

# Planning For Integrated Energy Systems

Prepared By:

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Disclaimer:

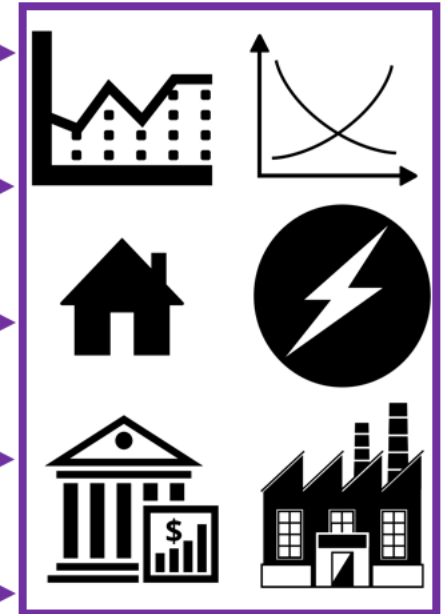
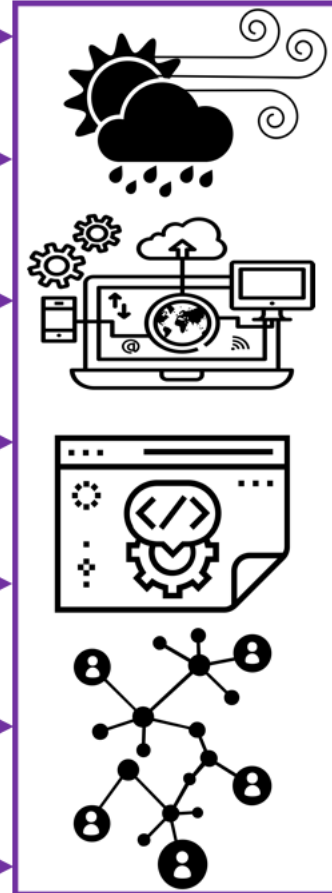
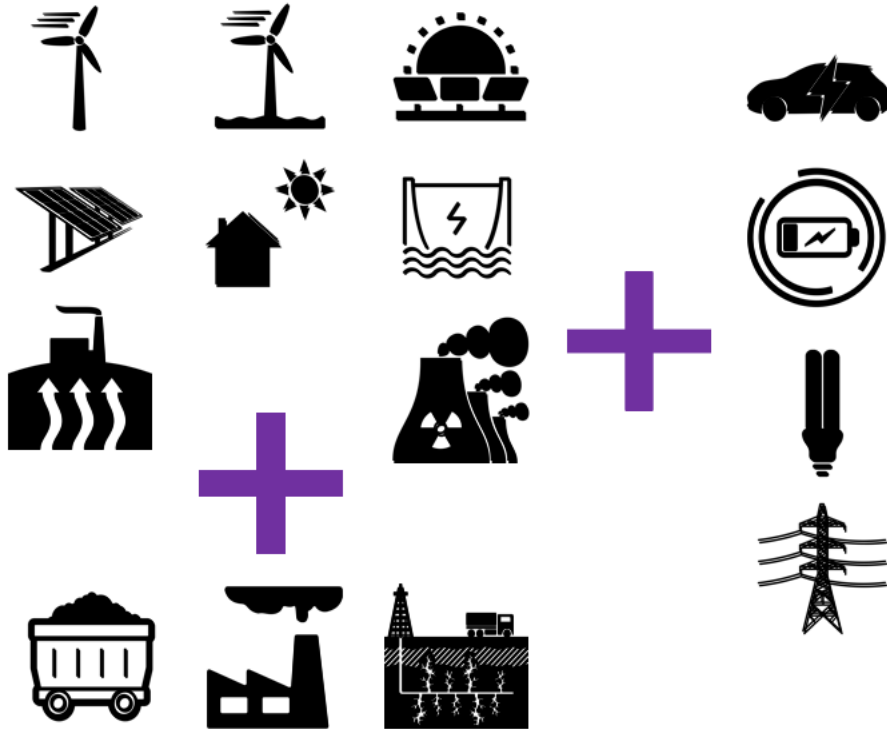
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# The WIS:dom Optimization Model

