

Sources of Information by Country

Three main sources of information were used to compile data for the benchmarking analysis of the electricity distribution sector for Latin American and Caribbean countries: the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*" , the study "*An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing Countries*" , benchmarking database compiled by Martin Rossi, and the study "*The Feasibility of Regional Cooperation in Regulation of the Electricity Sector of the Eastern Caribbean States.*"

In addition, regional sources were consulted. These sources comprise the Asociación Iberoamericana de Entidades Reguladoras de Energía (ARIAE), the Comisión de Integración Eléctrica Regional (CIER), the Internacional Association for Energy Economics (IAEE), the Internacional Energy Agency (IEA), and in some cases the Alianza en Energía y Ambiente con Centroamérica (AEA), and the Energy Information Administration of the US government (EIA).

The following is an account of sources for the individual procedure of data collection followed in each country:

1. Argentina

This country's data was obtained using different sources. In total there is data for 38 companies. Most of the data was integrated using the three main sources: the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*" which supplied data for about 18 companies, the study "*An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing Countries*" provided data for 7 companies, and the database provided by Martin Rossi contributed with 13 companies and complemented some missing observations from the previous two sources. In-house collection was done; reviewing sources such as the *Ente Nacional Regulador de la Energía Eléctrica*(ENRE) and the *Asociación de Distribuidores de Energía Eléctrica de la República Argentina*(ADEERA).

2. Belize

Data gathering for the only electricity distribution company in the country was done in-house. The main source of information was the company's website and the annual reports published there.

3. Bolivia

The main sources of data are the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*" and in-house collection. Through these channels, it was possible to gather data for 7 companies. The sources used for the in-house collection are: *Superintendencia de Electricidad*(SIE), *Comisión Nacional de Despacho de Carga*(CNDC), the *Sistema de Regulación Sectorial*(SIRESE), and the *Instituto Nacional de Estadística*(INE). In addition, the companies' websites, if any, were also consulted.

3. Brazil

This country represented a challenge as the number of electricity distribution companies is very large. Different approaches for data gathering were followed here. Some of the data was obtained from the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*", totaling 45 companies. Some more companies were obtained from the study "*An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing Countries*", which accounted for 5 more companies. Data shared by Martin Rossi allowed completing some of the data. In addition, a local consultant gathered 10 more companies. Several sources of data were used in the in-field data gathering process. The most effective was direct contact with the companies and the departments which are in charge of keeping track of the information. In-house collection was done, consulting sources such as the *Agência Nacional de Energia Elétrica*(ANEEL), the *Associação Brasileira de Distribuidores de Energia Elétrica*(ABRADEE), and the *Câmara de Comercialização de Energia Elétrica*(CCEE)

5. Chile

Chile was another country that represented a challenge as it has several electricity distribution companies. Since the regulatory system works efficiently and companies are accountable, information is available. The first set of information, 36 companies, was obtained from the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*". However, some of the information was fragmentary, and in some cases very limited. Therefore, a local consultant was hired in order to fill in the information missing for the 36 companies in Chile. Information was obtained from the *Comisión Nacional de Energía*(CNE), the *Superintendencia de Electricidad y Combustibles*(SEC), and the individual distribution firms.

6. Colombia

To gather data for this country, we grouped the data already collected for 3 companies by the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*" and by the study "*An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing Countries*", which accounted for 7 more companies. In house work was done to complete some variables missing in the previous studies, and finally a local consultant was hired to find data for 12 more companies, for a total of 22 electricity distribution firms. Main sources of data for Colombia were the *Comisión de Regulación de Energía y Gas*(CREG), the *Superintendencia de Servicios Públicos Domiciliarios*, and the *Sistema Único de Información de Servicios Públicos*(SUI), in addition to individual distribution firms.

7. Costa Rica

A local consultant was in charge of the data collection of four companies in Costa Rica: ICE, CNFL, ESPH, and JASEC. The data was obtained from direct consultation with the firms. The rest of the companies (four cooperatives) included in this analysis were obtained from the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*". Information provided by Martin Rossi allowed completing some of the variables in which data was missing, particularly in previous

years to 2000. In addition to the electricity distribution firms, the *Autoridad Reguladora de los Servicios Públicos*(ARESEP) and the *Ministerio de Energía y Ambiente*(MINAE) were also consulted.

8.Dominican Republic

In-house collection was carried out to find data for 3 electricity distribution companies in the Dominican Republic. Data was obtained from the publication "Memorias 2000-2004 EDENORTE" and "Memorias 2000-2004 EDESUR" published by the *Corporación Dominicana de Empresas Eléctricas Estatales*. Additional data was obtained from the companies' websites.

