PJM's Regional Transmission Expansion Planning Process

Determining the Need for Infrastructure

October 29, 2007

Electric Transmission: Meeting the Needs of the 21st Century

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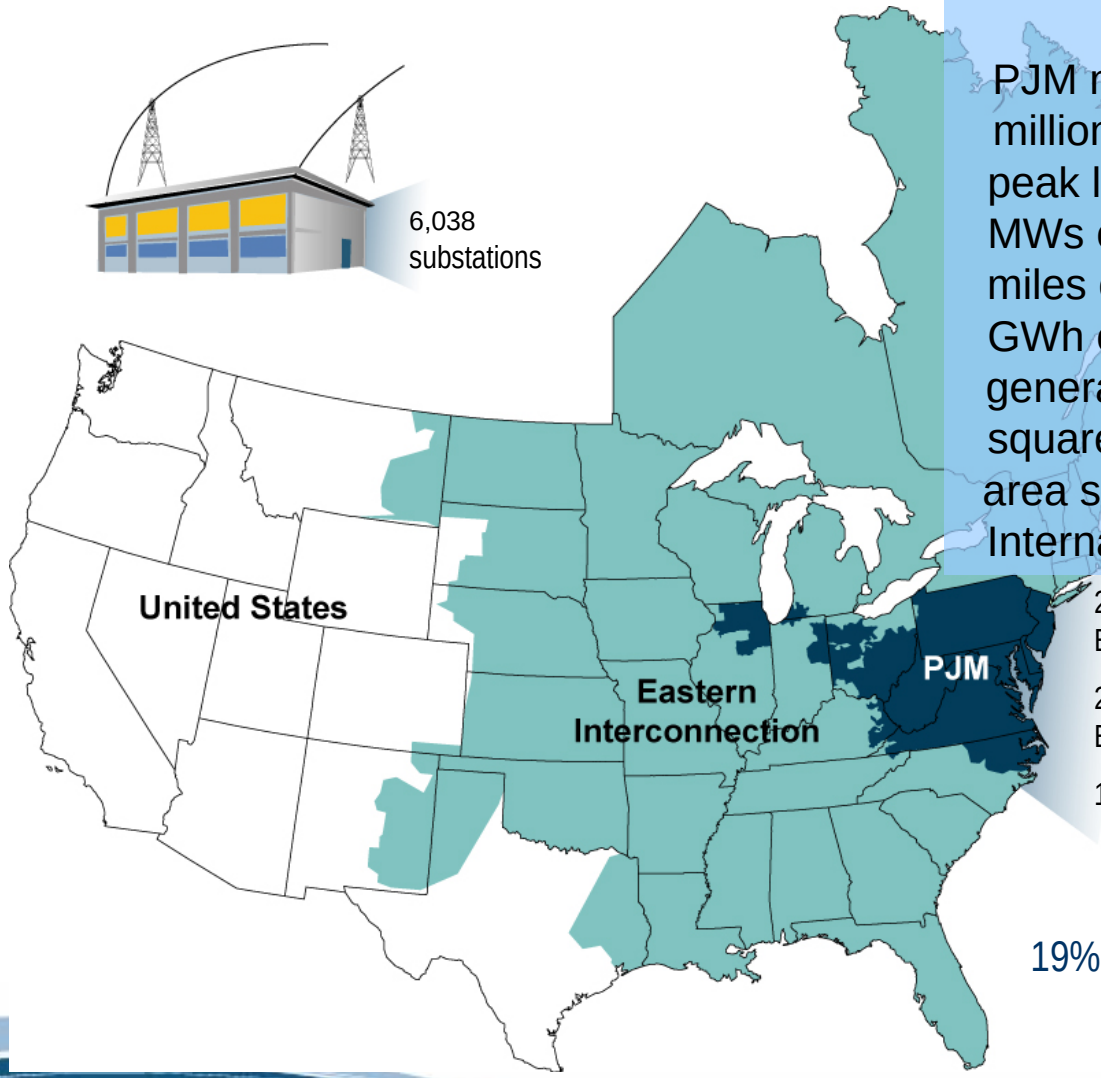
PJM - Part of the Eastern Interconnection

6,038
substations



KEY STATISTICS

PJM member companies	500+
millions of people served	51
peak load in megawatts	144,644
MWs of generating capacity	164,905
miles of transmission lines	56,250
GWh of annual energy	729,000
generation sources	1,271
square miles of territory	164,260
area served	13 states + DC
Internal/external tie lines	250

