

ESG, financial materiality, and the IRA

FRAMING INVESTORS' PERSPECTIVES

Renewable Energy Markets 2024

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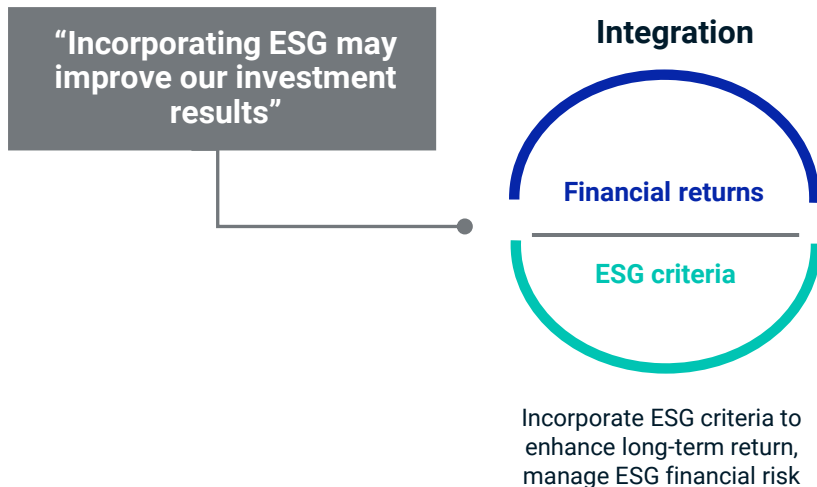
September 2024



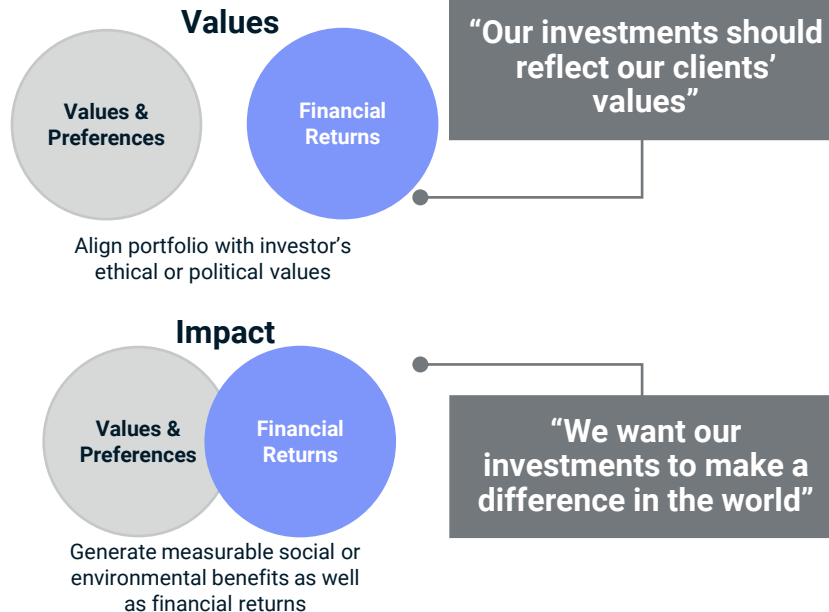
Understanding the most common ESG objectives

Incorporating ESG into investment strategy or creating products typically starts with understanding client objectives, which may combine elements of managing long-term risk, reflecting values and positive impact.

Investment Objectives



Individual Objectives



What are ESG Ratings?

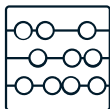
MSCI ESG Ratings aim to measure a company's **resilience to long-term, financially relevant ESG risks**

To do this we measure:

Robustness of governance controls, the foundation of good risk management



BOARD



ACCOUNTING



OWNERSHIP
AND CONTROL



EXECUTIVE
PAY

Exposure to **long-term systematic risk** factors



CLIMATE
CHANGE



WATER
SCARCITY



DATA
SECURITY



DEMOGRAPHIC
SHIFTS

Management quality & ability to limit surprised and **event risks**



ACCIDENTS



FRAUD



SHUTDOWNS



STRIKES

Key research questions

1

Q: How is the company governed?

How do governance structures impede / enable it to be a long-term steward of capital?

A: *Analyze ownership structure, board, incentives and behavior.*



2

Q: What risks does the company face?

How exposed is its business model to relevant short-, medium- and long-term ESG risks?

A: *Map company operations to an extensive proprietary database of ESG risk factors.*



3

Q: What does the company say?

What is its strategy for managing these risks?
What measures has it put in place?