Detailed Input Data

WIS:dom

Numerous Objectives Output

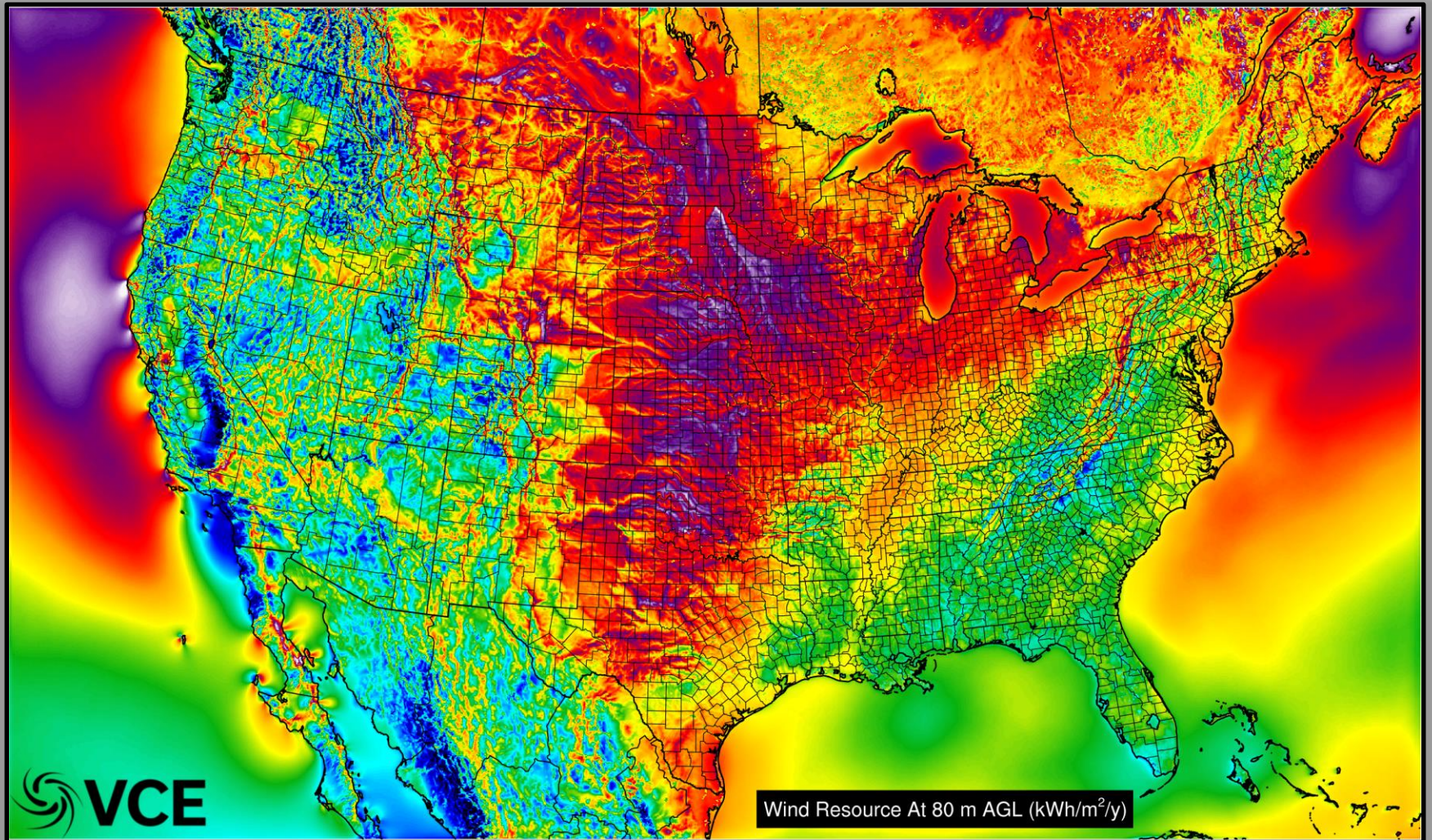


## WIS:dom Land Cover Input

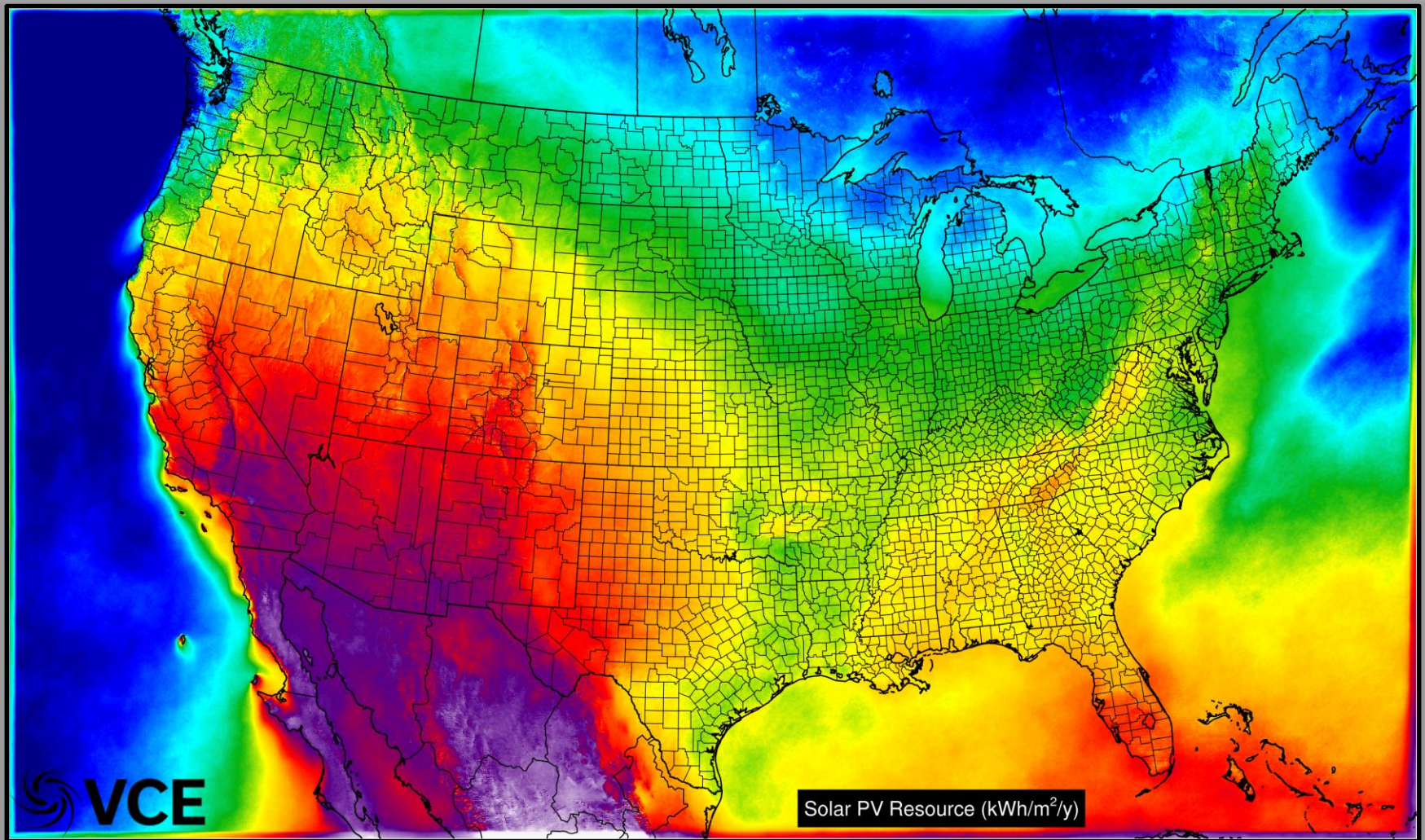


Original Data Source: [https://lpdaac.usgs.gov/dataset\\_discovery/modis/modis\\_products\\_table/mcd12c1](https://lpdaac.usgs.gov/dataset_discovery/modis/modis_products_table/mcd12c1)

