

Environmental, Social, And Governance Evaluation

National Grid PLC

Summary

National Grid PLC (NG) is an energy company headquartered in London with regulated electricity and gas networks and some unregulated operations in the U.K. and U.S. In the U.K., NG owns the high-voltage electricity transmission system in England and Wales, operating the system across Great Britain, and owns and operates the gas transmission system. In 2021, NG will acquire Western Power Distribution PLC (WPD), the U.K.'s largest electricity distribution business, which we factor into our analysis. In the U.S., NG owns and operates electricity and gas distribution networks in New York and Massachusetts, electricity transmission facilities across the Northeast, and it owns 3.8 gigawatts of generation in Long Island, N.Y. Unregulated operations include interconnectors, renewables, and liquified natural gas services, among others. We also consider the 2021 sale of its Rhode Island utility and the announced sale of a majority stake in its U.K. gas business by the end of 2022.

NG's ESG evaluation of 82 reflects a robust governance structure, strong preparedness for disruptions, and overall effective management of environmental and social risks. We believe the board is diverse with strong expertise and independence. NG also shows strong awareness of risks that could disrupt its strategy of enabling the energy transition and uses robust scenarios to establish flexible action plans, although political and regulatory dynamics could challenge execution. This, coupled with its sophisticated innovation capabilities, supports NG's long-term resilience.

We view NG's climate strategy as more advanced than that of global peers and its waste management leads the industry. The company's networks are reliable and relatively affordable. Community relations are generally positive, although the 2019 gas connection moratorium in New York stressed certain stakeholder relations. We believe that safety is well managed, with a robust approach for high-hazard assets and plans for aging pipe upgrades. NG also benefits from a diverse workforce and its talent strategy focuses on the energy transition, which aligns with its strategic goals.

Analytical contacts

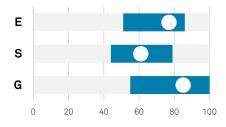
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ESG Profile Score

75/100



Company-specific attainable and actual scores

Preparedness Opinion (Scoring Impact)

Strong (+ 7)

ESG Evaluation



A higher score indicates better sustainability

Component Scores

Env	vironmental Pı	rofile	Social Profile		Governance Profile			
Sector/Region Score		36/50	Sector/Region Score 2		29/50	Sector/Region Score		35/35
	Greenhouse gas emissions	Strong	ÅÅ	Workforce and diversity	Strong	£	Structure and oversight	Strong
	Waste and pollution	Leading	∀ =	Safety management	Strong		Code and values	Strong
<u>چ</u> ا	Water use	Good		Customer engagement	Good		Transparency and reporting	Strong
⊛	Land use and biodiversity	Strong		♠ Communities	Good		Financial and operational risks	Neutral
A	General factors (optional)	None	A	General factors (optional)	-3	Å _[[□	General factors (optional)	-2
Entity-Specific Score		41/50	Entity-Specific Score		32/50	Entity-Specific Score 50/6		50/65
E-Profile (30%)		77/100	S-Profile (30%)		61/100	G-Profile (40%)		85/100
		ESG Profile (including any adjustments)				75/100		

Preparedness Summary

NG is strongly prepared to remain resilient as the energy system decarbonizes to meet global climate commitments. Its long-term strategic priorities focus on enabling the energy transition, delivering to customers efficiently, enhancing organizational capabilities, and empowering talent. Its long-standing strategic focus on climate change and its deliberate emphasis on maintaining flexible action plans help NG to pivot nimbly as regulations change and new technologies become commercially viable. However, decision-makers must manage political agendas and regulatory dynamics when executing strategic priorities. Nonetheless, the group continues to innovate and invest in new techniques and technologies to foster greater penetration of renewable energy into electricity systems and low-carbon alternatives for its gas network. These factors reinforce NG's ability to navigate and adapt its system to remain resilient to the disruptive forces facing its industry, in our view.

Capabilities			
Awareness	Excellent		
Assessment	Excellent		
Action plan	Excellent		
Embeddedness			
Culture	Good		
Decision-making	Good		

Preparedness Opinion (Scoring Impact)

Strong (+ 7)

ESG Evaluation

82/100

Note: Figures are subject to rounding.