A: *Benchmark company disclosures and policies vs. industry peers.*



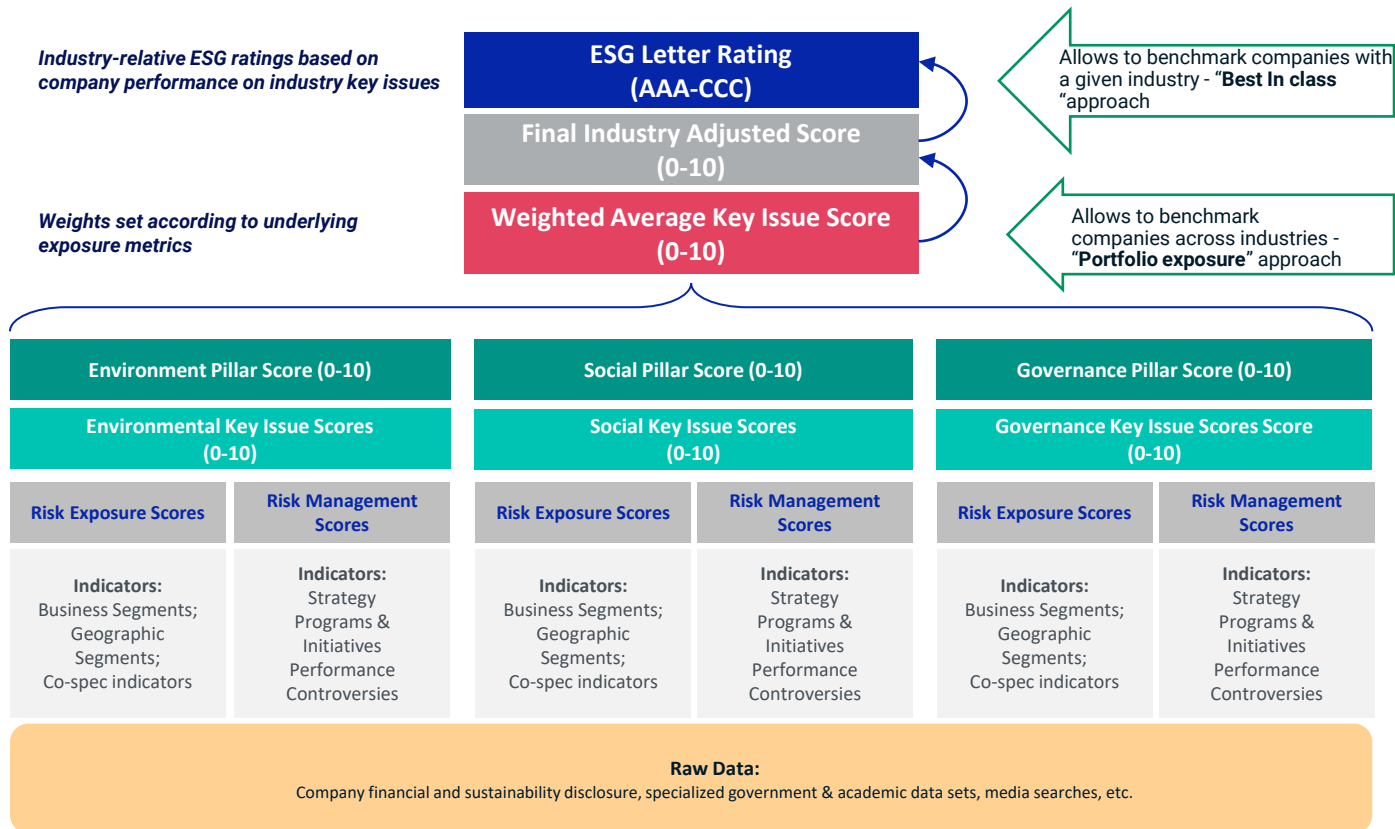
4

Q: What does the company do?

What evidence do we see that these risks are being managed?
What is its track record?

A: *Evaluate alternative data from sources outside the company.*

What Goes into an MSCI ESG Rating



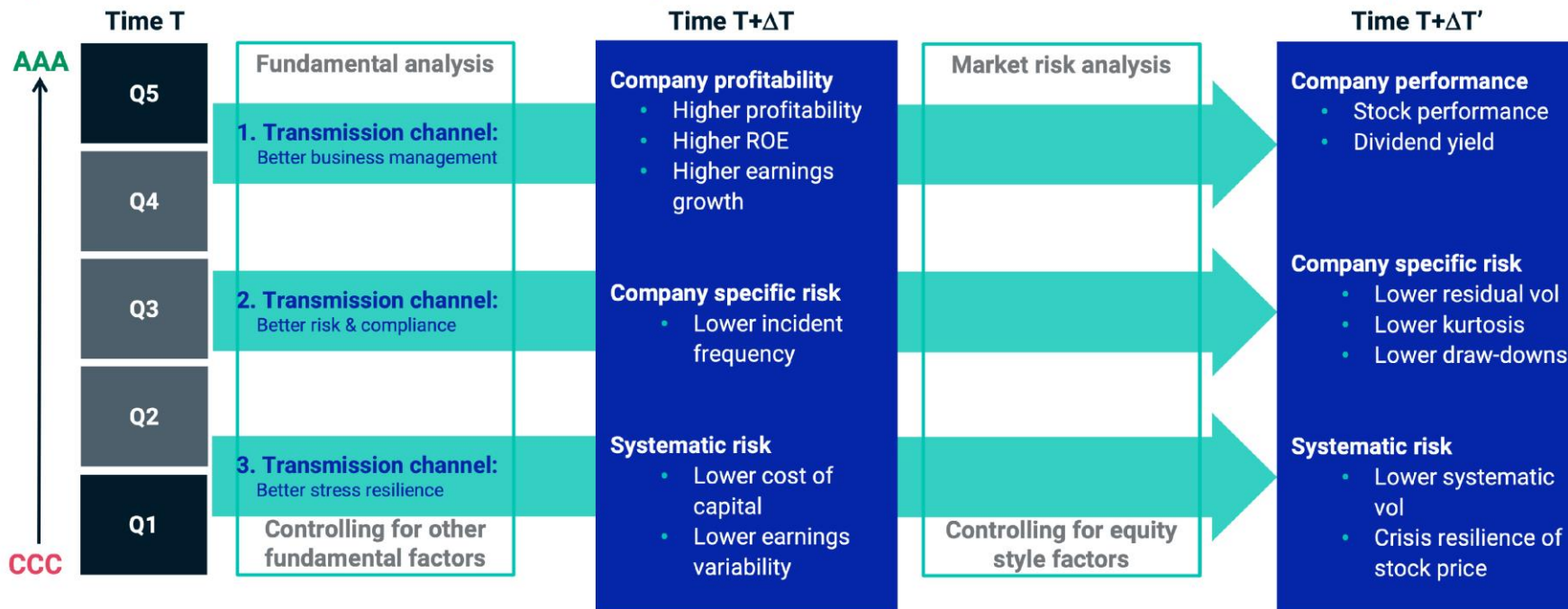
Transmission channels for how sustainability profile may affect financial performance

