Chart of the Week #2024-37
Contention for U.S. Natural Gas Resources in Three New England States

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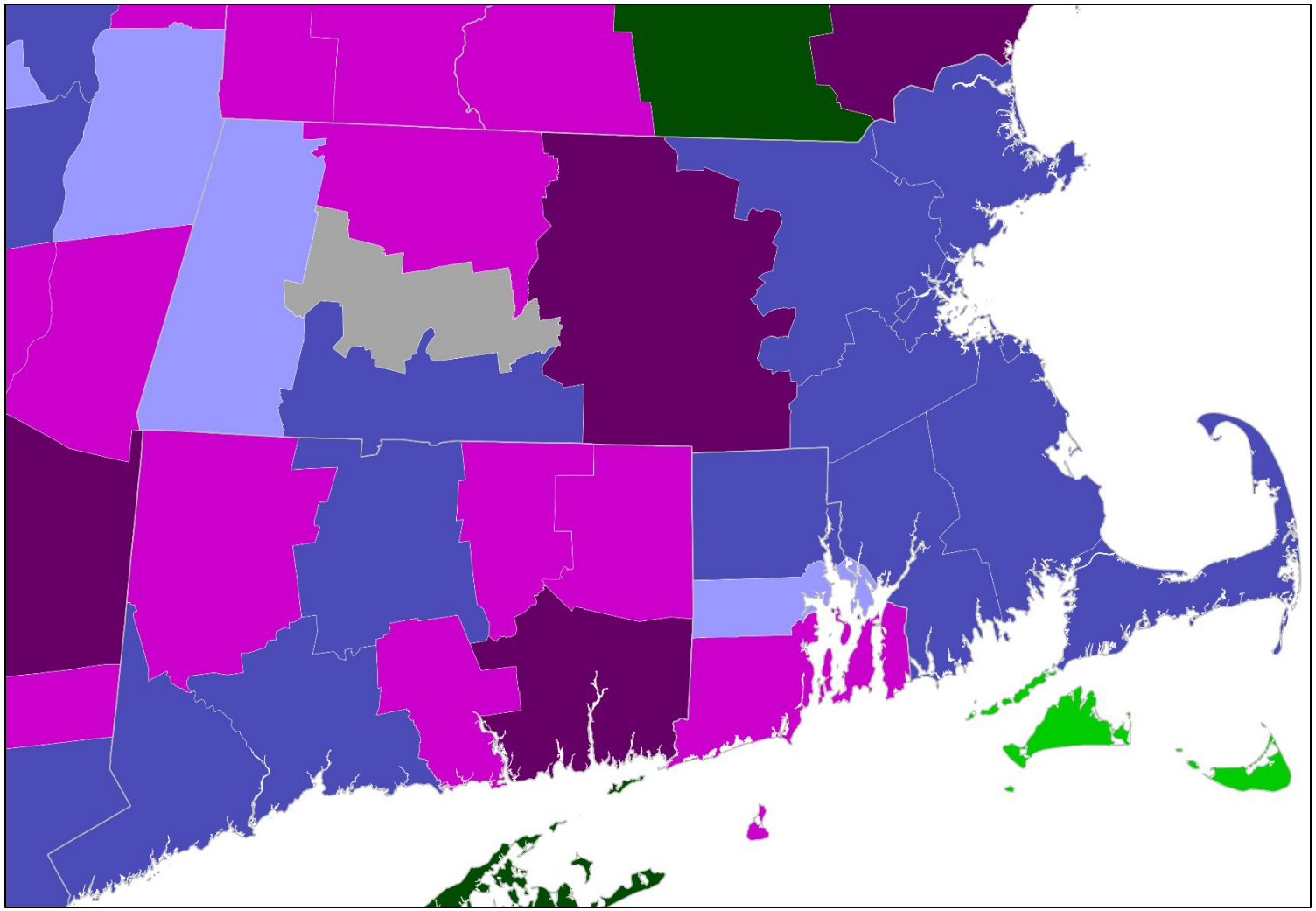
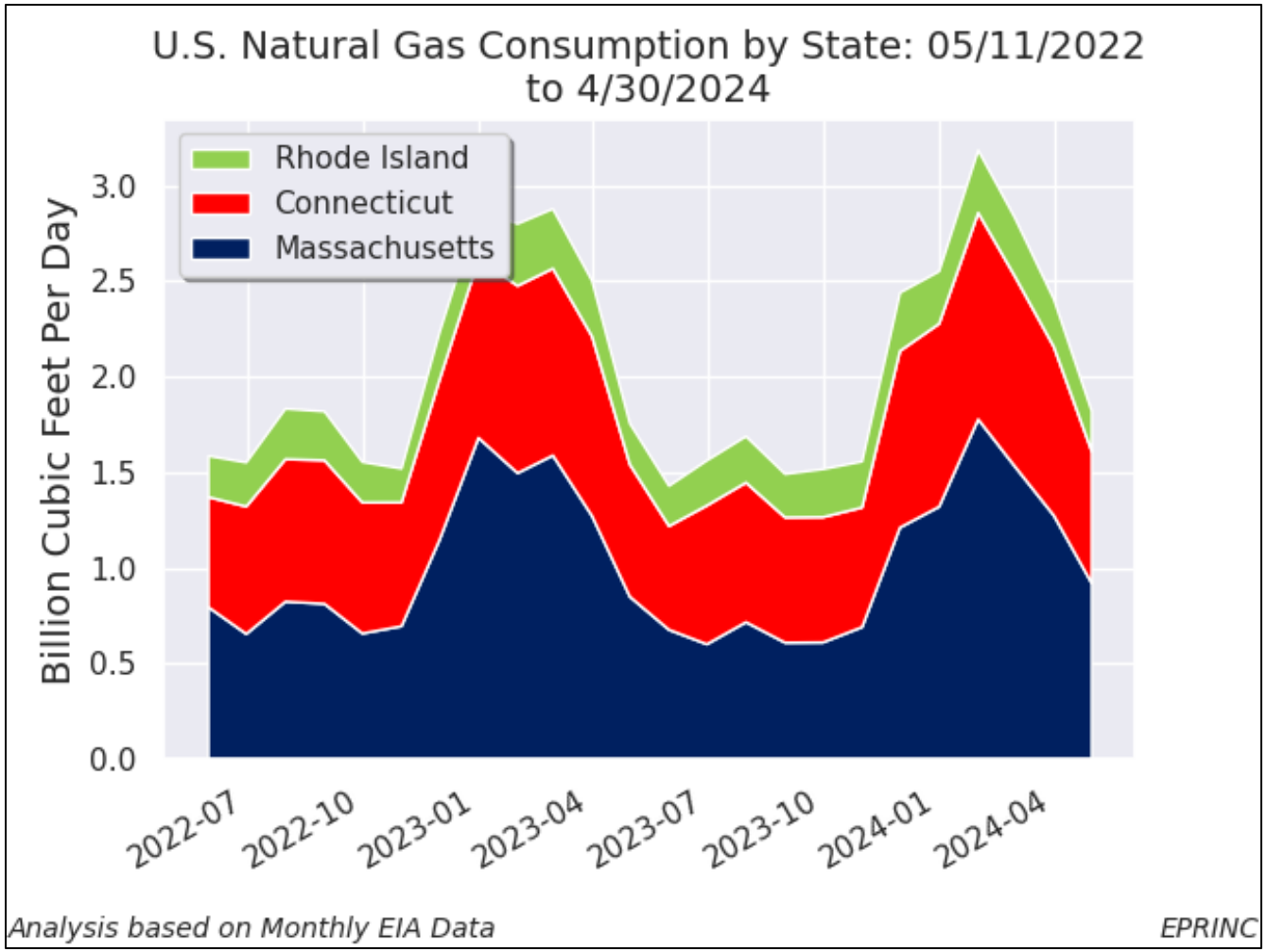
Residential Heating by County – Connecticut, Massachusetts, & Rhode Island



