DOING BUSINESS 2013

Indicators on Getting Electricity

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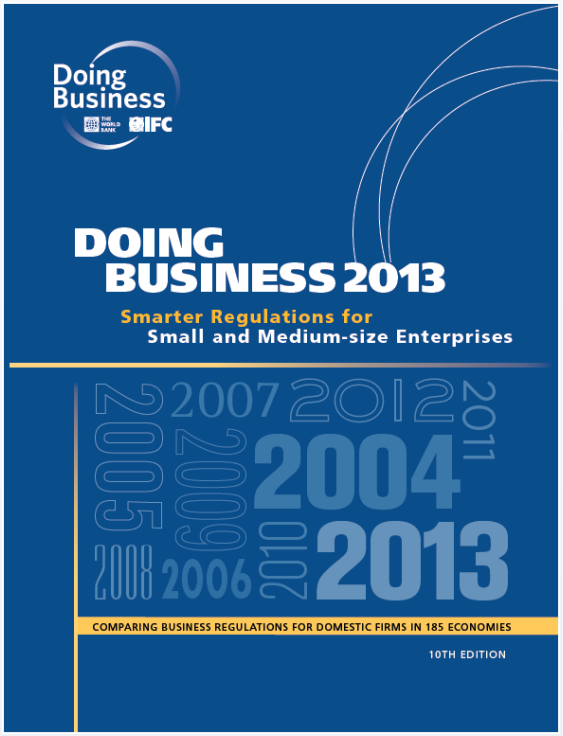
What does *Doing Business* measure?



Doing Business indicators:

- ✓ Focus on regulations relevant to the life cycle of a small to medium-sized domestic business.
- ✓ Are built on standardized case scenarios.
- ✓ Are measured for the most populous city in each country.
- ✓ Are focused on the formal sector.

DO NOT measure all aspects of the business environment such as macroeconomic stability, corruption, level of labor skills, proximity to markets, or of regulation specific to foreign investment or financial markets.

Doing Business indicators – 11 areas of business regulation

Complexity and cost of regulatory processes	
Starting a business	Procedures, time, cost and paid-in minimum capital requirement
Dealing with construction permits	Procedures, time and cost
Getting electricity	Procedures, time and cost
Registering property	Procedures, time and cost
Paying taxes	Payments, time and total tax rate
Trading across borders	Documents, time and cost
Strength of legal institutions	
Getting credit	Movable collateral laws and credit information systems
Protecting investors	Disclosure and liability in related-party transactions
Enforcing contracts	Procedures, time and cost to resolve a commercial dispute
Resolving insolvency	Time, cost, outcome and recovery rate
Employing workers[a]	Flexibility in the regulation of employment

a. The employing workers indicators are not included in this year's ranking on the ease of doing business nor in the calculation of any data on the strength of legal institutions included in figures in the report.

How are the data collected?

- ✓ To start, the *Doing Business* team, with **academic advisers, designs a standardized case study and develops a survey**.
- ✓ **Surveys are administered through more than 8,000 local experts,** including lawyers, business consultants, accountants, government officials and other professionals.
- ✓ These experts have **several** (**typically 4) rounds of interaction** with the *Doing Business* team, involving conference calls, written correspondence and country visits.
- ✓ The data from surveys are subjected to numerous **tests for robustness**, which lead to revisions or expansions of the information collected.
- ✓ The data for all sets of indicators in *Doing Business 2013* are for **June 1, 2012** (except for Paying taxes, for which the data refer to Jan–Dec 2011).

How does *Doing Business* define SMART business regulations?

S
- STREAMLINED—regulations that accomplish the desired outcome in the most efficient way

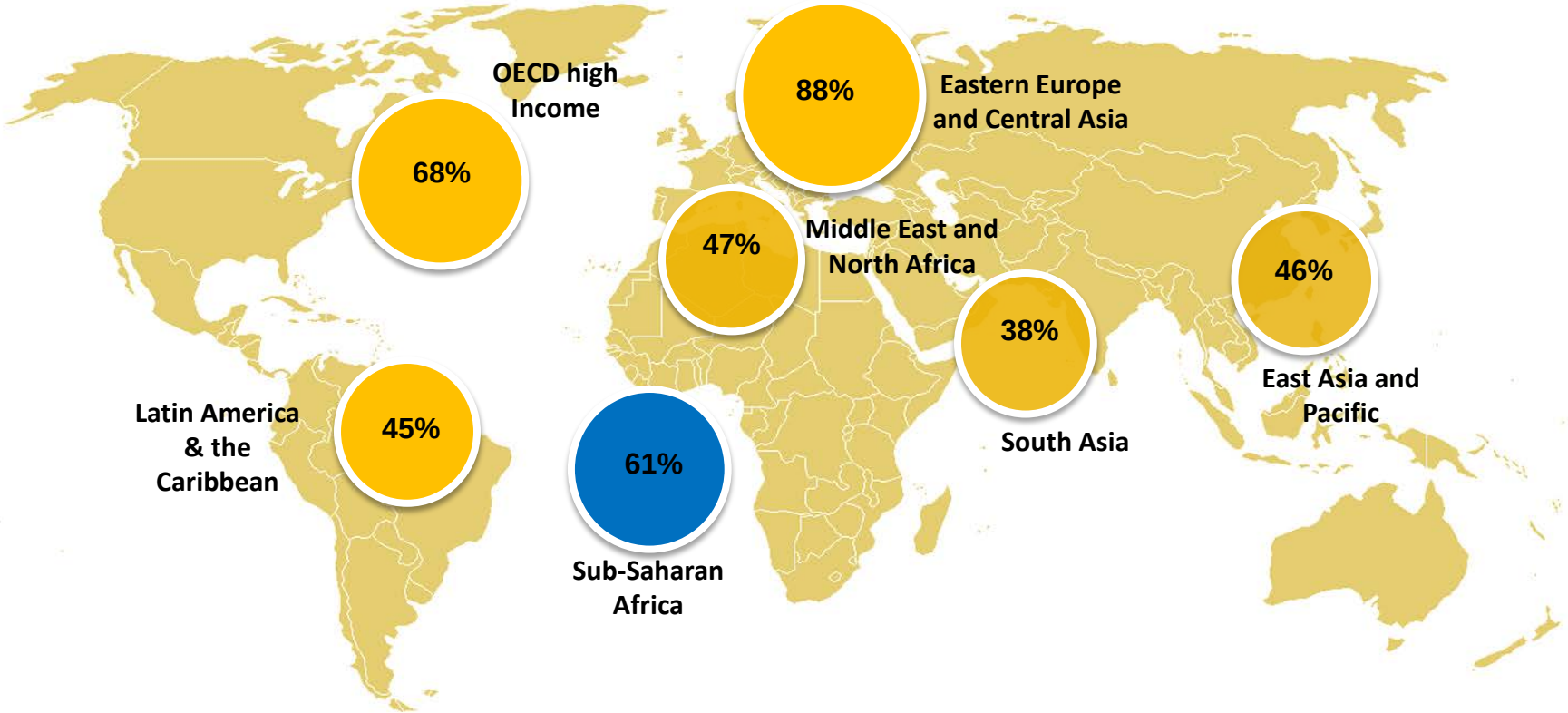
M
- MEANINGFUL—regulations that have a measurable positive impact in facilitating interactions in the marketplace

A
- ADAPTABLE—regulations that adapt to changes in the environment

R
- RELEVANT—regulations that are proportionate to the problem they are designed to solve