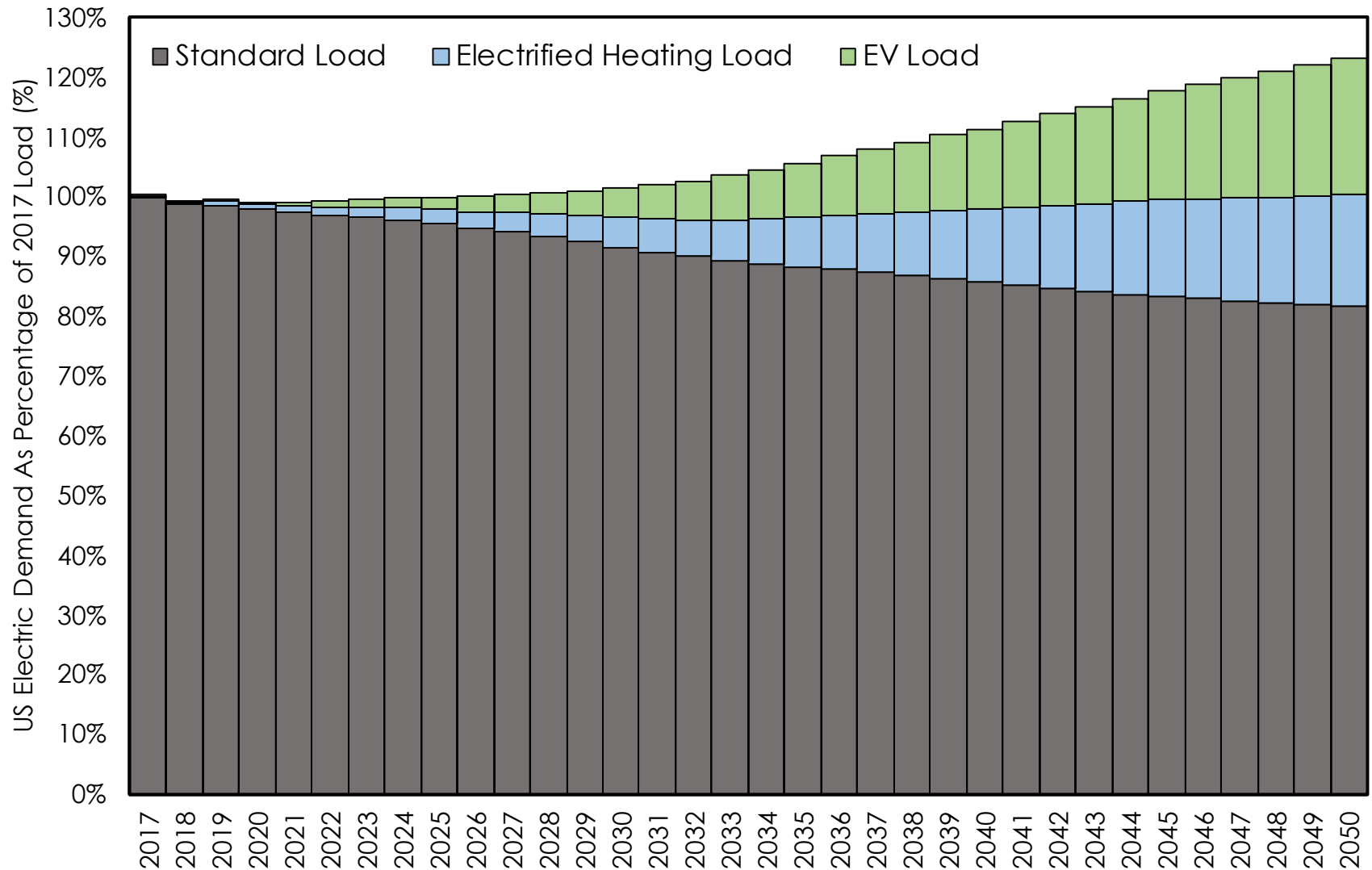






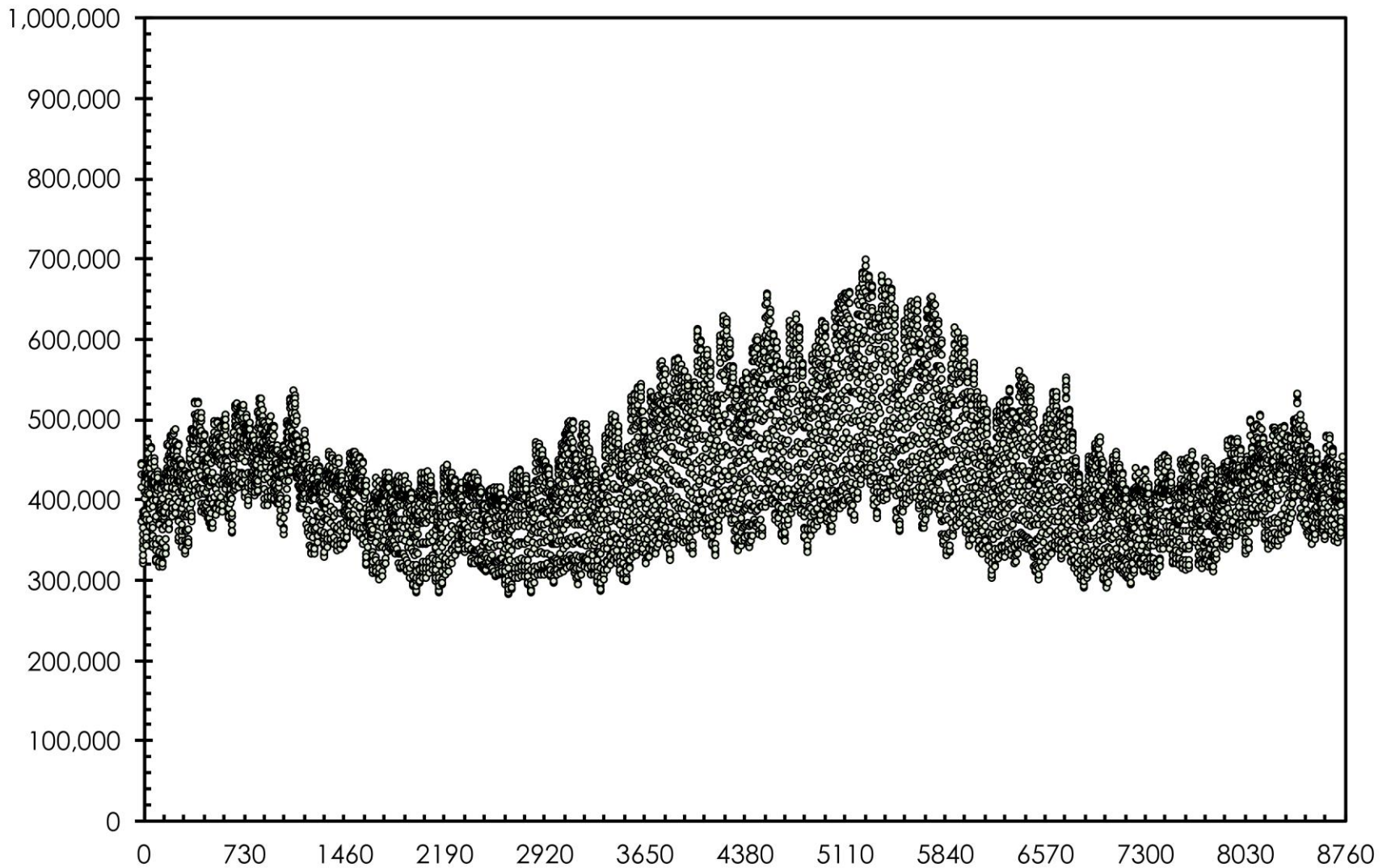


## US Electricity Demand To Reduce Economy Wide GHG Emissions By 80% By 2050

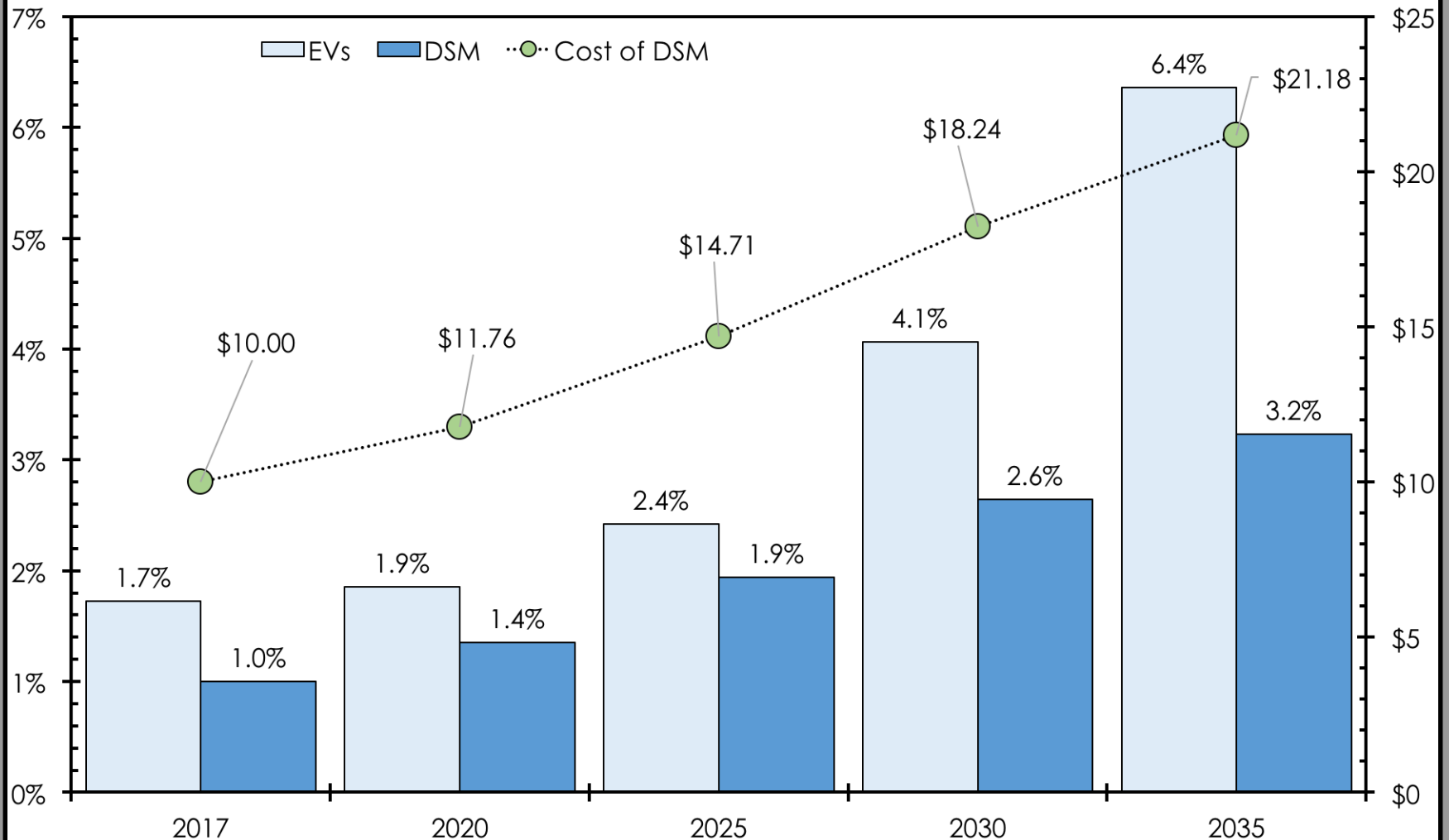




US National Electric Demand For Decarbonization Of Economy By 80% By 2050 (2017)

