This case study involves a hypothetical entity and is intended for demonstration purposes only. It does not represent an ESG Evaluation for any actual entity. The opinions and supporting commentary are illustrative and could change if applied to real entities.

Environmental, Social, And Governance (ESG) Evaluation

Electric Utility Inc.

Executive Summary

Electric Utility Inc. (EUI) is a multistate operation based in the U.S. The company also operates regulated networks in multiple states and currently relies on over 10,000 megawatts (MW) of aging coal-fired assets, as well as about 2,500 MW of natural gas-fired generation to supply its customers with electricity.

The company’s ESG Evaluation score of 75 reflects many good practices in Preparedness (Strong), evidenced by regular updates to its long-term sustainability plan. In addition to the transition away from carbon fuels, the plan considers potential disruptors to the company's business model such as batteries and distributed generation and related cost pressures. A strong governance framework and relatively low institutional risk exposure supports EUI's governance profile of 76 and ESG profile of 66.

The ESG profile is constrained by the high sector-related environmental and social risk. Overall we view the company’s management of environmental and social risks as in line with peers. Given that EUI is just beginning to transition away from coal, it still has a relatively high carbon intensity compared to peers (bottom quartile). Reducing and reporting on waste management, managing indirect greenhouse gas (GHG) emissions, and expanding its focus on the social impact of its suppliers could modestly improve the overall ESG Profile, but the successful transition away from fossil fuels is key. We expect that management’s renewed focus on safety, ongoing policy review, and extensive staff training programs will serve to avoid future fatalities.

Profile Score

66/100

Preparedness Opinion

Strong

ESG Evaluation

75/100

A higher score represents better sustainability
Component Scores

Environmental Performance

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<thead>
<tr>
<th>Sector/Region Risk Level</th>
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<tr>
<td>Greenhouse Gases</td>
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<tr>
<td>Waste</td>
<td>Good</td>
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<td>Water</td>
<td>Good</td>
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<tr>
<td>Land Use</td>
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Social Performance

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<tr>
<td>Safety Management</td>
<td>Lagging</td>
</tr>
<tr>
<td>Customer Engagement</td>
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</tr>
<tr>
<td>Communities</td>
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Governance Standards

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<td>Code &amp; Values</td>
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<td>Transparency &amp; Reporting</td>
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<td>Cyber Risks &amp; Systems</td>
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<tr>
<td>General Factors (optional)</td>
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E Profile (30%) 62
S Profile (30%) 55
G Profile (40%) 76
ESG Profile (incl. any adjustments) 66/100

Preparedness Summary

We view EUI’s preparedness as Strong. EUI is aware of the impact of climate change on its own operations, the transition away from high-carbon fuel, and technological changes in the sector. The company has a clear, decade-long transition plan to reduce its carbon footprint by focusing on renewables supplemented by natural gas and less reliance on coal and uses a scenario analysis to assess alternative futures. There is a clear and understandable link between strategy, key performance indicators (KPIs), and incentives regarding ESG factors in the board’s remuneration.

Preparedness Opinion

Strong

ESG Evaluation

ESG Profile 66/100
Preparedness Opinion Strong (+9)
Further Adjustment (if any) None (0)
ESG Profile

Overview

EUI’s Environmental Profile successfully ranks as medium risk (62/100) despite the utility sector’s high exposure to environmental risk. Plans to continue reducing its absolute GHG emissions by replacing aging coal-fired facilities with more carbon efficient, gas-fired plants and renewables are in place. However, Scope 2 emissions are increasing as the company purchases gas-fuelled power from other suppliers to supplant its own coal-fired generation. Land use and biodiversity policies are absent but management is focused on water conservation and, to our knowledge, there have been no material environmental events in the past decade. It’s worth noting that the company does not track (or manage) its suppliers’ impact on the environment, which modestly constrains the Environmental Profile.

