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**Sustainability reporting:
an assessment tool for environmental disclosure in the electricity sector**

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Abstract: This study aims to analyze the impact of social and environmental release from an industry regulator report, belonging to the energy sector, on the level of environmental information disclosure. In particular, we depart from the rules and indicators issued by the National Electric Energy Agency of Brazil (NEEA) to analyze its impact on the set of electricity Brazilian companies during the period between the years 2006 to 2009. We considered 60 companies belonging to various segments of the value chain of the electricity industry. The metric total of 90 indicators included 34 from the Global Reporting Initiative and 56 from NEEA. This survey has used exploratory techniques, and employs content analysis to collect and analyze data and correspondence analysis in the panel. The results showed a significant raise in the level of disclosure of the entities under observation, especially by the generating and transmission companies, consequential of the publishing of the social and environmental report from NEEA. It is noteworthy that, although it is found a growth in a voluntary disclosure arising from the GRI guidelines, this does not reach the level of disclosure resulting from the rules of the regulatory agency in Brazil. The progress of information dissemination takes place either on a qualitatively or a quantitatively way, being relevant to highlight the year 2009, when occurred a second report emission the to all electric utilities.

Keywords: social and environmental reporting, environmental indicators, environmental disclosure, the electrical energy sector, Brazil.

Introduction

For millennia, the energy in the form of biomass and fossilized biomass was used for cooking and heating, and for the creation of materials ranging from bricks to bronze. Despite these developments, the wealth in almost all civilizations was essentially defined by the access and the control over energy and water..

The great challenge for companies in the energy sector in the twenty-first century is to bring a tripod to ensure the security of supply of electricity for a growing consumer market, with low emission of greenhouse gases at a fair price. Plus, all this must be sought from alternative energy sources and with fair prices for consumers, to guarantee economic and financial returns for the investing companies.

To monitor the environmental and economic aspects in a synergistic way, the electricity companies in Brazil use certifications, management models and international and national guidelines. The international orientation of the Global Reporting Initiative (GRI) comprises indicators that address economic, social and environmental groups of indicators specific the electricity sector. From these indicators, the industry regulator in Brazil, the National Electric Energy Agency (NEEA¹), created a set of guidelines for setting up the social and environmental report transforming the sustainability report into a crucial tool for evaluation of environmental disclosure in the electricity sector in Brazil.

Therefore, this study aims at analyzing the importance of social and environmental release of a report from NEEA to the Environmental Information Disclosure Level (EIDL) of Brazilian companies in the electricity sector in the period 2006 to 2009.

The work is structured in five sections. The first section presents the introduction. The following section reviews the previous studies that include the dissemination of environmental information and sustainability report. The third describes the methodology and sample identification. The fourth section presents the analysis of results. Finally, the fifth section presents the conclusions.

¹ In Brazil this agency is known by the acronym ANEEL.

1. Disclosure of environmental information and Sustainability Report - Review of Literature

Currently, companies in the world, use it for financial disclosure, basically, the conceptual framework of the International Accounting Standards Board (IASB) and Financial Accounting Standard Board (FASB). Among the noteworthy elements of scope are: the objectives of financial statements and the qualitative characteristics that determine the usefulness of the information contained in those statements, Ernst & Young and FIPECAFI (2009), Riahi-Belkaoui (2004).

Even though the FASB and IASB standards have not yet presented rules on the social and environmental aspects, its conceptual basis is applicable to these dimensions. The complexity of the publication of such information, as well as financial ones, is related to the quality of information provided and the conflict of interests of the company, of other stakeholders and accounting professionals, including accountants, Riahi-Belkaoui (2004), FASB (1980).

The decade of 90 presented a considerable progress in the research on both cost and management accounting (Horngen et al., 2000) and on Corporate Social Responsibility topics (CSR). Combined, these two disciplinary areas aim at promoting a sustainable strategy and provide a new framework for cost, financial or management accounting evolution, According to Schaltegger and Burritt (2009), Freeman and Reed (1983), Sangle and Babu (2007), this new methodological accounting approach allows an assessment of the risks and benefits of social, environmental and economic management useful for the company and revealing to external stakeholders

As well as the importance of this information to external stakeholders, the issue of comparability becomes essential in supporting decisions that require monitoring of past, present or predictable future outcomes. The comparison allows us to analyze the company's development, and appraise its performance against peer companies and different industries, Hendriksen and Breda (1992).

