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A Comparative Analysis of Electricity Companies' Sustainability Reporting in Australia and India

Mehadi Mamun*

Abstract

This study compares the sustainability reporting efforts by electricity companies in developed (Australia) and emerging (India) economies. Using the GRI G4 sector-specific guidelines for electric utilities on the 2018/2019 annual reports, stand-alone sustainability reports, corporate social responsibility (CSR) reports, and corporate websites, the study finds that the compliance rates with the categories of sustainability reporting in the Indian electricity companies are far low compare to the Australian electricity companies. Overall, the disclosure is low in both countries as the highest compliance rate in Australia is 63.7% and the lowest compliance rate is 43.6%, while in the case of India, the highest compliance rate is 45.7% and the lowest compliance rate is 28.5%. Considering that electric utilities provide essential services to society and have a significant influence on sustainable development, such a low disclosure, particularly by Indian companies, could lead the efforts to gain stakeholders' legitimacy and sustainable development to crumble.

Keywords: sustainability reporting, global reporting initiative, electricity companies, Australia, India.

I. INTRODUCTION

The concept of sustainability reporting dates back to the 1980s. The Global Reporting Initiative (GRI) defines sustainability reporting as the practice of measuring, disclosing and being accountable to internal and external stakeholders for organisational performance toward the goal of sustainable development (GRI, 2011). The goal of sustainable development is directly tied to the notion of sustainability reporting that focuses on the three aspects or bottom lines, such as an organisation's economic, environmental, and social performance (Deegan, 2000). Hence, the purpose of sustainability reporting is to provide information that holistically assesses organisational performance in a multi-stakeholder environment (Hubbard, 2008). Sustainability reporting is also closely associated with corporate social responsibility reporting. The concept of corporate social responsibility dates back to the 1950s, and it is defined as the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of objectives and values of our society (Bowen, 1953). Corporate social responsibility reporting, therefore, focuses only on environmental and social disclosure, while a sustainability report is published by a company or organisation about the economic, environmental and social impacts caused by its everyday activities (GRI, 2011; Cantele et al., 2018). Sustainability reporting is, thus, a pertinent issue for companies and their stakeholders today as it enables companies to benchmark their performance against their competitors and helps stakeholders to compare performance across different companies to make informed decisions.

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A variety of standards, such as the ISO 14001 (Internationally Standards Organization), the 2000 World Resources Institute (WRI), and the Global Reporting Initiative (GRI) exist in the realm of sustainability reporting. Nevertheless, the GRI framework is respected as the most comprehensive and widely used framework for its coding structure of content analysis of companies' sustainability reports or annual reports (Brown et al., 2009; KPMG, 2017). The GRI framework also provides sector-specific guidelines for certain sectors to cover specific sector-relevant aspects. In its GRI G4 sector disclosures for electric utilities, the GRI highlights the essential role of electric utilities for sustainability as "Electric utilities provide essential and vital services to society and users. The services provided are crucial to the development and security of economies in all countries. Economic development must be achieved in a sustainable manner in order to protect key resource systems and to provide for future generations" (GRI, 2013, p. 9). It is important, therefore, to examine sustainability reporting practices of electricity companies comparing with key sustainability indicators outlined in the GRI framework as the electricity companies are also responsible for 42% of the total energy related carbon emissions worldwide (IEA, 2013). While there are studies that compare sustainability reporting practices within developed economies or underdeveloped economies (Steurer & Konrad, 2009), there is not any study that compares electric utilities' sustainability disclosures in developed and emerging economies. This study, therefore, is an attempt to compare electric utilities' sustainability reporting practices in developed (Australia) and emerging (India) economies.

II. LITERATURE REVIEW

Sustainable development has become a buzzword in the corporate world in recent years and companies are increasingly reporting their performance on sustainability aiming at disclosing their contribution to sustainable development to gain stakeholders' legitimacy. The KPMG (2005) study found that sustainability reporting had increased since 2002 and the growth of the number of companies issuing corporate social responsibility reports or standalone sustainability reports, in addition to annual financial reports, was significant and more than half of the world's 250 largest companies issued sustainability reports where economic (74%) and ethical (53%) factors were on the spotlight of their disclosures. Choi et al. (2008) found that sustainability reporting rates were high in developed countries such as France, Germany, Japan, the United Kingdom, and the United States, and the reporting rates were high in certain industries, such as chemicals and synthetics, pharmaceuticals, electronics, automotive, and oil and gas industries as their activities were sensitive to the environment. Though there was an increase in the volume of sustainability reporting, many previous studies criticised that companies' disclosures on sustainability were largely self-laudatory, which stopped stakeholders from assessing the companies' actual performance (KPMG, 2008; Dong & Burritt, 2010). Frost et al. (2005) surveyed the sustainability reporting practices of 500 Australian top companies and found that only 24 companies published a separate sustainability report and most of those reports were biased as it focused on favourable information and negative information received little, if any, attention. Similarly, Aggarwal and Singh (2019) analysed the sustainability reporting (SR) practices of Indian companies in terms of disclosure quantity and quality, and found that approximately 37% of the sample companies published standalone sustainability reports, and the quality of those SR was significantly lower than the SR quantity. Hence, Deegan (2006) argued that managers tended to disclose positive information with minimal disclosure and little attention to potential social and environmental risks only for showing their compliance

with community expectations and maintaining their general social licence to run their companies.