Environmental Profile

77/100

Sector/Region Score (36/50)

NG operates mainly in the electric grid (about 70% of assets) and gas utility (30%) sectors. The energy transition is the most material environmental risk for these sectors given toughening greenhouse gas (GHG) regulations globally. They also face waste impacts from construction activities, along with land and biodiversity impacts on distribution corridors. Climate impacts, which can damage assets and disrupt operations, also pose a material risk and we factor in moderate natural disaster exposure for NG's operations in the U.S. (45% assets) and U.K. (55%).

Entity-Specific Score (41/50)

Note: Figures are subject to rounding.



NG is more advanced than global peers in the energy transition. We anticipate its GHG emissions will continue to decline (after a 70% drop from 1990-2020) and remain below those of peers. The company set incremental targets to reduce emissions 80% by 2030 and 90% by 2040 versus 1990 levels, with net zero by 2050. We view this as ambitious yet realistic as regulations drive regional power systems to decarbonize. NG is also decarbonizing its gas network and the heating sector through efficiency, demand response, and leak-prone pipe replacement programs. It is also exploring heat and gas alternatives, such as hydrogen, which is more advanced than non-European peers, but is in early stages. We believe stranded assets remain a long-term risk if no viable gas decarbonization pathways are found, but NG plans to reduce its U.K. gas exposure through the announced sale of a majority stake in its U.K. gas business, which mitigates this risk somewhat. We expect NG's leakage of sulphur hexafluoride (SF6) from electrical equipment (modestly above peers) will decline to average levels as it phases out assets and introduces SF6free technologies. Its investments in offshore renewable interconnectors and the 2019 acquisition of renewables developer Geronimo Energy further support GHG mitigation, while its investments in electric vehicle charging enable transport decarbonization. NG also assesses physical climate risk impacts and extreme weather and has systematic initiatives to improve asset resilience, including storm hardening in the U.S. and flood mitigation in the U.K.

NG is a leader in establishing and embedding circular economy principles in waste management practices. It achieved its 2020 target to reuse or recycle 100% of recovered assets, a more ambitious target than peers. NG also diverts most construction waste from landfills. Material scarcity issues are evaluated using a detailed assessment tool before sourcing and NG works with suppliers on circular principles to design assets to be disassembled, repaired, or reused at end of life. We view this engagement as industry leading.

NG's approach to land management is also more advanced than peers and emphasizes delivering environmental value. It differentiates itself through its natural capital assessment protocol for nonoperational land at U.K. sites, which provides an indicative financial value of ecosystem services and guides mitigation and enhancement strategies. In the U.S., NG plans to use quantitative and qualitative approaches to improve habitat conditions.

The environmental impacts of electricity transmission and distribution are largely similar, and in our view, WPD's environmental management approach aligns well with NG's.

Social Profile

61/100

Sector/Region Score (29/50)

The most material social risks for the electric grid and gas utility sectors involve maintaining reliable and affordable networks. Community relations can also be material, especially during network upgrades. Safety is generally well managed, but high-impact events can occur. Strikes from largely unionized workforces, aging talent, and skills shortages also pose risk.

Entity-Specific Score (32/50)

Note: Figures are subject to rounding.



NG maintains reliable and relatively affordable networks that meet strict regulatory standards. Reliability is in line with the industry, as measured by standard outage duration. U.K. tariffs will likely continue facing regulatory scrutiny, which will ensure rates remain affordable. The WPD acquisition will extend NG's reach to U.K. electricity suppliers, which adds some social risk, but we believe that WPD performs well on reliability and affordability metrics, which bolster end-user satisfaction. In 2019, NG's electric network in England and Wales had a major power outage. While NG was found to not be at fault, it had reputational effects. NG also experienced adverse reactions when it introduced a six-month moratorium on New York gas connections in 2019 due to system integrity and gas supply constraints. The event was highly publicized and politicized, risking its license to operate its downstate gas franchise, but NG settled with regulators to compensate affected customers and upgrade assets (about \$35 million) and has delivered new initiatives to support customer requirements. Nonetheless, bills in New England are largely affordable, if higher than national averages, although low-income assistance is offered.