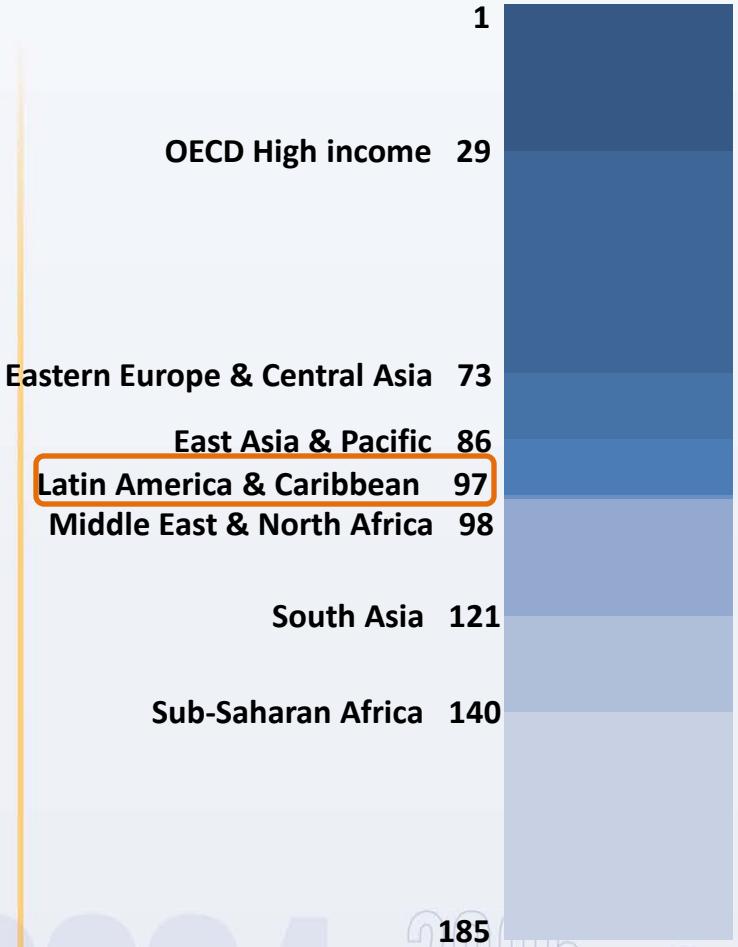
T
- TRANSPARENT—regulations that are clear and accessible to anyone who needs to use them

Pace of reforms remains strong worldwide: 108 economies implemented 201 reforms in 2011/12



While in 2005/2006 only 33% of the economies of Sub-Saharan Africa implemented business regulation reforms, in 2011/2012 61% of the economies reformed

Latin America and Caribbean economies on average rank near the middle in the global ease of doing business



95

104

105

Caribbean Community

Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Trinidad and Tobago

Central America

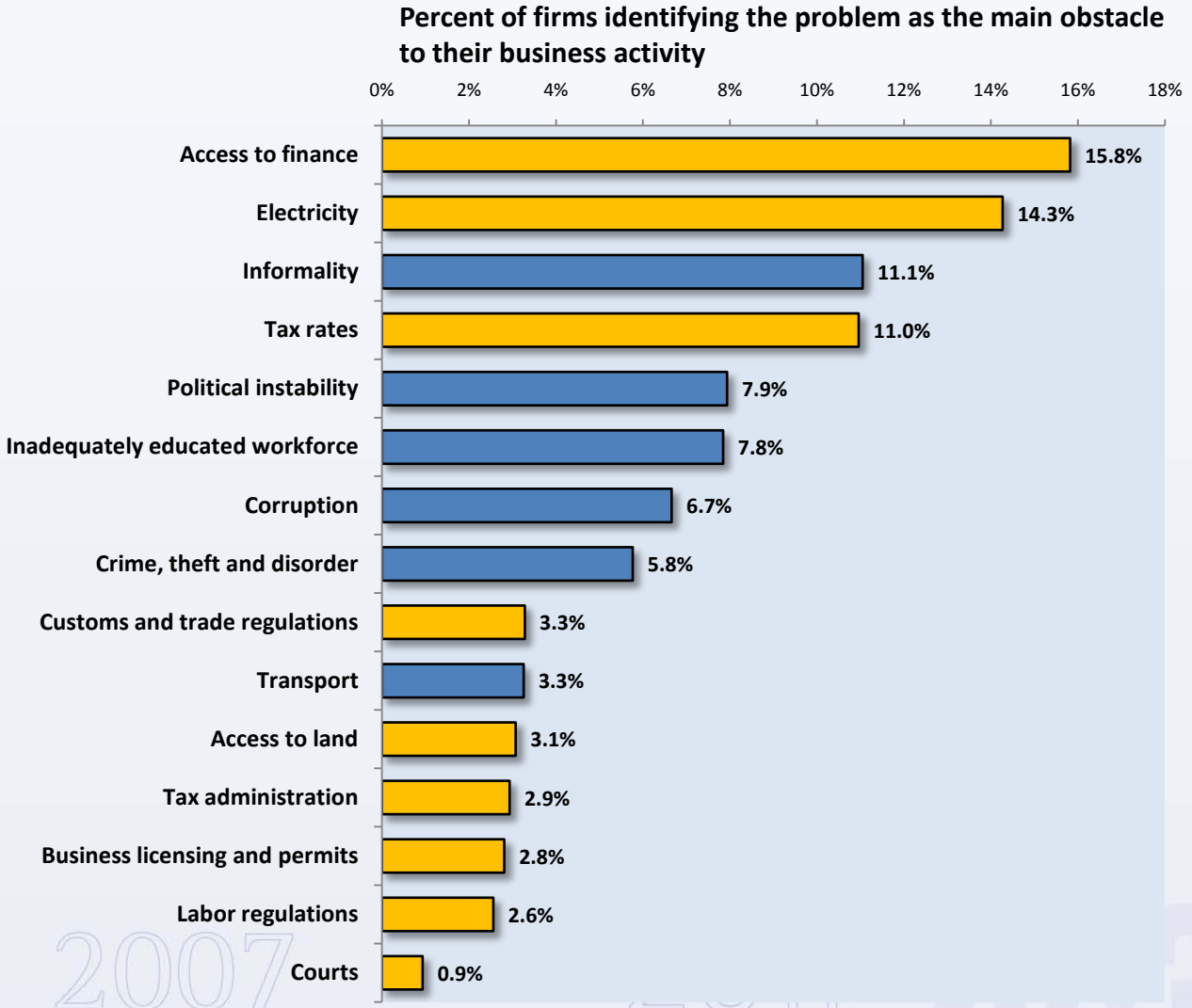
Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama

South America

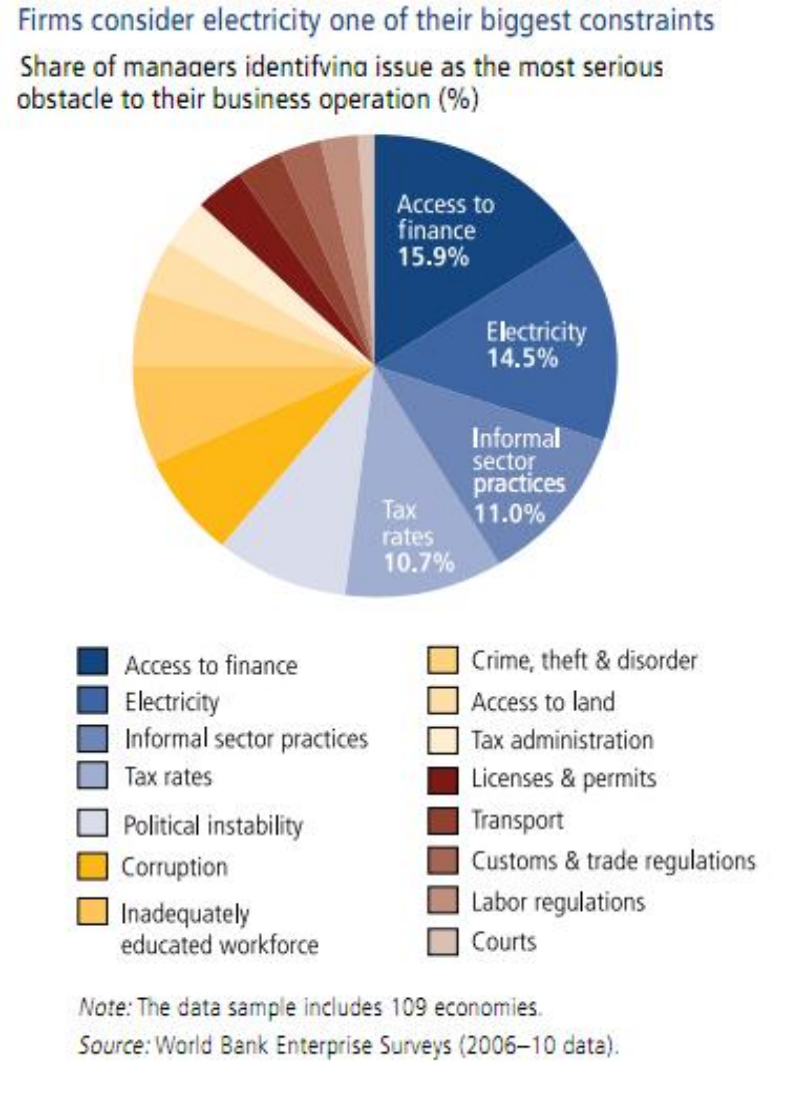
Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Uruguay, Venezuela RB