MSCI ESG Ratings:

Corporate risk assessment

Corporate fundamentals

Market performance



Connecting the dots: IRA opportunities and climate investing

Global trends and IRA provisions

- Incentives match greatest investment needs

MSCI Climate Metrics

- Range of clean tech metrics available

Application to solar, wind, battery

- Examples of using clean tech metrics to identify opportunities across value chain

IRA-related ESG risks and opportunities

- How MSCI ESG Ratings assessment and data differentiate clean tech leaders

Integrating IRA with climate strategy

- Balancing clean tech acceleration with emissions reductions

Integrating IRA opportunities into a broader climate strategy

How can one identify IRA-related clean tech companies?

- What metrics can help identify IRA-related opportunities?
- What are the profiles and types of leaders?

How well are IRA-related companies managing ESG risks?

- Which ESG key issues are IRA-related companies commonly exposed to?
- What are the management practices IRA-related companies have in place for key issues?

What role can IRA-related companies play in a climate strategy?

- How to balance accelerating clean technologies with the need to reduce emissions?
- How do IRA-related clean tech companies become well-rounded leaders in climate transition?

Key takeaways: integrating IRA opportunities into a broader climate strategy

How can one identify IRA-related clean tech leaders?

- **Metrics:** revenue, patent scores, renewable capacity
- **Profiles:** Pure-play vs. diversified, large international conglomerate vs. single-market leader...etc.

How well are IRA-related clean tech leaders managing ESG risks?

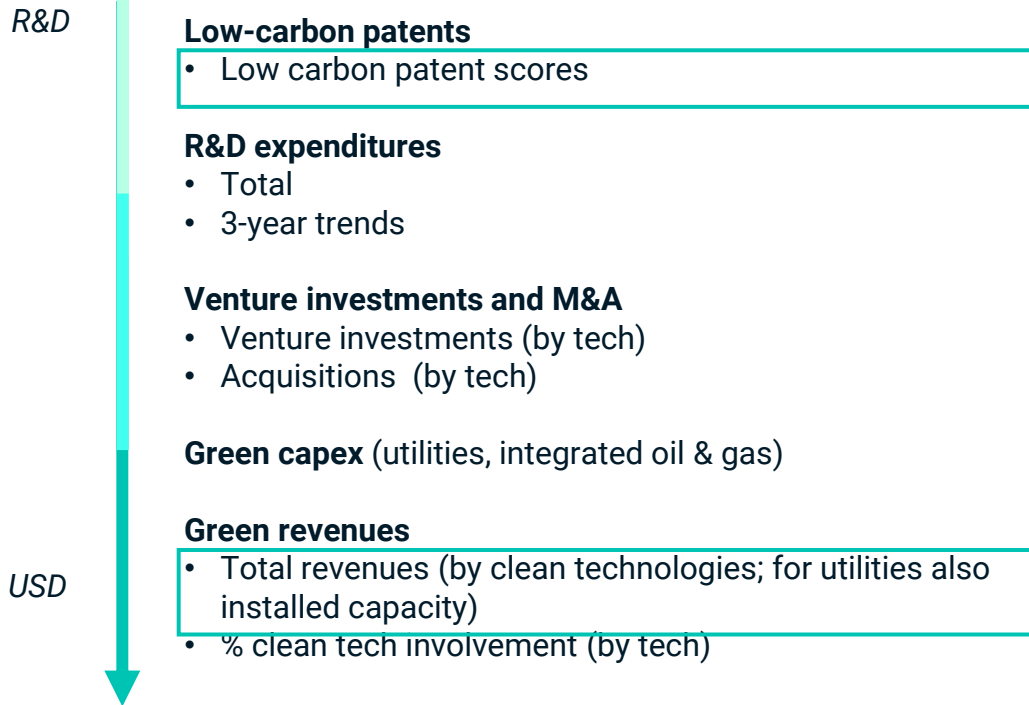
- **Exposure** to material key issues: Controversial Sourcing, Supply Chain Labor Standards, Electronic Waste
- **Management** practices on key issues

What role can IRA-related clean tech leaders play in a climate strategy?