While there is a considerable body of literature on the quality and quantity of sustainability reporting across different industries, the research on electric utilities' disclosure practices on sustainability is not substantial. Haro de Rosario et al. (2011) studied the sustainability reporting practices of 40 electric utilities and found that the disclosures on the environmental category were more inclusive than the economic and social categories. Sartori et al. (2017) examined the sustainability performance of 17 Brazilian electric utilities based on the GRI guidelines and found that the electric utilities "[...] systematically disclose an incomplete picture of how their activities affect society" (p. 49). Talbot and Boiral (2018) also assessed the reporting performance of 21 energy companies over five years regarding two chosen environmental aspects of the GRI guidelines and concluded that it was difficult or impossible for stakeholders to reasonably assess, monitor and compare companies' climate performance based on those reports.

The available literature and existing knowledge on electricity utilities' sustainability reporting practices in Australia and India are limited. Dong and Burritt (2010) conducted a study on 25 Australian oil and gas companies and found that most of those companies' disclosures were positive and did not provide complete information on the quantification of targets and actual achievements. In India, Kumar (2014) found that energy companies with larger total assets and more debts to equity disclosed more detailed information regarding sustainability. Bahari et al. (2016) investigated only the carbon (or greenhouse gas emissions) reporting of Indian electricity generating companies and found that 41% of the sample companies made some form of carbon disclosure. Since the literature on sustainability reporting of Australian and Indian electricity companies is scant, this study, therefore, evaluates the Australian and Indian electricity companies' sustainability reports to help all stakeholders to determine how well the companies are dealing with non-financial issues and assist the companies to gain public legitimacy.

III. RESEARCH METHODOLOGY

Content analysis is the key instrument used in this study to assess sustainability reporting of Australian and Indian electricity companies in 2019 as this research technique has been widely used in examining companies' sustainability reporting practices (Bowen, 2009; Talbot & Boiral, 2015). In reporting literature, several units of analysis have been used such as words, sentences, absence or presence of disclosure (Guthrie et al., 2004; Frost et al., 2005). This study has considered the absence or presence of the GRI components in Australian and Indian electricity companies' sustainability reports based on the method used by Frost et al. (2005). Therefore, emphasis in this study was placed to explore the quantity of sustainability indicators' disclosure rather than the quality.

As indicated, The GRI framework is used in this study as it is regarded as the most comprehensive, preferred and structured framework for sustainability reporting (Christopher & Filipovic, 2008; Brown et al., 2009; and KPMG, 2017). As a non-profit organisation, GRI was formed by the USA-based non-profit Coalition for Environmentally Responsible Economies (CERES) and Tellus Institute, with the support of the United Nations Environment Programme (UNEP) in 1997 to provide sustainability reporting guidance. GRI provides sector-specific guidelines for certain sectors that cover specific sector-relevant aspects. The GRI sector disclosures for electric utilities are targeted to cover key aspects of sustainability performance that are relevant and meaningful to the electric utility sector and which are not sufficiently covered in the

general guidelines (GRI, 2013). The most recent sector disclosures are based on the GRI G4 guidelines that contain 102 indicators to cover electric utilities' sustainability reporting. Of the 102 indicators, 12 indicators are used for the economic category, 32 indicators are used for the environmental category, and 58 indicators are used for the social category. The social category is further sub-divided into four sub-categories, such as labor practices and decent work with 19 indicators, human rights with 12 indicators, society with 12 indicators, and product responsibility with 15 indicators. Hence, the studied electricity companies' sustainability disclosures were assessed against the 102 indicators of the GRI G4 electric utility sector disclosures displayed in Table AI (see Appendix 1).

