

Environmental, Social, And Governance Evaluation

Apraava Energy Pvt. Ltd.

Summary

Founded in 2002 and headquartered in Mumbai, Apraava Energy Pvt. Ltd. (Apraava) produces and sells electricity and provides transmission services in India. As of March 31, 2022, Hong Kong energy conglomerate CLP Holdings Ltd. (CLP) owned 60% of Apraava's shares, with the balance held by Canadian investment manager Caisse de Dépôt et Placement du Québec (CDPQ). Apraava had revenue of Indian rupee (INR) 46.8 billion in the fiscal year ended March 31, 2022 (US\$616 million), with over 95% from electricity generation. A coal-fired power plant (Jhajjar Power Ltd., JPL) contributed 77% of net generation in the year, followed by wind (18%) and solar (5%).

Apraava's ESG Evaluation of 47 reflects S&P Global Ratings' view of the company's exposure to coal, accounting for three quarters of generation, and to India's natural disasters--including droughts--and developing social and governance standards.

While the company has no long-term environmental targets, the addition of renewables assets could reduce its carbon and waste intensity. Apraava has made safety a priority and established a record of very low injuries and no fatalities in the past four years. Likewise, abundant training hours support internal talent development. Apraava has been less successful so far at promoting gender diversity.

Apraava's governance is in transition. There will be changes to the board following an increase in CDPQ's ownership. We are yet to factor this into our assessment. There could be more independence and gender diversity among directors, along with relevant industry skills, but with less compelling sustainability expertise.

Apraava monitors climate transition, waste, cyber security, and regulatory issues through frequent interactions with its key local stakeholders and shareholders. A sustainability committee, a diversity, equity, and inclusion council, and the company's plan to grow its low carbon capacity significantly are responses to such risks and opportunities. Apraava's ability to execute on its growth objectives and manage related risks, such as biodiversity or construction, remains to be seen.

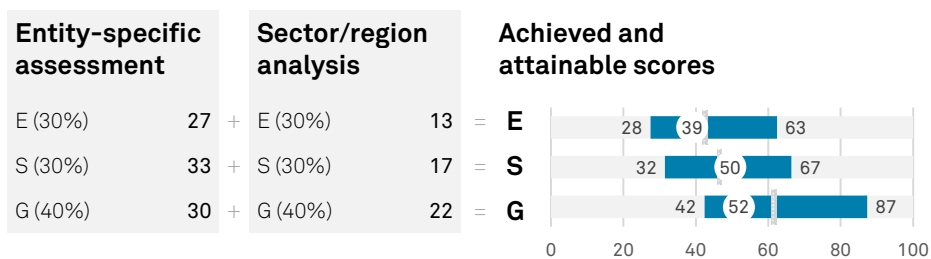
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ESG Profile Components (figures subject to rounding)



Entity within its primary sector/region

Entity's sectors/ regions versus all sectors/ regions

Min and max scores possible given sectors/regions. The gray line represents performance in line with industry standards.

ESG Profile 47


















Preparedness No Impact



A higher score indicates better sustainability. Figures subject to rounding.

Component Scores

Environmental Profile			Social Profile			Governance Profile		
Sector/Region Score	13/50		Sector/Region Score	17/50		Sector/Region Score	22/35	
 Greenhouse gas emissions	Lagging		 Workforce and diversity	Good		 Structure and oversight	Developing	
 Waste and pollution	Good		 Safety management	Strong		 Code and values	Good	
 Water use	Lagging		 Customer engagement	Good		 Transparency and reporting	Good	
 Land use and biodiversity	Good		 Communities	Good		 Financial and operational risks	Neutral	
 General factors (optional)	3		 General factors (optional)	0		 General factors (optional)	-3	
Entity-Specific Score	27/50		Entity-Specific Score	33/50		Entity-Specific Score	30/65	
E-Profile (30%)	39/100		S-Profile (30%)	50/100		G-Profile (40%)	52/100	
ESG Profile (including any adjustments)						47/100		

Preparedness Summary

Apraava is adequately prepared to address emerging trends and potential business disruptions, while maintaining its relevance in power generation. The company leadership receives frequent updates on the magnitude and maturity of industry trends through its interactions with domestic and international stakeholders (e.g. regulators, industry associations, shareholders). Its executives have demonstrated a good understanding of emerging potential risks and launched several sustainability-related initiatives in response. As examples, the company established a diversity, equity and inclusion council in fiscal 2020; its upskilling programs focus on renewables; it holds cyber security risk mitigation planning; and it commenced operation of a 250 megawatt [MW] wind farm in fiscal 2023. Apraava is working on setting additional targets on and having more comprehensive management of sustainability issues, including in its value chain, such as scope 3 emissions, waste and land use.