26% of generation in
Eastern Interconnection

23% of load in
Eastern Interconnection

19% of transmission assets
in Eastern Interconnection

19% of U.S. GDP produced in PJM

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PJM in the World

PJM	165,000 MW Installed Capacity • 247 Interties 1,271 Generating Units • 56,070 miles of transmission
EDF (France)	83,000 MW Installed Capacity • 41 Interties 608 Generating Units • 30,162 miles of transmission
Tokyo Electric	64,000 MW Installed Capacity • 3 Interties 147 Generating Units • 43,857 miles of transmission
State Grid Corp. of China	436,000 MW Installed Capacity 44,169 miles transmission (330kV +)
National Grid (England & Wales)	75,600 MW Installed Capacity • 2 Interties 212 Generating Units • 14,552 miles of transmission
Italy	54,000 MW Installed Capacity • 10 Interties 314 Generating Units • 26,503 miles of transmission
Power Grid Corp. of India	126,994 MW Installed Capacity • 23 Interties 1,000 Generating Units • 117,228 miles of transmission (220kV+)

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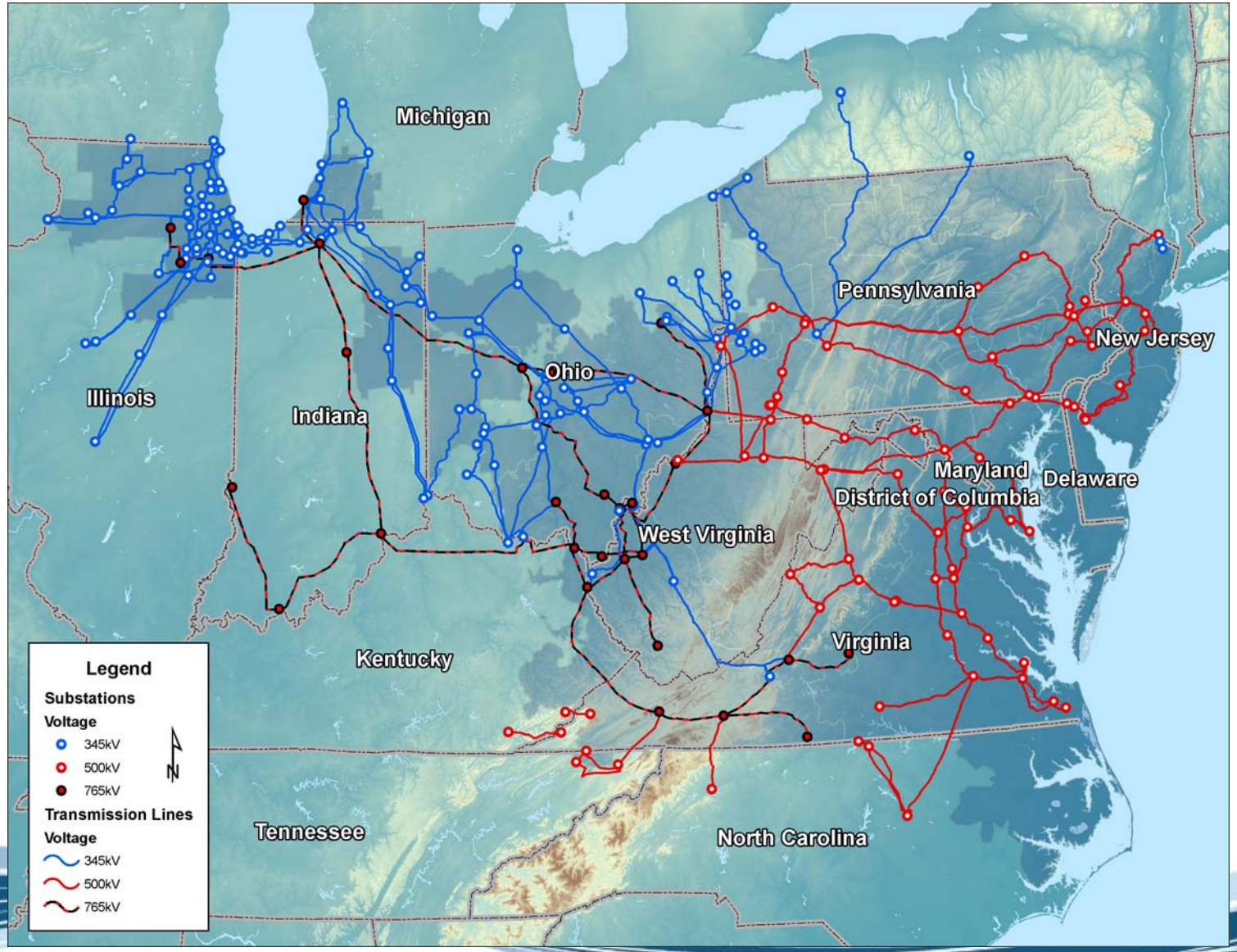
PJM Bulk Power Transmission System