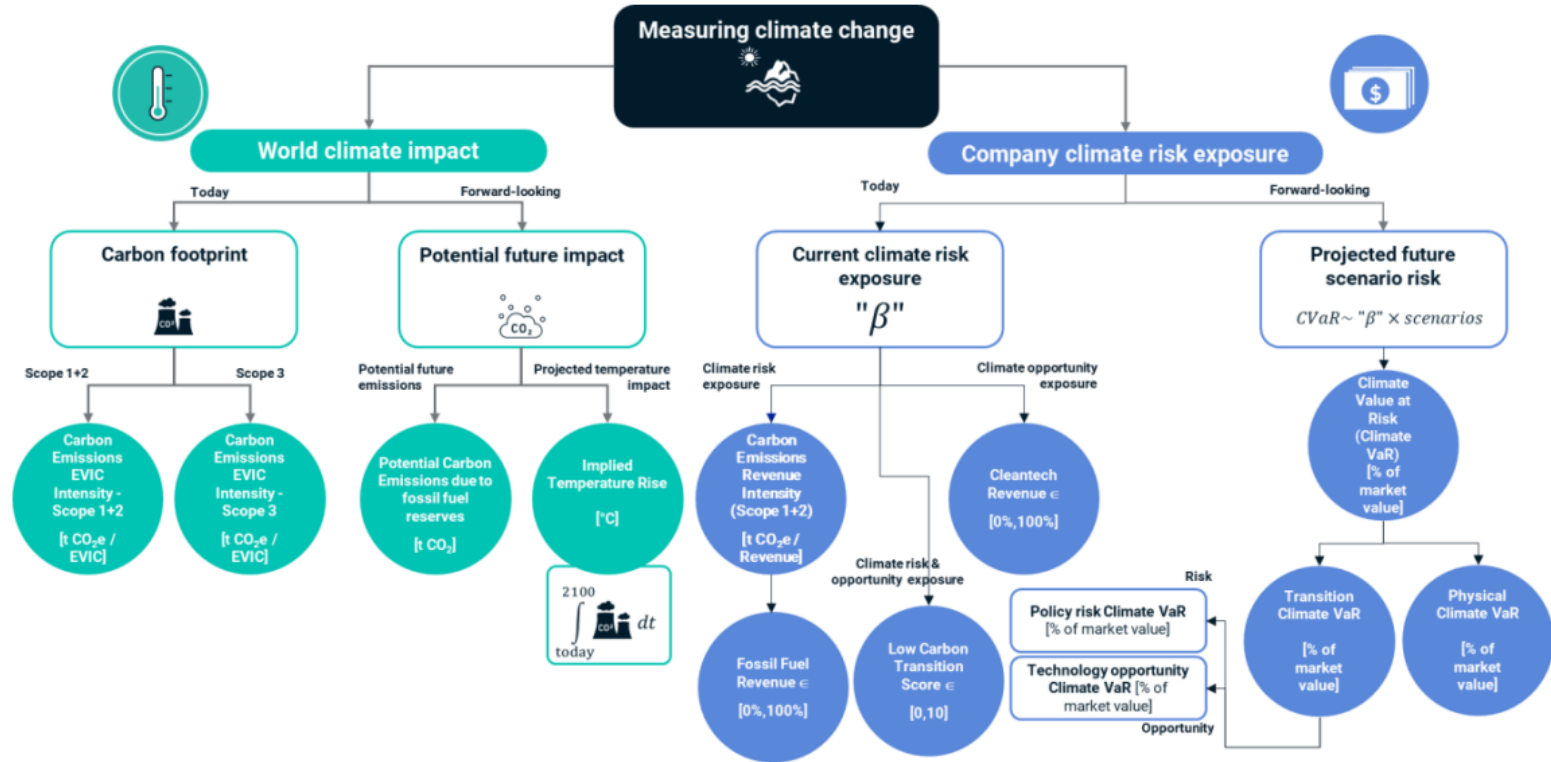
- **Balancing** clean tech innovation with emissions reductions
- **Developing** unique climate opportunities thesis