Preparedness Opinion (Scoring Impact)

Adequate (No Impact)

ESG Evaluation

47

Note: Figures are subject to rounding.

Environmental Profile

39_{/100}

Sector/Region Score (13/50)

The power generation sector has comparatively high exposure to environmental risks, primarily climate transition, air pollution, and waste. Renewable energy has its own--yet less substantial--challenges, given its reliance on battery technologies and the associated, largely hazardous waste, while typically requiring large acreage, potentially disrupting biodiversity.

Entity-Specific Score (27/50)

Note: Figures are subject to rounding.



Greenhouse gas emissions

Lagging



Waste and pollution

Good



Water use

Lagging



Land use and biodiversity

Good



General factors

3

Apraava's growth objectives in renewables will progressively dilute the effect of JPL, and lower its carbon intensity. The company's scope 1 and 2 greenhouse gas intensity was 0.7 metric tons of carbon dioxide equivalent per net generation (in megawatt-hour, MWh) in fiscal 2022. The intensity has been 130% of globally selected peers' (hereunder peers' unless otherwise stated) median over the past four years due to JPL's higher plant load factor than that of renewables. Renewables accounted for close to a half of total capacity (2,494MW) in fiscal 2022, i.e. 50% above the peers' median, and 23% of generation, in line with the peers' median. JPL will operate under a contract until July 2037. Apraava will add a 250MW wind farm in fiscal 2023, as part of its plan to significantly increase its low-carbon capacity. This will dilute JPL and increase the sustainability of the generation mix, a clear positive. The company unveiled its first climate-related risks and opportunities assessment in fiscal 2022. It is also developing quantitative targets that Science Based Target initiatives will verify, and it is exploring its scope 3 emissions inventory.

Apraava has moderately low waste intensity and good recycling performance relative to peers. Solid waste intensity has been a quarter of the peers' median since fiscal 2019. It was 0.1 kg/MWh in fiscal 2022. But capacity expansion and growing maintenance needs could generate significant volumes of waste, especially from renewable sites (e.g. solar panels). Air pollutant intensities are yet to catch up with the peers' median, even after equipment upgrades (e.g. the sulphur oxides intensity reduced 85% to 0.6 kg/MWh in fiscal 2022 owing to a fuel gas desulphurisation system set up in 2018). Apraava has recycled 100% of JPL's fly ash since fiscal 2019, 25% above the peers' median. This compares with half of hazardous waste (including 100% of liquids) currently.

JPL's initiatives cannot fully mitigate its water risks. Its zero liquid discharge facility, installed as per regulatory requirements, drives Apraava's water intensity. The water intensity was three times the peers' median at 1.67 m³/MWh in fiscal 2022. But it was half of the Indian peers' and well below the regulatory caps, thanks to operating efficiencies, such as having up to six cycles for cooling water. Apraava has been improving its water resilience (e.g. reuse all the treated water, increase reservoir capacity for emergency use), with water intensity decreasing by 5% since fiscal 2020. However, JPL is in one of the high drought risk areas in India and has no access to sea water, unlike coastal operators. Like most of its peers, Apraava is yet to set water reduction targets.

Apraava's biodiversity initiatives include the identification of endangered species on its operation sites and establishment of protective measures (e.g. a wetland development at JPL).

Apraava has conducted a more comprehensive biodiversity assessment across JPL's value chain, as per the directives of the India Business and Biodiversity Initiative, which Apraava joined in 2022.

Social Profile

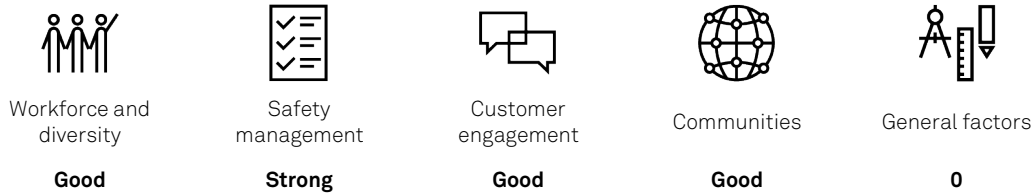
50/100

Sector/Region Score (17/50)

Material social risks in the power generation sector include health and safety, human capital development (as the energy transition goes on), network reliability and access. In addition, securing communities' support is instrumental in ensuring reliable services to customers.