A total of 17 Australian and 25 Indian electricity utilities' sustainability disclosures in 2019 were studied. The sample 17 Australian electricity utilities represented over 60% of the total electricity retailers of the country and each of them held at least 0.3% of the residential market shares (Australian Energy Regulator, 2019). The sample 25 Indian electricity utilities were graded as A+, A and B+ by the Indian Ministry of Power for their operational and financial performance capability and represented over 60% of the total electricity utilities of the country (MoP, 2019). The names of those sample electricity utilities are presented in Table AII and AIII (see Appendix 2). Since solely focusing on the annual report may result in a somewhat incomplete picture of sustainability disclosures and may underestimate the size of companies' activities (Unerman, 2000), electricity utilities' sustainability disclosures that were published on their annual reports, websites, CSR reports, or standalone sustainability reports were examined to assess their performances and identify any shortcomings when compared against the GRI G4 guidelines.

IV. RESULTS AND DISCUSSIONS

Table 1 below depicts the level and extent of sustainability reporting by each country. The reports were assessed regarding the 102 specific standard disclosures of the GRI G4 electric utilities' sector disclosures, and the assessment was based on a dichotomous scoring system (1= if disclosed, 0= not disclosed) to avoid subjectivity inherent in the content analysis method (Hooks & Van Staden, 2011). To investigate the disclosures on each category – economic, environmental, labor practices and decent work, human rights, society, and product responsibility – a compliance rate (CR) for every category was calculated as follows:

$$CR = \frac{\sum \text{Indicators disclosed within the category}}{\text{Number of indicators within the category}} \dots\dots\dots (1)$$

The study revealed that the economic category reached the highest compliance rates (63.7%) and the human rights category had the lowest compliance rates (43.6%) in Australia. While in the case of India, the economic category had the highest compliance rates (45.7%) and the environmental category had the lowest compliance rates (28.5%). In both countries, the economic category held the highest compliance rates, which in line with the findings of Sartori et al. (2017), who also identified a predominance of the economic dimension. However, it was evident that the compliance rates with the GRI G4 guidelines in the Indian electricity companies were far low compared to the Australian electricity utilities.

Insert Table 1 here.

In the economic category, the most frequently (100%) disclosed indicators were EC1 and EC3 in both Australia and India, which dealt with the reporting organisations' information on (i) direct economic value generated and distributed, and (ii) defined

benefit plan obligations and other retirement plans. In Australia, EC5 and EU11 were the least frequently (41.2%) disclosed indicators, while there were no disclosures on EC5, EC6, EC8, and EU11 indicators in India that required the disclosures on (i) ratios of standard entry level wage by gender compared to local minimum wage, (ii) proportion of senior management hired from the local community, (iii) significant indirect economic impacts, and (iv) average generation efficiency of thermal plants by energy source (see Figure 1).

Table 1

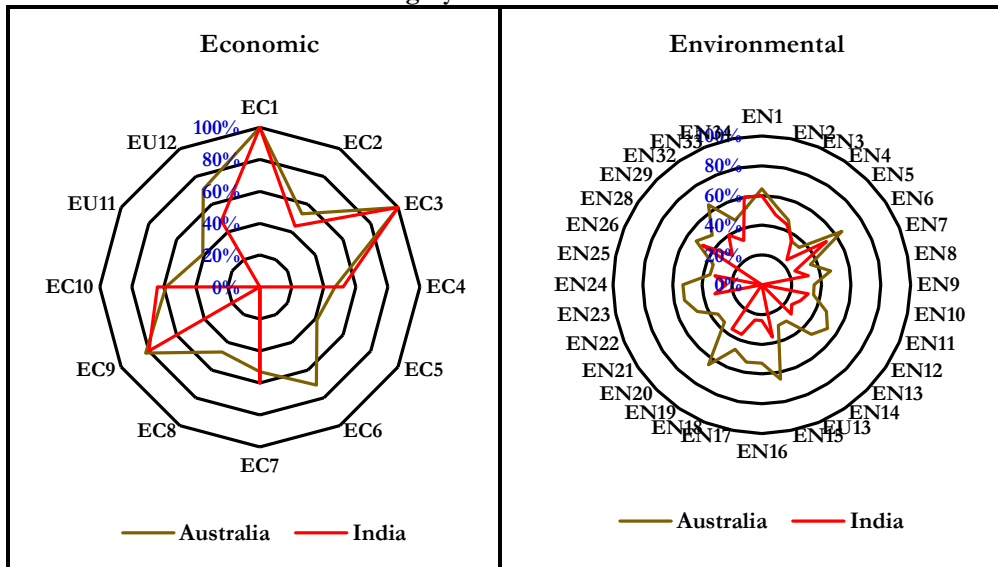
Sustainability Reporting by Australian and Indian Electricity Utilities

Sustainability Reporting	Australia (Compliance Rate in %)	India (Compliance Rate in %)
Economic	63.7	45.7
Environmental	48.4	28.5
Labor practices and decent work	55.1	44.8
Human rights	43.6	37.0
Society	50.5	40.0
Product responsibility	46.6	38.1

In the environmental category, the most often (64.7%) disclosed indicators in Australia were EN1, EN6, EN15, EN19, and EN32 that covered the five different aspects' items, while less than one-third of the Australian electricity companies took EN14 and EU13 indicators into account that fell into the biodiversity aspect. In the case of India, the overall compliance rates with the environmental category were 28.5% as the most often (60%) disclosed indicators were EN1 and EN34 that required the disclosures on materials used by volume, and the management approach, while there were no disclosures on EN9, EN14, EU13, EN20, EN21, EN22, and EN26 indicators that covered the seven different aspects' items (see Figure 1).