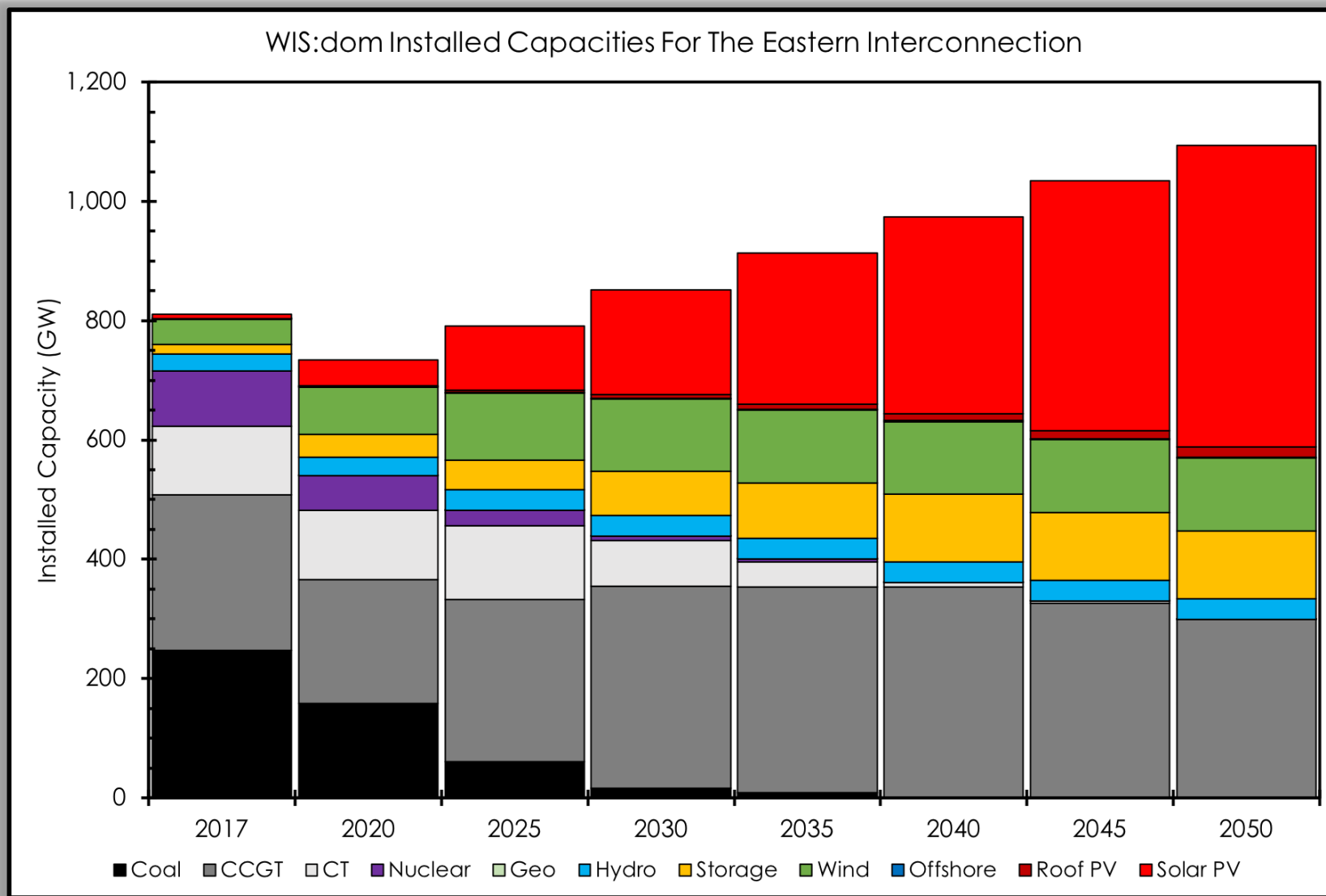


The Percentage of Demand Assigned to EVs and DSM For Potential Flexibility

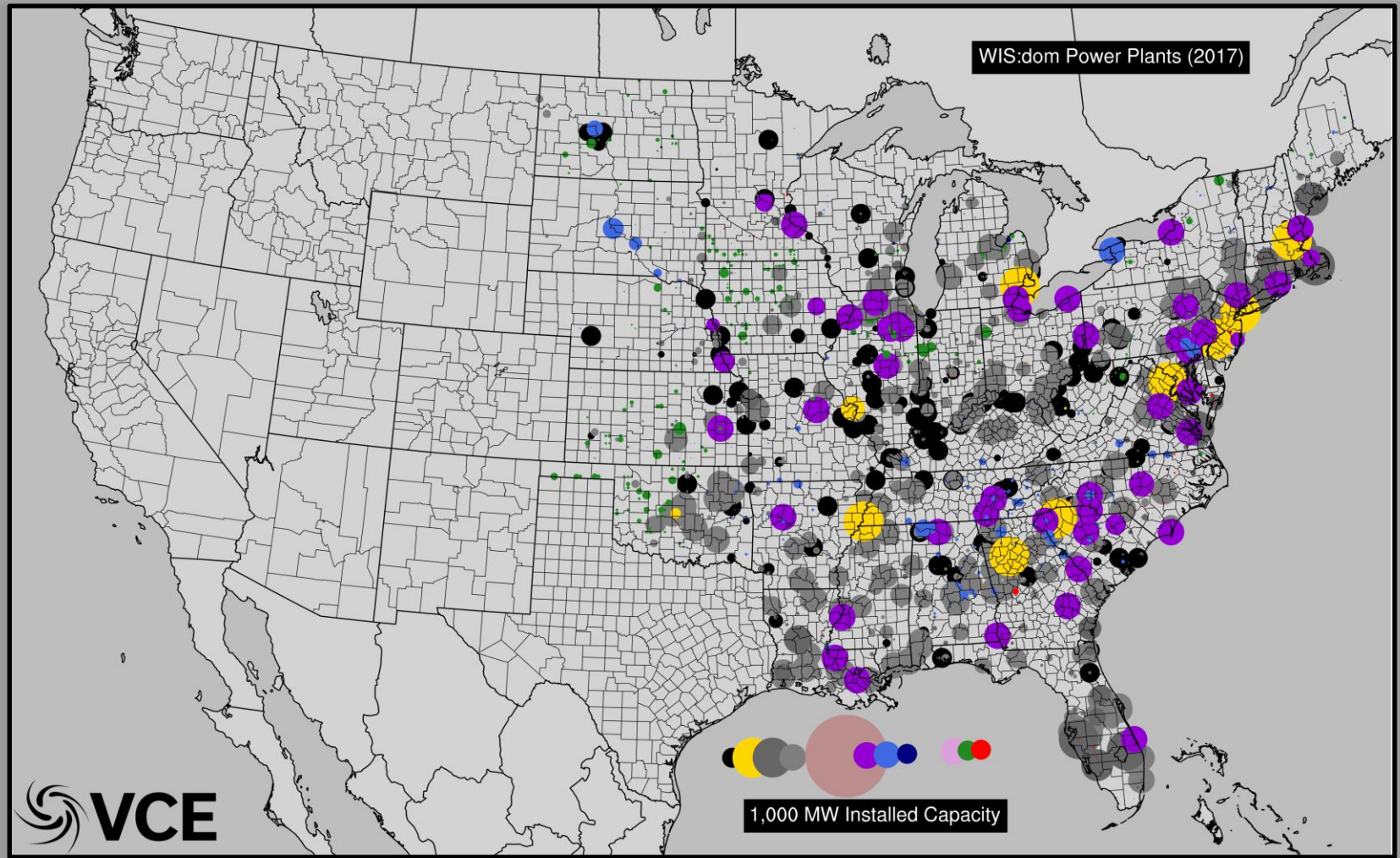




