Delivering America’s Resilient Clean Energy

Electric Power Industry Outlook
February 9, 2022
2022 Industry Priorities

- Clean Energy
- Infrastructure Investment & Jobs Act Implementation
- Resilience & Grid Security
- Electric Transportation
- Storm Response & Wildfire Mitigation
- Diversity, Equity & Inclusion
Leading on Clean Energy

Changing U.S. Energy Mix
40% CARBON-FREE

Carbon Emissions from the Electric Power Sector at Lowest Level In Nearly 40 Years

Increasing Investments
$120 Billion+ Per Year on Average TO MAKE THE ENERGY GRID SMARTER, CLEANER, STRONGER

Over the Past 10 Years, More Than Half of New Electricity Generation Capacity Was WIND AND SOLAR

Nearly 28 Gigawatts of RENEWABLE TECHNOLOGIES Added in 2020

Investing More Than $3.4 Billion to Deploy EV CHARGING INFRASTRUCTURE

Using 90%+ of all U.S. ENERGY STORAGE
Telling the #Committed2Clean® Story at COP26

America’s Electric Companies: Aiming for Net-Zero

From Pledges to Progress: Decarbonizing Today to Meet Tomorrow’s Ambition

Driving Progress: Advancing Sustainable Transportation

Racing to Zero: Building Tomorrow’s Technologies Today
Accelerating Our Efforts on Clean Energy

- Expanding the deployment of renewables and preserving existing clean energy technologies, including nuclear energy.

- **Promoting essential innovation** across a range of new, high-potential, and affordable carbon-free technologies.

- **Building new energy infrastructure** critical for bringing greater resilience and more clean energy to customers and for helping other sectors of our economy reduce their emissions, while keeping electricity affordable for all customers.
Potential IIJA Funding Opportunities

**$5.05B**
Expanding Access to Energy Efficiency & Clean Energy

**$6.7B**
Maintaining our Existing Clean Generation Fleet

**$16.5B**
Grid Resilience & Improvements

**$21.5B**
Clean Energy Demonstration & Research Hubs

**$43.4B**
Broadband Development & Infrastructure

**$8.9B**
Electric Vehicle Infrastructure
Electric Transportation Trends

**TODAY**

**There are more than 2 million** electric vehicles on U.S. roads.

**>$3.4 billion**

EEI’s member companies are investing more than $3.4 billion in customer programs and projects to deploy charging infrastructure and to accelerate electric transportation.

**BY 2030**

**The number of EVs on U.S. roads is projected to reach nearly 22 million.**

**>100,000**

EV fast charging ports will be required to support this number.
National Electric Highway Coalition

Produced by the Edison Electric Institute.
Data Source: ABB, Velocity Suite.
Current as of 12/7/21.
Our Legislative Priorities

- We support a clean energy tax package that includes:
  - Optionality in choosing between the production tax credit (PTC) and investment tax credit (ITC) for solar.
  - Alternatives to normalization for regulated electric companies.
  - 100-percent direct pay for the clean energy credits.
  - A nuclear PTC for existing facilities.
  - New tax credits for transmission, as well as new tax credits for energy storage and hydrogen to help move these carbon-free technologies through their development lifecycle.
  - The expansion of all the various EV tax credits.

- We also are educating lawmakers about our significant concerns about a 15-percent corporate minimum tax on book income.
Delivering Customer Value
1.28 percent of Americans’ personal consumption expenditures in 2021 went toward electricity bills—the lowest annual rate in more than six decades.
Across the nation, EEI’s member companies are working every day to get the energy we provide as clean as we can as fast as we can, while maintaining the reliability and affordability that our customers value.
CFTI is identifying and advocating for policies to support commercial availability of key technologies that can achieve net-zero emissions in the U.S. electricity sector and ensure electricity remains affordable and reliable. Areas of focus include:

- Advanced, dispatchable renewables (e.g., superhot deep geothermal), advanced wind and solar, and advanced power electronics.
- Zero-carbon fuels, such as hydrogen and ammonia, produced from a variety of sources.
- Advanced nuclear energy (both fission and fusion).
- Carbon capture, utilization, and sequestration, especially for natural gas generation.
- Advanced demand efficiency and long-duration storage.
EPA has proposed regulating methane emissions. Federal regulations on methane emissions across the value chain are essential to ensuring the continued use of natural gas as a 24/7 on-demand energy source.