9.Ecuador

The *Consejo Nacional de Electricidad* (CONELEC), through its different divisions, was the main provider of data for this country. CONELEC's Rates Division, Supervision Division, and Planning Division were useful in the data gathering. In addition, data was obtained from the Central Bank of Ecuador. The rest of the data was obtained directly for each one of the companies listed in the study. An in-field consultant was in charge of coordinating the data collection in Ecuador.

10.El Salvador

For this country, the main source for the data for the 5 electricity distribution companies was the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*". In addition, in-house collection of data was done using the following sources: *Superintendencia General de Electricidad y Telecomunicaciones*(SIGET), the *Ministerio de Economía* (MINEC), the *Asociación Salvadoreña de Industriales*(ASI), the *Ente Operador del Mercado Eléctrico Regional*(EOR), the *Administradora del Mercado Mayorista de Energía Eléctrica de El Salvador*(also known as *Unidad de Transacciones, UT*), and the websites of the companies.

11.Guatemala

For this country, data previously gathered by the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*" was used and in-house work was focused on the main 4 companies in the country. The four companies cover the majority of the electricity market in Guatemala. The main sources included the *Comisión Nacional de Energía*(CNEE) and the *Administrador del Mercado Mayorista*(AMM).

12.Honduras

Data for Honduras' *Empresa Nacional de Energía Eléctrica*(ENEE) was collected in-house. Data sources included the *Comisión Nacional de Energía*(CNE) and the website for the *Empresa Nacional de Energía Eléctrica*.

13.Mexico

The data for this country was obtained by direct request through the Ministry of Energy in Mexico. The office of the Vice ministry of Electricity contacted the two

electricity companies in Mexico (CFE and LyFC) and requested the data which was compiled for this study.

14. Nicaragua

The data for the 2 Nicaraguan electricity distribution companies was obtained from the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*", and by means of in-house collection. The sources for the in-house collection were: the *Instituto Nicaragüense de Energía (INE)*, the *Comisión Nacional de Energía (CNE)*, the *Centro Nacional de Despacho de Carga (CNDC)*, the *Public Services International Research Unit (PSIRU)*, the *Unidad de Reestructuración de ENEL (URE)*, the *Instituto Nacional de Estadísticas y Censos (INEC)*, in addition to companies' websites.

15. Panama

Data for 3 Panamanian companies was obtained from the study "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*", and through in-house collection. The sources for the in-house collection were: *Autoridad Nacional de Servicios Públicos (also known as Ente Regulador de Servicios Públicos, ERSP)* and the *Bolsa de Valores de Panamá (PANABOLSA)*, in addition to companies' websites.

16. Paraguay

Because of the structure of the electricity sector in this country, it was decided to hire a local consultant with extensive knowledge of the electricity sector in Paraguay. There is a large company in Paraguay (ANDE) which accounts for almost all the market. In addition, an effort was made to gather some data of a smaller company CLYFSA. In-house work was done and a request for information was sent to ANDE. The local consultant followed up the request and dealt with the questions and comments about quality of data and technical details. The main sources are the distribution companies (ANDE and CLYFSA).

17. Peru

Peru also used the three main sources of data: the studies "*Impact of Privatization on Firms in the Infrastructure Sector in the Latin American Countries*", which contributed with data for 10 companies, and "*An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing Countries*", which contributed with data for 7 companies. Rossi's data base was used to complete the information gaps in the 17 companies. In addition, in-house work was done to find financial indicators through the *Organismo Supervisor de Inversión en Energía (OSINERG)*.

18. Uruguay

The data for this country was obtained by direct request to the utility and after in-house review of external sources of information and of the *Unidad Reguladora de los Servicios de Agua y Energía (URSEA)*. The bulk of data was granted by different departments within UTE, after direct approval from the president of the company.

The following countries relied heavily in in-house collection done using websites, external contacts, and internal documents.

19.Venezuela

Partial information for 13 companies has been gathered for this country. Data for Venezuela came from two sources: electricity distribution companies, by means of in-house collection, and data provided by Martin Rossi. In-house collection used as sources the *Fundación para el Desarrollo del Servicio Eléctrico*(FUNDELEC), the *Cámara Venezolana de la Industria Eléctrica*(CAVEINEL), the *Oficina de Operación de Sistemas Interconectados*(OPSIS), and the *Superintendencia para la Promoción y Protección de la Libre Competencia* (Procompetencia). In those cases where it was possible, the websites of the different companies were consulted.

20.Caribbean

The following countries are part of the Caribbean and are significantly smaller than the previous ones. In most of these countries the energy sector is very small and every country has one or two electricity distribution companies. In addition, countries have done little recording of past statistics and the degree of difficulty in finding consistent data is high.

For these countries, in-house collection was done using, as data sources, different projects the World Bank has implemented in the Caribbean. The main reference for these countries was data gathered by Jordan Schwartz who has been working with these countries. Hi kindly shared with us data from **Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.**