The social profile of 55 is largely colored by the relatively high sector risk. A major customer data privacy breach affecting thousands of customers occurred about five years ago. However, internal protocols to reduce the risk of a similar occurrence are now in place. The executive team does not have formal oversight of customer data privacy, nor is it linked to compensation. We expect management’s renewed focus on safety, an extensive training program, and ongoing policy review should help avoid future severe accidents. If we see better health and safety statistics in the next year or two (compared with several severe accidents that occurred in the past few years) Safety Management could improve to Good from Lagging. Lastly, although the company does not track diversity in the workforce at the operating level, there is gender diversity in senior ranks and on the board. Management training programs could facilitate further improvement.

EUI’s Governance Profile of 76 is bolstered by its clear purpose and value statement with respect to its environmental values. The board and its committee structure are in line with good global standards. Its strong reporting practices serve to further enhance the overall governance profile. In addition to reporting taxes paid in states where it operates, EUI also publishes an annual corporate social responsibility report and tracks governance-related fines and regulatory penalties (of which there were none in the last reporting period).
Environmental Factor Analysis

**Greenhouse Gas Emissions**

- Emissions intensity for Scope 1 (carbon equivalent tons of CO\(_2\)/mil. of U.S. dollar revenue) falls in the second-worst range compared to peers globally.
- There is a lack of clear allocation of environmental responsibilities at the management level within each subsidiary, and no evidence of training on climate change efforts at the staff level, which further exposes the company to future carbon/climate change risk.
- Despite successful efforts to reduce Scope 1 and 2 carbon emissions in the past several years and the expectation that they will be further reduced, the company's performance is well-below average for the sector. Scope 3 emissions have increased during the same time period as the company purchased gas fired electricity to replace generation from its retiring coal plants. Furthermore, EUI still relies on material coal-fired generation to meet demand.
- However, the company has a reasonable plan to increase renewables and transition away from coal to gas over the next decade, which should improve its position compared to peers over time.

**Waste**

- EUI's waste recycling rates are lower than average for the utility sector. We view the three-year historical trend line as an indicator of higher risk exposure (and therefore a lower score).
- However, management plans to improve its corporate waste management practices and provide related disclosures to stakeholders beginning this year. Regular employee training on existing policies and procedures for managing hazardous waste production in line with its peers is also being implemented.
- We are not aware of any reports of major spills or poorly disposed waste in the past several years.

**Water**

- The company has no overarching water management policy and does not consider regional water stress in its investment decisions. Nevertheless it monitors water intake and output levels and quality from its generating stations to ensure they meet all regulations.
- It is worth noting that the network segment of the business (50% of revenue) does not use water to operate other than for its office buildings. EUI's buildings’ water consumption and intensity has declined for the past five years. As a result of management’s commitment to set targets they are in line with peers in this regard.
- Generation operations still exhibit high water use intensity compared to peers given its exposure to coal-fired generation. However, we believe the company’s focus on replacing aging coal-fired assets with renewables will have the side benefit of reducing water use intensity over the next decade, but water management does not appear to be a key focus of EUI’s long-term strategic plan.

**Land Use**

- Greenfield generation sites can present land use and biodiversity risk exposure but given the company will be investing mainly in renewables going forward (wind and solar) we believe this exposure is not material as for new coal plants and associated mines.
- Transmission corridors can also result in modest deforestation, which can affect the migration patterns of some species and plant habitats. The company did not share any policies or work practices aimed at minimizing their environmental impact.
- The company does not track or disclose any related metrics or use a natural capital protocol to assess the environmental impact of its assets.

**General Factors (None)**

- We have not made any adjustments to the Environmental Profile.
Social Factor Analysis

Workforce & Diversity | Good
---|---
- Although company policy does not outline a remediation process for policy breaches, senior management is committed to improving diversity and providing a friendly workplace environment as evidenced on their public websites and recent hiring. As an example, women now represent 25% of the board of directors and about 20% of senior executives are women, given recent hires.
- However, EUI does not track gender, age, or ethnic diversity in the workforce at the operating level and there are no training programs in place to facilitate improvement although it is encouraged on their public website.
- Turnover is low and most staff are full-time employees with some benefits. Maternity leave is not generous, but that is the societal norm in the region. The company does provide brief paternal leave.