Doing Business indicators reflect on some of the most important obstacles small and medium-sized firms face

- Based on ***Enterprise Surveys* in 118 countries** around the world
- Direct responses from **representative samples of the private sector**
- ***Access to finance, electricity and informality*** are the top obstacles across the developing world



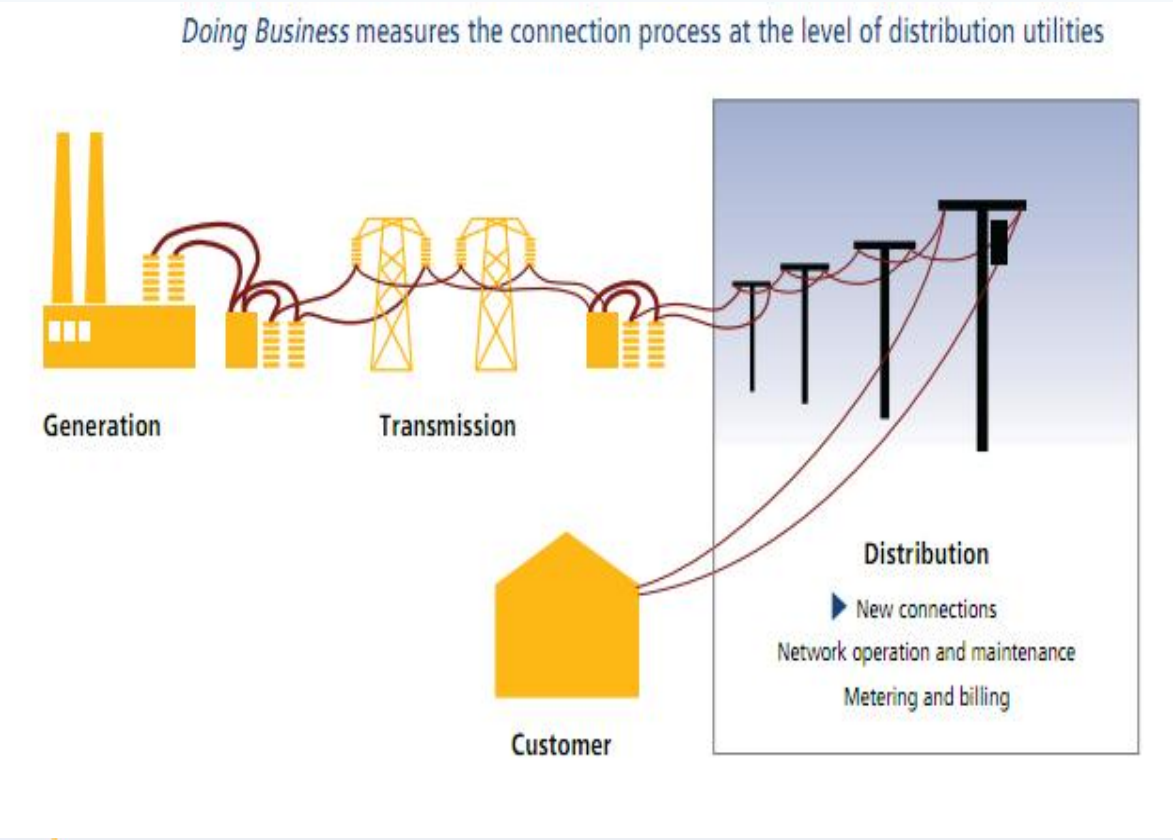
How electricity services matter for businesses ?



- World Bank Enterprise Surveys show that managers in 109 economies, 71 of them low or lower middle income, consider electricity to be among the biggest constraints to their business.

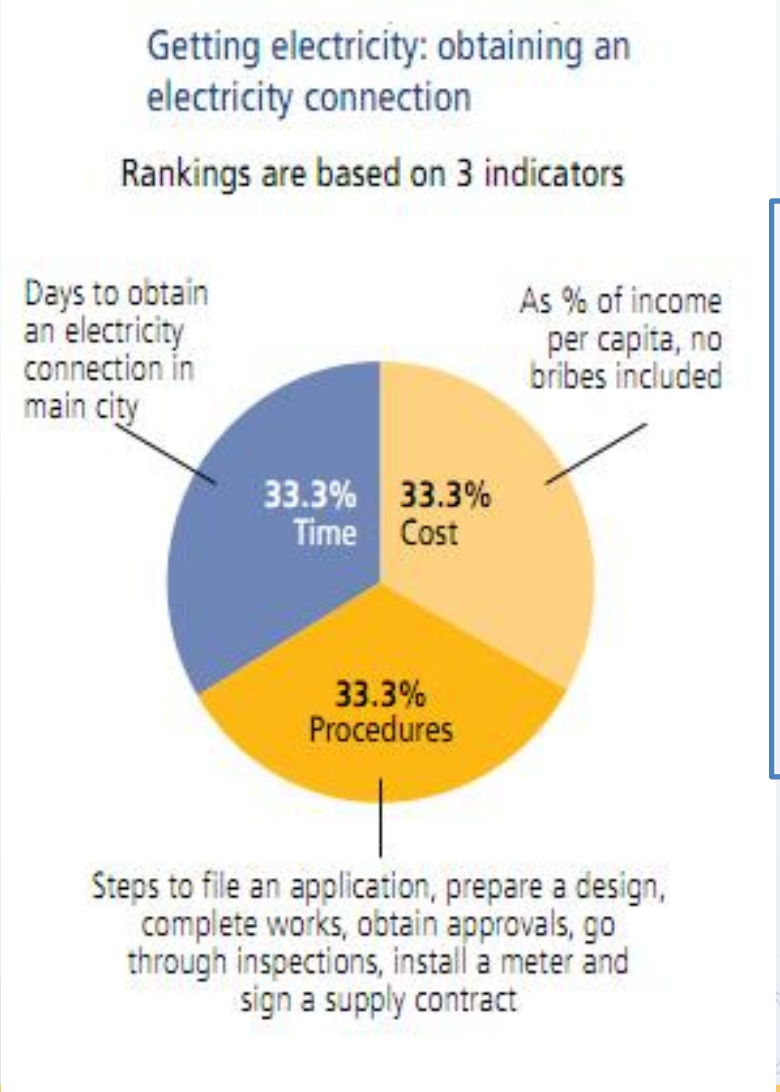
- In addition, managers estimate losses due to power outages at an average 5.1% of annual sales.

The indicator Getting Electricity records information on the distribution part of the electricity sector



- Poor electricity supply adversely affects the productivity of firms and the investments they make in their productive capacity.
- It is therefore essential for businesses to have reliable, good-quality electricity supply.
- But whether electricity supply is reliable or not, the **first step** for customers is to get a **new connection**, the process measured by the getting electricity indicators.

What Getting Electricity measures: procedures, time and cost



Based on a standardized case study:

- Newly built warehouse
- Located in the main business city
- Modest but non-trivial load of 140 kVA

Data Collection Process:

- Contact main distribution utility in the business capital of each country
- Verify with independent professionals, like electrical contractors, electrical engineers and regulatory agencies.

The Case Study Assumptions

The process of obtaining an electricity connection :

- Procedures, time and cost
- Costs include connection fees, labor and material
- Procedures include applications, inspections, approvals and works.

Based on a standardized case study:

- Newly built warehouse
- Located in the main business city
- Modest but non-trivial load of 140 kVA

Data Collection Process:

- Contact main distribution utility in the business capital of each country
- Verify with independent professionals

Getting Electricity indicators – of what use are they to policy makers?

Getting Electricity correlates with other sector challenges….

✓Time and cost to obtain an electricity connection are negatively correlated with the electrification rate.

✓The cost to obtain an electricity connection is negatively correlated with the % of transmission and distribution losses

✓Simpler connection processes are associated with higher firm sales, in particular in industries with high electricity needs

…and can support regulators in their dialogue with the utility……

Distribution utilities retain monopolistic positions even in otherwise liberalized markets

- Customers are captive
- Benchmarking utility performance helps regulators help customers

Great majority of distribution utilities surveyed are only "game in town"

- Benchmarking against utilities in other countries needed

Regulatory agencies often have to rely on self-reporting of utilities:

- Limits effective monitoring of utility performance (especially in such areas as quality of service regulation)
- Independent benchmarking can fill a gap

Where is getting electricity easy – and where not?