In order for stakeholders to assess the company's environmental performance it is required that both qualitative and quantitative data are included in the disclosure procedures. Besides, they have to be presented in the form of monetary and nonmonetary data in course of time and with the indicative targets. The disclosure report, even if voluntary, must submit a

minimum standardization to be published following a periodicity compatible with the objectives of the stakeholders and in an easy support to access.

Some solutions presented by Non Governmental Organizations (NGOs) intended to alleviate the problem of lack of standardization and uniformity in the content of environmental reports. External certifications such as the International Standards Organization's (ISO) 14001, also promote the standardization of environmental practices and their dissemination.

There were also established guidelines about the environmental information to be published, among which stand out internationally, Global Reporting Initiative (GRI), Coalition for Environmentally Responsible Economics (CERES), Public Environmental Reporting Initiative (PERI) and International Chamber of Commerce Business Charter for Sustainable Development (ICC), Jose and Lee (2007). In Brazil, it is noteworthy the most relevant guidelines of the Brazilian Institute of Social and Economic Analyses (BISEA²) and Ethos Institute.

In this research we analyze the contents of sustainability reports using GRI indicators, G3, and the indicators of social and environmental report with the guidelines of NEEA. Concerning the frequency of the environmental report in electricity industry, usually companies disclose it in conjunction with the financial statements (between 90 and 120 days after the end of the fiscal year), and others a few months later, but generally on a yearly basis.

A further important aspect is the material support and method of diffusion. Following Jose and Lee (2007), the internet has emerged as an affordable tool, with quick and simple accessibility. In Brazil, the internet is widely used, for example, by publicly held companies, Calixto *et al.* (2007), Rover *et al.* (2009). In the companies websites sustainability reports are more efficiently disseminated because the firm is able to release the report and various other information, according to the information needs of each user (extension, template and language), as stated by Bolívar (2009). Besides the disclosures on the sites, companies still use printed complete reports and CD-ROM based.

2.1. The disclosure of the sustainability report

The report is an outline of all the economic facts made by the entity and duly registered

² This institute is known in Brazil as IBASE. It created a model of Statement Balance Social entitled: IBASE model.

by the accounts regarding a specific period of time. This reduced form is the instrument through which stakeholders have access to information concerning the assets of the business allowing for the analysis of financial, economic, social and environmental outcomes, obtained by the entity.

In Brazil, environmental disclosure is voluntary and reporting does not have a pre-defined model. Some companies disclose environmental, social and financial information in a single report, and others publish these informations in separate reports. Rover *et al.* (2009) agree with that model, while Simnett *et al.* (2009) regard this as the most appropriate. Even following the GRI guidelines and the recommendations of NEEA, the reports differ both in structure and in contents. In Portugal and Spain, for instance, the form of disclosure is similar to the Brazilian model, however the announcement is held in a mandatory way (Sarmiento, Durão 2009, Eugénio, 2010)). In Greece, the patterns of dissemination of the report are similar to those in Brazil; the publishing is voluntary, but restricted to a small number of companies, Skouloudis *et al.* (2010).

The lack of uniformity affects the reliability of the information as shown by Simnett *et al.* (2009), Oliveira (2005) and Rover *et al.* (2005). Therefore, Simnett *et al.* (2009) argue that only professional auditing is the path to support the criterion of reliability.

The shortage of mandatory publishing of environmental information and the high cost of audits encourage the work of providers of assurance in sustainability reports. Currently, two global standards guide these professionals: International Standard Assurance Engagements (ISAE 3000) introduced by the International Auditing and Accounting Standards Board (IAASB) of the International Federation of Accountants (IFAC), effective since 2005, and the AA1000 Assurance Standard (AA1000) edited by AccountAbility in 2003. National standards were also introduced in Australia, Germany, Japan, Sweden and the Netherlands (KPMG, 2005).

