

Northeast Public Power Association Annual Conference August 27, 2024

Public Power Outlook

Presentation by Dan Aschenbach,
President, AGVP Advisory
(partnership with MSF Associates)



AGVP Advisory

Contact:

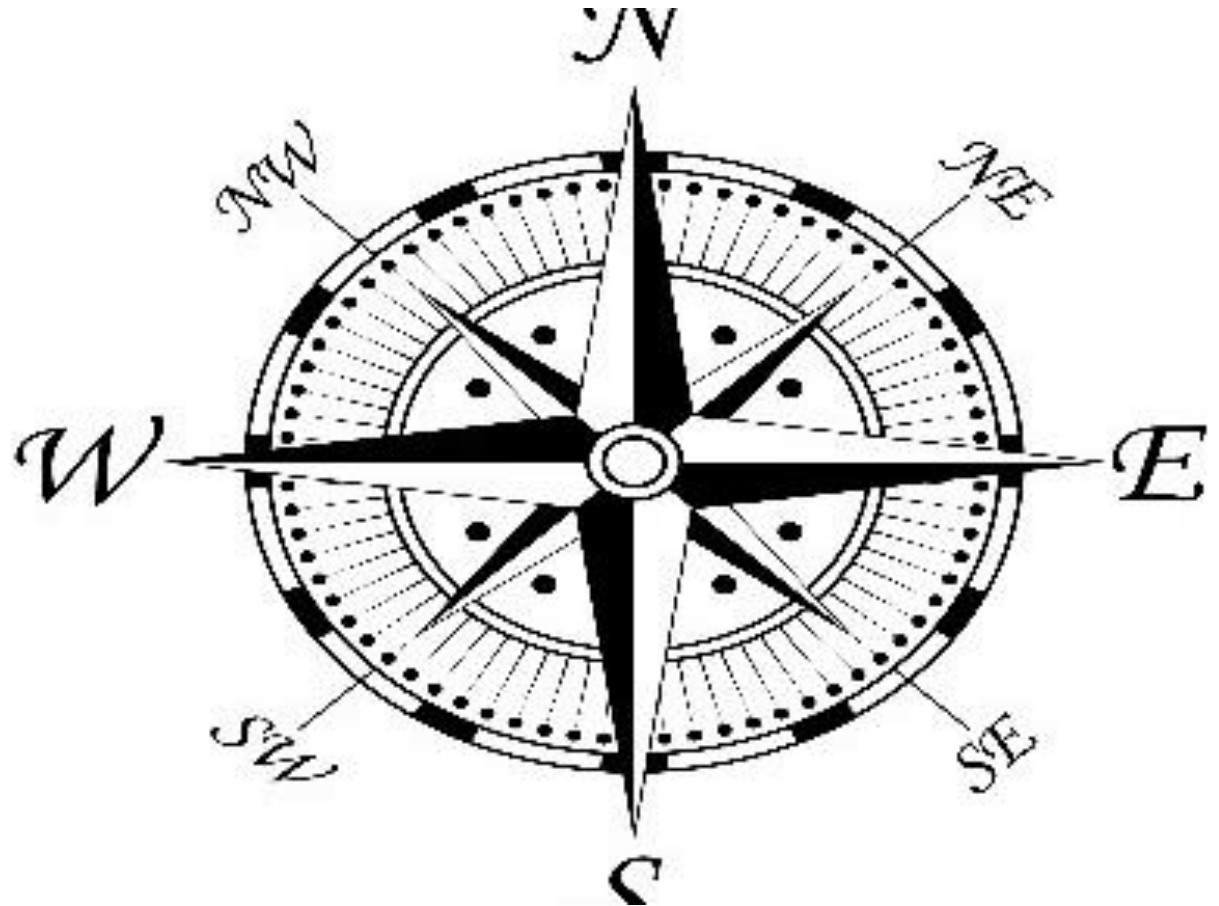
Dan Aschenbach

Managing Director,

AGVP Advisory-partnership with
MFS Associates

agvpadvisory.com (website)

Danaschenbach@agvpadvisory.net



Agenda

- 1-Looking forward:
Public Power
Outlook in 2024-
2025
- 2-Northeast US
outlook
- 3-Key public power
electric utility risks
from a financial risk
perspective



Stable Public power electric utility outlook

- Public power electric utilities have sound cost recovery process and record which is key to credit
- Almost 50% of credit rating is related to the willingness and legal capability to establish sound financial metrics
- Financial metrics have remained stable over past several years and forecast for 2024-2025 indicates stability
- Local accountability and focus on affordability and reliability
- Municipal joint action agencies have provided strong benefits to municipal utilities in region providing joint action. For example, being a resource for renewables and the sound management of MMWEC by Ron Decurzio and its future focus on the state's first fleet of a grid-scale energy storage systems are a positive. Burlington joining VPPSA is another example of benefit of joint action in today's industry.