Safety Management | Lagging
---|---
- Policies are in place to oversee occupational health and safety. Absentee hours due to sickness or injury have consistently declined over the past five years, but are still 3.5%
-⚠️ The company’s described response to the unfortunate fatalities this year and last year demonstrate remedial action was taken, and the current policies use externally recognized norms and conventions. We expect management’s renewed focus on safety, extensive training program, and ongoing policy review should serve to avoid future severe accidents. If we see better health and safety statistics in the next year or two, Safety Management could improve to Good from Lagging.

Customer Engagement | Good
---|---
-⚠️ A major customer data privacy breach affecting thousands of customers occurred in the past five years. Internal protocols to reduce the risk of a similar occurrence are now in place.
- The executive team does not have formal oversight of data privacy operations, nor is performance linked to compensation.
- Storm response time has improved given the recent rollout of supervisory control and data acquisition (SCADA) systems for all its distribution networks. This has led to a steady decline in customer complaints from about 300 in 2013 to just over 200 in 2018. We believe this is not an unreasonable number given the company size, regulatory expectations, and the essential nature of the service provided.

Communities | Good
---|---
- The regulated utility network business requires engagement with stakeholders that goes well beyond the level of engagement in many other industries. Management maintains a good working relationship with the regulator. EUI tracks and publishes its spending on engagement with local communities as part of the regulatory process. Beyond meeting regulatory requirements, the utility finds other ways to support the community, for instance by providing access to and grooming transmission right of ways for community sports leagues. EUI also ensures it knows which of its customers rely on electricity for life support so it can optimize maintenance and repairs to the distribution system. We believe these practices are in line with most peers in the sector.
- The company has an antislavery policy but it does not extend to its suppliers.
- The company has no policy publically outlining its commitment to human rights; however, we found no record of human rights breaches in the past five years.

General Factors (None)
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- We have not made any adjustments to the Social Profile.
Governance Factor Analysis

Structure & Oversight

Good

- EUI's board and its committee structure are sufficiently robust to be mostly neutral to the governance profile given the moderate region risk exposure in the U.S.

- Several key policies are in place (anticorruption, whistleblowing, political donations, and external audit rotation, cybersecurity) but EUI has no policies in place to address conflict of interest or anticompetitive practices.

- The board does not have formal oversight of ESG risk exposure. The company does not track gender pay gap. Furthermore, ESG performance is not linked to management or staff incentives.

Code & Values

Strong

- EUI has a clear purpose and value statement on its environmental values and commitment to diversity. The company has also set strong public standards in its code of conduct for its employees.

- The company tracks senior management remuneration but not the pay gap between the CEO and average worker. The company's CEO is one of the highest-paid in the U.S. utility sector. Further the company does not track the gender pay gap.

- Annual training programs ensure that new employees are familiar with and understand the company's value statement.

Transparency & Reporting

Strong

- EUI's reporting practices and transparency are very low risk and serve to enhance the overall governance scores. In addition to reporting taxes paid in countries where it operates, EUI publishes an annual corporate social responsibility report and tracks governance-related fines and regulatory penalties (of which there were none in the last reporting period).

- Transparency is not as strong for social metrics but we believe this is partly due to no standard comparable metrics. We expect EUI will publish more detailed health and safety statistics this year given its renewed focus on safety.

- The company is part of the Carbon Disclosure Project, and tracks publically its progress on reducing GHG emission and increasing renewables.

Cyber Risks & Systems

Good

- We believe that since the customer data breach several years ago the company has implemented better operating procedures to manage the risk. They have not experienced any further material breaches since.

- They have introduced a robust cyber framework including identifying the sources of risk, carrying out simulation exercises, and training staff to have an increasing awareness of threats.

General Factors (None)

- We have not made any adjustments to the Governance Profile.
Preparedness

Preparedness Opinion

Summary Opinion

We view EUI’s preparedness as Strong. EUI is aware of the impact of both climate change and the transition away from high-carbon fuel on its operations. The company has a clear transition plan over the next decade to a generation business more focused on renewables supplemented by natural gas and less reliance on coal. At the same time, its network businesses are planning for a future colored by smaller distributed generation sources and the possibility of a growing role for storage in their operations. The company is aware of the significant regulatory risk associated with this changing landscape. However, the sustainability of its supply chain partners, and the longer-term social impact of industry transformation is not a current priority for EUI management.

