&G retirements. The cost for the new transmission is estimated to be around \$100 million. Costs associated with new rights-of-way, if required, could significantly increase this estimate.



Overloaded Transmission due to PSE&G Retirements – Adding the Oyster Creek Retirement Increases These Overloads

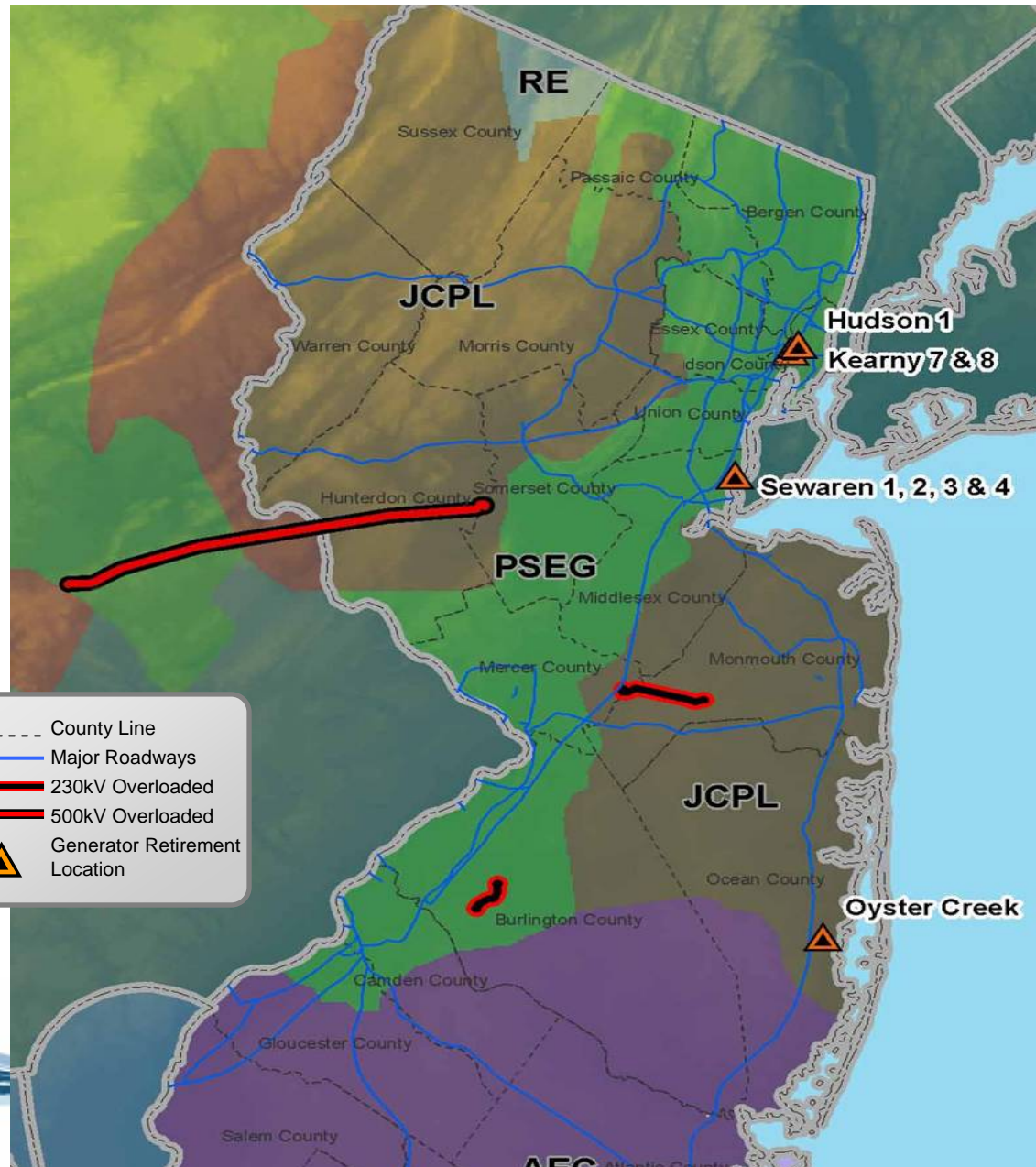




➤ The retirement of Oyster Creek will contribute to the loading on these facilities and may result in the need for additional transmission lines above the \$100 million estimate for the PSE&G retirements. Costs associated with new rights-of-way, if required, could significantly increase this estimate.