Figure 1

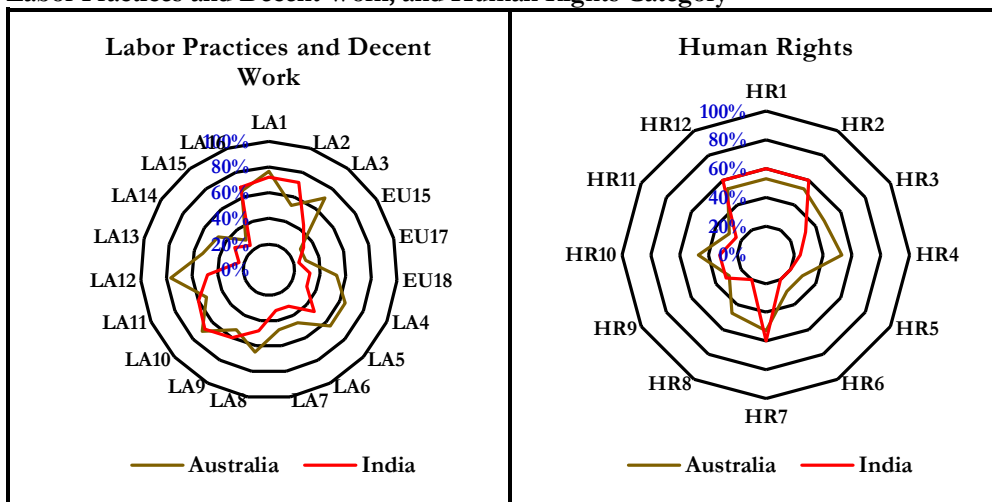
Economic and Environmental Category



Figures 2 and 3 present the findings regarding the social dimension of sustainability reporting. The social category was further divided into four categories. In the category of labor practices and decent work, Australian electricity companies' most frequently (76.5%) disclosures were on the LA1 and LA12 indicators that covered

the disclosures on new employee hires and employee turnover, and diversity of governance bodies and employees. However, the indicator LA15 that covered the information on supplier’s assessment for labor practices aspect, and the sector-specific indicators EU15 and EU17 that covered employment aspects’ items had less than 30% compliance rates. In India, 72% of the sample electricity companies disclosed information on the LA1 and LA2 indicators, while only 24% of the sample companies disclosed information on the LA13 and LA15 general indicators, and EU17 sector-specific indicator.

Figure 2
Labor Practices and Decent Work, and Human Rights Category



Concerning human rights, Australian electric utilities most often (52.9%) report on the HR1, HR2, HR4, HR7, and HR12 indicators that covered four different aspects, and least often (29.4%) report on the HR5, HR6, HR9, and HR11 indicators that also fell under four different aspects. In the case of India, the most often (60%) disclosures were on the HR1, HR2, HR7, and HR12 indicators, while the least often (20%) disclosures were on the HR5, HR6, and HR8 indicators. Hence, it was clear that the disclosures on human rights indicators were scarcely addressed in both Australian and Indian electricity companies (see Figure 2).