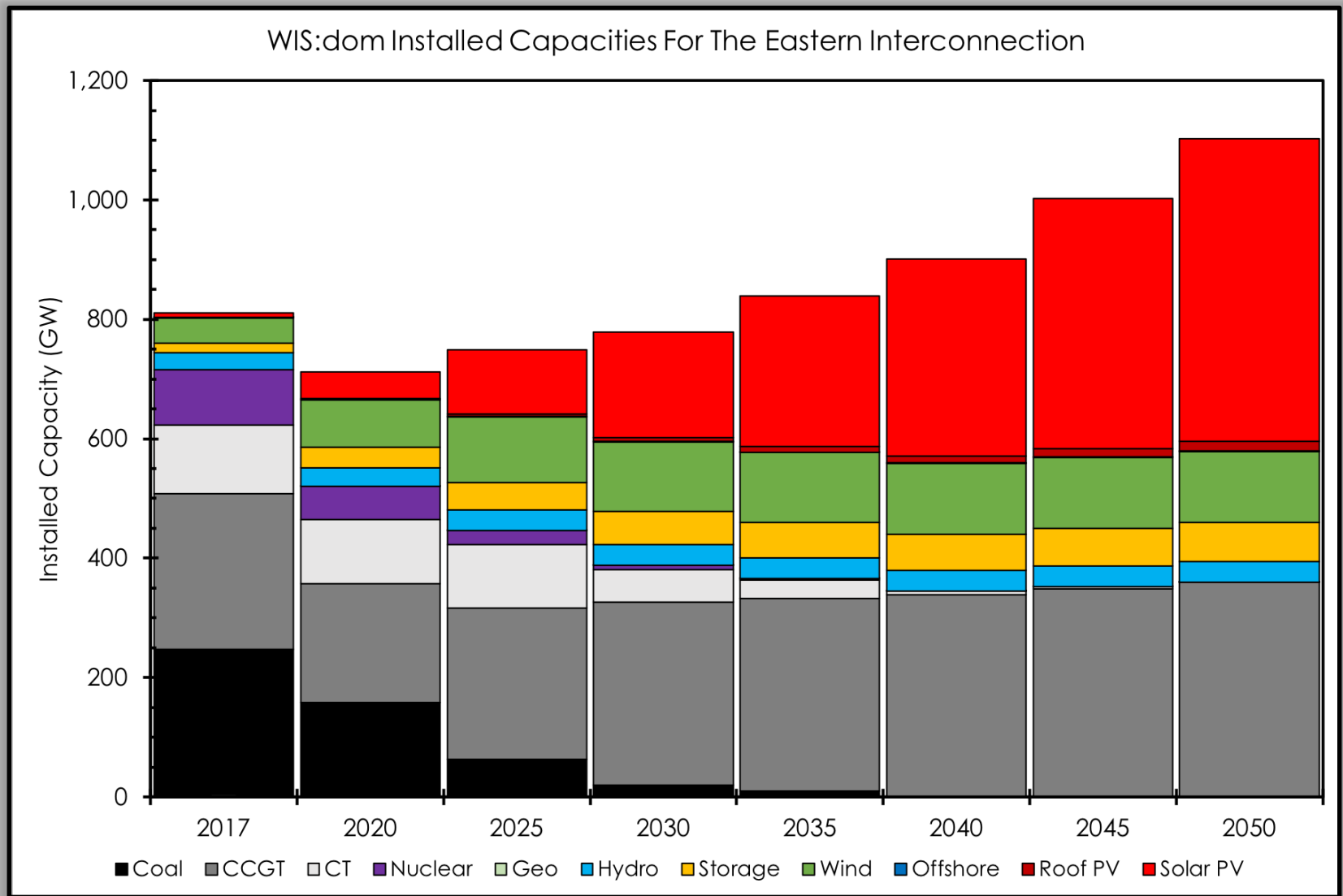
# El Capacities – No Electrification



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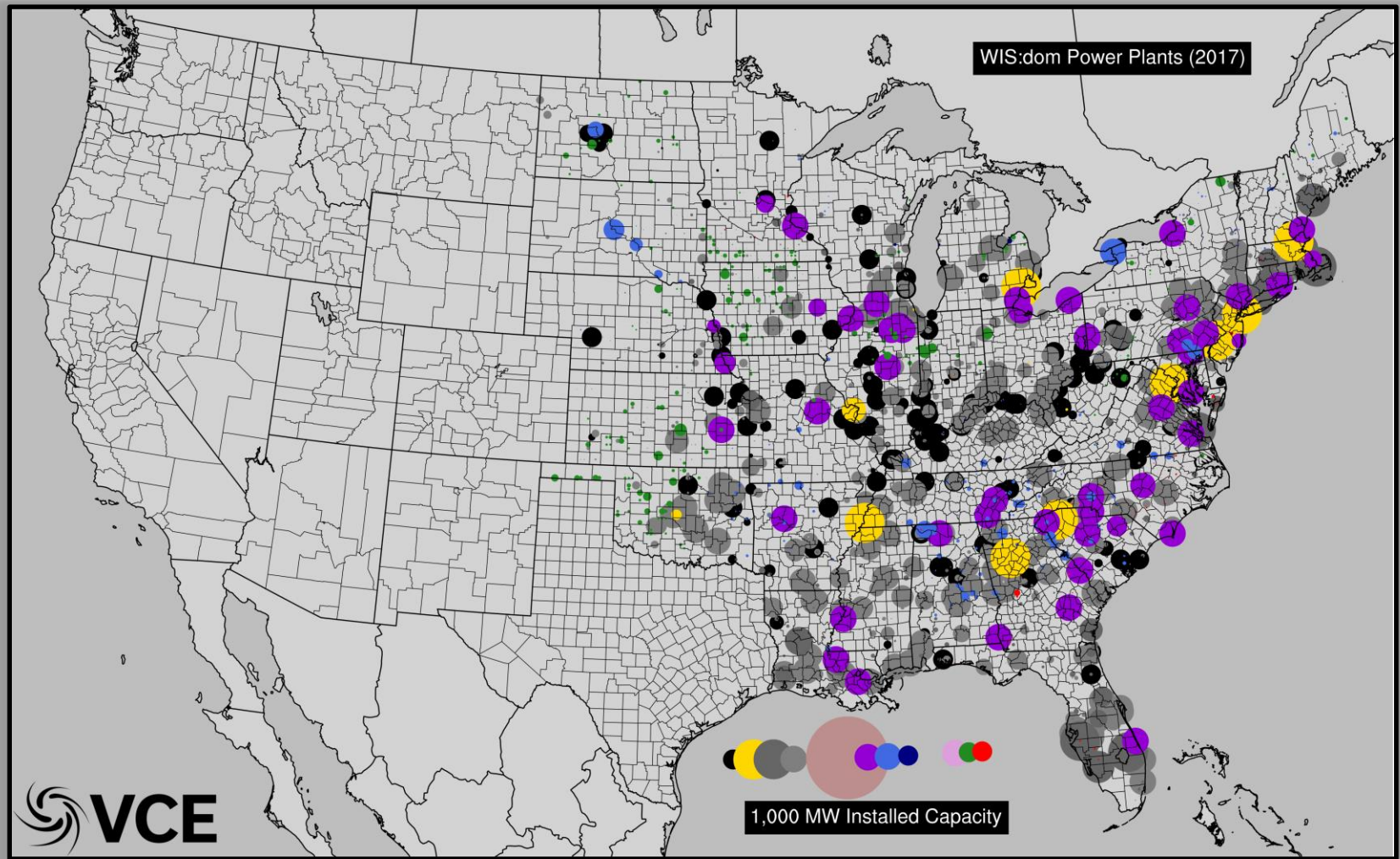