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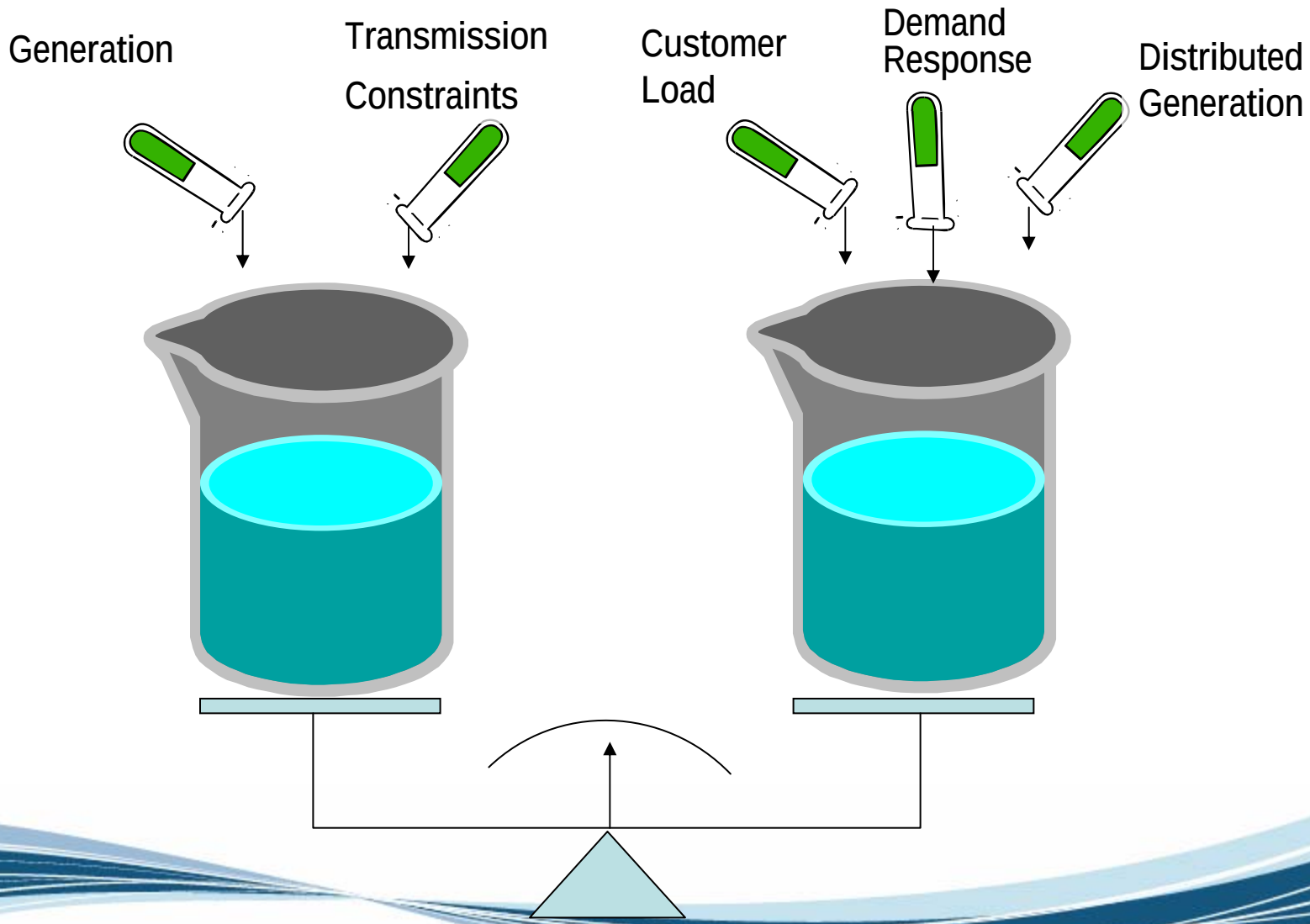
PJM's Planning Process - Achieving Reliability