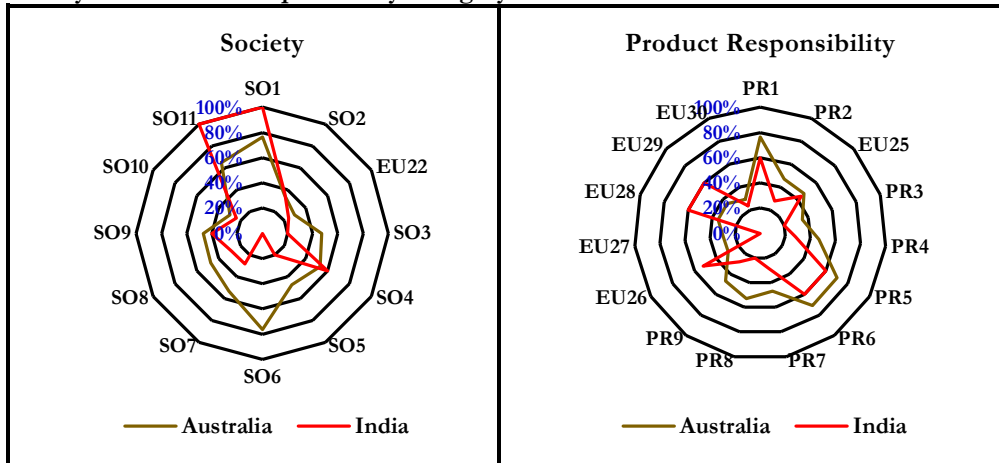
In the category of society, the most often (76.5%) disclosed indicators in Australia were the SO1 and SO6, which covered the information on operations with local community engagement, impact assessments and development programs, and political contributions. However, the indicator SO10 that required the information on supplier’s assessment for impacts on society aspect, and the sector-specific indicator EU22 were hardly considered (29.4%). In comparison, high variations were found in India where 100% disclosures were on the SO1 and SO11 indicators, and nil disclosures were on the SO6 indicator (see Figure 3).

Insert Figure 3 here.

Concerning the product responsibility category, Australian electricity utilities’ most often (76.5%) disclosures were on the PR1 indicator, which covered customer health and safety aspect. In contrast, 29.4% of the Australian sample utilities reported on the EU26, EU27, and EU30 sector-specific indicators, which referred to the highly relevant aspect of access. In the case of India, 60% of the sample electricity companies disclosed information on the PR1, PR5, and PR6 general indicators, and EU28 and EU29 sector-specific indicators. However, there were no disclosures on the EU27 sector-specific

indicator, which required the information on residential disconnections' number for non-payment (see Figure 3).

Figure 3
Society and Product Responsibility Category



V. CONCLUSION

This study has contributed to an understanding of sustainability reporting practices by electricity utilities in Australia and India using the GRI G4 sector-specific guidelines. Based on 2018/2019 annual reports, corporate websites, CSR reports or standalone sustainability reports, this study finds that the compliance rates with the GRI G4 guidelines in the Indian electricity companies are far low compare to the Australian electricity utilities. In Australia, the economic dimension of sustainability reporting has reached the highest compliance rates (63.7%) and the human rights category has the lowest compliance rates (43.6%). In India, the economic category has the highest compliance rates (45.7%) and the environmental category has the lowest compliance rates (28.5%). High variations of disclosures between the categories and within the categories in both countries have also been found. Therefore, there is a need to revisit the current regulatory requirements for the possibility of making sustainability reporting mandatory in line with the GRI guidelines to ensure more comprehensive, meaningful, and reliable sustainability reports to gain credibility in all stakeholders and help them to make informed decisions.

The findings of this study should be interpreted with caution. Firstly, this study is cross-sectional, hence it only provides a snapshot of disclosure practice. There is a possibility that companies had a lower disclosure in 2019 but not in other years. Thus, a longitudinal study could provide a better outlook on the trend in reporting. Secondly, this study has investigated the disclosure practices without considering the differences in sizes of Australian and Indian electricity companies. Various other corporate attributes like profit, leverage, etc., can also affect the sustainability disclosure, hence future research can also be done on finding relationships between levels of sustainability disclosures and corporate attributes. Next, managerial thoughts about sustainability reporting are not addressed in this study, further research is thus warranted to recognise perceptions of managers and stakeholder groups. Finally, this study only measures the level and extent of sustainability reporting but did not examine the determinants of such disclosure. Examining the factors influencing disclosure using a specific theoretical lens will provide a better understanding of the reasons for such disclosure.