Additional Overloaded Transmission due to combination of PSE&G and Oyster Creek Retirements - Oyster Creek Retirement **Significantly** Increases Overloads



- County Line
- Major Roadways
- 230kV Overloaded
- 500kV Overloaded
- ▲ Generator Retirement Location

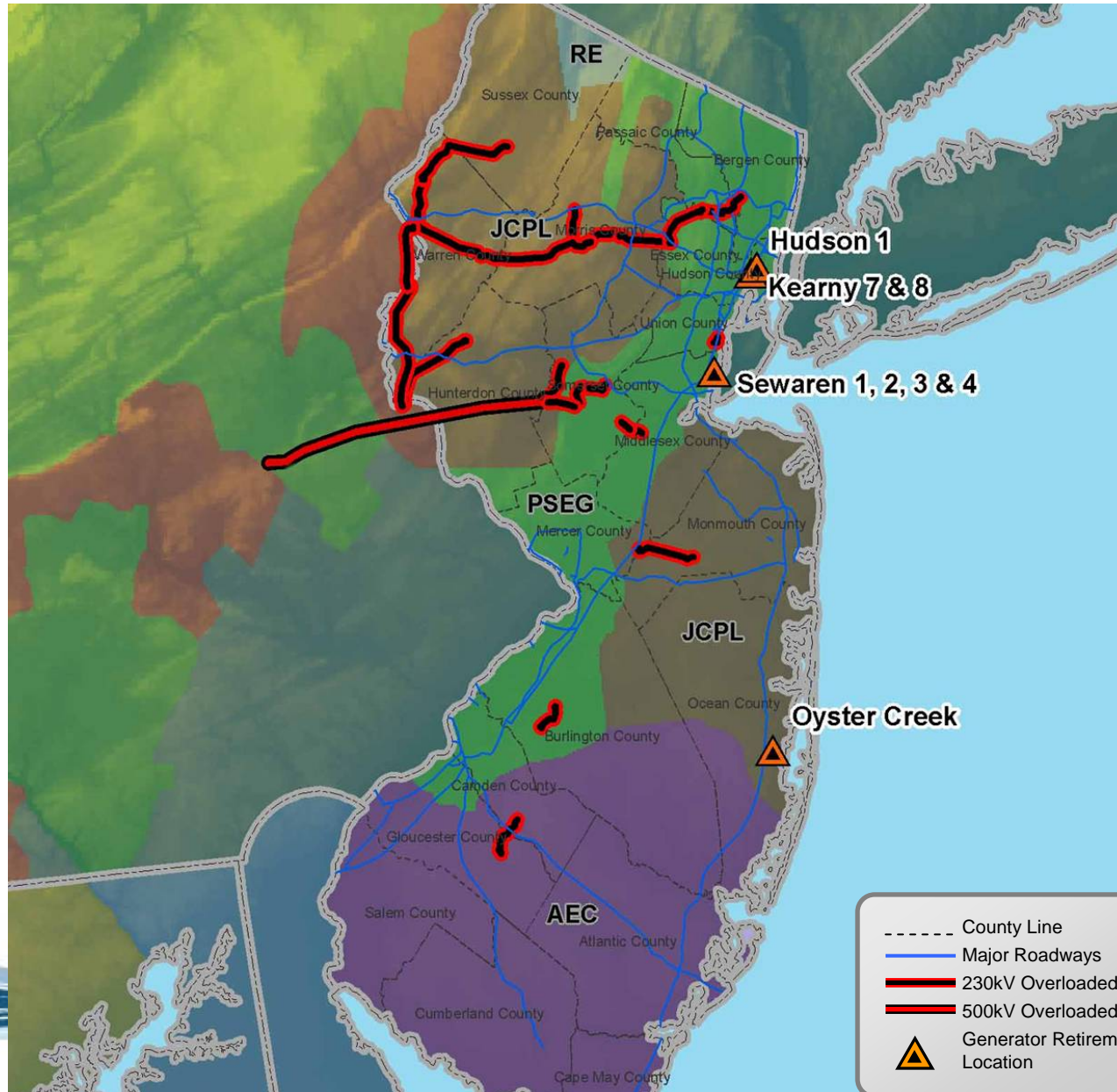


Additional Overloaded Transmission due to combination of PSE&G and Oyster Creek Retirements - Oyster Creek Retirement **Significantly** Increases Overloads

- Present studies indicate that new 500 kV or 230 kV transmission lines will likely be required to accommodate the Oyster Creek retirement in combination with the PSE&G retirements. This new transmission will likely require new rights-of-way, transmission siting approval, and environmental permits in addition to the actual time for the facilities to be constructed. New rights-of-way may be required in both Pennsylvania and New Jersey.
- Solutions for these additional overloads are likely to exceed \$100 million. Costs associated with new rights-of-way, if required, could significantly increase this estimate.