# El Capacities – Electrification

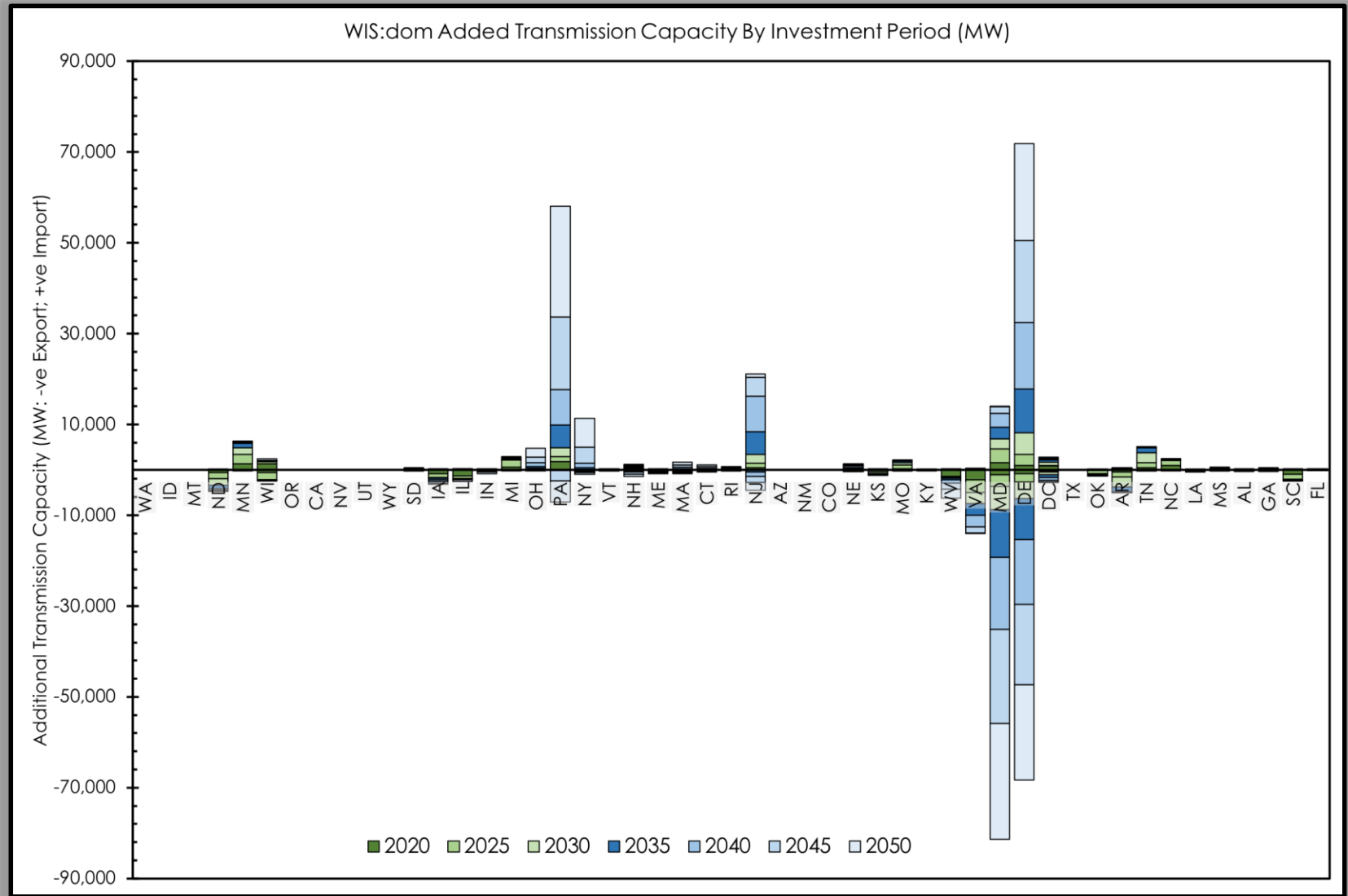




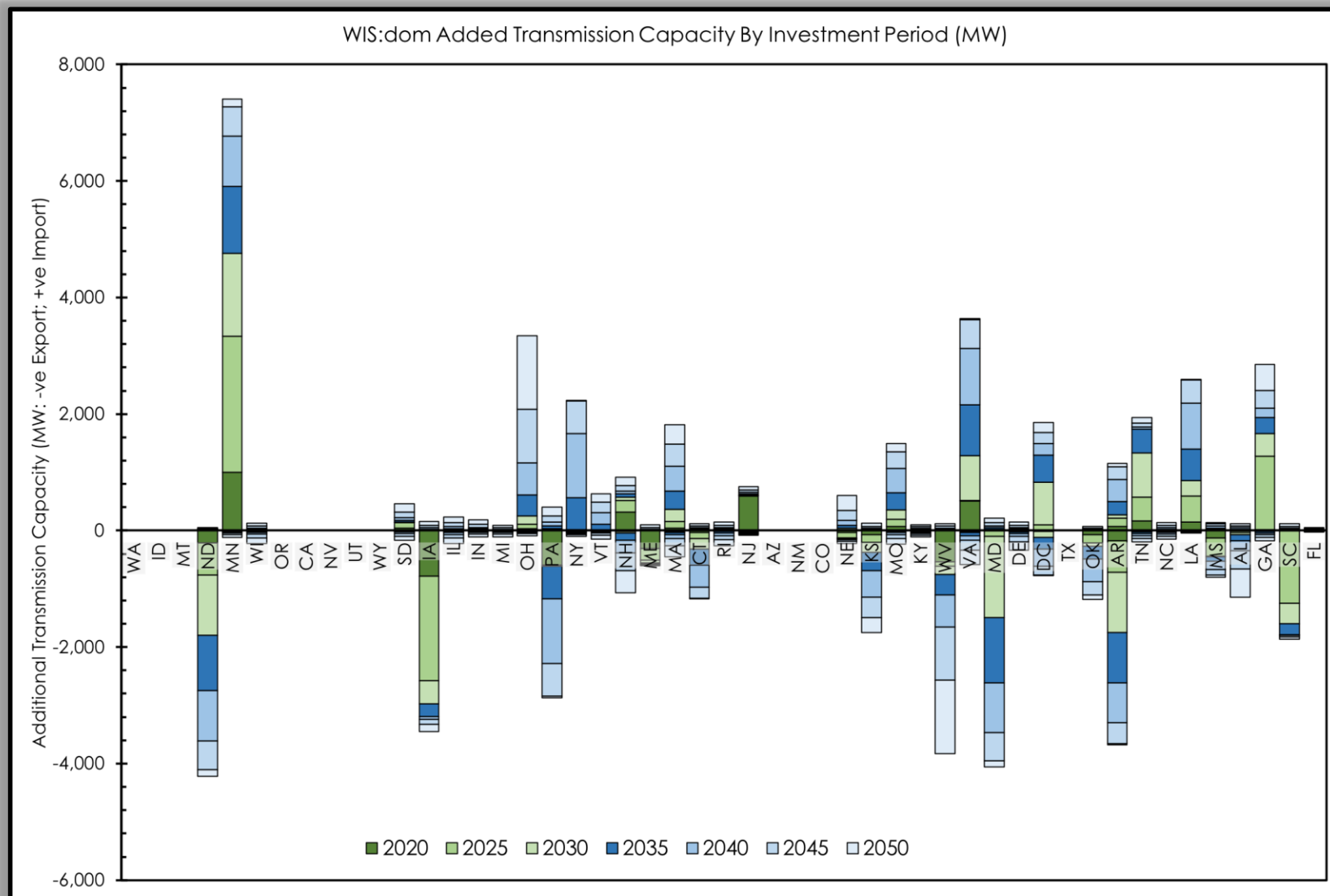
# El Capacities – Electrification



# El Interstate Transmission – No Electrification



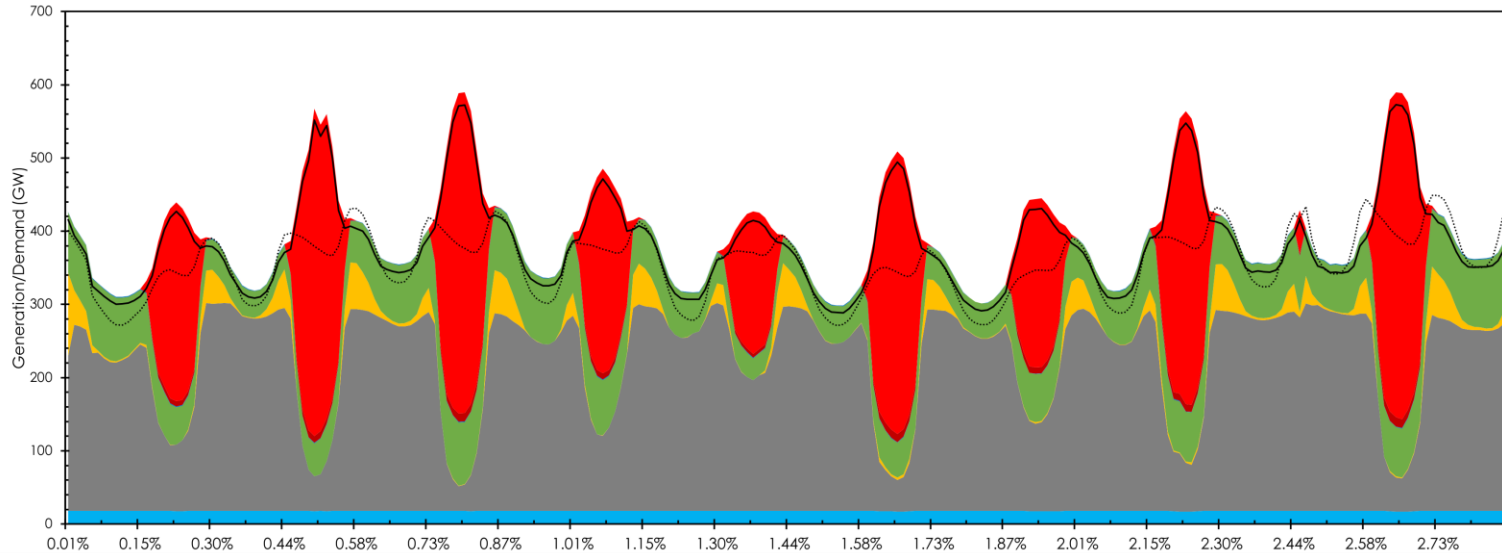
# El Interstate Transmission – Electrification