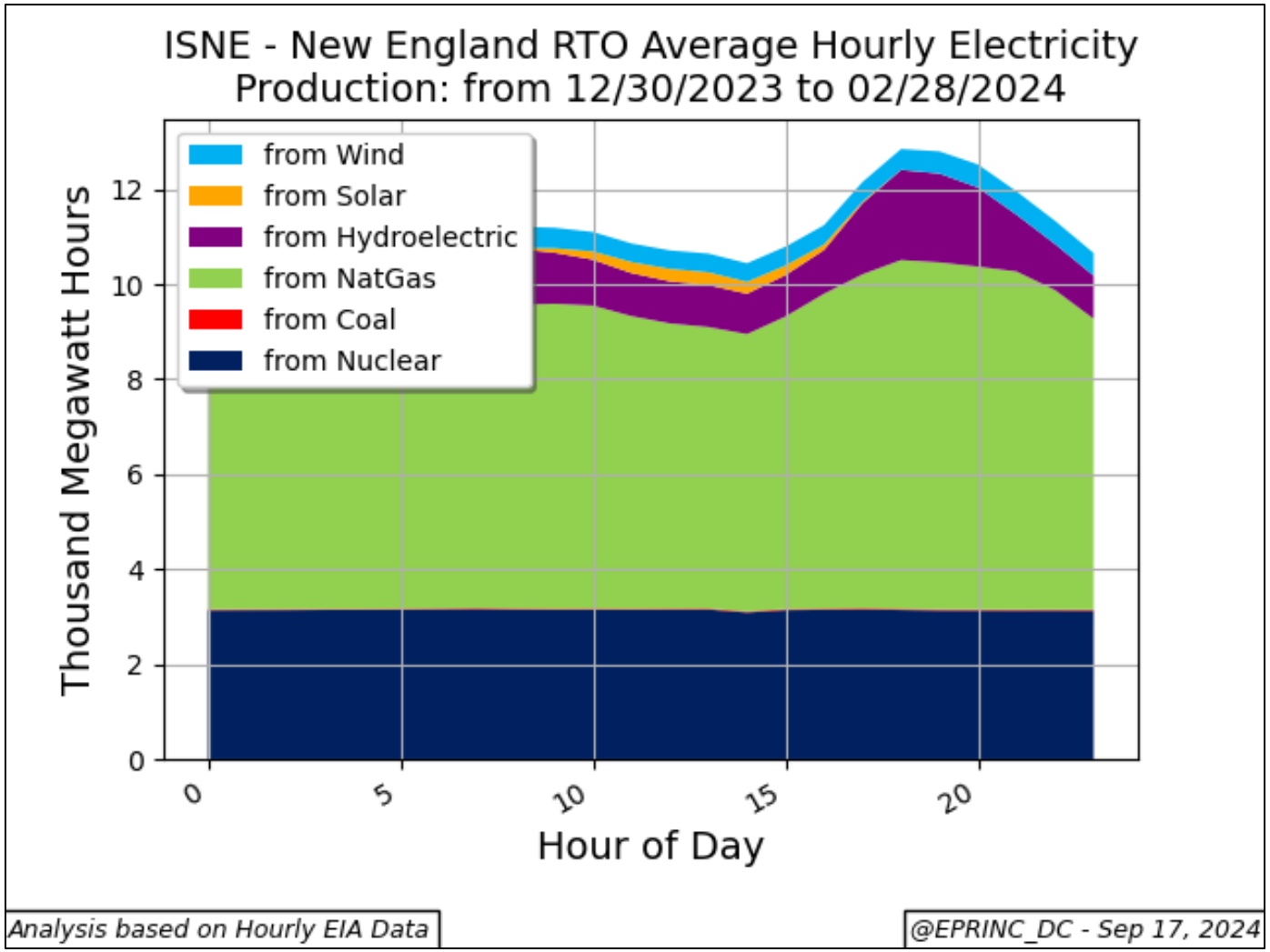
Number of County Dwellings	> 80k	10k to 80k	< 10k
Single Fuel Dominance			
Natural Gas			
Electricity			
Propane			
Heating Oil			
Wood			
Dual Fuel Dominance			
Gas + Electricity			
Gas + Propane			
Propane + Elec.			
Heating Oil + Natural Gas or + Propane or + Electricity			
No Dominant Heating Fuel			