REFERENCES

- Aggarwal, P., & Singh, A. K. (2019). CSR and sustainability reporting practices in India: An in-depth content analysis of top-listed companies. *Social Responsibility Journal*, 15(8), 1033-1053.
- Australian Energy Regulator (AER). (2019). *Annual retail markets report 2018-19*. AER, Commonwealth of Australia.
- Bahari, N. A. S., Alrazi, B., & Husin, N. M. (2016). A comparative analysis of carbon reporting by electric generating companies in China, India, and Japan. *Procedia Economics & Finance*, 35, 74-81.
- Bowen, G. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.
- Bowen, H. R. (1953). *Social responsibilities of the businessman*. New York: Harper & Row.
- Brown, H. S., de Jong, M., & Levy, D. L. (2009). Building institutions based on information disclosure: Lessons from GRI's sustainability reporting. *Journal of Cleaner Production*, 17(6), 571-580.
- Cantele, S., Tsalis, T. A., & Nikolaou, I. E. (2018). A new framework for assessing the sustainability reporting disclosure of water utilities. *MDPI*, 10(2), 1-12, <https://doi.org/10.3390/su10020433>.
- Choi, J. H., Frederick, D. S., & Gary, K. M. (2008). *International accounting* (6th ed.). New Jersey: Pearson Prentice Hall.
- Christopher, T., & Filipovic, M. (2008). The extent and determinants of disclosure of global reporting initiative guidelines: Australian evidence. *The Journal of Contemporary Issues in Business & Government*, 14(2), 17-40.
- Deegan, C. (2000). *Financial accounting theory*. Beijing: Mc Graw Hill.
- Deegan, C. (2006). *Australian financial accounting*. Sydney: McGraw-Hill Irwin.
- Dong, S., & Burrirt, R. (2010, March). Cross-sectional benchmarking of social and environmental reporting practice in the Australian oil and gas industry. *Sustainable Development*, 18(2), 108-118. <https://doi.org/10.1002/sd.450>.
- Frost, G., Jones, S., Loftus, J., & Der Laan, S. (2005). A survey of sustainability reporting practice of Australian reporting entities. *Australian Accounting Review*, 15(1), 89-96.
- Global Reporting Initiative (GRI). (2011). *Sustainability reporting guidelines*. Amsterdam: GRI.
- Global Reporting Initiative (GRI). (2013). *G4 Sector disclosures: electric utilities*. Retrieved March 11, 2020 from <https://www.globalreporting.org/resourcelibrary/GRI-G4-Electric-Utilities-Sector-Disclosures.pdf>.
- Guthrie, J., Petty, R., Yongvanich, K., & Ricceri, F. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital*, 5(2), 282-93.
- Haro de Rosario, A., Benítez Sánchez, M. N., & Caba Pérez, M. d. C. (2011). Responsabilidad social corporativa en el sector eléctrico. *Finanzas y Política Económica*, 3(2), 49-64.
- Hooks, J., & Van Staden, C. J. (2011, September). Evaluating environmental disclosures: The relationship between quality and extent measures. *The British Accounting Review*, 43(3), 200-213.
- Hubbard, G. (2008, December 15). *Beyond accounting - assessing the impact of sustainability reporting on tomorrow's business*. Paper presented at the University of Adelaide, Adelaide, Australia.

- International Energy Agency (IEA). (2013). *CO₂ emissions from fuel combustion highlights* (pp. 1-143). Paris: International Energy Agency.
- KPMG. (2005, June). *KPMG International survey of corporate social responsibility reporting*. KPMG Global Sustainability Services: Amsterdam.
- KPMG. (2008). *Sustainability reporting: A guide*. Australia: KPMG and Group of 100.
- KPMG. (2017). *The road ahead: The KPMG survey of corporate responsibility reporting 2017*. Zurich: KPMG International.
- Kumar, D. (2014). *Sustainability reporting practices by energy sector in India*. Retrieved September 1, 2022, from <http://dx.doi.org/10.2139/ssrn.2376176>.
- Ministry of Power (MoP). (2019). *State distribution utilities – seventh annual integrated rating*. Government of India: Ministry of Power.
- Sartori, S., Witjes, S., & Campos, L. M. S. (2017, December). Sustainability performance for Brazilian electricity power industry: An assessment integrating social, economic and environmental issues. *Energy Policy*, 111, 41-51.
- Steurer, R., & Konrad, A. (2009, April). Business-society relations in central–eastern and western Europe: How those who lead in sustainability reporting bridge the gap in corporate (social) responsibility. *Scandinavian Journal of Management*, 25(1), 23-36.
- Talbot, D., & Boiral, O. (2015). Strategies for climate change and impression management: A case study among Canada’s large industrial emitters. *Journal of Business Ethics*, 132(2), 329–346.
- Talbot, D., & Boiral, O. (2018). GHG reporting and impression management: An assessment of sustainability reports from the energy sector. *Journal of Business Ethics*, 147(2), 367-383.
- Unerman, J. (2000). Methodological issues: Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing & Accountability Journal*, 13(5), 667-681.

Appendix 1

Table AI

The GRI G4 Guidelines’ Aspect, Indicator and Disclosure Items for the Electric Utility’s Sustainability Reporting*.

Economic (EC)
Economic Performance:
EC1. Direct economic value generated and distributed.
EC2. Financial implications and other risks and opportunities due to climate change.
EC3. Defined benefit plan obligations and other retirement plans.
EC4. Financial assistance received from government.
Market Presence:
EC5. Ratios of standard entry level wage by gender compared to local minimum wage.
EC6. Proportion of senior management hired from the local community.
Indirect Economic Impacts:
EC7. Infrastructure investments and services supported.
EC8. Significant indirect economic impacts.
Procurement Practices:
EC9. Proportion of spending on local suppliers.
Availability and Reliability:
EU10. Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.