Moreover, NG's proactive and increasingly digital systems have helped steadily improve customer satisfaction, but it faces headwinds with New York customers.

Community relations are generally positive and its framework for monitoring reputational issues is more developed than peers. However, NG operates in densely populated areas, which exposes it to heightened risk of community tensions. Its New York gas supply proposals drew local opposition and NG faces challenges balancing system reliability and local preferences. Gas system upgrades might further strain community relations, especially in New York where there is strong support to transition from fossil fuels. That said, we view favorably NG's collaboration with key New York City stakeholders to detail pathways for citywide decarbonization.

NG has a strong safety record, with workforce injury rates better than industry averages. We expect this to continue as NG replaces aging gas pipelines. Moreover, its safety management for high-hazard assets is more sophisticated than peers.

NG's robust talent management strategy focused on skills to support its net-zero objective is more targeted than many peers and its emphasis recruiting graduates interested in the energy transition supports talent attraction. Turnover rates are average (9.8%) but talent is more diverse by gender (25%), ethnicity (18%), and age (43 average) than global peers. NG experienced a costly (\$362 million), protracted labor dispute with two Massachusetts unions in 2019, but it resolved it and we do not expect this to recur since the most contested terms were settled. Our analysis factors in the reputational effects of NG's sometimes contentious public negotiations with key stakeholders, which could affect its social profile.

Governance Profile

85/100

Sector/Region Score (35/35)

NG is a public company, headquartered in the U.K., which has strong institutions and corporate governance practices that follow a code regarded as best practice internationally.

Entity-Specific Score (50/65)

Note: Figures are subject to rounding.



NG's governance features an effective board composition and governance practices that align with international best practices. The board is very engaged and is highly independent (75% overall, most committee chairs are independent) and diverse by gender (39% women) and ethnicity (8% non-white). Director origins represent NG's operational territories (eight British, five American), their skillsets reflect business needs, tenures are relatively well balanced (four-year average with nine-year limits), and succession planning is robust. This helps maintain effective oversight, independence, and continuity. The company also conducts extensive annual board evaluations and establishes improvement plans to ensure members have relevant skills, with a tailored induction program and continuous development throughout their tenure, which we view as best practice. In addition, NG ensures ongoing dialogue between the board and employees, which gives members more insight into daily operations to support more effective oversight.

NG has established a strong and coherent values framework across its footprint that meets global standards. The company's clearly articulated values support its vision of being at the heart of a clean, fair, and affordable energy future. In our view, this framework is relevant, aligned with environmental and social values, and applied in practice via its decarbonization programs and green financings. Executive remuneration is in line with industry standards and incentives largely reinforce its strategy, with variable pay linked to financial and operational targets. About 65% of total executive pay is issued in shares vesting over two to three years, and high shareholding requirements ensure leadership maintains a long-term view. NG also established extensive policies for ethical behavior and has a coherent code of conduct applied across its operations and supply chain, with training and mechanisms to ensure compliance.

Disclosure and reporting practices are more comprehensive than global peers, covering a wide range of financial and nonfinancial metrics, policies, governance information, and taxation issues. NG releases an integrated annual report that merges financial and sustainability information. Sustainability metrics have been reported consistently since 2001, which enables historical analysis. Financial disclosures are in line with peers, with no major restatements. In addition, NG has issued Task Force on Climate-Related Financial Disclosures reports for three years. NG's sustainability disclosure for U.K. operations is extensive, although U.S. reporting is not as detailed. While the quantity of disclosures is vast, information is dispersed across various reports and places.

We factor our view of NG's relationships with regulators, especially in the U.K., which are constructive, but like other large U.K. utilities, tend to be more strained than global peers.