How can MSCI ESG Research data help evaluate IRA opps

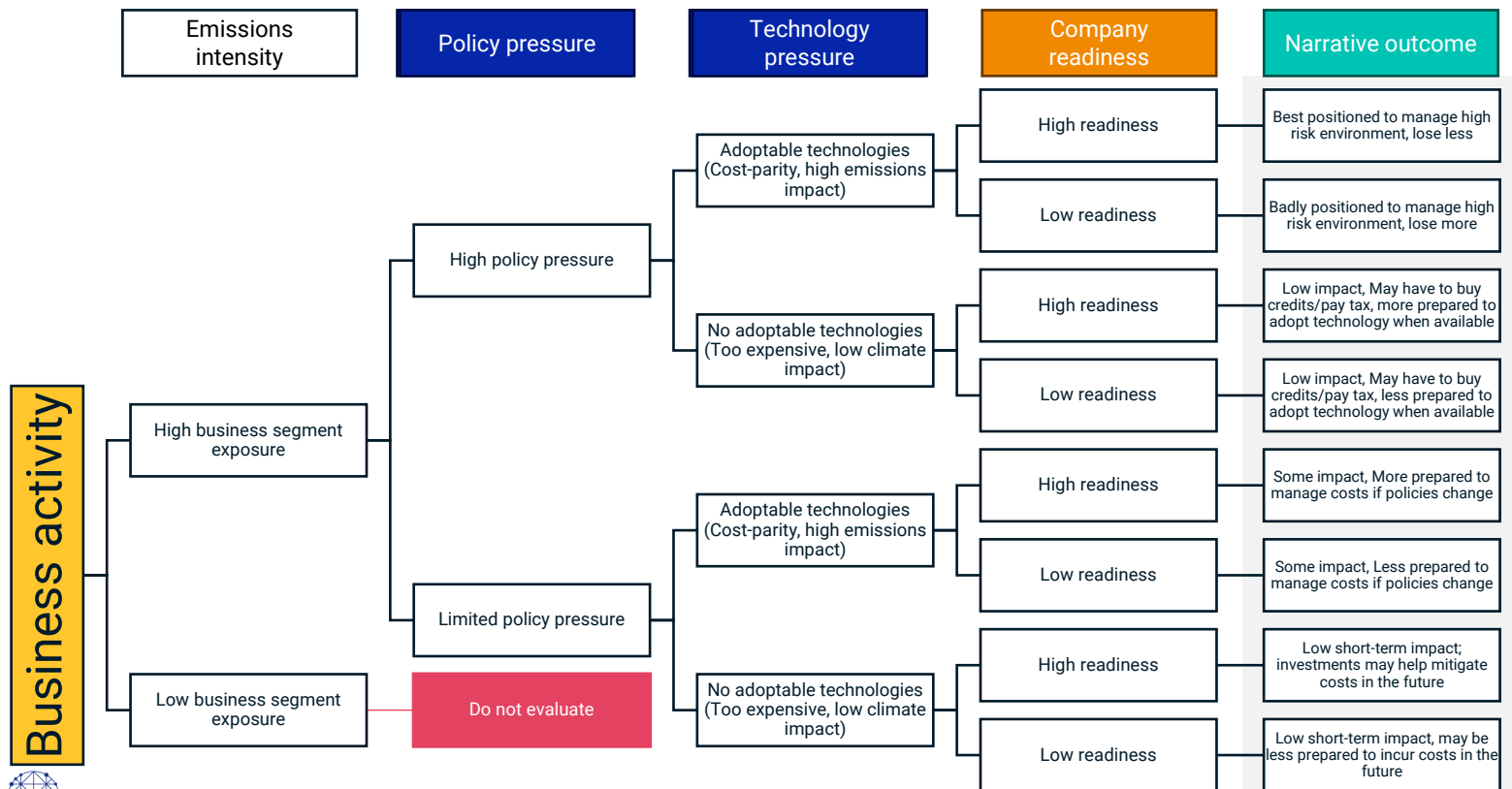
Spectrum of clean tech data (from early stage to revenue generating)



Suite of climate metrics



Model tree: Possible approach for a company facing potential costs from the transition



Constellation Energy: Large nuclear fleet may be well positioned for production tax credits

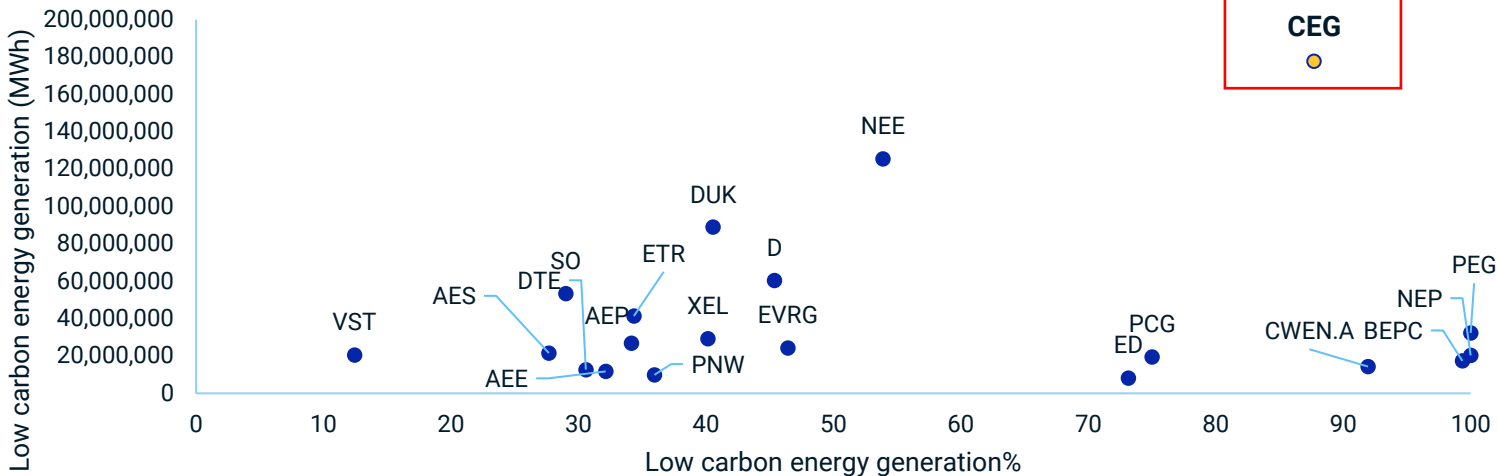
Perspectives
Podcast
for further
listening