- In economies where getting electricity is most efficient, requiring fewer interactions with authorities and less time, utilities often carry out the external connection works themselves.

- They also obtain the necessary approvals and streamline procedures with other agencies.

Where is it easier to get electricity ?[a]

Iceland
Germany
Korea, Rep
Hong Kong, China
Singapore
Taiwan, China
United Arab Emirates
Switzerland
Sweden
Thailand

a. The rank is the simple average of an economy's percentile rank on procedures, time and cost to get an electricity connection. See the data notes for details.
Source: Doing Business database.

Who makes getting electricity easy – and who does not?

Procedures (number)			
Fewest		Most	
Comoros	3	Nigeria	8
Germany	3	Senegal	8
Japan	3	Sierra Leone	8
Micronesia, Fed. Sts.	3	Azerbaijan	9
St. Vincent and the Grenadines	3	Bangladesh	9
Sweden	3	Mozambique	9
Switzerland	3	Tajikistan	9
Timor-Leste	3	Uzbekistan	9
Afghanistan	4	Russian Federation	10
Iceland	4	Ukraine	11

Time (days)			
Fastest		Slowest	
Germany	17	Cyprus	247
St. Kitts and Nevis	18	Hungary	252
Iceland	22	Nigeria	260
Austria	23	Czech Republic	279
Taiwan, China	24	Russian Federation	281
St. Lucia	25	Ukraine	285
Korea, Rep.	28	Bangladesh	404
Rwanda	30	Madagascar	450
Chile	31	Guinea-Bissau	455
Puerto Rico (U.S.)	32	Liberia	465

Connection delays increase where:

- Opportunities are missed to streamline approvals with other public agencies
- Inspections are unnecessarily duplicated
- Utilities do not have the materials needed to connect customers readily available.
- New connections are rationed because supply is limited.

Who has narrowed the distance to frontier in getting electricity the most since 2010?

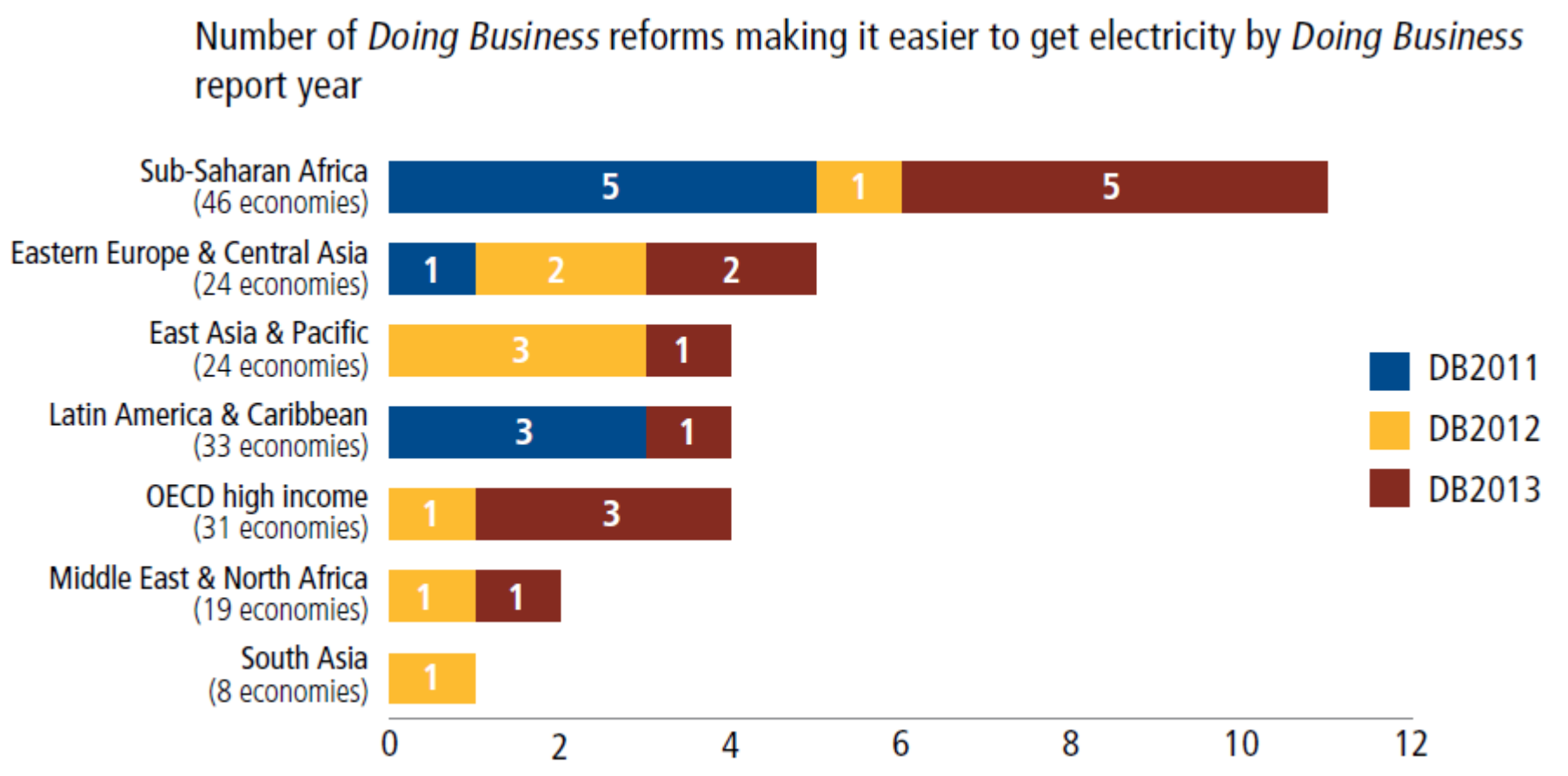
Most improved	Change in distance to frontier (percentage points)
Vanuatu	19 (48→67)
Gambia, The	17 (46→63)
Central African Republic	15 (13→28)
Zimbabwe	13 (40→53)
Afghanistan	12 (55→67)
Latvia	12 (61→73)
Georgia	12 (72→84)
Kyrgyz Republic	11 (33→44)
Congo, Rep.	11 (35→46)
Angola	10 (55→65)

The distance to frontier measure shows **how far on average an economy is from the best performance achieved by any economy on each Doing Business indicator**—in this case for the getting electricity indicators since 2010.

Who made getting electricity easier in 2011/12—and what did they do?

Feature	Economies	Some highlights
Improved process efficiency	Canada; Indonesia; Italy; Liberia; Mexico; Namibia; United Arab Emirates	In Italy the utility Acea Distribuzione reorganized its departmental workflow, increasing efficiency and reducing the time to complete external connection works. In Liberia the materials needed for an electricity connection are now readily available in the utility's stock, reducing the time to obtain a connection. The purchase of materials was facilitated by increased donor funding.
Streamlined approval process	Angola; Armenia; Georgia; Guinea	In Armenia the Public Services Regulatory Commission adopted resolutions giving customers more technical options for connecting to electricity. As a result, customers no longer have to wait for a permit from the State Energy Inspectorate. The commission also revised its fee structure, reducing the costs customers pay for a new connection.
Improved regulation of connection costs and processes	Republic of Korea; Rwanda	In Rwanda the installation cost that a customer must pay the Energy, Water and Sanitation Authority for the external connection works was reduced from 30% of the materials cost to 15% when the customer provides the materials.