Entity-Specific Score (33/50)

Note: Figures are subject to rounding.



Apraava's workforce characteristics are behind international peers but ahead of practices in India. Apraava's voluntary turnover has been lagging peers over the past four years. It was 6.7% in fiscal 2022, 120% of the peers' median, but 25% below the median for local companies. As a signatory of internationally recognised women empowerment initiatives, Apraava has established a diversity, equity, and inclusion council, and offers incentives to agents to recruit women. Meaningful results are yet to be seen. Women account for 12% of labor, in line with other local companies, but only half of the peers' median. Likewise, they stand for 11% of managerial roles, a remarkable increase from 5% in fiscal 2018, but still 40% of the peer's median. Apraava has rolled out action plans on employee upskill trainings (e.g. a virtual "renewables university" facilitated by technical experts), and performance and recognition, in response to regular employee surveys. Average training hours per employee for example were lagging peers until fiscal 2020, but surged to 57 hours in fiscal 2022, 160% of the peers' median. Apraava has also expanded its employee training coverage to 97% (fiscal 2022), 25% increase from fiscal 2020. The company has launched various wellbeing programs in response to the COVID-19 pandemic, in line with peers.

Safety is at the center of Apraava's preoccupations and values. The company's externally verified lost time injury frequency rates (LTIFR) for employee and contractors have been leading peers over the past four years. The LTIFRs for employees and contractors were zero and 0.7 in fiscal 2022, compared with 1.0 and 0.9 for the peers' median, respectively. There was no fatality over the same period, leading peers, especially for contractors. There are specific trainings for employees and contractors to ingrain safety in behaviors, complying with CLP's health, safety, security and environmental framework. Moreover, there are internal targets (e.g. the number of leadership site walks) and executives' remuneration is partly linked with safety performance, an incentive to drive safety agenda.

Apraava's availability has been around 90% for generation and 99% for transmission in the past three years, showing its reliability of operations. The company has a close dialogue with its customers (e.g. daily contacts through state load dispatch centers, personal interactions with transmission companies to address concerns or expectation). This translates into high customer satisfaction with no complaints. Still, Apraava does not disclose data on system interruptions.

The local regulatory requirement to dedicate 2% of net profit to stakeholders-related activities and social priorities in emerging countries drive Apraava's investment in communities. Actions span across agriculture, health, nutrition, and education for the underserved. Philanthropic spending was in line with the peers' median at 0.3% of revenues in fiscal 2022 and has been exceeding the legal floor for the past three years.

Governance Profile

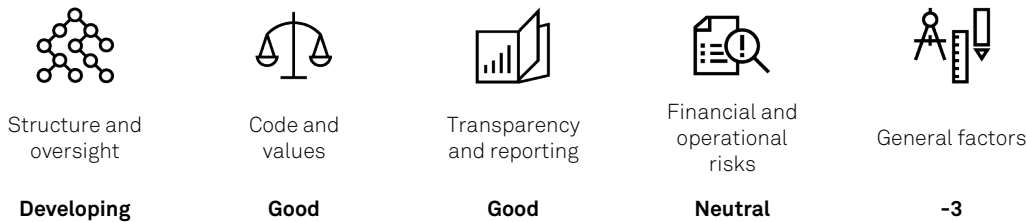
52/100

Sector/Region Score (22/35)

Apraava is headquartered and operates in India, which has relatively lower governance standards. Although gradually improving, there remain some risks of corruption and of fluid rule of law. ESG reporting has strengthened over time and more companies are broadening their disclosures.

Entity-Specific Score (30/65)

Note: Figures are subject to rounding.