Financial Ratio Analysis reflects stable metrics; transparency important

- Debt ratio (net debt in relation to net fixed assets and net working capital)
- Debt Service coverage (Debt service coverage by net revenues)
- Fixed charge coverage (Debt service coverage by net revenues after General Fund transfer)
- Days cash on hand (Cash and investments divided by days)
- Days liquidity on hand (Cash and investments including acceptable external lines of credit)

Example: APPA Financial Ratios (from APPA Annual Financial and Operating Ratio Report)

TABLE B. FINANCIAL & OPERATING RATIOS: MEDIAN VALUES BY REGION					
Ratio	Northeast	Southeast	North Central/ Plains	Southwest	West
1. Revenue per KWH					
a. All Retail Customers	\$0.142	\$0.108	\$0.098	\$0.113	\$0.087
b. Residential Customers	\$0.158	\$0.121	\$0.117	\$0.122	\$0.101
c. Commercial Customers	\$0.145	\$0.115	\$0.106	\$0.106	\$0.089
d. Industrial Customers	\$0.120	\$0.077	\$0.082	\$0.087	\$0.067
2. Debt to Total Assets	0.226	0.313	0.165	0.449	0.315
3. Operating Ratio	0.880	0.868	0.844	0.865	0.798
4. Current Ratio	2.29	2.68	2.70	2.85	2.97
5a. Times Interest Earned	9.22	5.05	4.35	2.86	5.57
5b. Debt Service Coverage	3.18	4.15	3.48	3.94	3.63
6. Net Income per Revenue Dollar	\$0.050	\$0.040	\$0.061	\$0.081	\$0.124
7. Uncollectible Accounts per Revenue Dollar	\$0.0030	\$0.0014	\$0.0005	\$0.0025	\$0.0014
8. Retail Customer per Non-Power Generation Employee	333	292	332	337	322
9. Total O&M Expense per KWH Sold	\$0.118	\$0.092	\$0.083	\$0.083	\$0.067
10. Total O&M Expense (Excluding Power Supply Exp.) per Retail Customer	\$835	\$524	\$649	\$610	\$636
11. Total Power Supply Expense per KWH Sold	\$0.071	\$0.075	\$0.064	\$0.063	\$0.049
12. Purchased Power Cost per KWH	\$0.066	\$0.072	\$0.064	\$0.056	\$0.044
13. Retail Customers per Meter Reader	8,515	7,193	9,989	10,989	10,097
14. Distribution O&M Expense per Retail Customer	\$166	\$198	\$196	\$185	\$208
15. Distribution O&M Expense per Circuit Mile	\$12,324	\$9,365	\$7,072	\$7,685	\$7,771
16. Customer Accounting, Service, and Sales Expense per Retail Customer	\$103	\$69	\$62	\$55	\$91
17. Administrative and General Expense per Retail Customer	\$207	\$177	\$259	\$238	\$181
18. Labor Expense per Worker-Hour	\$55.80	\$41.97	\$50.11	\$47.24	\$58.96
19. Energy Loss Percentage	3.20%	3.56%	3.13%	5.01%	3.08%
20. System Load Factor	52.0%	53.4%	62.2%	58.7%	56.4%
21. Capital Expenditures to Depreciation Expense	0.85	1.10	1.50	1.21	1.49

But Red Flag Risks Persist

- Local responsibility for reliability of transportation sector
- Natural gas volatility and uncertainties
- How to meet new energy demand above forecast-data center growth
- Decarbonization and path to clean energy holds generation and technology risk

Electric vehicle growth projections

Grid operator projects
2.1 million EVs in next
decade





Public power electric utility outlook:
Municipal electric utilities will be responsible for the reliability of the transportation sector