Sub-Saharan Africa had the most reforms in getting electricity in the past 3 years

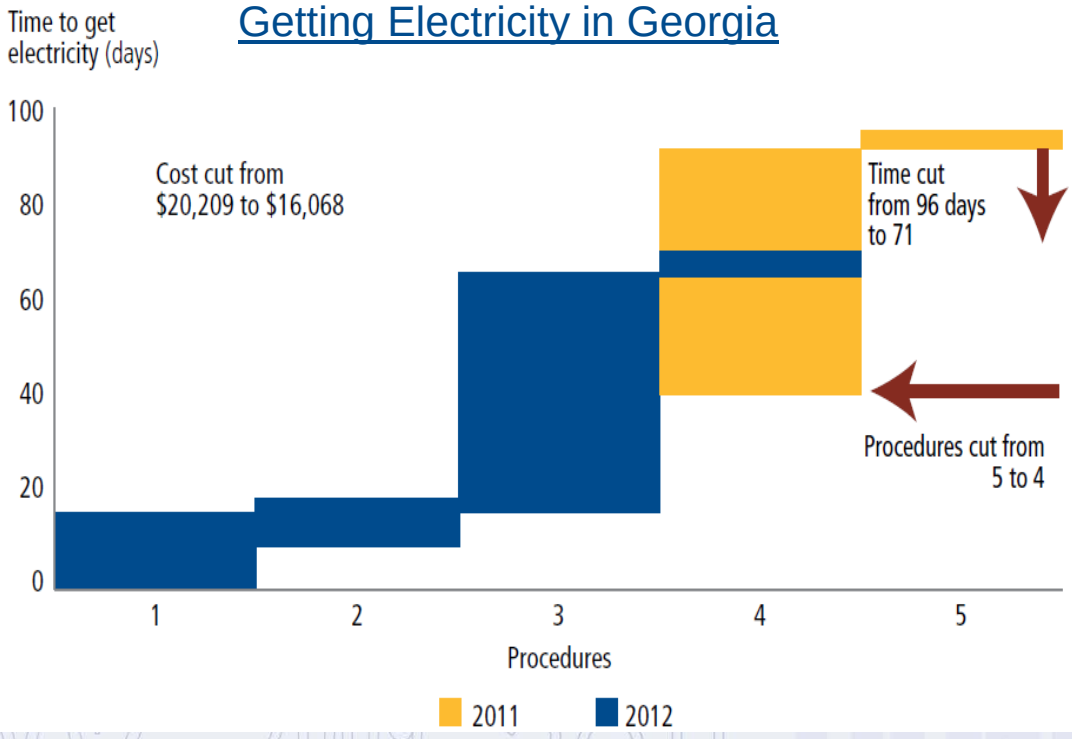


Armenia and Georgia the top reformers in Getting Electricity in DB13

- In Armenia the new connection process eliminated 1 procedure while a revised fee structure reduced the cost of new connections.

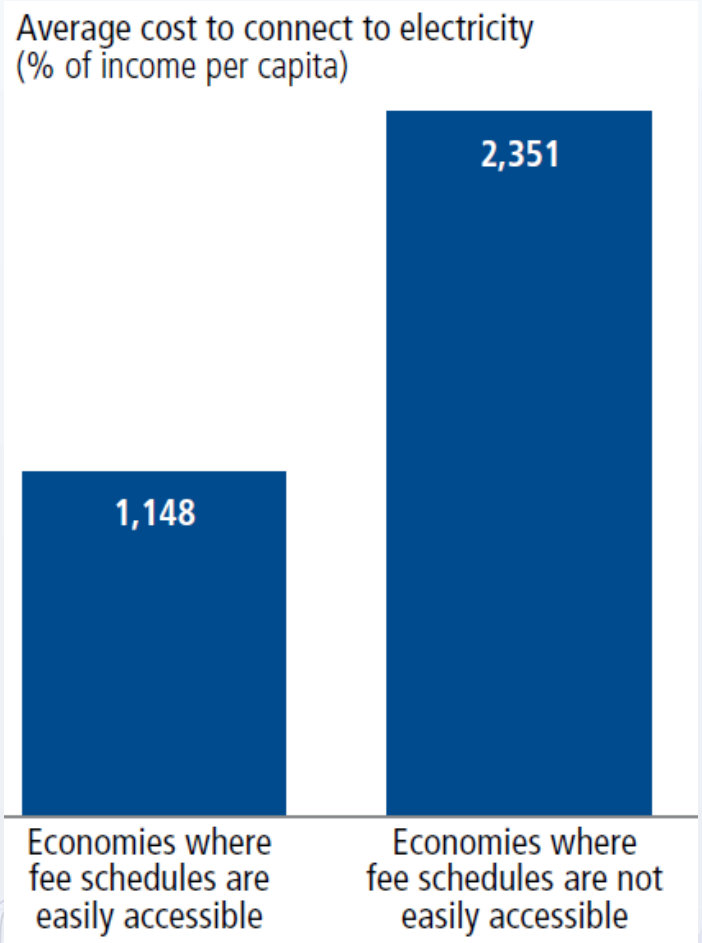
- In Georgia, the National Commission on Energy and Water Regulation also introduced a new process and a revised fee structure. (see figure on the side)

Getting Electricity in Georgia



Transparency of new electrical connection cost

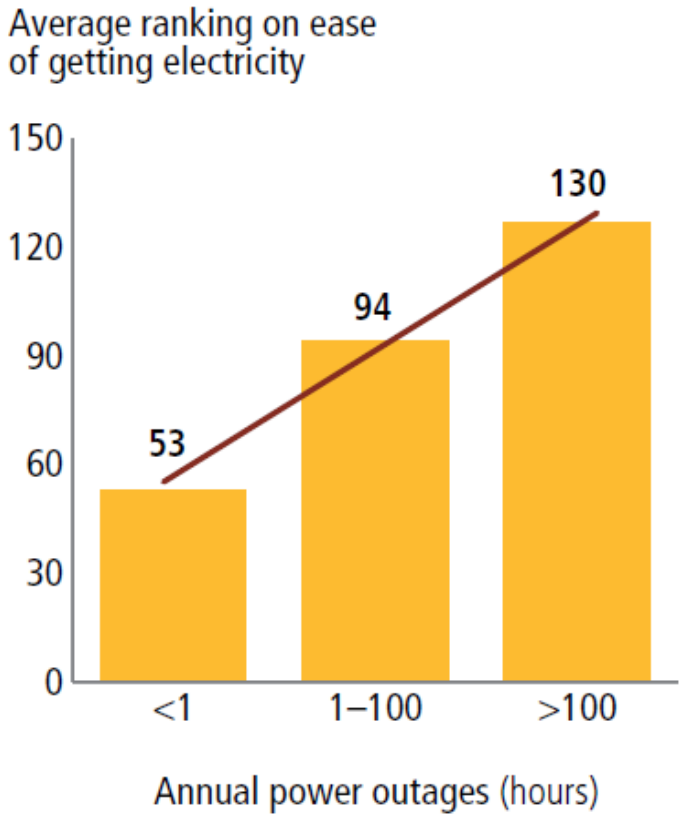
Getting a new electricity connection costs more **than twice as much** in economies where information on the connection fees is more difficult to access

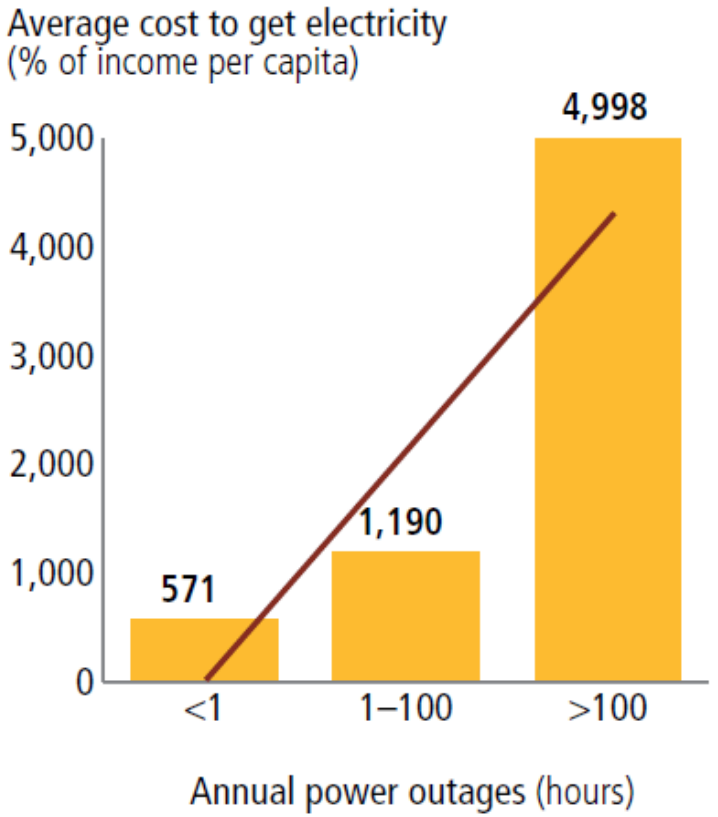


➢ Similar results were found for the fees to register property and to obtain a construction permit.