Apraava's board should welcome new and independent members after the ongoing change in shareholding closes. The new board structure will likely comprise 10 directors with three representatives each from CLP and CDPQ, three independent directors, and the company's managing director. This is according to the amended shareholders' agreement, which is not publicly available, and is subject to potential revisions. None of the current six male directors is independent, all being representatives of CLP and CPDQ or executives. They have relevant backgrounds in power, finance, human resources, and legal. There seems to be a less established sustainability expertise. Apraava does not plan to add more committees to the current Corporate Social Responsibility and Funding & Treasury committees, or to have a diversity policy. That could have narrowed the gap with local listed companies, which have some mandatory committees (e.g. nomination and remuneration) and target having at least one female on their board (the actual proportion is a fifth today). Attendance rates have been in line with local peers, at about 90% for both board and committee meetings.

Apraava follows CLP's code of conduct, which applies to all its employees, contractors, and suppliers. The document is comprehensive and comparable with local peers'. It has four sections: employee ethics, governance and integrity, environmental, and health and safety. Senior management ensures systematic implementation, with any breach subject to disciplinary action. Apraava conducts an in-person refresher on the code of conduct for all its employees every four years, less frequent than local peers'. Its managing director's variable remuneration is linked to social and environmental targets, such as safety and low carbon business plan, in line with industry practices.

Reporting improved noticeably in fiscal 2022, with Apraava's first comprehensive integrated report; Apraava commits to maintaining comparable disclosures in the future. These extra-financial disclosures contain the past three years' data, supporting trend analysis, with a limited external assurance. They align with international standards (e.g. the Global Reporting Initiative (core option)), and elements of the Task Force on Climate-Related Financial Disclosures. The frequency of financial reporting will be annual, compared to quarterly for listed Indian companies.

Apraava should remain financially prudent despite its high growth ambitions in the near-term. We expect the company to maintain manageable leverage and sound liquidity, and to integrate acquisitions smoothly. The auditor issued an adverse note in fiscal 2022--which is unusual for Indian companies--due to a delay in a director's appointment and some asset-liability mismatches.

Preparedness Opinion

Adequate
(No Impact)

Preparedness

Low

Emerging

Adequate

Strong

Best in class

Apraava is adequately prepared to address emerging trends and potential business disruptions, and to maintain its relevance in the power generation industry. The company's leadership keeps its edge on the importance and maturity of industry trends through regular interactions with various stakeholders, such as regulators and shareholders. Executives have launched several sustainability initiatives as a response to perceived threats and opportunities, such as the expansion of the company's renewables portfolio. Apraava is developing longer-term climate targets to support its growth and systematic management of sustainability issues including in its value chain, such as scope 3 emissions, waste, and land use.

The company recognizes several high potential risks, i.e., climate transition, offtaker creditworthiness, geopolitics, cyber security, and industry regulations. It monitors these potential disruptions through quarterly updates of its risk register by a cross functional team. Apraava engages with its domestic and international stakeholders, especially regulators, to anticipate changes in its business environment. Likewise, it developed a materiality map in fiscal 2022 with the help of external experts to enhance its diagnostic and response capabilities. The company also quantified physical water risks on all sites with CLP's help.

Apraava systematically assesses potential risks and designs mitigation plans. The company has a framework to establish action plans (e.g. process maps and following operational procedures) with its risk register. The executives oversee the implementation of the company's risk management plans and regularly report to the board. Apraava has, for example, identified rising cyber security risks following its IT system upgrade to improve its business process efficiency. It has established several initiatives to mitigate the risk (for example, a 24/7 security operation center and multifactor authentication). The company has also worked with India's Ministry of Power to limit offtaker credit risks. However, Apraava is yet to conduct a more comprehensive climate-related scenario analysis for all its assets.

Apraava has formulated coherent action plans in relation to its growth aspirations in clean energy. The company is adding to its capacity (e.g. commissioning of a 250MW wind power project in fiscal 2023), and considering other new green energy fields (e.g. offshore wind farms, battery energy storage system, smart meters). All these initiatives are consistent with the company's past investment decisions. There are clear execution challenges related to adding substantial capacity to the portfolio, and Apraava's ability to expand quickly while managing adequately its expanding biodiversity footprint, construction and other ESG risks is to be seen.

The company has built both top-down and bottom-up information channels to support its sustainability journey. For instance, it has established a diversity, equity and inclusion council, and a sustainability committee, both chaired by top executives. In parallel, a sustainability working group, with representatives from various departments, is a key forum for employees to voice suggestions (for example, adding an eco-friendly faucet). About 75% of employees joined the process of developing the company's materiality mapping. Executives' performance assessment is partially linked to ESG indicators (e.g. safety and expansion in renewables), an incentive to drive the company's sustainability agenda.