* Reliability



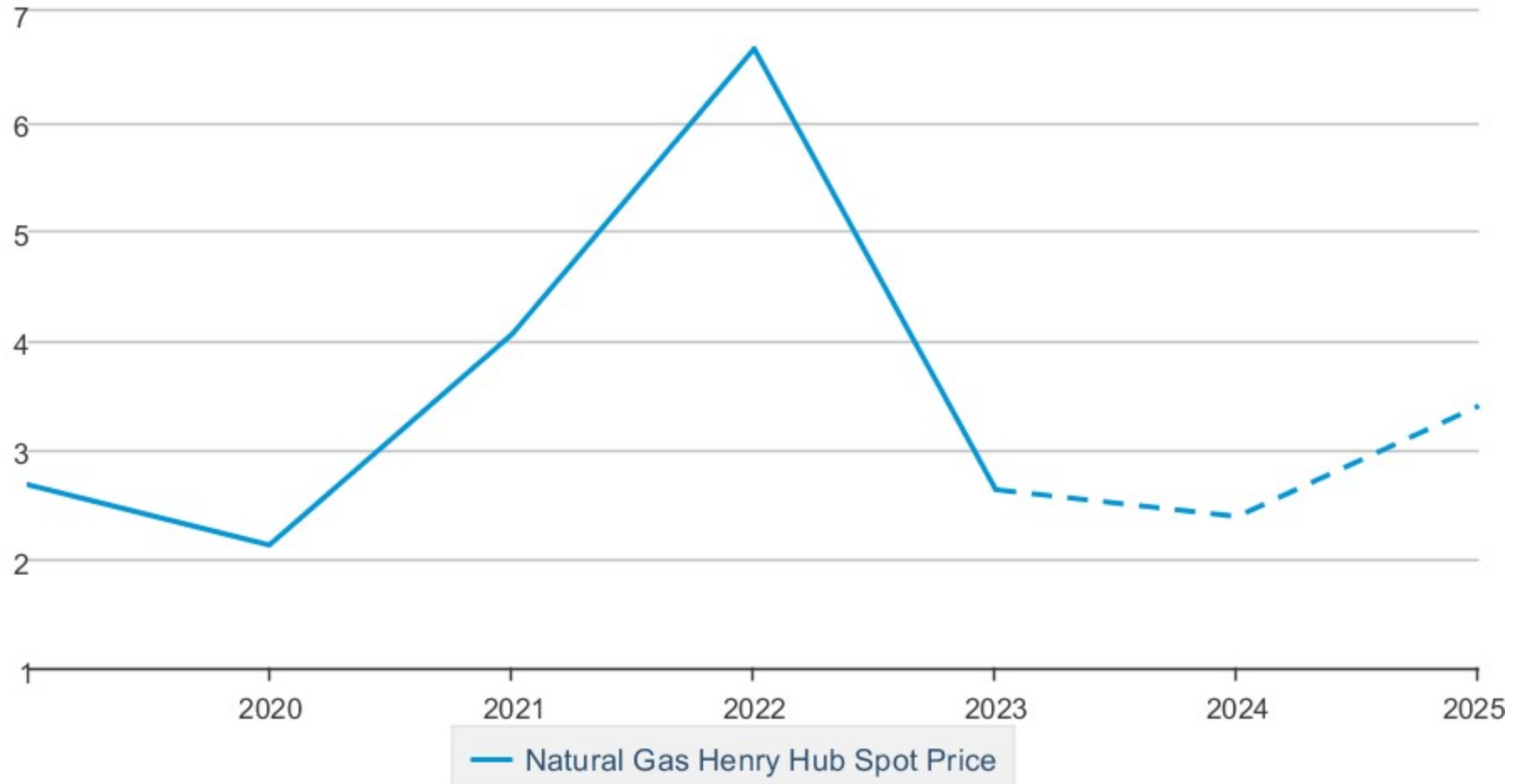
NATURAL GAS UNCERTAINTIES

- Natural gas price and policy volatility still may create uncertainty and cost pressures
- Average natural gas price 2.30 /MMBtu in 2024 and EIA forecast for 2025 at 3.30/MMBtu. But past record haunts.
- Volatility a concern since 55% plus of Northeast electricity comes from natural gas fired generation