CEG is well positioned to take advantage of production **tax credits offered by the U.S. Inflation Reduction Act**, which offers up to USD 15 per MWh of nuclear energy generated.¹ CEG had the largest absolute low-carbon energy generated (>177 million MWh) among U.S. utility constituents of the MSCI ACWI IMI Index. A **potential benefit of USD 2.7 billion** (177*15) would represent an increase from 2023 net income by 164%.²

87% of CEG's 2023 energy generation was from low-carbon energy sources, mostly due to operation of one of the largest nuclear fleets in the U.S. In addition to tax credit eligibility, the reliability characteristics of nuclear power may make it an appealing option to service **rising data center demands for 24/7 zero-carbon energy**.³ CEG has an existing agreement with Microsoft (announced June 2023) to supply its Boydton, Virginia data centers with nuclear power.

Top 20 U.S. low-carbon energy generation utilities in MSCI ACWI IMI



1. "Inflation Reduction Act Keeps Momentum Building for Nuclear Power", U.S. Department of Energy, September 2022. This information is provided "as is" and does not constitute legal advice or any binding interpretation. Any approach to comply with legal, regulatory or policy initiatives should be discussed with your own legal counsel and/or the relevant competent authority, as needed.
2. Constellation Energy Group was first listed separately from parent company Exelon on the NASDAQ exchange starting on February 2, 2022.
3. "Nuclear Plants in High Demand as Tech Firms Scramble to Ramp Up AI Data Centers", Business Insider, July 2024.

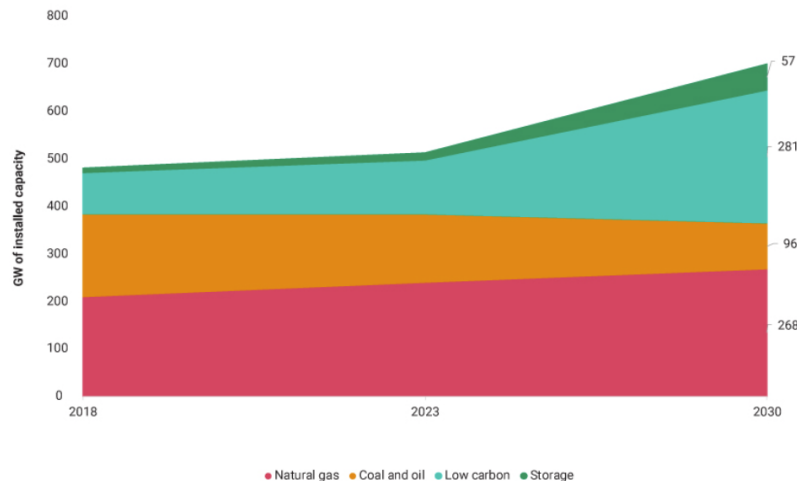
Illustrative example only, past performance is not indicative of future results. For more IRA and U.S. Utilities, please refer to "IRA Boosts US Utilities' Plans to Grow Renewables and Storage"



IRA Boosts US Utilities' Plans to Grow Renewables and Storage

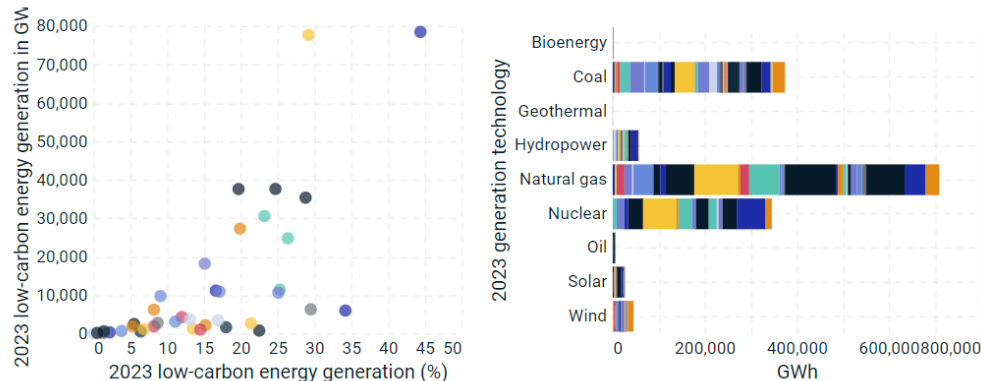


Utilities' plans point to more installed capacity from low-carbon assets than gas by 2030



Source: MSCI ESG Research and RMI Engage & Act, as of Feb. 12, 2024.

