REGIONAL BARRIERS TO DECARBONIZATION

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Acadia Center focuses on four areas of climate and clean energy, within which we prioritize consumer benefits, public health, economic growth, and equitable distribution of benefits.
WHY DO REGIONAL ENERGY DECISIONS MATTER?

• Does regional policy support new gas plants or keep old polluting plants online?
• Does it ignore community impacts from pollution and climate change?
• Does it present obstacles to a clean energy economy and clean jobs?
KEY REGIONAL ENERGY ISSUES

• Do our regional decisions stand in the way of achieving state policy?
• Do we weigh energy and environmental justice, and community costs and benefits?
• Are the markets designed around fossil fuels instead of clean energy?
• Are clean energy and energy storage valued?
• Can we get transmission built, for instance for offshore wind?
• Is there transparency and accountability?
KEY DECISION-MAKERS

• Federal Energy Regulatory Commission (FERC)

• ISO-New England (ISO-NE)

• NEPOOL (New England Power Pool)

• States / New England States Committee on Electricity (NESCOE)
FEDERAL ENERGY REGULATORY COMMISSION (FERC)

• The Federal Energy Regulatory Commission, or FERC, is an independent federal agency that regulates the transmission and wholesale sales of electricity in interstate commerce.

• Other duties (e.g. review proposals for interstate gas pipelines, LNG terminals)
FEDERAL ENERGY REGULATORY COMMISSION

• 5 Commissioners
• Appointed by the President with advice and consent of Senate
• No more than 3 commissioners may be from one political party
• Serve 5-yr terms
• Note New Office of Public Participation – provides assistance to members of the public to facilitate participation in FERC proceedings
ISO-NE is New England’s regional electric grid operator. ISO-NE is authorized and overseen by FERC.
ISO-NE (from their website)

Our Three Critical Roles

**Grid operation:**
Every minute of every day, we coordinate and direct the flow of electricity over the region's high-voltage transmission system.

**Market administration:**
We design, run, and oversee the billion-dollar markets that attract a large and diverse mix of participants to buy and sell wholesale electricity at the most competitive prices.

**Power system planning:**
We do the studies, analyses, and planning to make sure New England’s electricity needs will be met over the next 10 years.

Learn more about the grid.
Learn more about the markets.
Learn more about planning.
ISO-NEW ENGLAND (ISO-NE)

• Assumed current role in 2005
• Board of Directors: 11 members with expertise in financial markets, electric power, law and regulation – elected through nominations process
• CEO: Gordon van Welie (since 2001)
ISO-NEW ENGLAND (ISO-NE)

- Discusses all decisions with regionwide stakeholder group called NEPOOL
- Confers with the states mainly through regional reps (NESCOE)
- Has a website where it posts most positions ahead of decisions, but highly technical, nontransparent content
- Does not tell (see?) the story of its impacts on communities
WHAT ARE THE WHOLESALE ELECTRICITY MARKETS THAT ISO-NE OPERATES?

• Capacity Market
  • Plans the availability of energy resources three years ahead in order to ensure enough resources to meet expected needs reliably

• Energy Market
  • Day Ahead and Real-Time
  • Buying, selling, and trading of wholesale electricity

• Other Markets
  • E.g. Ancillary Services – addresses short-term reliability issues
NEPOOL (NEW ENGLAND POWER POOL)

- Stakeholder Advisory Group to ISO-NE since 2005, approved by FERC
- Est in 1971 after the great Northeast blackout of 1965
- Original goal to coordinate transmission planning and regional dispatch of power
- Over 500 members
- Shares some power mainly because its members own assets, e.g., the transmission system – can also make proposals to FERC
WHO ARE THE STAKEHOLDERS IN NEPOOL?

NEPOOL’s Six Sectors

**Generation**
- 12 voting; 64 represented
  - Own generation facilities within the New England (NE) Control Area
  - Own proposed generation within the NE Control Area that has 3.9 approval or environmental air or siting permit (issued or applied for)
  - Own generation accepted in FCM Auction
  - Includes: QFs, Cogena, EWGs, IPPs

**Transmission**
- 5 voting; 19 represented
  - Own Local Network and PTF
  - Own PTF of at least $30 million and provide open access pursuant to a FERC-filed OATT
  - May not be a Publicly Owned Entity

**Publicly Owned Entity**
- 59 voting; 62 represented
  - Municipality, agency thereof, or NE public corporation that owns electric generation, transmission or distribution facilities
  - Mandatory Sector membership
  - Includes: electric coops, POE organizations