Furthermore, we do not believe that a sustainable culture has been truly embedded throughout company ranks, from the board’s policy-setting to the employees on the shop floor. We also believe that the company’s ability to take quick action and switch gears as differing futures unfold is inherently hampered by the regulatory process and asset intensity of the industry. More focus on operational solutions where the company may have more near-term leeway could improve its adaptability.

Preparedness Indicators

Awareness

EUI's risk management and scenario planning processes account for varying assumptions around climate change policy and regulation to plan for a variety of futures, including one with significant restrictions on the use of fossil fuels. In its models, EUI includes a carbon price to simulate the impact of such restrictions, and the current price assumptions are based on potential prices under the court-delayed Clean Power Plan framework. Other factors included in its models are technology cost and availability and customer demand.

Assessment

The company's corporate planning process uses scenario analysis to explore multiple potential outcomes and uncertainty in order to interpret external factors such as technical, economic, political, and governance trends facing the industry. The scenario process and outcomes enable
Preparedness

the company to explore risks and opportunities and test the robustness of its strategies. The portfolio is tested against shock events that are extreme but may not capture the short-term risks associated with longer-term impacts. The company publishes publicly its scenario analysis exercises, which include four different scenarios. One was a 2D scenario in which the company quantified the impact on energy prices from variables including the growth of electric vehicles and of distributed generation and renewable technologies.

Action

Through its publicly filed integrated resource plans (IRP) EUI illustrates how it will meet customer demands for reliable and affordable energy over a 10- to 20-year planning horizon. The IRP also projects the company's plan to achieve its long-term emissions reductions goals of 55% reduction in CO₂ emissions by 2030 from 2000 emissions levels. To achieve these goals, the company plans to focus on near-term investments in renewable energy and incorporate an assessment of potential future carbon costs and expected lives of its generating resources in all of its planning and investment decisions.

EUI's enterprise risk management process takes a holistic look at all risks, perceived or real, across all aspects of EUI's operations--including those posed by climate change--through a risk identification, analysis, and mitigation process. EUI's risk management process encompasses many factors, and uses scenario planning, including a range of carbon prices to assure robust decision-making. In addition, when assessing risks, EUI internally categorizes risk impacts and scores them based on the severity of potential consequences. Once risks are identified, mitigation strategies are developed.

Culture

Environmental accountability is embedded in the company culture at the executive level, starting at the board of directors level, whose key responsibility is overseeing the company's strategy to create long-term value for its shareholders. Board meetings include discussions about carbon and carbon risk, strategic planning, and scenario planning and analysis sessions.

Although it is likely that some staff understand environmental metrics and the need for them given coal is a hot topic in the press, we don’t believe a sustainable culture is fully embedded in the first-line management or at all staff levels. We have not been able to assess if there is open dialogue about how to take action from the bottom up on the targets the board set. The only social targets at staff or board level are safety-related ones.

Decision-making

ESG factors are clearly articulated in the company's strategy. Board oversight and accountability are clear and explicit for both internal and external stakeholders. KPIs are comprehensive and consistent with EUl's strategy. They are reported to senior management on a timely basis. Pay and incentive systems incorporate ESG factors mostly at the executive level, but have not yet filtered down through the organization. There is a clear and understandable link between strategy, KPIs, and incentives regarding ESG factors in the board's remuneration.
### Sector/Region Risk

<table>
<thead>
<tr>
<th>Primary Sector(s)</th>
<th>Generation (including coal), Regulated Utilities Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Operating Region(s)</td>
<td>U.S.</td>
</tr>
</tbody>
</table>

#### Sector Risk Summary

In our view, the electricity generation sector has high environmental risk exposure, while the network operations (transmission and distribution) have a much lower or moderate exposure. EUI is involved in both generation (fossil fuels) and transmission, so we have blended the sector risk exposure score based on its asset base (50/50) resulting in a medium-level exposure for both environment and social. (The renewables segment is growing but still quite small, with most of generation coal or gas-fired.)