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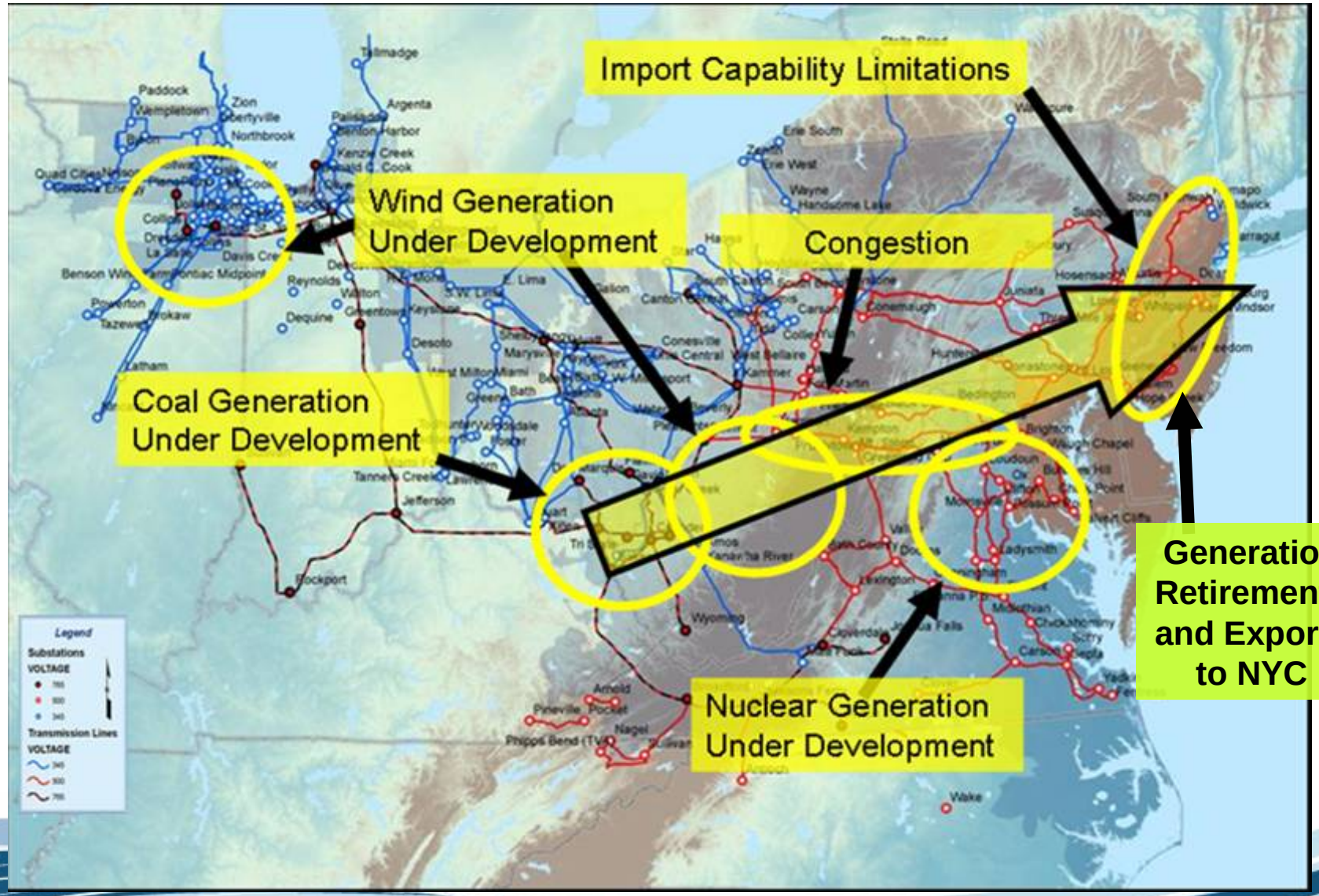
Transmission Expansion Drivers