Preparedness Opinion

Strong (+7)

PreparednessLowEmergingAdequateStrongBest in class

NG is strongly prepared to remain resilient as the energy system decarbonizes to meet global climate ambitions. The company's long-term strategic priorities involve enabling the energy transition while delivering to customers efficiently, enhancing organizational capabilities, and empowering its talent. Its long-standing strategic focus on climate change and its deliberate emphasis on maintaining flexible action plans enable NG to pivot nimbly as regulations change and new technologies become commercially viable. The group continues to innovate and invest in new techniques and technologies to foster greater penetration of renewable energy into electricity systems and low-carbon alternatives for its gas network. These factors reinforce NG's ability to navigate and adapt its system to remain resilient to the disruptive forces facing its industry.

Climate change, social and political dynamics, and technological disruptions are key areas of focus for a board that demonstrates a keen and nuanced understanding of NG's dynamic risk landscape. Using advanced scenarios, which involve considering risks individually and in clusters, the board explores the cumulative impact and interdependencies of risks and how they might affect the resilience of NG's business model. This, coupled with board members' diverse expertise in areas such as cyber risk and technology, support flexibile strategic thinking and inform its deliberate approach to embedding optionality in strategic plans. For example, it is exploring a range of long-term plans to decarbonize its natural gas business, including hydrogen blending, renewable natural gas from food waste, and other pilot projects to test the feasibility of various gas alternatives. This ultimately enables NG to adapt its strategic execution as market, technology, and regulatory dynamics evolve.

Sustainability is core to NG's long-term strategy and guides its strategic investments. This includes its development of interconnectors that link the U.K, with France, Belgium, the Netherlands, Norway and Denmark which will enable 90% of imported energy to come from renewables by 2030. We also expect its acquisition of WPD will strengthen NG's role in driving the U.K.'s net-zero ambitions by expanding access to the U.K. electricity value chain and facilitating energy efficiency and other low-carbon initiatives via electricity suppliers and with end users.

NG's highly innovative capabilities further enhance its strategic objectives. NG focuses on emerging opportunities in clean energy innovation, competitive energy transmission, offshore wind, and carbon capture, usage, and storage. Through NGV, its non-networks operations business, NG learns about new innovations and develops and invests in energy projects, technologies, and partnerships that reinforce and accelerate its clean energy objectives. For example, NG is leveraging its subsea electricity cables expertise for Revolution Wind, a 704-megawatt, U.S.-based offshore wind project. NG is also partnering in Zero Carbon Humber, a consortium exploring a carbon capture, usage, and storage system and hydrogen production facility to form the first zero-carbon industrial cluster. It also emphasizes employee-led innovation through initiatives such as entrepreneur-led speaker series and employee immersions, to develop entrepreneurial leaders. Talent attraction emphasizes its decarbonization goals, which might support some cultural shifts as new recruits are embedded, but its large scale across the U.S. and U.K. may impede how fast it can shift its workforce culture, in our view.

NG is subject to regulatory scrutiny for capital expenditures and must manage political agendas, which could affect strategy execution. In some cases, short-term political tenures might interfere with long-term asset planning, but the board monitors these dynamics closely.

Sector And Region Risk

Primary sector(s)	Utility networks
Primary operating region(s)	U.K.
Filliary operating region(s)	U.S.

Sector Risk Summary

We base our sector analysis on NG's operations in the utility networks sector, which we split across the electric grid and gas utility subsectors based on the breakdown of NG's asset base. We have factored the planned acquisition of WPD, the sale of its Rhode Island business, The Narragansett Electric Co., and the sale of a majority stake in National Grid Gas PLC into our sector breakdown.