#### Environmental Exposure

The regulated utilities network sector’s environmental risks are focused on its pure infrastructure status rather than fossil-based emissions. The key risk that effects electric transmission and distribution networks is their exposure to climate change, including wildfires, storms, hurricanes, and tornadoes. To protect against some of these risks, networks are undergrounding and hardening their systems, making them somewhat less susceptible to climate change. For natural gas networks, we focus on gas explosions and leaks that emit GHGs and may effect biodiversity. For water networks, environmental risks are primarily focused on clean water and water usage (i.e., spills and losses). Another area of environmental focus is droughts, which could cause water shortages for water networks and can increase the risks of wildfires for electric networks.

Environmental risks in the power generation (coal) sector relate to the inherent material exposure to carbon and GHG emissions, air pollution through gases and air particles and, increasingly, water use and contamination risks. Power generation based on coal creates significant environmental damage, and we view this industry to be as risky as the oil and gas industry. These environmental risks could lead to significant cost and regulatory constraints. In this context, we recognize that there is an important political drive worldwide, notably the Paris Agreement, to reduce the carbon footprint by rapidly shifting to renewable energies (solar and wind) and new technologies to reduce emissions. The pace of reducing coal in the energy mix is inconsistent and we believe coal generation operators could have different timeframes to adapt their strategies. We see political scrutiny of environmental topics remaining high, but companies’ strategies already capture these well. We see a higher likelihood for environmental risks to be reflected in higher thermal generation costs with increased CO2 prices, because of a more harmonized and constraining CO2 allowances market led by a stronger political push.

#### Social Exposure

The regulated utilities network sector plays a crucial role for communities. Network operators provide energy, gas, or water to people and organizations, and these services require satisfactory customer service. Any disruption to these services would trigger potential negative political pressures or put at risk their license to operate. Customers need to consider the fees for services as fair, and we see increased social and regulatory pressures in terms of acceptability of tariffs.
Appendix

Social exposure (continued)

Maintaining a reliable, safe, and viably economic network is thus key to managing regulatory risk and public opinion. Developing new infrastructures also implies land use and permits, which can create conflicts with local communities. For gas networks, safety management is key (incidents typically have larger impact/human death toll). Finally, utilities are generally major local employers with many unionized employees, which exposes them to human capital management risks.

Social risks in the sector are weighted toward exposure to safety and reliability, social cohesion and ultimately consumer behaviour risks. Power generators play a crucial role for communities in their role as essential energy provider and need to stay affordable and reliable. This means that they are vulnerable to local criticism and negative political intervention, which could lead to strong opposition and arbitrary taxation. Utilities are generally socially intertwined with the local communities because they are usually the large local employer with a high degree of unionized staff. Finally, long-term consumer behaviour is likely to be increasingly influential in the energy transition away from polluting energy sources.

Regional Risk Summary

With robust institutions and rule-of-law standards, the U.S. demonstrates many strong characteristics but lags several other countries with respect to ESG regulations and social indicators. Income inequality is higher than in other OECD countries, but has been so for over a century. Social services are similarly less generous than in most wealthy countries. Governance is characterized by a very stable political system, strong rule of law, a powerful judiciary, and effective checks and balances. Conditions of doing business are generally high. The U.S. follows a rules-based approach to corporate governance, focused on mandatory compliance with requirements from the major exchanges (NYSE and NASDAQ) as well as legislation. Exchanges requirements mandate high standards of corporate governance. The NYSE requires companies listing on its exchange to have boards made up of a majority of independent directors and have separate remuneration and nomination committees. However, establishment of formal requirements on ESG reporting are behind those of European countries. While a growing number of companies have an independent chair, the combination of CEO and chair roles is still popular, which can create issues regarding management oversight. Remuneration continues to be a contentious point, because U.S. executive pay dwarves global pay levels. The CEO-to-worker pay ratio is ever-increasing, leading to social tensions and shareholder criticism.
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