New data on electricity : Quality of supply

In economies where utilities make the connection process cheap and efficient, supply is likely to be more reliable :





Good practices around the world in making it easy to get an electricity connection

TABLE 3 Good practices around the world, by *Doing Business* topic		
Practice	Economies[a]	Examples
Streamlining approval processes (utility obtains excavation permit or right of way if required)	104[b]	Armenia; Austria; Benin; Cambodia; Czech Republic; Panama
Providing transparent connection costs and processes	103	France; Germany; Ireland; Netherlands; Trinidad and Tobago
Reducing the financial burden of security deposits for new connections	96	Argentina; Austria; Kyrgyz Republic; Latvia; Mozambique; Nepal
Ensuring the safety of internal wiring by regulating the electrical profession rather than the connection process	40	Denmark; Germany; Iceland; Japan

Good practices in the Caribbean in making it easy to get an electricity connection

Practice	Countries
Streamlining approval processes (utility obtains excavation permit or right of way if required)	Antigua and Barbuda, Bahamas, Belize, Dominica, Dom. Republic, Guyana, St. Lucia, St. Vincent & the Grenadines, Suriname, Trinidad & Tobago
Providing transparent connection costs and processes	Barbados, Guyana, Jamaica, St. Lucia, Trinidad & Tobago
Reducing financial burden of security deposit for new connections	Antigua & Barbuda, St. Kitts & Nevis, Trinidad & Tobago, Barbados, Belize, Jamaica, Puerto Rico, St. Lucia
Ensuring safety of internal wiring process by regulating the electrical profession rather than connection process	Puerto Rico

What does it cost to get connected?

Connection costs in low income countries are higher, because:

• Distribution systems often lack spare capacity

→Customers have to shoulder additional capital investments

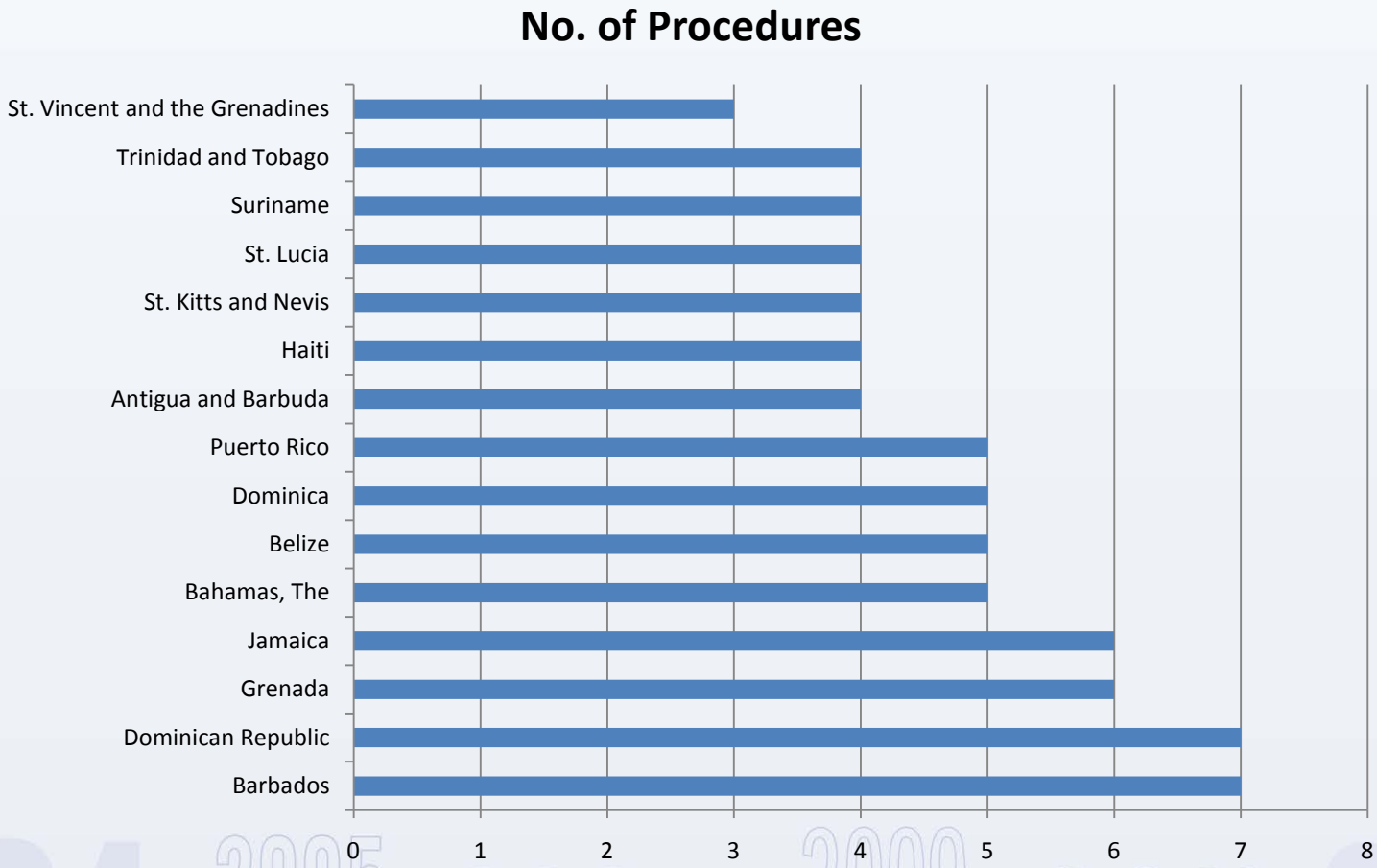
Typical connection costs include:

- Application fee
- Fee for internal wiring check
- Cost for distribution transformer, cable, meter, meter board
- Labor cost for installation of transformer and cable
- Fee for testing of material
- Fee for excavation permit
- Security deposit

Cost (% of income per capita)			
Least		Most	
Japan	0.0	Djibouti	7,776.4
Hong Kong SAR, China	1.6	Guinea	8,377.7
Qatar	3.9	Malawi	8,854.9
Norway	6.5	Madagascar	9,056.7
Trinidad and Tobago	6.6	Chad	11,017.6
Australia	8.7	Central African Republic	12,603.6
Panama	13.6	Burkina Faso	12,662.0
Israel	13.8	Benin	14,343.1
Uruguay	14.3	Burundi	21,481.7
Iceland	14.9	Congo, Dem. Rep.	27,211.6

Source: Doing Business database.

Caribbean Countries – Who makes getting electricity easier, and who doesn't



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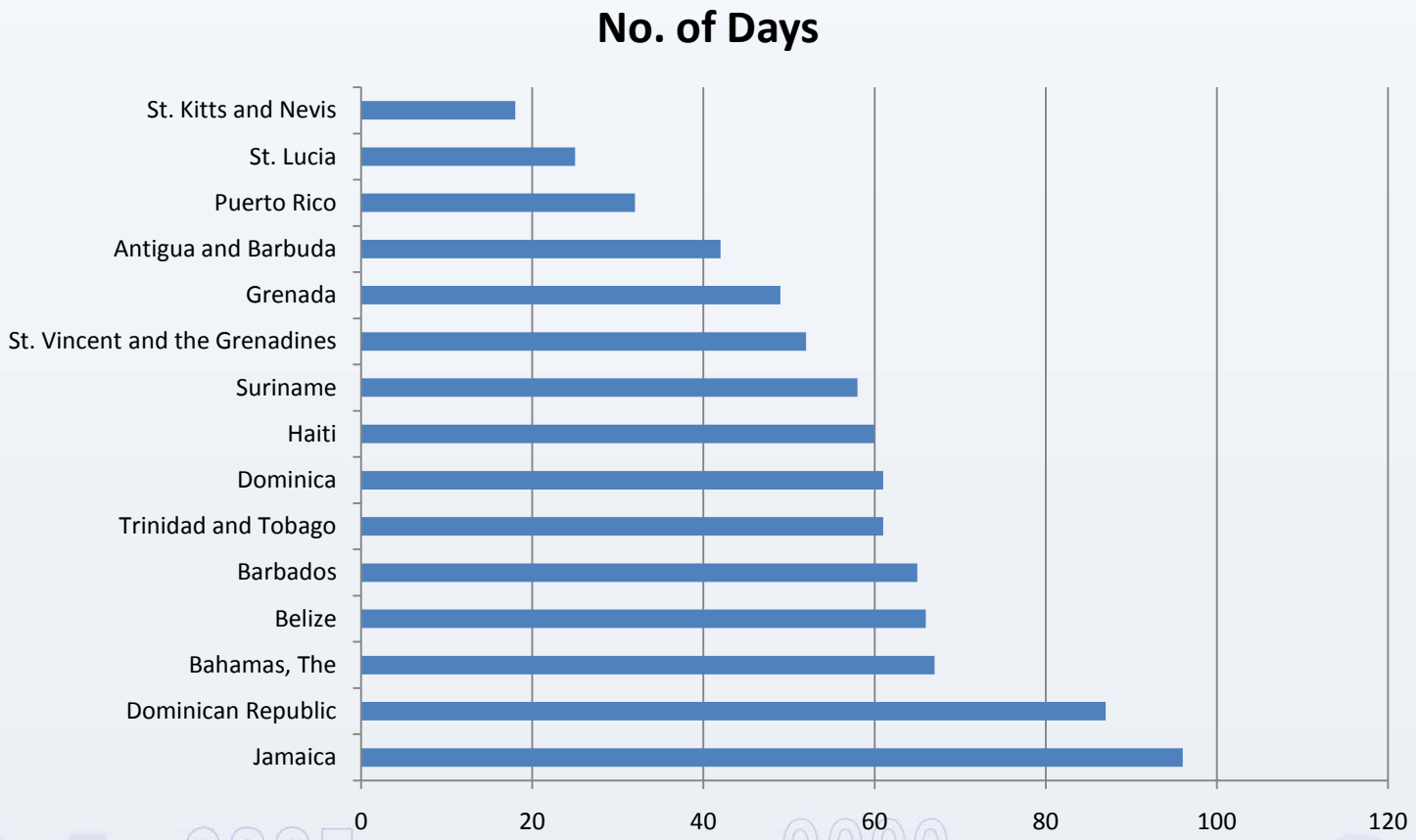