EPA restored the appropriate and necessary determination underpinning Mercury and Air Toxics Standards (MATS). EEI’s member companies have implemented MATS fully and successfully for years, and we are proud that we have reduced mercury emissions by more than 91 percent since 2010.

Supreme Court case assessing EPA’s ability to regulate greenhouse gas emissions under the Clean Air Act.
Advancing Environmental Justice

- Understanding and working to address environmental justice concerns and equity considerations.
- Continuing to engage with communities and other stakeholders to build the infrastructure needed for our resilient clean energy vision.
- Expanding access to jobs and contracting opportunities.
- Expanding access to clean energy while maintaining our focus on affordability.
Enhancing Resilience
EEI supports:

- Reforms in transmission planning, cost allocation, permitting, siting, and generator interconnection.
- Finalization of a nationwide permit for distribution and transmission grid construction activities under the Clean Water Act.
- Removal of regulatory and legislative barriers limiting member companies’ ability to own or fully participate in the implementation of energy storage assets and other distributed energy resources.
- Policies and programs that enable responsible data security, sharing, and confidentiality.
Responding to Extreme Weather Events
Industry and government leaders are partnering to:

- Enable **more effective coordination** among stakeholders.
- Foster **urgency and accountability** for all stakeholders.
- Improve the **allocation of resources** to harmonize programs, prioritize efforts, and ensure new programs are funded and utilized effectively.
- Identify and address **public policy issues** that may be hindering effective wildfire risk management and response efforts.
- **Prepare communities** in high fire risk areas by communicating with a more unified voice.
- **Invest in research, development, and deployment** of technologies that proactively mitigate wildfire risks.
Securing the Energy Grid

- Cross-Sector Coordination
- Culture of Security Initiative
- Cyber Mutual Assistance
- Enhanced Resilience Against All Hazards
- Federal Research & Development
- Supply Chain Security Risks
Maintaining Our Financial Strength
EEI member companies are deploying a significant and growing amount of capital resources on adaptation, hardening, and resilience (AHR) initiatives.

AHR is increasingly becoming an important way that electric companies fulfill their mission of supplying clean, reliable, and affordable energy to customers.

Working with EEI member companies and the financial community, EEI developed an AHR taxonomy that aligns with the electric power industry’s functional CapEx categories to classify types of AHR investments.

EEI has surveyed member companies to quantify industry AHR investment in electric transmission and distribution (T&D) infrastructure.

Examples of electric T&D AHR investments include:
- Undergrounding power lines
- Installing cement poles
- Elevating or relocating transformers

While we know a meaningful portion of generation and natural gas-related investments also are being driven by AHR initiatives, EEI has not surveyed member companies on these segments.
AHR as a Driver of Electric T&D Investment

Transmission

- Transmission AHR CapEx = 34%
- 27% AHR: Hardening & Resilience
- 7% AHR: Advanced Technology
- 32% Expansion
- 31% Replacement
- 4% Other

Distribution

- Distribution AHR CapEx = 35%
- 23% AHR: Hardening & Resilience
- 12% AHR: Advanced Technology
- 27% Expansion
- 29% Replacement
- 8% Other

Source: EEI Financial Analysis and Business Analytics, EEI member company survey.
Current Survey Data Covers Electric T&D Segments Only

More Data Coming Soon on Generation & Natural Gas-Related

Transmission
Hardening and Resilience
Examples:
• Elevating or relocating electric transformers in flood-prone regions
• Reinforcing existing transmission structures in high-speed wind zones
• Installing higher temperature-rated transformers for extreme heat

Advanced Transmission Technology
Examples:
• Installing sensors on transmission towers and deploying artificial intelligence to detect and respond to system threats
• Implementing remote monitoring and control technologies
• Increasing deployment of energy storage systems associated with transmission infrastructure

Distribution
Hardening and Resilience
Examples:
• Undergrounding distribution lines
• Purchasing equipment for vegetation management
• Replacing wood electric distribution poles with cement and steel

Advanced Distribution Technology
Examples:
• Strengthening distribution networks through investments in demand response technologies and real-time system management
• Increasing deployment of advanced metering infrastructure, microgrids, and energy storage within distribution networks

Generation
Hardening and Resilience
Examples:
• Altering water intakes for generating stations
• Elevating control rooms and pump stations in flood-prone regions
• Building and strengthening berms, levees, and floodwalls at generating stations

Advanced Generation Technology
Examples:
• Increasing deployment of energy storage at generating stations
• Developing advanced water-cooling technologies at generating stations