All New Jersey Overloaded Transmission due to combination of PSE&G and Oyster Creek Retirements

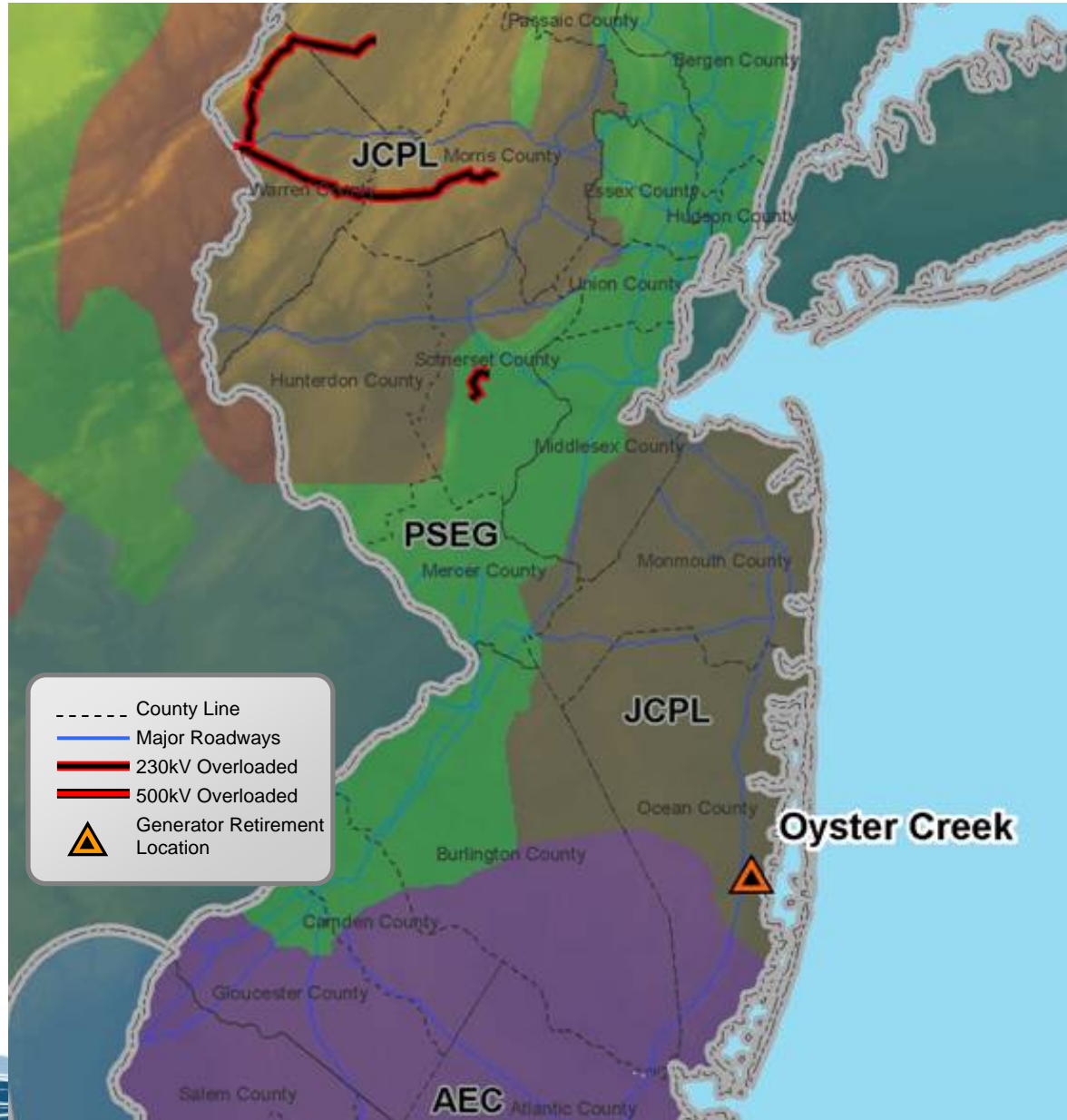




Solutions to resolve all overloads have not been identified but are expected to result in more than \$200 million of system upgrades including new rights-of-way and transmission lines. Costs associated with new rights-of-way, if required, could significantly increase this estimate.



Overloaded Transmission due to Oyster Creek Retirement – Excluding PSE&G Retirements





Present studies indicate that upgraded 230 kV transmission lines will likely be required to accommodate a retirement of the Oyster Creek generator. Acquisition of new rights-of-way are not anticipated for these 230 kV upgrades. Solutions to resolve all overloads have not been identified but are expected to exceed \$50 million. Costs associated with new rights-of-way, if required, could significantly increase this estimate.