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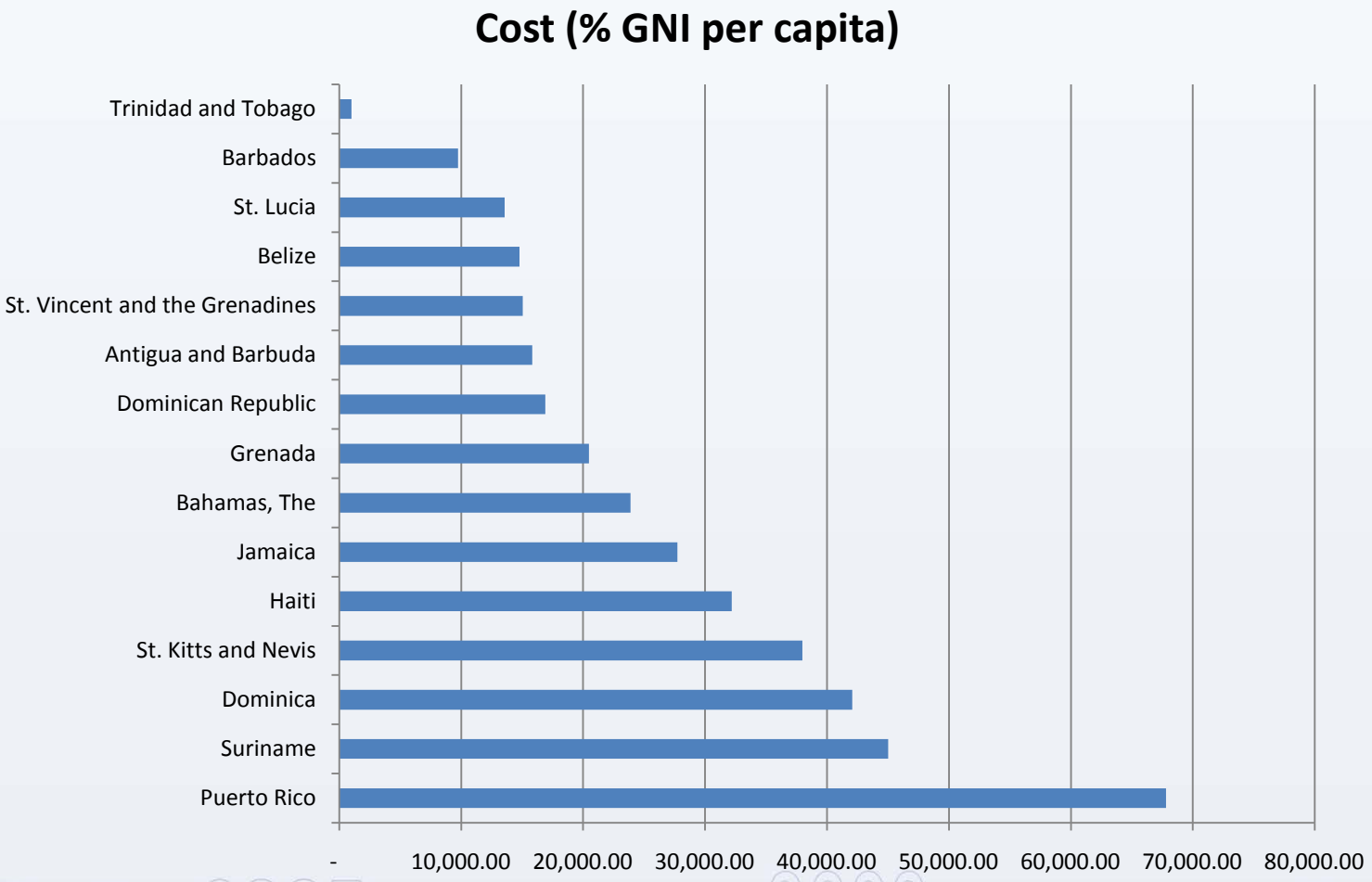


Caribbean countries – Ranking in Getting Electricity

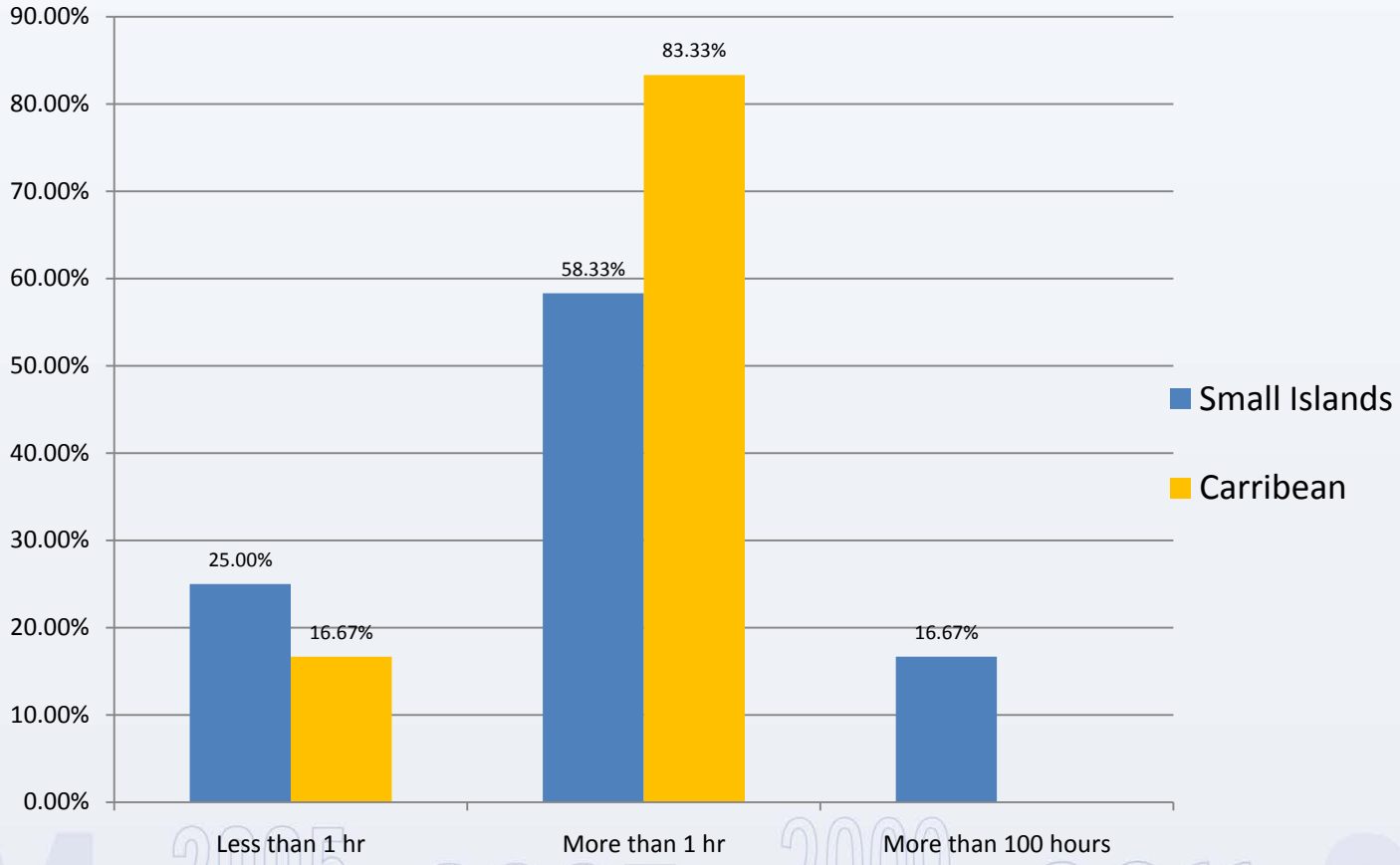
Economies	DB13 Ranking for Getting Electricity
Trinidad and Tobago	11
St. Lucia	12
St. Kitts and Nevis	17
Antigua and Barbuda	18
St. Vincent and the Grenadines	22
Puerto Rico	37
Suriname	39
Bahamas, The	43
Belize	58
Dominica	61
Grenada	66
Haiti	71
Barbados	81
Dominican Republic	122
Jamaica	123