To be continued Table AI (Appendix 1).

Economic (EC)

Demand-side Management:

No indicator. Demand-side management programs including residential, commercial, institutional and industrial programs.

Research and Development:

No indicator. Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.

Plant Decommissioning:

No Indicator. Provisions for decommissioning of nuclear power sites.

System Efficiency:

EU11. Average generation efficiency of thermal plants by energy source and by regulatory regime.

EU12. Transmission and distribution losses as a percentage of total energy.

Environmental (EN)

Materials:

EN1. Materials used by weight or volume.

EN2. Recycled input materials used.

Energy:

EN3. Energy consumption within the organization.

EN4. Energy consumption outside of the organization.

EN5. Energy intensity.

EN6. Reduction of energy consumption.

EN7. Reductions in energy requirements of products and services.

Water:

EN8. Water withdrawal by source.

EN9. Water sources significantly affected by withdrawal of water.

EN10. Water recycled and reused.

Biodiversity:

EN11. Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

EN12. Significant impacts of activities, products, and services on biodiversity.

EN13. Habitats protected or restored.

EN14. IUCN Red List species and national conservation list species with habitats in areas affected by operations.

EU13. Biodiversity of offset habitats compared to the biodiversity of the affected areas.

Emissions:

EN15. Direct (Scope 1) GHG emissions.

EN16. Energy indirect (Scope 2) GHG emissions.

EN17. Other indirect (Scope 3) GHG emissions.

EN18. GHG emissions intensity.

EN19. Reduction of GHG emissions.

EN20. Emissions of ozone-depleting substances (ODS).

EN21. Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions.

Effluents and waste:

EN22. Water discharge by quality and destination.

EN23. Waste by type and disposal method.

EN24. Significant spills.

EN25. Transport of hazardous waste.

EN26. Water bodies affected by water discharges and/or runoff.

To be continued Table AI (Appendix 1).

Environmental (EN)

Products and services:

EN27. The G4 aspect of products and services and its indicator G4-EN27 have been discontinued to reduce duplication. It is already covered in the following topic-specific aspects: materials, energy, and emissions.

EN28. Reclaimed products and their packaging materials.

Compliance:

EN29. Non-compliance with environmental laws and regulations.

Transport:

EN30. The G4 aspect of transport and its indicator G4-EN30 have been discontinued to reduce duplication. It is already covered in the following topic-specific aspects: Energy and Emissions.

Overall:

EN31. The content of G4-EN31 has been incorporated into the following topic-specific standards as management approach guidance: Emissions, Effluents and Waste, and Compliance.

Supplier Environmental Assessment:

EN32. New suppliers that were screened using environmental criteria.

EN33. Negative environmental impacts in the supply chain and actions taken.

Environmental Grievance Mechanisms:

EN34. The management approach and its components.

Social

1. Labor Practices and Decent Work (LA)

Employment:

LA1. New employee hires and employee turnover

LA2. Benefits provided to full-time employees that are not provided to temporary or part-time employees.

LA3. Parental leave.

EU15. Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.

EU17. Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities.

EU18. Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.

Labor/Management Relations:

LA4. Minimum notice periods regarding operational changes/occupational health and safety.

LA5. Workers representation in formal joint management– worker health and safety committees.

LA6. Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.

LA7. Workers with high incidence or high risk of diseases related to their occupation.

LA8. Health and safety topics covered in formal agreements with trade unions.

Training and Education:

LA9. Average hours of training per year per employee.

LA10. Programs for upgrading employee skills and transition assistance programs.

LA11. Percentage of employees receiving regular performance and career development reviews.

Diversity and Equal Opportunity:

LA12. Diversity of governance bodies and employees.

Equal Remuneration for Women and Men:

LA13. Ratio of basic salary and remuneration of women to men.

To be continued Table AI (Appendix 1).

1. Labor Practices and Decent Work (LA)

Supplier Assessment for Labor Practices:

LA14. New suppliers that were screened using social criteria.

LA15. Negative social impacts in the supply chain and actions taken.

Labor Practices Grievance Mechanisms:

LA16. The management approach and its components

2. Human rights (HR)

Investment:

HR1. Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.

HR2. Employee training on human rights policies or procedures.

Non-Discrimination:

HR3. Incidents of discrimination and corrective actions taken.

Freedom of Association and Collective Bargaining:

HR4. Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.

Child Labor:

HR5. Operations and suppliers at significant risk for incidents of child labor.

Forced or Compulsory Labor:

HR6. Operations and suppliers at significant risk for incidents of forced or compulsory labor.

Security Practices:

HR7. Security personnel trained in human rights policies or procedures.