Energy generation sources for 2023 may offer insights to IRA production-tax credit eligibility



Low-carbon generation is defined as the sum of hydropower, nuclear, solar and wind generation. Click on any dot on the scatter plot to see the energy mix for an individual utility or click on a section of a bar to view a single utility highlighted in the scatter plot. Click on a blank space in the chart to erase selection.

Source: MSCI ESG Research and RMI Engage & Act, as of Feb. 12, 2024.

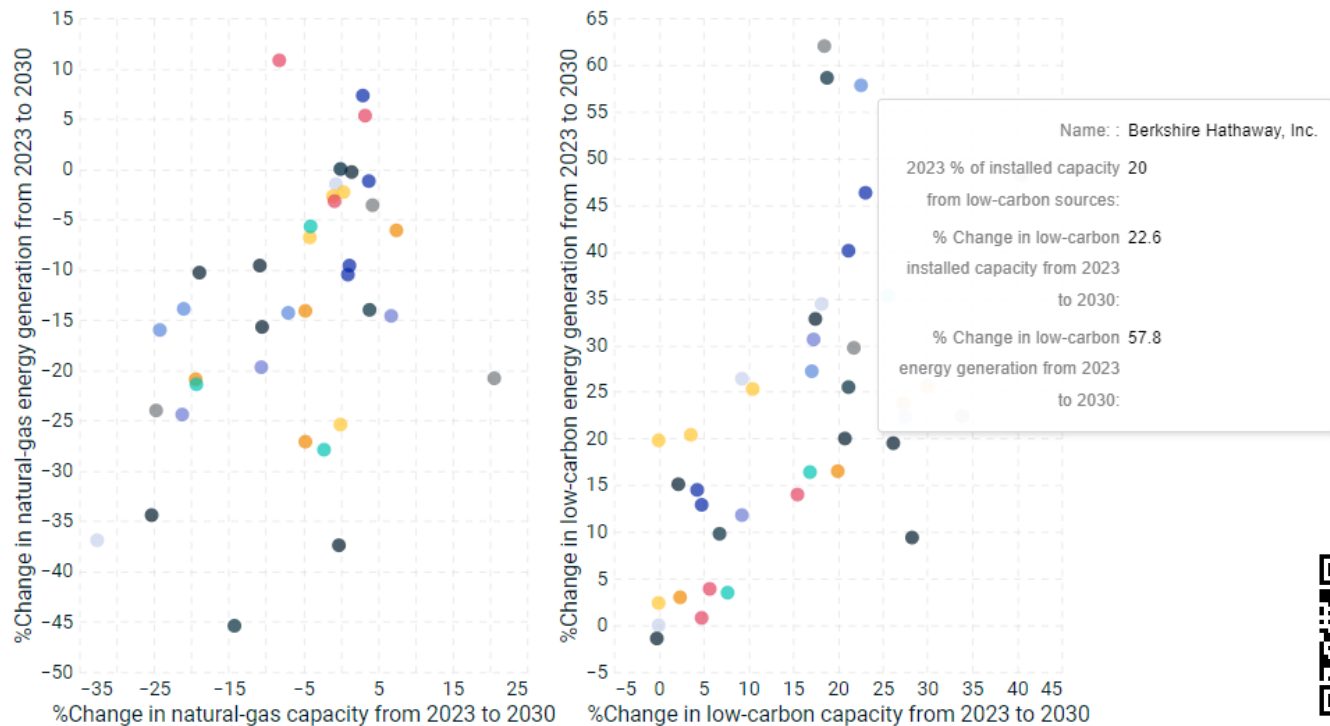
Utilities' plans point to more installed capacity from low-carbon assets than gas by 2030

- Our analysis of 39 U.S. power-generating utilities' integrated resource plans (IRPs) found that the aggregate installed capacity of low-carbon energy sources would exceed natural gas by 2030.
 - This represents a sharp growth from 2023, when the sum of battery storage, hydropower, solar and wind capacity was 28% of total installed natural-gas capacity.
- According to the utilities' IRPs, by 2030:
 - Wind and solar could grow to five and two-and-a-half times of 2023 capacity, respectively, buoyed by expectations of further cost declines, advances in commercial adoptability and availability of tax credits.
 - Utility-scale battery storage and geothermal assets could see significantly more deployment from their nascent stage today at 10 and nine times 2023 levels, respectively.
 - Natural gas, nuclear and hydropower are likely to stay close to current levels.
 - Some coal (35% less than 2023 levels) and oil (20% less) are expected to be phased out from the grid.