The adaptation of firms in relation to environmental practices required by the stakeholders has induced effects at the management level, and also in how they report their interaction with the environment. In view of that, it is perceived that it has become a constant search for greater disclosure, better accountability, improved corporate governance practices and ethical behavior by companies, in relation to information on environmental (Rover *et al.* 2009).

The resolution to the challenges of sustainability is from an interdisciplinary nature. Therefore, requires the effective interface between the company and its external stakeholders,

especially by those with whom it has critical relationships (Berns *et al.*, 2009). Namely, in the energy sector, stakeholders embrace shareholders/investors and consumers/customers, followed by the government and the regulatory authority.

The electricity supply industry is considered sensitive because of their environmental impacts as it is discussed in several studies by Rover *et al.* (2009), Jose and Lee (2007) or Costa and Marion (2007). This industry possesses a particular stakeholder, which is the community directly affected by generation activities (dam construction, processing of uranium, coal mining, waste disposal and noise, etc.) transmission (network installation in conservation, indigenous and residential areas) and deployment (installation of substations, and disposal of lamps and mineral oil).

Each company identifies its stakeholders as the most important ones. It is essential to disclose the environmental facts that occurred in the entities to all stakeholders accounting for transparency and reliability issues, as above mentioned. The costs for the use of nature (emissions, pollution of river etc.), mainly the severe negative impact, they must be identified in the operational activities of entities that can be monitored, minimized and/or eliminated due to negative effects on equity and the environment.

After identifying the stakeholders, companies must classify what will be disclosed and how it is done. In 1999, the GRI created guidelines and a set of economic, social and environmental indicators (G1 version) in order to suit the characteristics of firms in different economic sectors, and across the world. Since then, the GRI has enhanced its modeling of indicators and became a world language that supports the disclosure and analysis of economic, social and environmental organizations. The participation of Brazilian companies in the GRI started in 2000. In 2003, the electric power industry began its participation with CPFL Energia S. A. publishing the Social Responsibility Report, 2002, G2.

In Brazil, as mentioned above, NEEA issues guidelines on social and environmental disclosure. Worth mentioning is the broadcasting of the Statement of Balance Social in the IBASE model, from the Statement of Value Added (DVA)³ model in the Institute of Accounting, Actuarial and Financial Affairs (FIPECAFI) and the social and environmental report covering indicators NEEA (Order N°. 3034 of 12.21.2006), which was originally

³ This accounting statement highlights the value of the richness generated by the company, its distribution between the elements that contribute to the generation of this richness such as employees, creditors, stakeholders government and others as well as the part of the richness non-distributed, according to Article. 188, item II, of legislation 11.638/2007, BRASIL, Santos (2007).

reported by distributors in 2007, and in 2008 was extended to generating and transmission companies.

Releasing the report with environmental information is made available on company websites, GRI and NEEA.

3. Methodology and sample identification

The theme of this exploratory research portraying the GRI and NEEA indicators that this work presents has an innovating character, Richardson *et al.* (2009).

The type of probability sampling adopted is a stratified and non-proportional Gil (2008). The sample includes generating, transmitting and distributing companies of electricity in Brazil.

The characterization of the sample was made from the universe presented in Table 1. To select the data sustainability reports were collected (GRI and NEEA) and financial reports for the years 2006 to 2009, were gathered from the sites of NEEA, from the Brazilian Securities Commission (CVM) or from companies webpages.

Table 1. Number of reports published and sample definition

Companies	GRI				NEEA				Sample size
	2006	2007	2008	2009	2006	2007	2008	2009	
Generators	1	6	5	3	0	0	25	20	15
Transporters	0	9	1	1	0	0	34	26	5
Distributers	3	6	5	3	0	60	61	49	40
Total	4	12	11	7	0	60	120	95	60

Source: Data taken from ANEEL (2010) and GRI (2010).

After the investigation of indicators, the sample reached up to 60 companies regarding the three main segments of the industry value chain (see Table 1). It is worth noticing that the electricity sector also includes holdings and trading companies.

The research aims to examine the importance of social and environmental release of a report from NEEA to the (EIDL) of Brazilian companies in the electricity sector in the period 2006 to 2009.