Natural Gas-Related
Hardening and Resilience
Examples:
• Replacing obsolete pipelines with more robust and structurally flexible materials

Note: Natural gas-related includes investments in pipeline/delivery infrastructure, not natural gas-based electric generation.
## ESG/Sustainability Template

### Qualitative

| ESG/Sustainability Governance | Management and oversight of ESG/Sustainability |
| ESG/Sustainability Strategy | Practices, programs, and initiatives designed to support the company’s transition to a lower carbon and increasingly clean energy future |

### Quantitative

| Portfolio | The Excel-based data reporting template is customized for regulated electric and natural gas companies. Portfolio, emissions, and resources are included on the ‘EEI Metrics’ tab for electric company disclosure, while natural gas-related metrics are included on the ‘AGA Metrics’ tab for natural gas company disclosure. |
| Emissions |
| Resources |
| Gas-Related |

Note: Data for these areas should include as much historical, current, and forward-looking information as is appropriate.
Updating the ESG/Sustainability Template Based on Investor Input

Investor Survey Question: How helpful is each section of the ESG/Sustainability Template?

- Gas-Related
- Emissions
- Portfolio
- Resources
- Strategy
- Governance

Note: 100% of survey respondents from the financial community indicated that they would like to see a continuation of the qualitative section in the ESG/Sustainability Template.

Released in May 2021 for member companies to report 2020 data, the [Version 3 ESG Template](#) includes several important refinements such as:

- Diversity, Equity, and Inclusion (DEI) metrics for the entire workforce (versus only for the board of directors in Version 2)
- More uniform disclosure of long-term climate goals
- Reference to the EEI/AGA Natural Gas Sustainability Initiative (NGSI)
Natural Gas Sustainability Initiative (NGSI)

A consistent approach for company-level reporting within each segment of the U.S. natural gas supply chain

- Draft Protocol (July 2019)
- Final Draft Protocol (December 2019)
- Pilot Process (Summer 2020)
- Protocol Version 1.0 (February 2021)
EEI and AGA Joint Comments to SEC in June 2021

- Supported a principles-based, sector-specific, concise ESG-related reporting framework for financially material climate change information.
- Cautioned against delegation of public company disclosure requirements to NGOs or private companies.
- Advocated that furnishing the disclosures subject to a safe harbor, rather than filing the disclosures, will provide the appropriate balance of risks when providing new and evolving ESG disclosures.
- Supported specific metrics (for the electric power industry, direct carbon emissions from company-owned generation and power that is purchased for the delivery to and use by customers; for the natural gas sector, direct methane emissions) as most relevant climate-related data.
Industry Capital Expenditures

Chart represents total company spending of U.S. Investor-Owned Electric Companies, consolidated at the parent or appropriate holding company.

Note: At the industry level, CapEx tends to be overestimated for the current, or first, year’s projection and underestimated for the two following years. Although the chart indicates investments are trending down in 2022 and 2023 relative to 2021 levels, we expect a continued level of elevated spending after accounting for the historical trend of over- and underestimation.

Source: EEI Finance Department, member company reports, and S&P Global Market Intelligence (updated October 2021).
Projected Functional CapEx

Chart represents total company functional spending of U.S. Investor-Owned Electric Companies. Individual years may not sum to 100% due to rounding error.

Note: Each annual functional projection is compiled during the calendar year for which it is reported and is not revised to align with the actual total that is subsequently compiled after the end of each calendar year. Therefore, the projected total dollar amounts in the functional chart do not align with the actual totals reported on the enclosed industry capital expenditures chart.

Source: EEI Finance Department, company reports, and S&P Global Market Intelligence (updated October 2021).
### Industry Financial Highlights

#### Stock Performance

<table>
<thead>
<tr>
<th>Period</th>
<th>EEI Index</th>
<th>DJIA</th>
<th>S&amp;P 500</th>
<th>NASDAQ</th>
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</thead>
<tbody>
<tr>
<td>1-year</td>
<td>17.1%</td>
<td>21.0%</td>
<td>28.7%</td>
<td>21.4%</td>
</tr>
<tr>
<td>2-year</td>
<td>15.8%</td>
<td>32.7%</td>
<td>52.4%</td>
<td>74.4%</td>
</tr>
<tr>
<td>3-year</td>
<td>45.6%</td>
<td>66.3%</td>
<td>100.4%</td>
<td>135.8%</td>
</tr>
<tr>
<td>5-year</td>
<td>68.6%</td>
<td>105.7%</td>
<td>133.4%</td>
<td>190.6%</td>
</tr>
</tbody>
</table>