Environmental exposure

The regulated utility network sector's exposure to environmental risks stems from its infrastructure assets and exposure to the environmental characteristics of entities across value chains. These networks are generally viewed as having high responsibility for ensuring clean water and air and helping to transition to a lower carbon economy. While electric, gas, and water networks each have unique environmental risk drivers, the most material environmental risks facing these subsectors are the physical effects of climate change and mitigation policies. Each subsector also faces some land-use risk; as they grow, they risk encroaching on habitable or undeveloped lands that are more exposed to biodiversity issues in some parts of the world. Electric and gas utilities are exposed to significant energy transition risks, indirectly, through their upstream partners. These risks to networks are moderated, at least financially, by the regulatory support they enjoy and their ability to absorb costs through rate increases. However, less direct reputational effects can be significant given utilities' strong brand recognition. For electric transmission and distribution networks, the physical effects of climate change, including more frequent and severe wildfires, storms, hurricanes, and tornadoes, have the potential to disrupt the functioning of critical equipment and processes. Battery storage has its own set of environmental risks, stemming from mining and end-of-life disposals of materials used in battery units. For natural gas networks, we focus on gas explosions and leaks that emit highly potent greenhouse gases and may adversely affect local biodiversity, leading to costly penalties and reputational damage.

Social exposure

The regulated utility network sector plays a crucial community role by providing essential services that must remain affordable and reliable to ensure conciliatory regulatory and customer relationships. This is the essence of utilities' social license to operate. However, as infrastructure ages, utilities must also ensure safety as leaks, explosions and fires can yield very material financial and reputational consequences. Governments and regulators focusing increasingly on affordability, which we believe could create barriers to regulated networks' cost recovery. This is especially so in areas facing upward cost pressures from ongoing high investments in renewables and grid strengthening. Longer term, increased costs and improved solar and battery technology could result in some downstream residential, commercial, and industrial customers partially defecting from electric utilities. Utilities also face significant workforce issues. Amid an unrelenting energy transition, electric utilities, specifically, must develop employee bases with

Appendix

appropriate skills to operate the grid of the future, as well as retain employees. Given the sector's high unionization, companies have to focus on labor-relations management to avoid labor disruptions and related costs. Given that utilities are local in nature, they play a prominent role in communities and have large numbers of local employees. This can often result in regulatory support, but also carries a responsibility to contribute to the community and support low income customers, as well as tactfully mitigating disputes around land use as they expand. Finally, given the social responsibility of providing continuous electricity, gas, and water supply, preventing any risk that could lead to a power blackout or water shortage is an important consideration. Cyberattacks are therefore increased threats for the sector, more so than in many other sectors.

Regional Risk Summary

Our regional risk analysis is based on NG's operations located in in the U.K. and U.S. based on the breakdown of assets which reflects the planned acquisition of WPD, the sale of The Narragansett Electric Co., and the sale of a majority stake in National Grid Gas PLC.

U.K.

The U.K. benefits from strong institutions and corporate governance practices. This includes robust and independent institutions and high rule-of-law standards, as well as very low actual and perceived levels of corruption. Governance guidelines are primarily based on the U.K. Code of Corporate Governance published by the Financial Reporting Council (FRC) and updated in 2018. The revised and strengthened code provides a broad set of recommendations including executive remuneration and board composition, follows a comply-or-explain model, and is widely regarded as best practice internationally. The recent version strengthened provisions on the role of the audit and nomination committees, chair tenure, and stakeholder engagement. An updated version of the U.K. Stewardship Code published by the FRC also came into effect on Jan. 1, 2020. It sets out principles for investors. Overall levels of corporate disclosure on ESG are strong and the country benefits from a very active institutional investor base, which has been fuelling the demand for better disclosure and corporate engagement. Legislation that took effect in 2019 will also require pension funds to disclose the financial risks they face arising from ESG factors.

U.S.

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 and 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. State corporate law is also a key source of corporate governance, particularly Delaware where over half over all U.S. listed companies and close to 70% of Fortune 500 companies are incorporated. Exchanges 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, formal requirements on ESG reporting are not as established as they are in European countries. While a growing number of companies have an independent chair, the combination of CEO and chair roles is still popular. This can undermine 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 everincreasing, leading to social tensions and shareholder criticism.

Related Research

- Environmental, Social, And Governance Evaluation: Analytical Approach, Dec. 15, 2020
- The ESG Risk Atlas: Sector And Regional Rationales And Scores, July 22, 2020
- Our Updated ESG Risk Atlas And Key Sustainability Factors: A Companion Guide, July 22, 2020
- How We Apply Our ESG Evaluation Analytical Approach: Part 2, June 17, 2020

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