The study has two specific goals. The first aims to review developments in the level of disclosure of environmental information of each company in the sample and, the second, aims

at verifying the relationship between the level of disclosure of environmental information and the year of publication using correspondence analysis (CA).

3.1 Data analysis technique: Correspondence analysis

Correspondence Analysis (CA) is an exploratory multivariate technique that converts frequency table into graphical displays in which rows and columns are depicted as points. It provides a method for comparing row and columns proportions in a two-way or multivariate table. Mathematically, CA decomposes the Chi-square measure of association of the table into components in a manner similar to that of principal component analysis for continuous data (Greenacre 1984, 1989)⁴. CA is, thus, a method of visually representing the associations between different categorical variables. Its primary goal is to “transform a table of numerical information into a graphical display, facilitating the interpretation of this information. It is not a method of testing a hypothesis, although it does draw on the logic of Pearson’s chi-square statistic in computing distances for purposes of graphic representation”. CA analysis is most often employed, as it is used here, as a method for portraying data for visual inspection and analysis, rather than a method for testing statistical significance.

3.2 Methodological approach

The survey departs from the technique of content analysis⁵ combined with documentary research, as in Bardin (2008), Martins and Théophilo (2007) and Silva *et al.* (2005), to analyze the environmental indicators of sustainability reporting (GRI model and NEEA), and calculate the index EIDL.

A metric of 34 indicators and 56 indicators GRI guidelines NEEA, adding together 90 environmental indicators was structured. Given the general applicability of the indicators presented in the guidelines, some refer to the operational activity of an energy generator, but do not apply to a transmitter nor to a distributor. Therefore, in the selection of indicators we

⁴ Correspondence analysis is far more familiar to social scientists in Europe and Japan than in the United States. It is often referred to under different names, and may be familiar to readers under another name, such as: canonical analysis, principal components analysis of qualitative data, optimal scaling, multidimensional scaling, or, in French, *analyse factorielles des correspondances* or *analyse des données*.

⁵ It is a set of technique of communication analysis aiming to obtain through systematic procedures and the objectives of descriptions from the messages contents, indicators (quantitative or not) that allows the inference of the knowledge related to the conditions of production/reception (inferred variables) from these messages, Bardin (2008).

excluded those that do not apply to all links of the operational chain (generation, transmission and distribution) The framework of this research follows the one by of Liu and Anbumozhi (2009).

To quantitatively analyze the indicators and calculating the variable EIDL for the period 2006 to 2009 we defined the criterion index ranging from 0 to 4 like in Skouloudis *et al.* (2010).

Each indicator is indexed according to the criterion and the score shown in Table 2.

Table 2. Criteria and punctuation of the model of the index

Criteria of the response of the indicator	Scores
1.Indicator is described on the report as 'Non available' (ND) or not being published	0
2.Indicator with only qualitative response	1
3. Indicator with only quantitative response	2
4.Indicator with qualitative and quantitative response in the fiscal year (Ex.2008)	3
5.Indicator with qualitative e quantitative response, in the time (Ex.2008/2007)	4

The response criteria of the indicator number 1 was used in this study because the methodology GRI G3 is applied in medium and long term, it suggests a process of evolving social and environmental commitment. Therefore, it is a criterion adopted by the GRI and followed by NEEA.

Some researchers have used binary indexing, for instance, Borba (2010), Murcia (2009), Cho and Patten (2007), Lima (2007). In other experiments have been assigned different scores to an analysis of the extent of disclosure, Skouloudis *et al.* (2010), Liu and Anbumozhi (2009), Jose and Lee (2007). In this study we chose to index with different values for the qualitative analysis of the extent of environmental information disclosed.

The EIDL index of each company was calculated by the sum of individual scores divided by the total maximum score that could be obtained in the case, 360 points.

The research methodology uses the system developed by the Center for Environmental Policy and Strategic Management Environment, University of Aegean, Greece, Skouloudis *et al.* (2010), and the philosophical basis of the concept of sustainable development, Mebratu (1998).

To test the reliability of the methodology was then validated by Hair *et al.* (2005) which employs the Cronbach's alpha reliability coefficient that assesses the consistency of the entire

range. This is the most widely used measure in this type of exploratory studies, Pestana and Gageiro (2008); Maroco and Garcia-Marques (2006), Churchill Jr. (1986).