Sector And Region Risk

Primary sector(s)	Power
Primary operating region(s)	India

Sector Risk Summary

Environmental exposure

The primary environmental risk facing power generators stems from the sector's production of greenhouse gas emissions, accounting for about 40% of global emissions (source: IEA). This means governments are likely to increasingly regulate these emissions as they seek to stem the effects of anthropogenic climate change. The magnitude of this risk varies sharply depending on generation type, ranging from coal-fired, which faces an existential threat in many parts of the world, to renewable energy, which is seen as necessary for energy transition. The sector also faces growing risks around waste and pollution, with coal generation again highly exposed due to its creation of coal ash and particulates, both of which have come under increased regulatory scrutiny and can be costly to remediate, while nuclear generation leads to vast stores of radioactive waste that can't be easily, quickly, or inexpensively disposed; other subsectors still face pollution risks but are less exposed in the near term. Conventional generators also rely heavily on access to water as a cooling fluid. In water-stressed regions, generators may face difficulty or increased costs procuring water, especially as climate change creates longer and more severe droughts. As power generation is a broad sector grouping, certain subsectors face bespoke risks. Nuclear power is carbon-free, but carries significant low-probability, high-impact event risk that can have wide-ranging and enduring reputational consequences. The safe and permanent disposal of radioactive nuclear waste is another highly complex and difficult environmental problem yet to be solved. As for renewable projects, hydro-power may have near-zero emissions during the use phase but occupies more land than other generation types, sometimes in areas of high biodiversity. Large hydro-power plants can mean the forced resettlement of local communities. Wind and solar also occupy a significant amount of land, and, over time, will likely increasingly rely on battery technology, which creates indirect exposure to environmentally-taxing metals extraction. These projects can also create substantial non-recyclable waste at the end of their lives.

Social exposure

Safety management is a critical risk for generators; safety metrics have generally improved in the sector, but there is still exposure to financial and reputational liability stemming from workplace fatalities, as well as to major accidents, notably for coal and nuclear facilities, that spill beyond the generating facilities. These are less common but can weaken a company's social license to operate, and can damage its community standing. Generators sometimes face community backlash on environmental grounds, while plant closures can also be highly disruptive to communities. One of the more acute social risks that generators face relates to the workforce. As energy transition takes hold globally, and generation types transform in response to regulation, required skills will also change; consequently, generators with limited age diversity face some exposure and costs associated with reskilling workforces. Unlike regulated utilities in the U.S., the need for direct customer engagement is low, in part because generators have historically produced a commoditized product. However, as end-users increasingly vet generation for its environmental footprint, this relationship will become more central to generators' decision-making. This risk could become more pronounced, too, for integrated utilities, as well as for pure generators who are acquiring retail operations. While utilities are the direct guarantors of

reliability and affordability to customers, they are also unable to ensure this without strong and efficient operating performances by generators, who can often be penalized, financially, for an inability to perform.

Regional Risk Summary

India

India enjoys stable and mature institutions, particularly the judiciary. India's corruption levels are average globally and the country ranks 85 of 180 on Transparency International's 2021 Corruption Perceptions Index. India's corporate governance framework is based on the 2013 Companies Act and Securities Exchange Board (Sebi) regulations. Since 2018, Sebi has been implementing the Kotak governance committee's recommendations to improve practices at listed companies. New Sebi rules governing the regime of related-party transactions are coming into effect in April 2022 to improve disclosure and oversight. This comes in addition to new regulations for banks and financial institutions from the Reserve Bank of India that took effect in 2021, limiting tenure for board directors and specifying best practices for committees. Board diversity has increased since the 2013 Act, which mandated all listed companies have at least one female director. Board effectiveness and succession planning remain common issues, and boards, typically quite large, often comprise long-tenured directors sitting on multiple boards. ESG reporting has strengthened, and more companies are improving their disclosures. Regulators like the Bombay Stock Exchange (BSE) have made ESG disclosures mandatory for the top 500 companies listed on the BSE and National Stock Exchange.

Related Research

- ["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
- ["Environmental, Social, And Governance Evaluation: Analytical Approach,"](#) September 20, 2022
- ["How We Apply Our ESG Evaluation Analytical Approach: Part 2,"](#) June 17, 2020

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