

GLOBAL ELECTRICITY TSO PROFILES AND BENCHMARKING REPORT

The third edition of the Global Transmission TSO Profiles and Benchmarking Report provides detailed profiles of 215 transmission system operators (TSOs) and developers operating in over 100 countries in six regions – North America, Latin America, Asia, Europe, the Middle East and Africa. The report has eight distinct sections.

Part 1 of the report contains the executive summary of the report.

Part 2 of the report provides recent trends and developments in the power transmission industry that are impacting the operational and financial state of TSOs.

Part 3 of the report reviews the network expansion and modernisation plans of TSOs as well as analyse the capital expenditure programmes of TSOs across the globe.

Part 4 of the report provides a comparative analysis of the key TSOs in terms of growth in the network size, capital expenditure, expected trends in the network expansion and the planned investment.

Part 5 of the report provides a benchmarking analysis of TSOs in terms of operational and financial performance.

Part 6 of the report provides an inter-TSO comparative analysis, in terms of growth in the network size, capital expenditure, operational and financial performance, expected trends in the network expansion and the expected investment for each of the six regions – North America, Latin America, Asia, Europe, the Middle East and Africa.

Part 7 of the report provides detailed profiles of 215 TSOs and developers operating in over 100 countries in six regions – North America, Latin America, Asia, Europe, the Middle East and Africa. Each profile provides historical data from 2013-2018 as well as future projections up to 2023.

- ❖ Each TSO profile provides:
 - ❖ Key facts
 - Growth in transmission network, 2013-18
 - Line length, by voltage
 - Substation capacity, by voltage
 - Number of substations/transformers, by voltage
 - ❖ Operational performance indicators, 2013-18
 - Annual transmitted electricity
 - Total unserved power transmission per year
 - Average interruption time
 - TSAIDI
 - TSAIFI
 - Network availability
 - Transmission losses
 - Transmission line fault level
 - Transformer failure rate
 - Duration for fault settlement
 - Voltage deviation index
 - Frequency deviation index
- ❖ Financial performance indicators, 2013-18
 - Revenues/sales
 - Profits/losses
 - Capital expenditure
 - Operational expenditure
 - Return on equity ratio
 - Debt to equity ratio
 - Profit/revenue ratio
 - Revenue/employee ratio
 - Operating expenses/revenue ratio
 - Operating expenses/employee ratio
- ❖ Future plans and investment, 2019-23
 - Expected trends in network expansion
 - Expected investment
- ❖ Recent contract awards
- ❖ Key contacts

Part 8 (Appendix) of the report includes a note on the research methodology along with citation of sources. It also provides a list of acronyms. A note on key definitions is also included in this section.

The report will be indispensable for any organisation interested in the global electricity transmission industry – utilities, system operators, equipment manufacturers and suppliers, EPC contractors, service and technology providers, investors/lenders, research organisations, industry consultants, regulatory agencies, development institutions, etc.

The report is available in a PPT and excel database format. It is priced at USD5,000.

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Notes:

Each TSO profile provides:

❖	Key facts
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❖	Future plans and investment, 2019-23
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Sources and Methodology

Global Transmission Research's industry analysts have utilised various primary and secondary research sources in preparing this report. Primary sources include data and statistics obtained through telephone and email questionnaires sent to various utilities, transmission companies, transmission system operators and industry regulators. Extensive secondary research has been conducted by our analysts and research associates. These secondary sources include, but was not be limited to, websites of utilities; annual reports and financial reports of utilities; investor presentations; analyst reports; government documents, plans and statistical databases; websites of relevant ministries and regulators; websites of relevant industry associations; internal and external proprietary databases; news articles; and press reports. Wherever applicable, all research sources are appropriately cited within this report.

These primary and secondary research sources, combined with our industry expertise, have been synthesised into the qualitative and quantitative analysis which has been presented in this report. The data and statistics for years 2013 to 2018 are actual figures obtained from the concerned utilities and ministries. In a few cases, where this data was not available, we have used estimates based on information obtained from press/analyst reports or those based on past growth trends. For analysis of the expected network addition and planned investment, we have extensively researched the plan documents of various utilities and governments. Wherever these plans were not available, we have derived the projections based on past growth trends or based on projects planned by the utilities.

The future capital expenditure investment numbers include investments on both new build and renovation and modernisation projects. Also, in several countries, updated transmission plans were released in 2017 and 2018 with revised investment figures. Hence the expected investment numbers mentioned in this report may vary from investment numbers mentioned in our previous reports.

To ensure comparability of financial ratios across TSOs, we have adopted specific formulae for estimating these ratios for all utilities. Hence, the financial ratios estimated in the report may not match with those mentioned by utilities in their annual/financial reports. In some cases, totals may not match due to data being rounded off.

Great care has been taken to ensure that all analysis is well supported by facts. Where facts are not available and assumptions are made, we have explained our assumptions and our methods of estimation.

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Global Transmission Research is a leading provider of information and analysis on the global electricity transmission industry. We publish newsletters and reports. We also organise conferences on key issues and topical themes relevant to the transmission industry.

We publish the **Global Transmission Report** (a monthly newsletter) and **Global Transmission Weekly** (a weekly newsletter). We also operate the website www.globaltransmission.info. In addition, we have published several industry-focused research studies. Please visit our website to learn more about these products.

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