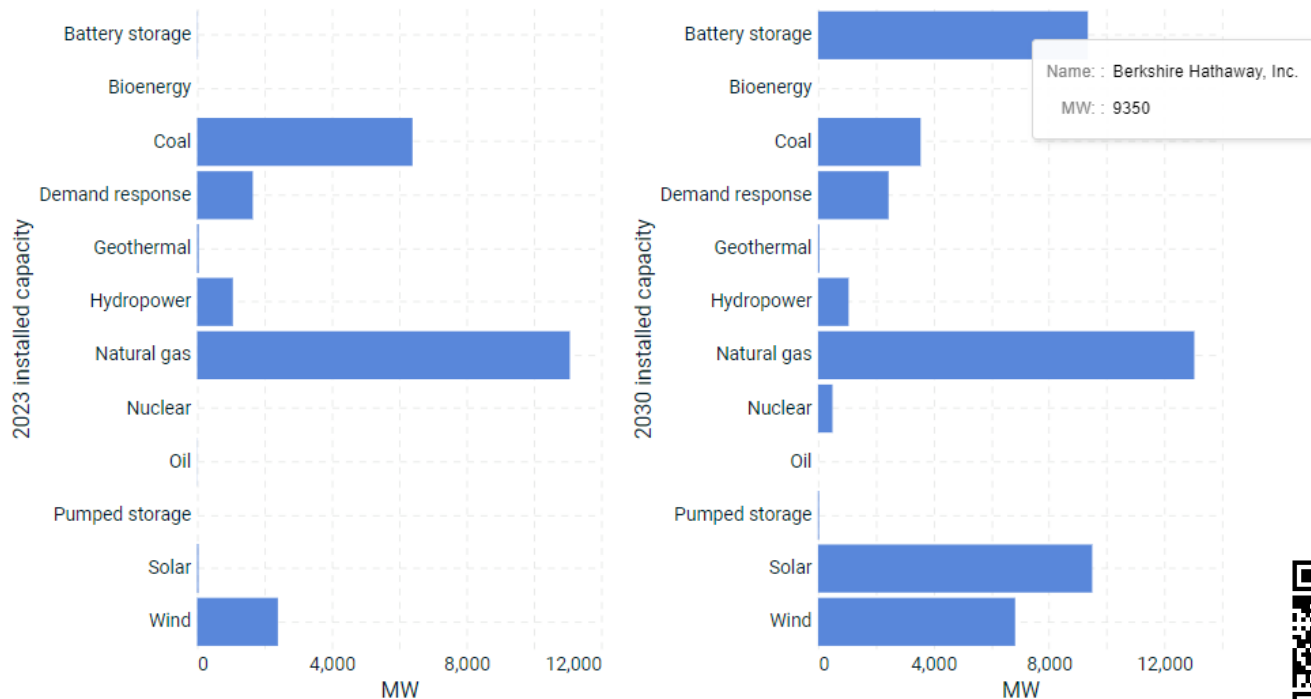
Identifying IRA production vs. investment tax-credit opportunities

- Utilities that already operate low-carbon-generation infrastructure or begin construction before 2025 stand to take advantage of the IRA's production tax credit.
 - Driven by a robust operating fleet of hydropower and nuclear assets, utilities like Tennessee Valley Authority, Duke Energy Corp. and Southern Company may have the largest operations for generating production tax credits.
 - Xcel Energy Inc., NextEra Energy Inc and Entergy also led other utilities by focusing more on wind, solar and nuclear, respectively.
- Two strategies to take advantage of the IRA's investment tax incentives supporting the construction and development of new low-carbon-generation projects:
 - focused on renewables only (CenterPoint Energy Inc., American Electric Power Company Inc., Edison International)
 - developing both renewables and battery storage (Berkshire Hathaway Energy, Hawaiian Electric, IDACORP Inc.)

Planned installed-capacity changes by 2030 indicate varying ambitions for low-carbon growth



Planned installed-capacity changes by 2030 indicate varying ambitions for low-carbon growth



Who's Enabling the US Energy Transition?



- Companies upstream from the power-generation value chain (i.e., clean-energy equipment manufacturing, batteries, electric-vehicle components and mineral processing) have announced over USD 137 billion of investments in areas where the IRA offers manufacturing and investment incentives.
 - Battery-storage-related investments accounted for two-thirds (66%), followed by electric-vehicle components (16%) and solar-panel parts (12%).
- In all, 57 companies have announced investments valued at over USD 500 million:
 - A minority (8) of these companies such as Tesla Inc. and First Solar Inc. might be seen as “first-movers” that mostly rely on selling clean-tech products.
 - Most companies (27) may more closely resemble a “potential pivoter”: companies like Toyota Motor Corp. or General Motors Co. that are established, larger entities who do not currently rely heavily on clean tech for revenue but are announcing significant investments aligned with IRA incentives.
 - The presence of 22 “new-entrants” — privately-owned startups, some of which are international joint ventures — show a breadth of companies and private capital eager to explore innovative collaborations to access IRA-related investment opportunities.

“Building America's Clean Energy Future,” U.S. Department of Energy, Aug. 26, 2024. Investments categorized by the U.S. Department of Energy since the passage of the IRA to batteries totaled USD 90.8 million, USD 21.5 million for electric vehicle components and USD 16.7 million for solar panels. Batteries and solar saw a two-fold and six-fold increase, respectively, from pre-IRA levels (January 2021 - August 2022) of announced investments, whereas electric vehicle investments were slightly less (10%). We selected the following categories of sustainable impact revenue estimates in our data that most closely map to IRA-targeted areas: alternative energy, energy efficiency, energy storage and electric vehicle categories, as defined by MSCI Climate Change Metrics. For full methodology, please refer to “Climate Change Metrics Methodology,” MSCI ESG Research, Oct. 17, 2023. (Client access only).

Thank you!

- For more IRA-related research:



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