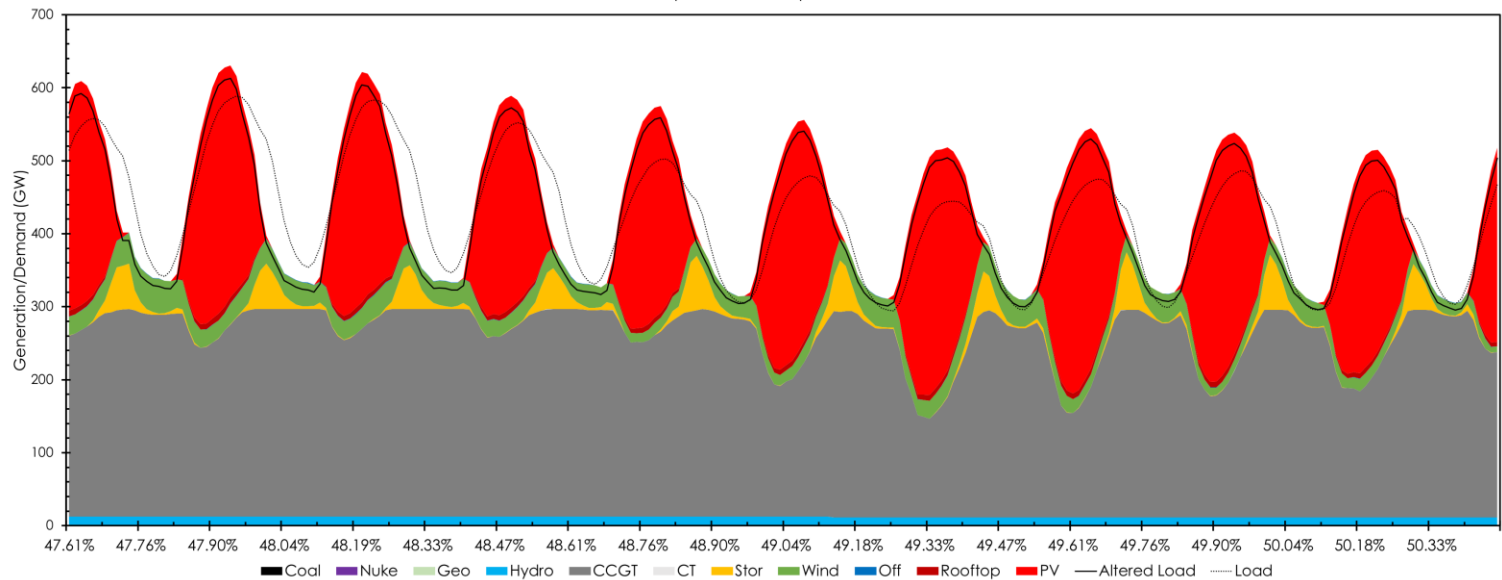


# El Dispatch – No Electrification

Example Winter Dispatch - 2050

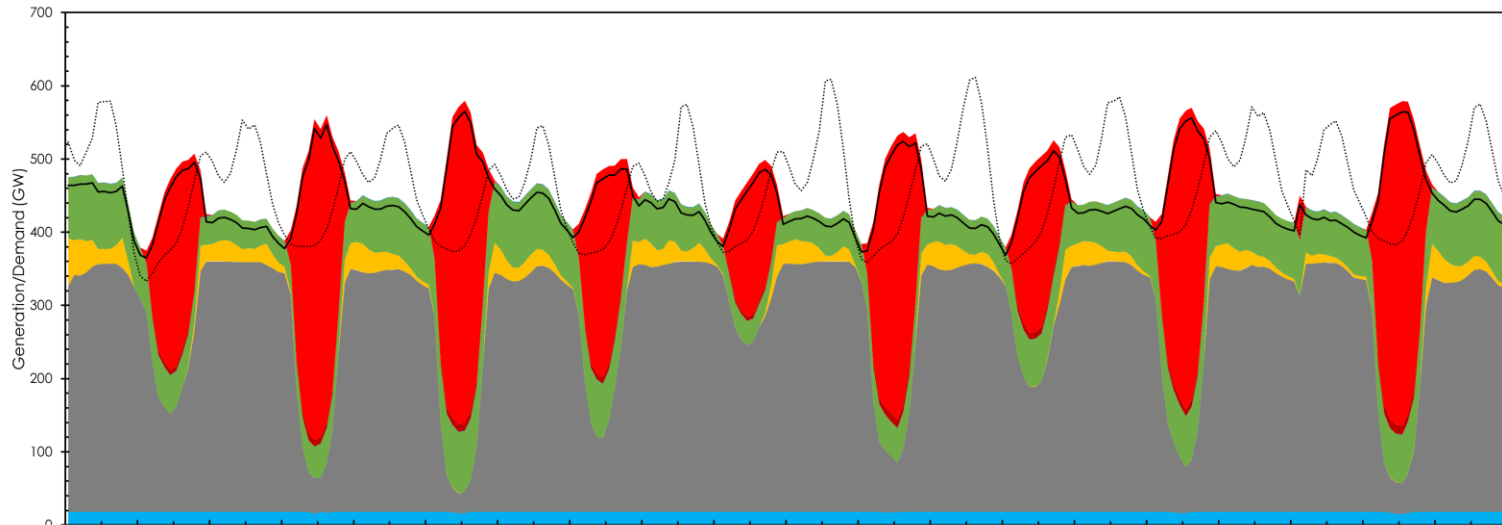


Example Summer Dispatch - 2050

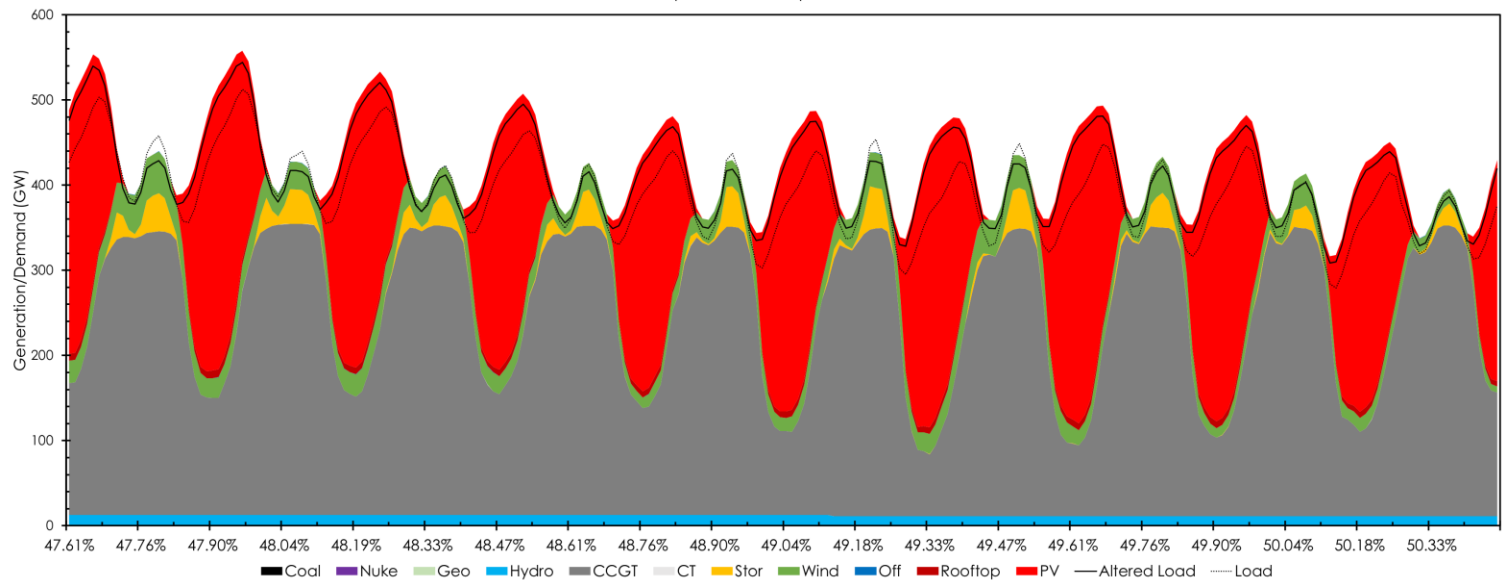