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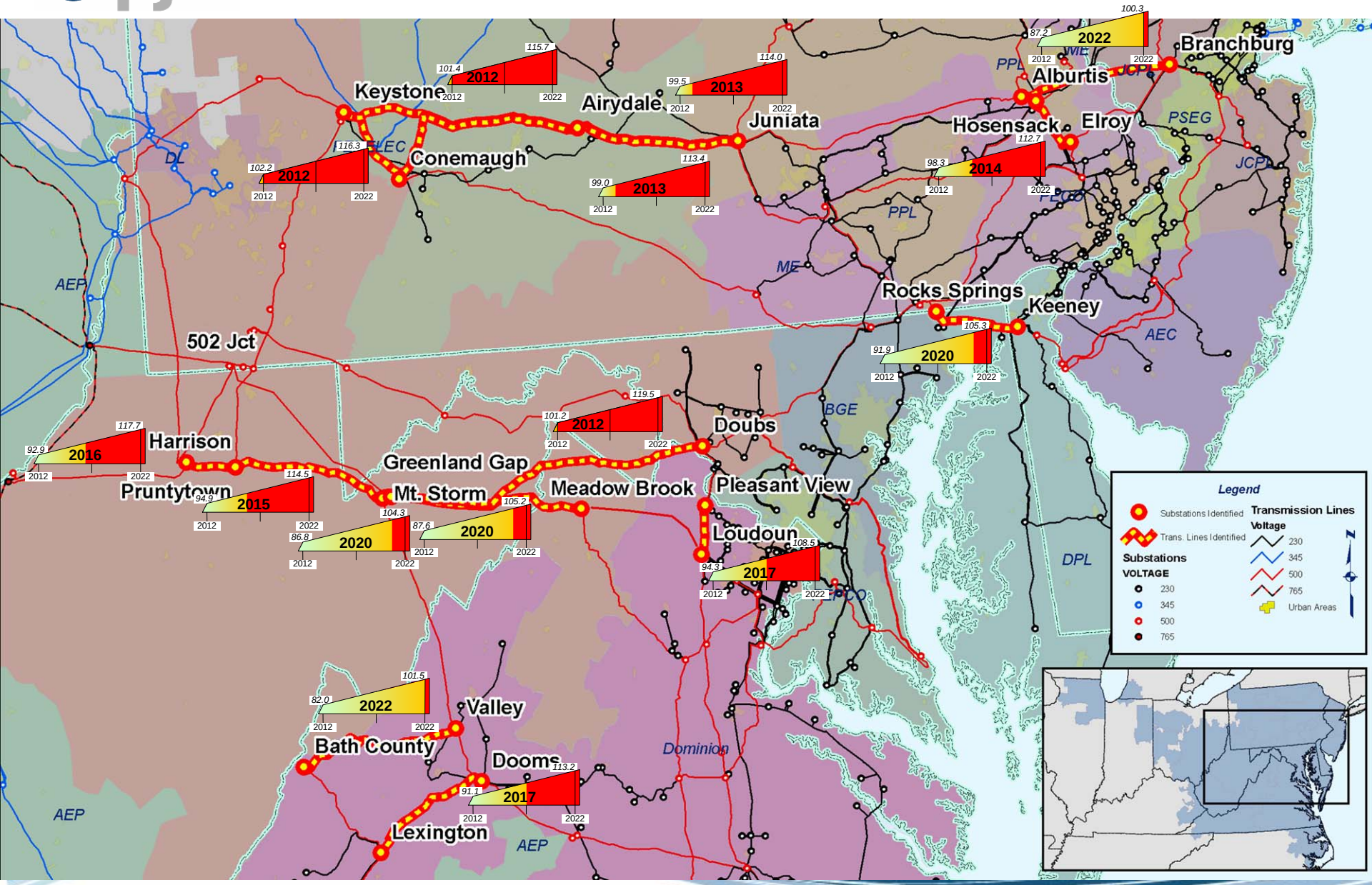
500 kV Overloads