The test presented in this study shows the results listed in Table 3. According to Pestana and Gageiro (2008), the result shows that the metric of the study has a very good internal consistency, considering that the four periods adopted in the research had values of Cronbach's alpha above 0.9.

Table 3. Cronbach's Alfa results

Period of the analyses of metric	Cronbach's Alfa Value
2006	0,962 or 96,2%
2007	0,952 or 95,2%
2008	0,935 or 93,5%
2009	0,936 or 93,6%

To evaluate the relationship between EIDL variables and the year of disclosure of environmental information CA was used in panel, with 240 information regarding the period from 2006 to 2009 (Fávero *et al.*, 2009, Hair *et al.*, 2005, Lima, 2007).

CA is, therefore, an interdependence technique that studies the relationship between qualitative variables, allowing the visualization of associations, through perceptual maps that provide a sense of closeness, or combination of frequencies of variables between non-metric. The panel is balanced, and allows tracking the performance of the company over time (Gujarati, 2006) and Wooldridge, 2007).

To qualify businesses in levels of disclosure it has been adopted as a criterion to divide the level of disclosure in quartiles to distribute EIDL variable classified into four categories levels: bad, regular, good or very good.

4. Discussion of results

The computation of EIDL shows that in the period ranging from 2006 to 2009, out of the 15 generating companies covered in the sample, 67% showed an increased level of disclosure, whereas 33% showed a reduction. The five transmission companies grew, and for the 40 distributors analyzed, 58% demonstrated improvement, and 42% had a reduction in the level of disclosure of environmental information.

The analysis of the socio and environmental report suggests that most companies, especially the generating and transmitting ones did not have a database with environmental information prior to the orientation of the NEEA. Perhaps, therefore, some of the samples have this feature to reduce the level of disclosure.

From the data of the percentiles presented in Table 4, we used quartiles to categorize the EIDL. The companies received scores from 1 to 4, according to the range of data divided into quartiles: zero, note 1, above zero until the value of 0.144400, note 2, 0.144400 up to the value 0, 244400, note 3; and above 0.244400, note 4. Therefore, the reporting level was classified into four grades: Grade 1 - Bad, Grade 2 - Regular, Level 3 - Good, and Grade 4 – Very good.

Tabela 4. Percentiltes and quartiles of the levels of disclosures⁶

Percentiles	Weighted Average (Definition 1)	Tukey's Hinges ⁷
5	0,000000	
10	0,000000	
25	0,000000	0,000000
50	0,144400	0,144400
75	0,244400	0,244400
90	0,371370	
95	0,427660	

The classification shown in Figure 1, Box-plot graph with the identification of the maximum value of EIDL (0.5694) in the period 2006 to 2009, in the third quartile value of 0.2444, the 0.1444 median and the first quartile in the value of zero. The values that are above the maximum EIDL are considered outliers.

⁶ All the statistics results shown in the tables and graphics in this study were calculated with Statistical Package for the Social Sciences (SPSS 17.0).

⁷ These are the first, second and third quartile. They are calculated in the way that Tukey originally proposed when he came up with the idea of a boxplot, UCLA (2011).

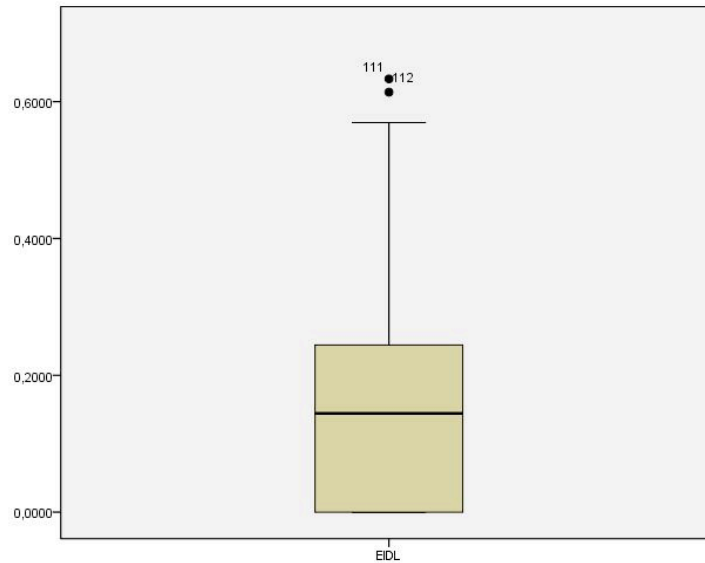


Figure 1. Box-plot visualization of the quartiles and median of the EIDL variable.