Natural Gas Henry Hub Spot Price

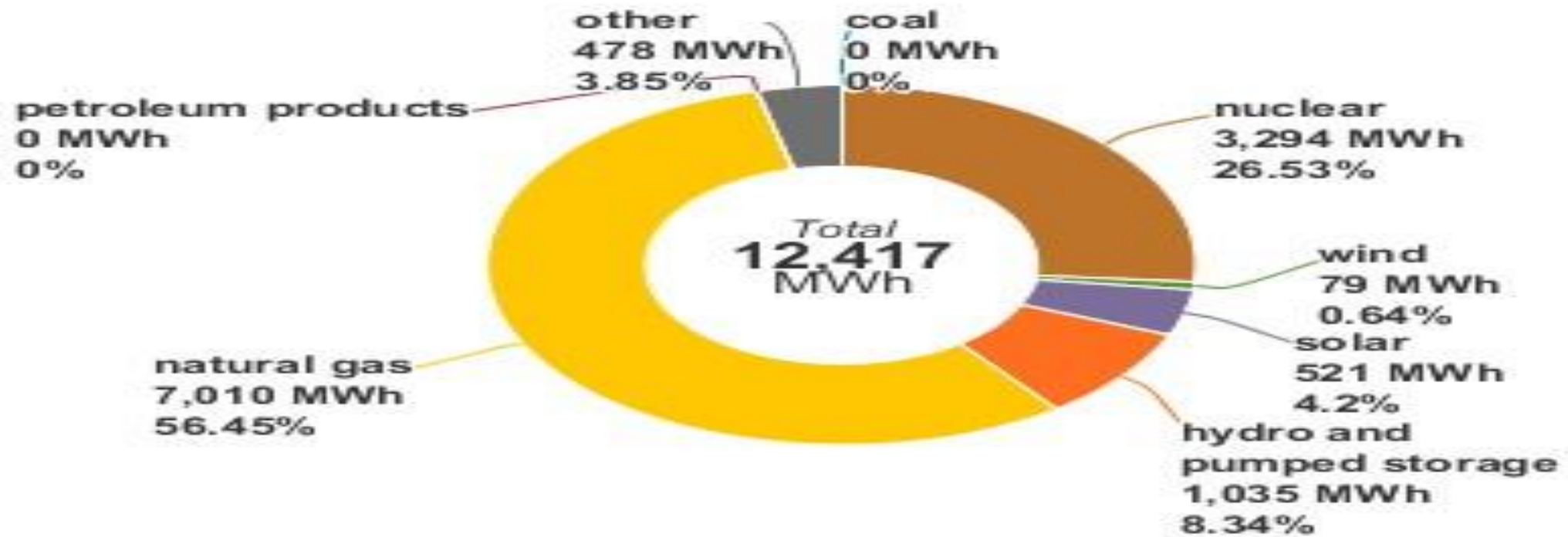
dollars per thousand cubic feet



Data source: U.S. Energy Information Administration

2024 Net Generation Mix

Real-time net generation by energy source in New England, as of 8/8/24, 10:17 a.m.



Data centers and AI.....