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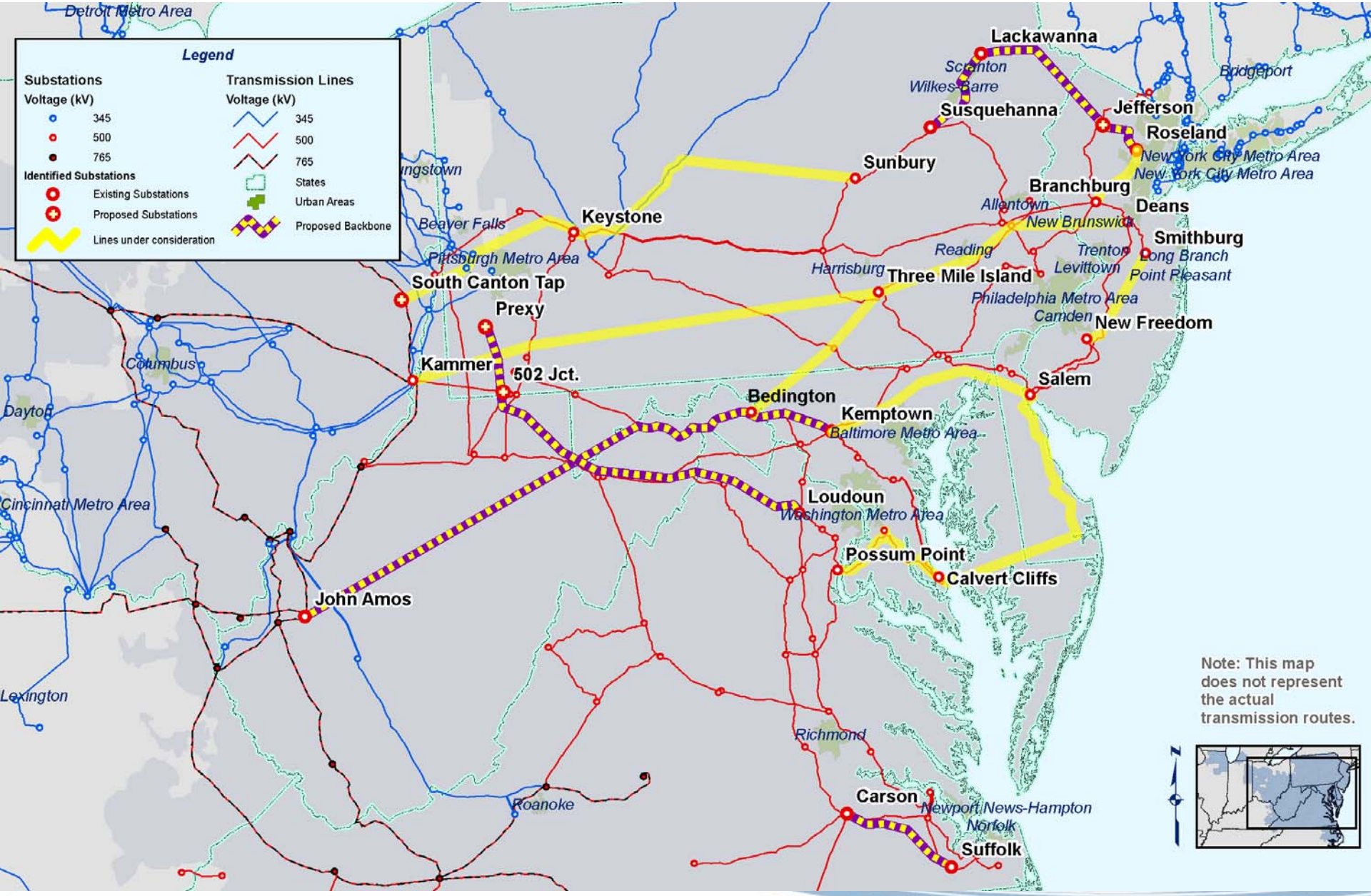
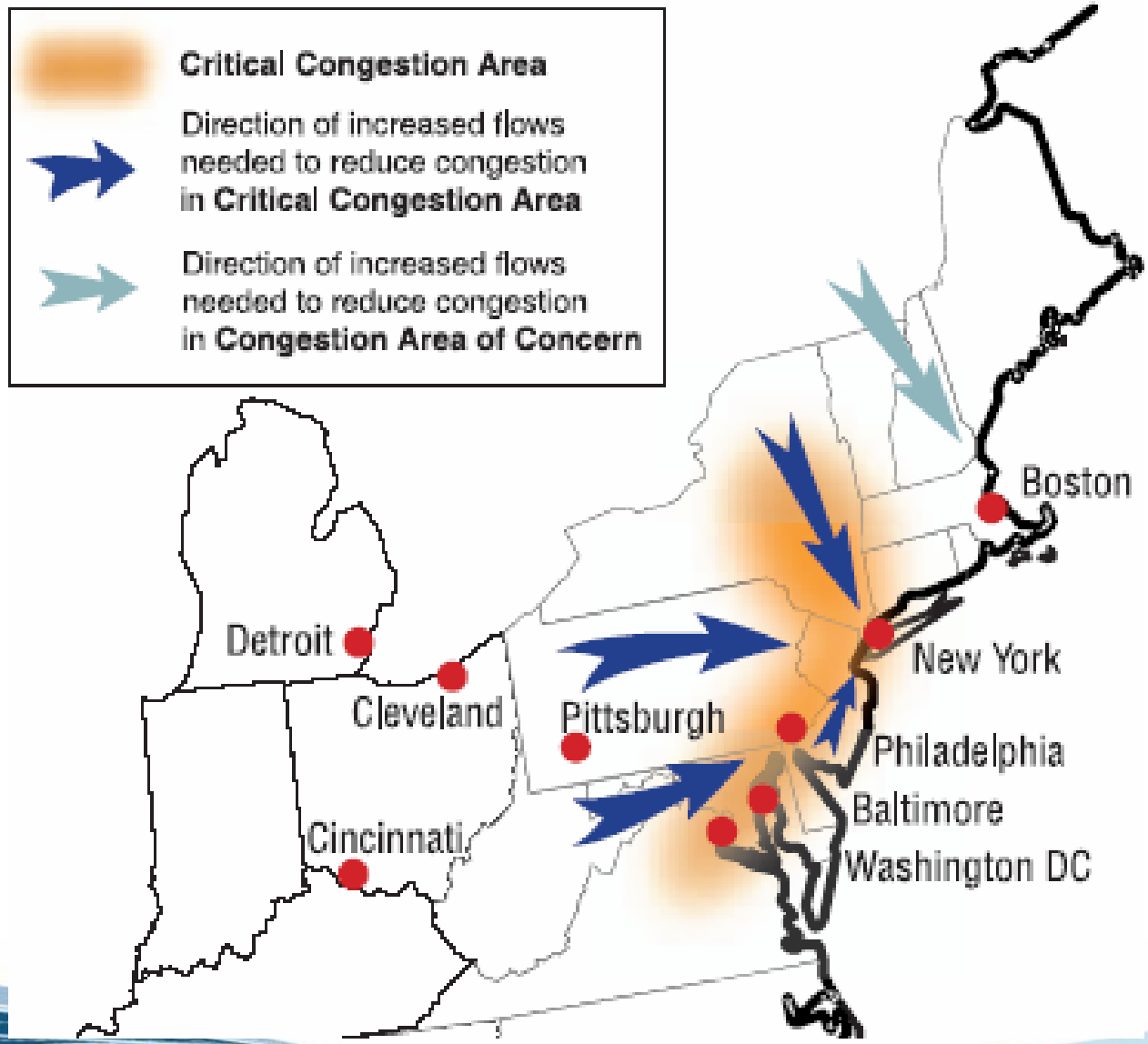
Transmission Solutions