**Alternative Resources**
- 24 voting; 87 represented
  - Renewable generation, distributed generation, load response
  - 75% of energy resources owned/codeveloped within NE Control Area are Alternative Resources; or
  - $50 million AR investment in the NE Control Area

**Supplier**
- 130 voting; 243 represented
  - Engaged or authorized to engage in, power marketing, power brokering or load aggregation within the NE Control Area
  - Engaged solely in the distribution of electricity in the NE Control Area (on or before Dec 31, 1988)
  - Includes: Brokers, Traders (physical/financial), Load Aggregators, Distribution-only companies

**End User**
- 38 voting; 45 represented
  - Consumers in the NE Control Area that generate or purchase electricity primarily for their own consumption
  - Non-profit groups representing such consumers, including NE municipalities or other gov’t agencies not meeting the definition of POE
  - Includes: Governance Only End Users and Market Participant End Users
STATES / NEW ENGLAND STATES COMMITTEE ON ELECTRICITY (NESCOE)

• The FERC-approved “Regional State Committee” since 2009
• Goal to coordinate and advance state views in regional electricity markets and planning
• Governed by managers appointed by the Governors
• Don’t get a vote but positions are influential
ACRONYM SOUP
WHAT DO WE WANT AS A REGION?

1. Timely decarbonization to address climate change
2. A reliable electric grid
3. Robust clean energy industry and jobs
4. Reduce emissions with priority to EJ communities
5. Control energy, climate, and pollution costs
WHAT ARE SOME REGIONAL BARRIERS?

• Grid physically designed for fossil fuels & market rules designed for fossil fuels
• Preference for gas for reliability needs
• Momentum of incumbency & monopoly power
• Lack of visibility of community impacts and lack of accountability to communities
GAS HAS BECOME DOMINANT FOSSIL FUEL

The amount of electricity produced by generators in New England and imported from other regions to satisfy all residential, commercial, and industrial customer demand in New England. This is called Net Energy for Load (NEL).
EMISSIONS TRENDS IN WRONG DIRECTION

CO₂ emissions declined with shift from coal and oil to natural gas generation.
EMISSIONS FROM NATURAL GAS ARE RISING

![Chart showing Jan - Aug Estimated CO₂ Emissions from 2011-2020 and 2016-2020, with categories for Coal, Natural Gas, Oil, Landfill Gas, Methane, Refuse, and Wood.]

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NATURAL GAS

U.S. energy-related CO₂ emissions by fuel, AEO2022 Reference case (1990–2050)
billion metric tons

- 2021
  - history
  - projection
  - average annual growth rates (2021–2050)

- coal: -1.9%
- natural gas: +0.4%
- petroleum: +0.2%
NATURAL GAS

• About half region’s electricity comes from gas
• Gas is international market, gets exported - prices are volatile and supply can be constrained
• Gas harms health and damages climate
• Gas plants often sited in overburdened communities
WHAT REGIONAL REFORMS WILL HELP ADDRESS GAS?

• Wholesale markets must let clean energy participate and value clean attributes
• Reform markets not to prioritize incumbent gas
• Plan transmission and manage load resources to meet decarbonization goals
• Consider community impacts in decisions => **Visibility, Accountability, and Transparency**
HOW TO OPEN REGIONAL MARKETS TO CLEAN ENERGY?

- Eliminate discriminatory rules that harm clean energy and energy storage like the Minimum Offer Price Rule (MOPR)
- Value Clean Energy in Markets
  - E.g. Capacity accreditation in Capacity Market;
  - Forward Clean Energy Market (FCEM) that Values Clean Attributes of Energy Resources
- Open Markets to New Resources like Flexible Load (Thermostats, Heat Pumps, EV chargers etc.)
- ISO-NE Governance Reform
  - E.g. add a new Board committee at ISO-NE;
  - Strengthen state policy voices;
  - Balance stakeholder imbalances
HOW CAN WE IMPROVE VISIBILITY AND ACCOUNTABILITY?

• Raise Public Awareness
  • Develop channels of communication
  • Engage with EJ and overburdened communities

• Advocate at State Level
  • Governors and energy leaders
  • NESCOE
  • Expect more of utilities

• Press for Regional Governance Reforms
  • Bigger role for states in decision-making
  • Require consideration of EJ and community impacts
  • Establish public forums and transparency
ENCOURAGING SIGNS

• 2050 Transmission Study
• Unprecedented levels of energy storage waiting to enter markets
• Large majority of new resources are clean energy
• New technologies can harness benefits from efficient consumer devices
• Increasing public attention to regional energy issues
FOR MORE INFORMATION:

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