AI is expected to drive more power demand from datacenters



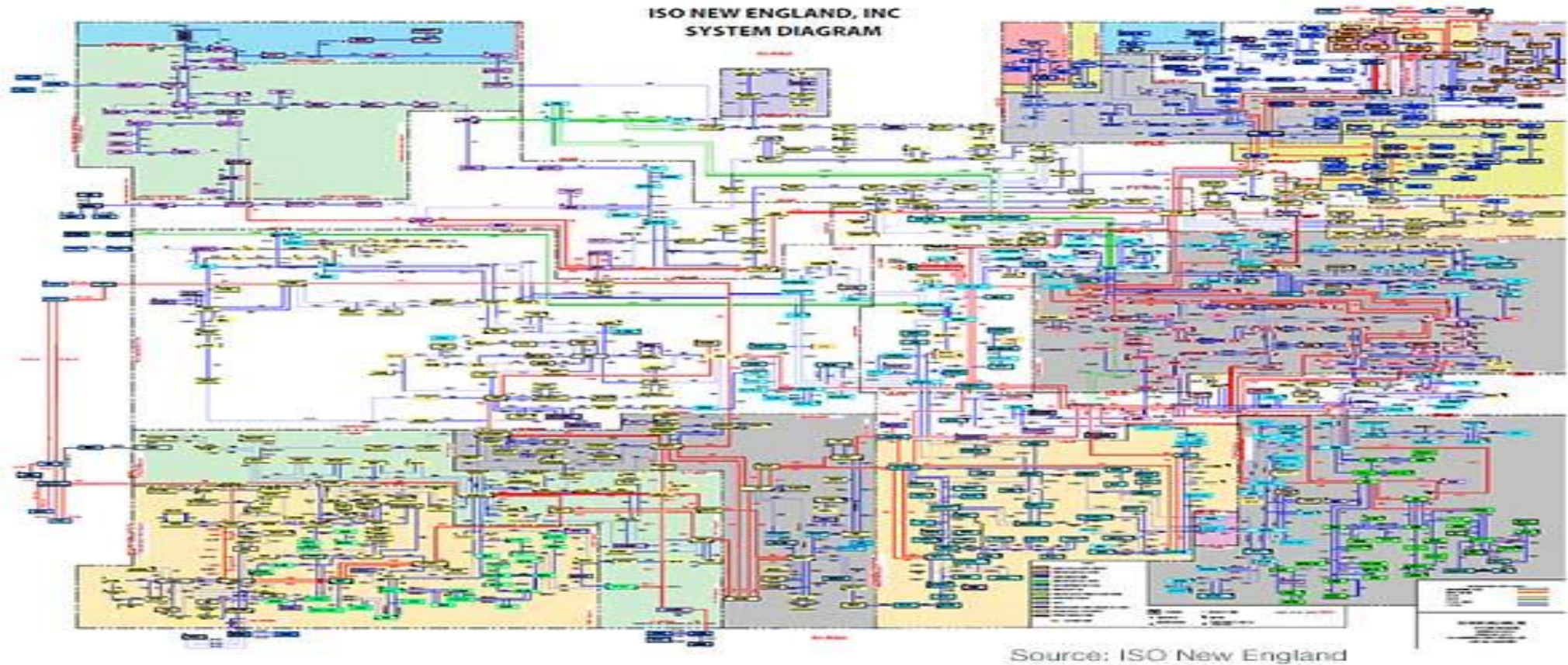
Source: S&P Global Market Intelligence, AM Research, E&P Global Commodities Insights



Public power electric utility outlook: Decarbonization and reliability

State laws target Co2 reduction 80% by 2050

(from 1990 levels)



IRA is Consequential

- \$369 billion federal appropriation and new related private investment from energy-related manufacturing to funded carbon reduction plans
- My opinion: it doesn't matter what happens in November election in that major investment has been made in a broad segment of US
- There have been supply chain issues; and with significant new solar and wind investment, intermittency issues will affect power grid.
- Technology risk of what new clean capacity gets built
- BAB concerns

Public power
electric utility
outlook:
Moderate new
debt leverage
expected

***Borrowing costs higher due to inflation,
supply chain issues and higher interest rates**

***New federal infrastructure funding a
positive factor**

***Next energy resource indecision**

2-Northeast US Public Power Electric Utility Outlook

- ISO-New England anticipates peak demand to increase by 10% and load growth 17% by 2033 or about 1.8% annually.
- With the last coal plant (Schiller) closing soon, and slow introduction of new technologies, meeting this demand will be a challenge.
- The recognition of needed siting reform to locate new energy storage and transmission resulted in almost \$400 million of federal funds becoming available.

Northeast US outlook continued

- Expected is a recognition by ISO-New England that public power utilities priorities are not only about price...
- NEPPA advocates that Carbon emission reduction; fuel diversity; fuel security and local jobs remain critical priorities
- A return to increased longer-term planning and more self-supply
- The outlook includes engagement in public power advocacy to ensure reliability and resilience are paramount as the industry continues to transition to cleaner energy.



3-Key public power electric utility risks from a financial risk perspective

Prioritize reflection and Get to the Balcony to view risks



Strategic risks in matrix

1-Cost recovery capability and willingness

2-Future cost volatility including natural gas price spike, intermittency and other fuel risk and power market failure exposure-mitigation plans

3-Climate change transition and power reliability-planning

4-Leverage and leverage policies



Strategic risk matrix (continued)

5-Governance factors including succession, financial risk metrics and transparency; revenue transfer policy

6-Cybersecurity risks

7-Competitiveness



Strategic risk
matrix (con.)

8-Financial liquidity and access
to liquidity

9-Extreme weather impacts

10-Environmental, Social and
Governance (ESG) or
Sustainability disclosure to
investors



Questions

Thank you.