The hypothesis X^2 test (Chi-square) presented as a result Asymp. sig 0.000 < 0.05, then reject the null hypothesis and accepted the condition of CA that there is a relationship between the level of disclosure of environmental information and the years it was held. The categories are associated in a non-random way with a confidence level of 95%, Pestana and Gageiro (2008), Fávero *et al.* (2009).

Table 5 shows the result in the contingency table that confirms the relevance of power of the regulating agent on the level of disclosure. In 2006, the highest level representation is bad, considering that this year; only four companies in the electricity sector in Brazil released their reports on the GRI website. It was when NEEA issued guidance on the report social and environmental.

Table 5. Table of the contingency variable year x level of the disclosure in panel

Year	Environmental Information Disclosure Level (EIDL)				
	Bad	Regular	Good	Very Good	Active Margin
2006	56	0	1	3	60
2007	14	17	19	10	60
2008	1	18	24	17	60
2009n	0	20	12	28	60
Active Margin	71	55	56	58	240

The concentration in the level categorized as bad was reduced in 2007, when the energy distributors began releasing the social and environment report from NEEA, and 12 companies in the sample published report with the GRI model. This year, there were still 14 companies with poor level of disclosure because it concentrated power generating companies and broadcasters who had not yet rules for disclosure. However, there is significant growth in regular levels, good and very good, 17, 19 and 10, respectively.

In 2008, NEEA guidance on the development of social and environmental reporting was extended to generating and transmission. Companies that fall into these two parts of the chain with the lowest levels of disclosure, including the financial aspect, which is why only 15 and 5 companies, respectively, comprise the sample. Despite this limitation, the level of environmental disclosure showed progress with only a company with poor level of disclosure and 41 firms in the levels good or very good.

The result of 2009 seems more satisfactory, with 28 ranked companies on very good level of disclosure.

In short, the level of disclosure in the sample has a balance in the regular, good and very good categories, but with a greater number of firms in bad level. This result is relevant because it aims to contribute to some studies conducted in Brazil, considering various sectors and only companies listed at Bovespa, which show only the optimal level of disclosure of the electricity sector in Brazil, comparing it with other sectors, Borba (2010), Braga *et al.* (2009), Calixto *et al.* (2007), Rover *et al.* (2005). In this study, in which we consider only this sector and companies that are not listed on stock exchanges, it is clear that much still needs to improve in level of disclosure of environmental information, both qualitative and quantitative aspect.

The increased level of disclosure is made as a result of the publication of the social and environmental NEEA report, which is being used as pioneers in this study on the disclosure of

environmental information and demonstrates to become a valuable tool of social and environmental disclosure in the electricity sector Brazil.

Next, we calculate the differences between expected and actual frequencies of each variable, called waste, according to Table 6. Residual analysis reveals the characteristic patterns of each category for each variable, Fávero *et al.* (2009). It shows the relations of proximity and distance between the categories of each variable, which is confirmed by the analysis and perceptual map dimensions. When the categories have positive signs means a close relationship, and when the sign is negative, there is clearance.

Table 6. Frequency of the residuals

Year	Environmental Information Disclosure Level (EIDL)			
	Bad	Regular	Good	Very Good
2006	38,3	-13,8	-13,0	-11,5
2007	-3,8	3,3	5,0	-4,5
2008	-16,8	4,3	10,0	2,5
2009	17,8	6,3	-2,0	13,5

Of the three dimensions identified in the study, the dimension one is the one that contributes the highest level of explanation (92.1%) for total inertia⁸. According to Fávero *et al.* (2009), usually the first dimension is the one that explains the variation in the data.