# El Dispatch – Electrification

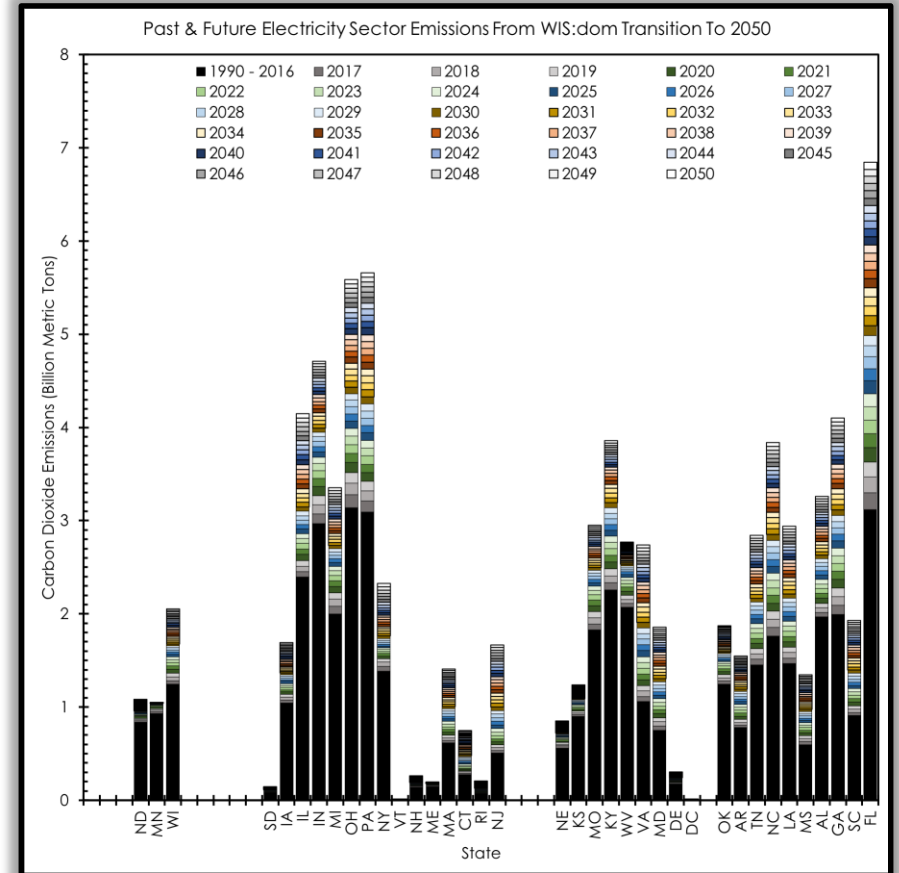
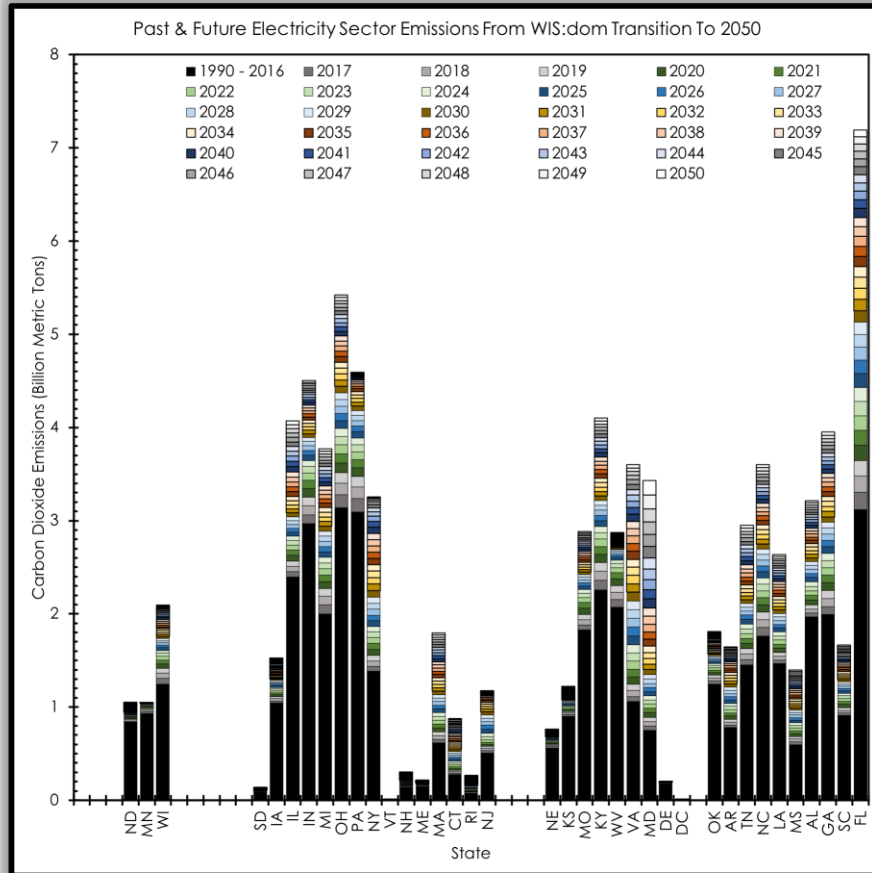
Example Winter Dispatch - 2050



Example Summer Dispatch - 2050



# Cumulative Emissions (CO<sub>2</sub>e)





# Thank You

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