Analysis based on 2022 U.S. Census Data

Connecticut, Massachusetts, & Rhode Island Natural Gas Demand



ISNE – Average Hourly 2024 Winter Electricity Generation by Resource



Domestic Contention for U.S. Natural Gas Resources in Three New England States

- **Recently, when former FERC (Federal Energy Regulatory Commission) Commissioner and Chairman James Danly was asked which would he rather have during the winter month of February: 7 days without electricity or 7 minutes without natural gas? Chairman Danly replied, "You'd rather not have electricity because if you're in a city like Chicago and you don't have enough pressure in the interstate pipeline system, all the pilot lights go out throughout the entire city, and that is beyond catastrophic."**
- **The New England states of Massachusetts, Connecticut, and Rhode Island have a combined population of 11.7 million. According to the 2022 U.S. Census Survey of Home Heating, 2.2 million (or 47%) of the three states' 4.7 million households heated their premises with natural gas. Another 1.3 million (or 27%) used heating oil, and 833 thousand (18%) used electricity.**
- **With the technological change of the last 20 years that has enabled the U.S. to produce an abundance of natural gas at low prices, natural gas has become the dominant energy source for U.S. electricity production rising from 16% of total sources in 2000 to 43% in 2023.**
- **With electricity production and other uses vying for natural gas, issues of interdependent reliability have developed. Unlike coal and petroleum liquids, natural gas is generally not stored on-site at points of consumption. During high demand periods or situations of adverse weather, contention for natural gas can jeopardize reliability.**
- ***… continuing …***

Domestic Contention for U.S. Natural Gas Resources in Three New England States

- New England is serviced by existing Williams, Kinder-Morgan, and TransCanada pipelines systems and one LNG receiving terminal. However, on July 30, 2024, U.S. Court of Appeals for the District of Columbia Circuit rejected FERC's approval of Williams Pipelines' Regional Energy Access System that was already in operation, effectively ordering a shutdown. Williams is challenging the decision indicating that the shutdown could lead to "catastrophic" shortages and high prices.
- Catastrophic challenges have included: February 2021's Winter Storm Uri that led Texas to experience extended blackout periods because gas pipeline and transmission equipment froze impeding deliveries leading to hundreds of fatalities.
- January 2019, Newport RI's natural gas distribution system service interruption to 7.4 thousand homes for 7 days due to low system pressure.
- Constellation Energy (owner of Boston MA harbor's Everett LNG receiving terminal and supplier to the local electric utility) August 2020 announcement citing the need to shutdown the LNG receiving terminal, thereby potentially leading the area to find alternative sources of natural gas. Massachusetts regulators intervened and are seeking to keep the terminal open through 2030.
- CRS (Congressional Research Service) Report – "Natural Gas Reliability: Issues for Congress," published July15, 2024 highlights this and other issues material to Congressional deliberations (https://crsreports.congress.gov/product/pdf/R/R48127)
- This slide deck is available at: https://eprinc.org/chart-of-the-week/
- For more information on these charts, please contact Max Pyziur (maxp@eprinc.org).