While the study presents more than two dimensions, Hair *et al.* (2005) suggest as a practical rule for selecting the two-dimensional analysis with inertia greater than 0.2 for analysis. In this investigation, the second dimension was chosen to 0.057 and 7.5% of inertia to explain the total inertia.

The most important categories by size are those whose contribution to the explanation of the size is greater than its mass, and that both are far away from the origin of axes (dimensions) in the graph, Pestana and Gageiro (2008). Confirming the results presented in Table 5, the most important categories in dimension 1 were 2006 and bad, and in dimension 2, 2009 and very good.

⁸ Explained variance.

Despite presenting signs and values of score on different dimensions, the categories can be grouped into types or homogeneous groups, Pestana and Gageiro (2008), as shown in Table 7.

Table 7. Summary of the score by dimension

Dimension	Negative Score	Positive Score
1	2006 Bad	2009 2008 Regular
2	2007 2008 Good	2009 Very Good

The summary score for each dimension indicates the important role of regulation of social and environmental NEEA's report in the level of disclosure of environmental information companies, considering the categories of the variable year.

The above aspects can be shown on the perceptual map shown in Figure 2.

Row and Column Points

Symmetrical Normalization

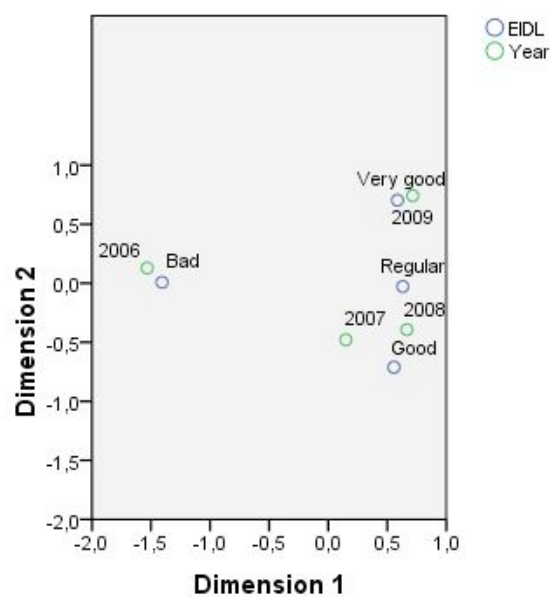


Figure 2. Perceptual map Year and EIDL.

In 2006 preponderates a bad level of disclosure, in the financial year 2007 between regular and good; in 2008 remains the level of 2007 with an approach to good. And finally, in 2009 the level of disclosure evolved, highlighting the very good level.

5. Conclusion

It is clear that companies approach their commitment to disclose social and environmental indicators in different ways. The GRI provides a framework for company sustainability reporting, as well as the one provided by the electricity regulatory agency.

The national and international research on the level of environmental disclosure for enterprises from different sectors shows that companies in the electricity sector because it is considered a sensitive industry, present an optimal degree of disclosure.

The main contribution of this research study exclusively focused on the Brazilian electricity supply industry is to provide empirical evidence on the level of disclosure of environmental information of these companies, in the context of value chain operations. It is an innovative study with its focal point on the use of indicators of NEEA to calculate the EIDL.

In this context, the key findings revealed in this study confirm the improvement of the level of environmental disclosure by companies in the sector over the period 2006-2009.

The estimate of EIDL shows that 67% of the generating companies had an increased level of disclosure, while 33% had reduced. The transmission companies grew, and the distributors showed an advance of 58% and 42% reduction.

The relationship between the variables year of publication and EIDL shows that in 2006 a level of disclosure bad prevails, it is because only four companies made voluntary disclosure of the GRI indicators. In 2007, the level was between fair and good, indicating the important role of early regulation of social and environmental report NEEA for utilities.

In 2008 the level was maintained as in 2007, with a great approach to the category suggested by the inclusion of the generating and transmission companies, under the guidance of NEEA. Finally, in 2009 the level of disclosure progresses, highlighting the very good level. This demonstrates the evolution of companies in the collection and dissemination of environmental information in the reports on both the GRI as NEEA.

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