Caribbean countries – some common features

- Multiple inspections conducted by utility as well as other agencies – causing delays in the connection process
- 12 out of 15 Caribbean economies charge a security deposit for new connections, and in only 5 economies, the security deposit can be settled with a bond or bank guarantee.
- Transparency – in only 4 out of 15 Caribbean economies, the electricity fees are easily accessible (published online or available in brochures)
- Distribution systems often lack spare capacity – new connection requires expansion of network, and customers have to shoulder additional capital investments.

Quality of supply – power outages

Quality of Supply - Total hours of power outages per year



Which small states make getting electricity easy--and which do not?

	Rank	Procedures (number)	Time (days)	Cost (% of income per capita)	Income per capita (US$)
Easiest					
Singapore	5	4	36	28.63	42,930
Trinidad and Tobago	11	4	61	6.62	15,380
St. Lucia	12	4	25	202.84	6680
St. Kitts & Nevis	17	4	18	304.26	12,480
Antigua & Barbuda	21	3	52	307.9	4,850
St. Vincent and the Grenadines	22	3	52	246.71	6100
Papua New Guinea	23	4	66	59.92	1480
Tonga	30	5	42	101.46	3580
Samoa	33	4	34	790.78	3190
Suriname	39	4	58	634.42	7096

Which small states make getting electricity easy--and which do not?

	Rank	Procedures (number)	Time (days)	Cost (% of income per capita)	Income per capita (US$)
Most Difficult					
Comoros	104	3	120	2477.18	770
Cape Verde	106	6	58	981.35	3540
Maldives	120	6	108	380.46	6530
Dominican Republic	122	7	87	322.34	5240
Jamaica	123	6	96	557.014	4980
Vanuatu	124	5	122	1248.10	2870
Solomon Islands	125	4	160	2044.45	1110
Seychelles	144	6	147	429.80	11130
Guyana	148	7	109	542.86	3202
Kiribati	159	6	97	5199.66	2110

Procedure list – Antigua and Barbuda

No.	Procedure	Time to Complete	Associated Costs
1	**Customer gets application form stamped from DCA (Development Control Authority)** The DCA verifies that the building has the necessary clearance to build. Applicant submits drawings and approval to build certificate to DCA. All applications for new service are to be filled out in quadruplets and taken to the Development Control Authority (DCA), to be approved before they are brought to Antigua Public Utilities Authority (APUA). DCA typically takes a week to process the application. *Agency:* Development Control Authority	7 calendar days	XCD 200.0
2	**Submit application to Antigua Public Utility Authority (APUA) and awaits site inspection** When bringing these forms to A.P.U.A. they shall be accompanied with a valid photo I.D. and a detailed location of where the service is desired. A.P.U.A. will make an inspection within 5 working days. In the event this service doesn't comply with the authority's standard it will be rejected and will be filed away until the applicant informs the authority that he/she is ready for a second inspection. Once the engineer has conducted the site inspection and assessed the requirements of materials (in most cases for a 140 KVA connection, a distribution transformer and accessories will be required), he prepares the total estimated cost. *Agency:* Antigua Public Utilities Authority	7 calendar days	no charge
3	**Customer receives internal wiring inspection from APUA** Payment of estimated amount is usually made in whole, but sometimes if the customer requests, two part payment can be made - 50% at receiving estimate, and balance after internal inspection. Only after complete payment is received, the utility does the external works. Customer has to be present during inspection. Utility conducts internal wiring inspection and instructs the customer to make the balance payment so that external works can commence. *Agency:* Antigua Public Utilities Authority	21 calendar days	XCD 43,200.0
4	**APUA conducts external connection works, meter installation, electricity starts flowing.** No security deposit charged for customers who own the building. *Agency:* Antigua Public Utilities Authority	7 calendar days	no charge

Procedure list – Jamaica

No.	Procedure	Time to Complete	Associated Costs
1	**Electrical contractor applies for Govt. of Jamaica Electrical Dept (GEI) Inspection Certificate** When the service order is generated, the parish office is informed and a team dispatched to conduct site visit which includes easement needed to ensure that construction process will not be held up and time and other resources are not spent unnecessarily. The findings from the inspection will be entered into a database that has predefined measurements based on the regular, current and projected factors that facilitate the successful completion of any particular job. The result will determine the final cost.	1 calendar day	JMD 16,000.0
2	**Receive internal wiring inspection from GEI and await preparation of report** The inspector conducts the internal wiring inspection based on the Jamaican 21 standard. If the customer premises structure of internal wiring used is accepted, the record of the inspection and results is recorded and the relevant information based on size, type and location of customer premises is sent to JPS. In cases where the internal wiring is not accepted, the customer is informed and has to restart the process.	21 calendar days	no charge
* 3	**Submit application to Jamaica Public Service Company (JPSCo) and await site visit** Documents to be submitted along with application –Application letter; the address where service is required; when the service is needed; name and contact details of person representing the company for the application; load details on the major equipment to be used in your new/expanded facility and the rating in kilovolt amperes (kVA) or ampere (A) units; if applicable, a single line electrical diagram, prepared by a Certified Electrical Engineer, indicating the loading as well as other details for three phase (3) service.	7 calendar days	no charge
4	**Receive site inspection and await estimate from JPSCo** When the service order is generated, the Engineering Team is informed in the case of complex connections to conduct a site visit. The site visit is conducted to determine the site layout and the requirements that will have to be met to supply the customer with electricity. Requirements include number of poles, transformers, length of conductor among other items that will be needed. A drawing is prepared of the site layout, to outline to the Easement team, any situations that may require legal action or reference and the reasoning behind such action; as well as the Construction Team, to facilitate the successful execution of the development process. The findings from the site visit will be entered into an application that has predefined measurements based on the regular, current and projected factors that facilitate the successful completion of any particular job. The result will determine the final estimate. This cost is communicated to the customer. [This particular case is not considered as such to warrant the inclusion of easement costs in total estimate, but in a many cases, a provision is made for such costs when an electrical equipment other than a service wire may need to be placed on a customer's or connecting customer's premises to successfully execute the construction process]	18 calendar days	no charge
5	**Purchase material and conduct external connection works by the electrician** There is some external connection works which the customer needs to do, This is basically the external wiring up to point of connection provided by utility, a panel board, switchboard, and cables.	7 calendar days	JMD 250,000.0
6	**Utility conducts external connection works, meter installation and electricity starts flowing** JPSCo will purchase material based on arrangements with customers and carryout the necessary construction work and external connections required. Once the job has been completed, JPSCo will invite the Government of Jamaica Electrical Department (GEI) Office to carryout inspection on additionally electrical work done on electrical power lines. Once certified by the GEI Office, the customer is contacted and requested to provide JPS with a security deposit that is refundable upon termination of service being provided. Rate 40 customers are required to make a deposit of the projected sum of 3 months consumption. The cost attached is JMD $2,730,000 The customer can supply JPS with a bank guarantee cost paid for security deposit of JMD$8,190,000. JPSCo will then proceed with final meter connection thus enabling the customer to make use of electricity.	49 calendar days	JMD 2,303,602.5

Thank You

Questions

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