Indigenous Rights:

HR8. Incidents of violations involving rights of indigenous peoples.

Assessment:

HR9. Operations that have been subject to human rights reviews or impact assessments.

Supplier Human Rights Assessment:

HR10. New suppliers that were screened using social criteria.

HR11. Negative social impacts in the supply chain and actions taken.

Human Rights Grievance Mechanisms:

HR12. The management approach and its components.

3. Society (SO)

Local Communities:

SO1. Operations with local community engagement, impact assessments, and development programs.

SO2. Operations with significant actual and potential negative impacts on local communities.

EU22. Number of people physically or economically displaced and compensation, broken down by type of project.

Anticorruption:

SO3. Operations assessed for risks related to corruption.

SO4. Communication and training about anti-corruption policies and procedures.

SO5. Confirmed incidents of corruption and actions taken.

Public Policy:

SO6. Political contributions.

Anticompetitive Behavior:

SO7. Legal actions for anti-competitive behavior, anti-trust, and monopoly practices.

Compliance:

SO8. Non-compliance with laws and regulations in the social and economic area.

Supplier Assessment for Impacts on Society:

SO9. New suppliers that were screened using social criteria.

SO10. Negative social impacts in the supply chain and actions taken.

To be continued Table AI (Appendix 1).

3. Society (SO)

Grievance Mechanisms for Impacts on Society:

SO11. The management approach and its components.

Disaster/ Emergency Planning and Response:

No indicator. Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans.

4. Product responsibility (PR)

Customer Health and Safety:

PR1. Assessment of the health and safety impacts of product and service categories.

PR2. Incidents of non-compliance concerning the health and safety impacts of products and services.

EU25. Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.

Product and Service Labeling:

PR3. Requirements for product and service information and labeling.

PR4. Incidents of non-compliance concerning product and service information and labeling.

PR5. Approach to stakeholder engagement, key topics and concerns raised.

Marketing Communications:

PR6. Activities, brands, products, and services.

PR7. Incidents of non-compliance concerning marketing communications.

Customer Privacy:

PR8. Substantiated complaints concerning breaches of customer privacy and losses of customer data.

Compliance:

PR9. Non-compliance with laws and regulations in the social and economic area.

Access:

EU26. Percentage of population unserved in licensed distribution or service areas.

EU27. Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.

EU28. Power outage frequency.

EU29. Average power outage duration.

EU30. Average plant availability factor by energy source and by regulatory regime.

Provision of Information:

No indicator. Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services.

Source: GRI (2013)

Note: * the GRI G4 electric utilities' sector-specific aspects and indicators are written in italic.

Appendix 2

Table AII

The names of the sample Australian electricity utilities

Australian Electricity Utilities		
1. Origin Energy.	7. Aurora Energy.	13. Dodo.
2. AGL.	8. ActewAGL.	14. Powershop.
3. EnergyAustralia.	9. Simply Energy.	15. Lumo Energy.
4. Ergon Energy.	10. Amaysim Energy.	16. Locality Planning Energy.
5. Alinta Energy.	11. Sun Retail.	17. Momentum Energy.
6. Red Energy.	12. Powerdirect.	

Source: AER (2019).

Table AIII
The Names of the Sample Indian Electricity Utilities

Indian Electricity Utilities	
1. Dakshin Gujarat Vij Company Limited.	14. Madhya Pradesh Pash. Kshetra Vidyut Vitaran Co Ltd.
2. Uttar Gujarat Vij Company Limited.	15. Himachal Pradesh State Electricity Board Limited.
3. Madhya Gujarat Vij Company Limited.	16. Uttar Haryana Bijli Vitran Nigam Limited.
4. Bangalore Electricity Supply Company Limited.	17. Assam Power Distribution Company Limited.
5. Paschim Gujarat Vij Company Limited.	18. Kerala State Electricity Board Limited.
6. Mangalore Electricity Supply Company Limited.	19. Southern Power Distribution Company of AP Limited.
7. Uttarakhand Power Corporation Limited.	20. Chhattisgarh State Power Distribution Company Ltd.
8. Chamundeshwari Electricity Supply Corporation Ltd.	21. West Bengal State Electricity Distribution Company Ltd.
9. Punjab State Power Corporation Limited.	22. North Bihar Power Distribution Co. Ltd.
10. Eastern Power Distribution Company of AP Limited.	23. Southern Power Distribution Company of Telengana Limited.
11. Dakshin Haryana Bijli Vitran Nigam Limited.	24. Kanpur Electricity Supply Company Limited.
12. Gulbarga Electricity Supply Company Limited.	25. South Bihar Power Distribution Co. Ltd.
13. Maharashtra State Electricity Distribution Company Ltd.	

Source: MoP (2019).