#### Dividends

- Yield = 3.3%
- 38 of 39 companies are currently paying a dividend
- 82% of companies increased their dividend in 2021

#### Credit Ratings

- BBB+ Average Industry Credit Rating
- Outlook 77% Stable or Positive

*Note: Stock returns are total returns, ending 12-31-2021, (i.e., include dividends) except for NASDAQ, which is price appreciation only.*

*Source: EEI Finance Department, S&P Global Market Intelligence.*
#Committed2Clean®
Appendix
Creating Value in America’s Economy

Contribute
5%
annually to U.S. GDP

Support
7 million+
jobs across the United States

Invest
$120 billion+
per year to build smarter, cleaner, stronger, and more secure energy infrastructure
Electricity Is a Great Value

Increase in cost of selected consumer goods
1991–2020 (nominal dollars)

Our Clean Energy Journey

Electric Power Industry Carbon Emissions** \(\downarrow 40\%\)
Note: "Other Renewables" includes universal (or large-scale) solar, private (or rooftop) solar, geothermal, and generation from biomass sources (agricultural waste, landfill gas recovery, municipal solid waste, wood, non-wood waste). Source: U.S. Department of Energy, Energy Information Administration.
Nuclear energy remains the largest source of carbon-free electricity.

Currently, 93 reactors in 28 states produce nearly 20 percent of our nation’s electricity and approximately 50 percent of our carbon-free electricity.

Today, 40 percent of U.S. electricity comes from carbon-free sources.

As of 2020, electric power industry CO\textsubscript{2} emissions are 40 percent below 2005 levels.

Overall trajectory is expected to continue based on current trends.

Comparing CO$_2$ Emissions

Projected Functional CapEx

Chart represents total company functional spending of U.S. Investor-Owned Electric Companies. Individual years may not sum to 100% due to rounding error.

Note: Each annual functional projection is compiled during the calendar year for which it is reported and is not revised to align with the actual total that is subsequently compiled after the end of each calendar year. Therefore, the projected total dollar amounts in the functional chart do not align with the actual totals reported on the enclosed industry capital expenditures chart.

Source: EEI Finance Department, company reports, and S&P Global Market Intelligence (updated October 2021).
Direction of Rating Actions
U.S. Investor-Owned Electric Companies, 2005-2021

Source: EEI Finance Department, Fitch Ratings, Moody's, and Standard & Poor’s.
Industry maintains BBB+ rating since 2014; majority of outlooks stable or positive

Source: EEI Finance Department and Standard & Poor’s.
Shift to More Regulated Business Strategies

Industry gradually increased to 81% regulated in 2020 from 57% in 2002

Note: Based on 2020 year-end assets. Source: EEI Finance Department.
Rate Review Activity: Volume and Lag
U.S. Investor-Owned Electric Companies

Number of Electric Rate Reviews Filed (Trailing 12 Months)

Average Regulatory Lag (Quarterly)*

*Average Regulatory Lag is defined here as the amount of time between the filing of and ruling on a rate review. This does not take into consideration the preparation time leading up to an initial filing. MRQ = Most Recent Quarter. 4Q Avg = Trailing four-quarter average.

Rate Review Activity: Average ROEs
Requested ROE vs. 10-Year U.S. Treasury Yield

*Requested ROE represents the equal-weight average of all electric reviews filed during the indicated period. 10-Year U.S. Treasury Yield is the average of daily reported yields during each period.

Rate Review Activity: Average ROEs
Allowed ROE vs. Corresponding Requested ROE

*The Allowed ROE represents the electric reviews settled during the indicated period while the Requested ROE represents the value requested by the company when the reviews were initially filed, generally during an earlier period (i.e., the regulatory lag is not factored in). Average returns are equal-weight.

Examples of EEI Financial Public Reports & Data

Items updated quarterly unless otherwise indicated

Financial Review (annual)
Incorporates the following reports and additional industry material

Stock Performance
Financial market performance (Price, TSR, etc.) of proprietary EEI member index and equity analyst opinions

Credit Ratings
Holding company ratings and rating agency activity

Dividends
Dividend-related actions of EEI members and relevant issues

Rate Review Summary
Aggregate industry statistics on quarterly rate review data

Industry Consolidated Financial Statements (annual)
- Income Statement
- Balance Sheet
- Cash Flow Statement

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