DOE Congestion Report



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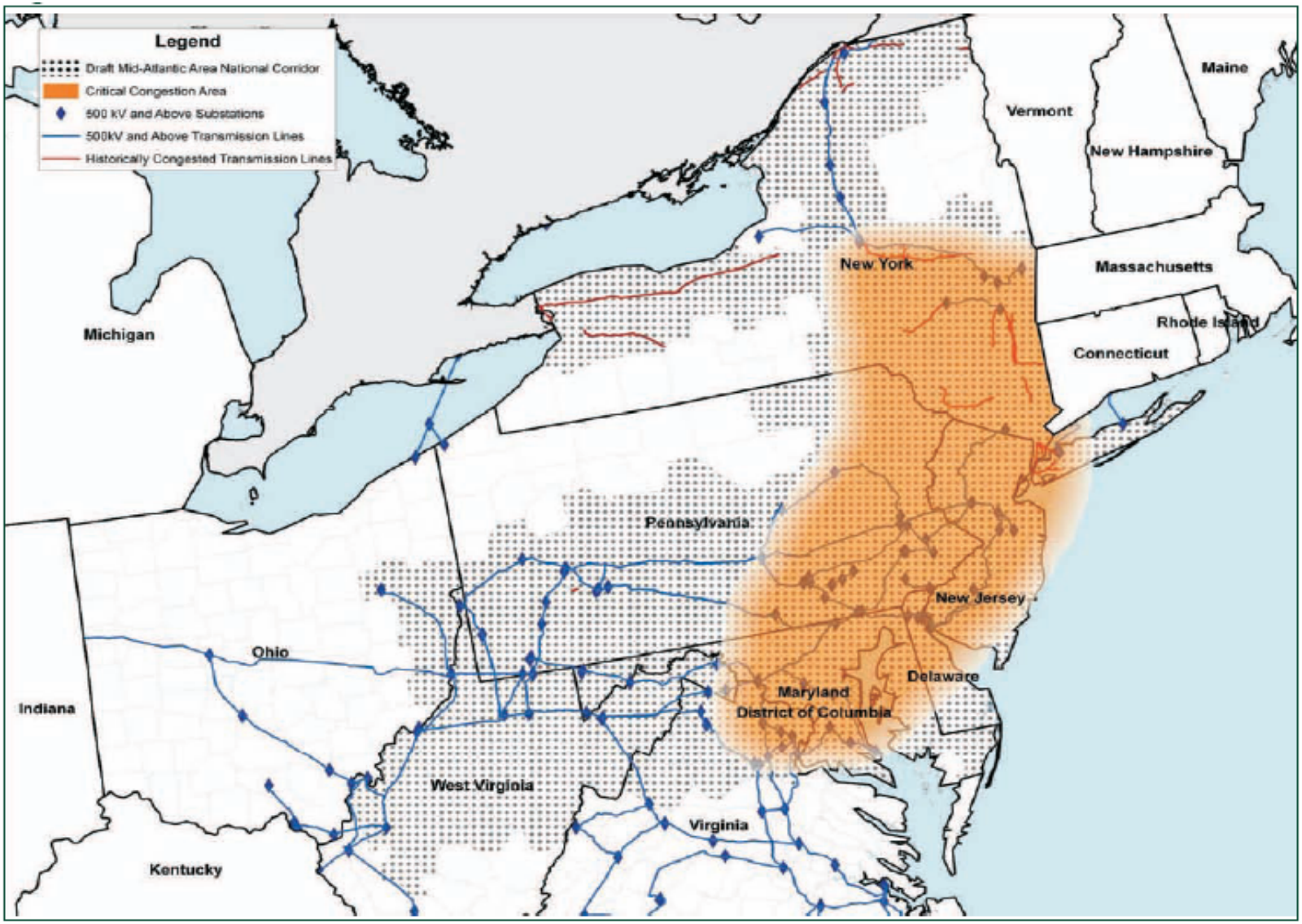
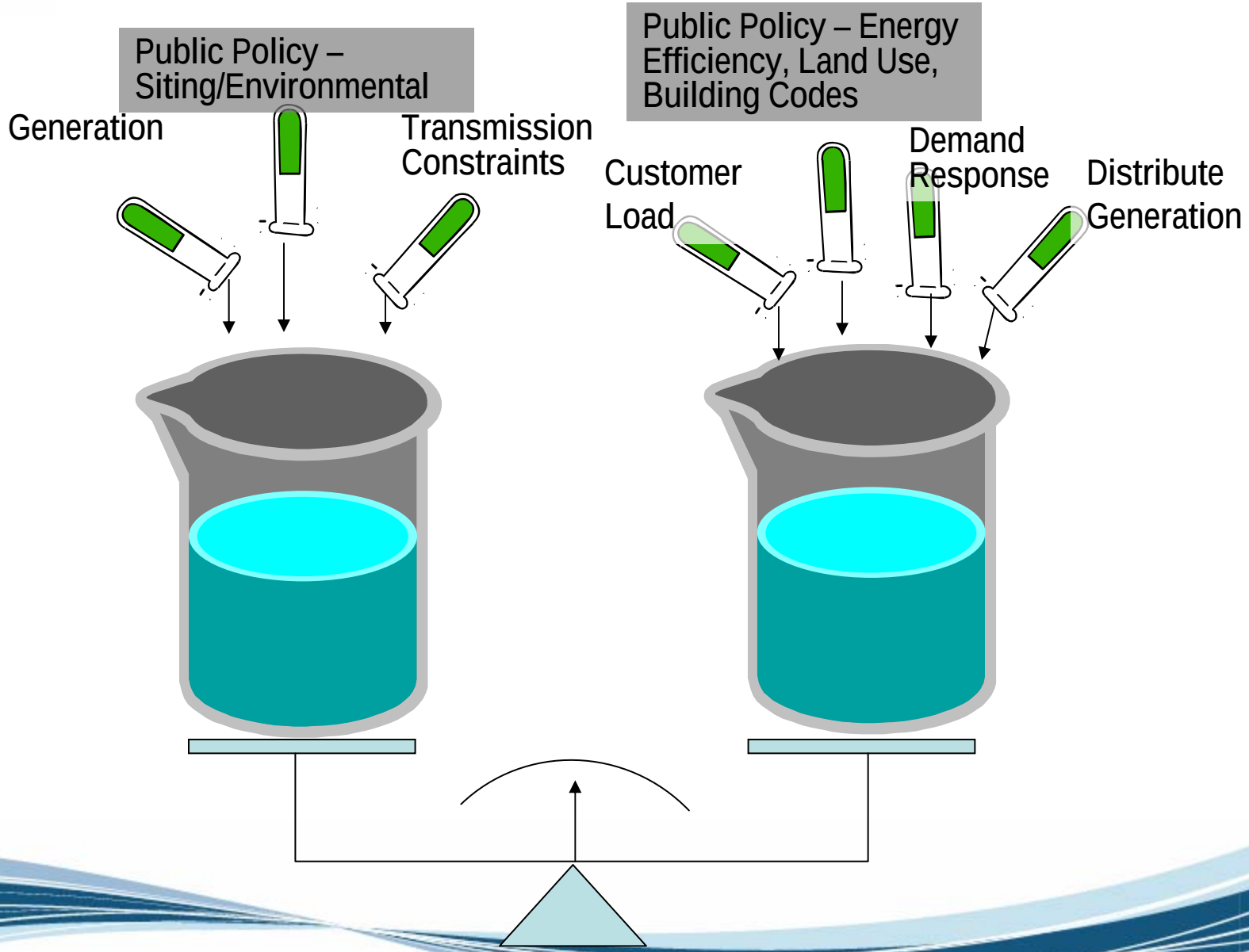
Mid-Atlantic Area National Corridor



Note: County boundaries are shown.
Source: U.S. Department of Energy, 2007.

Public Policy Impacts - Achieving Reliability



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