

## Getting Electricity Questionnaire – «Survey\_Economy»

www.doingbusiness.org

Dear «FirstName» «LastName»,

We would like to thank you for your participation in the *Doing Business* project. Your expertise in the area of getting an electricity connection in «Survey\_Economy\_FullName» is essential to the success of the *Doing Business* report, one of the four flagship publications of the World Bank Group that benchmarks business regulations in 189 economies worldwide. The Getting Electricity indicator is one of the 11 indicator sets published by the *Doing Business* report. It measures the procedures, time and cost required for a business to obtain a new electricity connection, as well as the reliability of electricity supply and transparency of tariffs.

The report attracts much attention around the world. The latest edition, *Doing Business 2016: Measuring Regulatory Quality and Efficiency*, introduced improvements in 6 of the 11 *Doing Business* indicator sets. It received over 7,000 media citations within just 3 weeks of its publication on October 27, 2015 and 31.4 million twitter accounts were reached with *Doing Business* mentions within that same time period. The coverage spanned major global, regional and local media outlets, from print and broadcast to the web. The *Doing Business* website had over 1 million page views and nearly 60,000 downloads within 3 weeks after the report's launch.

Governments worldwide read the report with interest every year, and your contribution makes it possible for the *Doing Business* project to disseminate the regulatory best practices that continue to inspire their regulatory reform efforts. Since 2010, 64 economies have implemented a total of 70 reforms making it easier to obtain a new electricity connection. In 2014/15, 22 economies implemented such reforms. Most streamlined approval processes and improved process efficiency.

We are honored to be able to count on your expertise for *Doing Business 2017*. Please do the following in completing the questionnaire:

- Review the assumptions of the case study before updating last year's information in the questionnaire.
- Describe in detail any reform that has affected the process for getting an electricity connection since June 1, 2015.
- Be sure to update your name and address if necessary, so that we can mail you a complimentary copy of the report.
- Kindly return the questionnaire to us at [DBElectricity@worldbank.org](mailto:DBElectricity@worldbank.org).

We thank you again for your invaluable contribution to the work of the World Bank Group.

Sincerely,

**The Getting Electricity team - *Doing Business***

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**Primary Contributor Information:** Please check the box next to information you **do not** want us to **publish**.

		<b>Name</b>			
Do not publish <input type="checkbox"/>	Title (Mr., Ms., Dr.)	«Title»	[ ]	[ ]	
	First Name	«FirstName»	[ ]	[ ]	
	Last Name	«LastName»	[ ]	[ ]	
Never Published	Position (e.g. manager, associate, partner)	«Position»	[ ]	[ ]	
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**Additional Contributor(s):** If there are more people to acknowledge, kindly send us an e-mail.

Name	Occupation	Email	Phone	Address
[title] [first name] [last name]	[firm] [position] [profession]	[ ] [ ]	[phone] [mobile]	[street] [state/province] [city/country]
[title] [first name] [last name]	[firm] [position] [profession]	[ ] [ ]	[phone] [mobile]	[street] [state/province] [city/country]
[title] [first name] [last name]	[firm] [position] [profession]	[ ] [ ]	[phone] [mobile]	[street] [state/province] [city/country]

<b>What entity do you work for? Click all that apply if there are multiple respondents</b>	<input type="checkbox"/> Utility (public)	<input type="checkbox"/> Utility (private)	<input type="checkbox"/> Regulatory body
	<input type="checkbox"/> Private Sector	<input type="checkbox"/> Government body	

**Referrals:** Please help us expand our list of contributors by referring us to other experts in the private or public sector (lawyers, notaries, public officials or any expert on this field) who can respond to the questionnaire.

First name	Last name	Position	Firm	Address	Phone	E-mail
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

 **Paperless Option for Complimentary Report and Certificate.** Last year *Doing Business* contributors saved nearly half a million pieces of paper by selecting the paperless report option.

Please e-mail me an electronic copy of the report and my certificate of appreciation.

## PART 1 – Reliability of electricity supply (service interruptions) in «Survey\_City»

### 1.1. Power outages

**Note: If you do not represent the Utility or a Regulatory body, please skip Part 1 of the questionnaire and go directly to Part 2.**

Kindly provide information on the **SAIDI index** (i.e. average outage duration for each customer\* served per year) and the **SAIFI index** (i.e. average number of interruptions a customer\* experienced in a year) in «**Survey\_Economy**» for 2015 calendar year, **including load shedding and planned outages (e.g. maintenance)**, but excluding force majeure cases (natural disasters).

\* We consider a customer as 1 connection point

- ▶ What is the ownership status of the utility in «**Survey\_City**»?  Private  Public  Other (comment: \_\_\_\_\_)
- ▶ Does the utility in «**Survey\_City**» calculate SAIDI and SAIFI indexes? -Click to Select-

If **Yes**, please fill in the table below. Data should include **load shedding and planned outages (e.g. maintenance)**.

	2014		2015		Comments Explain <u>if significant change</u> from 2014
	<b>SAIDI</b> hours of power outages	<b>SAIFI</b> frequency of power outages	<b>SAIDI</b> hours of power outages	<b>SAIFI</b> frequency of power outages	
Average per customer	«DB_ge_System average interruption duration index (SAIDI)» <i>hours per year</i>	«DB_ge_System average interruption frequency index (SAIFI)» <i>n° outages</i>	<i>hours per year</i>	<i>n° outages</i>	

- ▶ What is the minimum outage time (in minutes) that the utility considers for the calculation of SAIDI/SAIFI?
- ▶ If major events are excluded in the estimates of SAIFI/SAIFI, please specify the types of events:

### 1.2. Regulation of outages

	Last year	Update	Comments Explain <u>any change</u>
1.2.1 Does the distribution utility use automated Energy Management Systems/ Supervisory Control and Data Acquisition (EMS/SCADA), to record and measure power outages on the network in « <b>Survey_City</b> »?	«DB_ge_Does the utility use automated tools to monitor outages?»	-Click to Select-  <i>If applicable, please provide information on the automated system used:</i>	
1.2.2 Does the distribution utility use automated EMS/SCADA, to manage restoration of service in « <b>Survey_City</b> »?	«DB_ge_Does the utility use automated tools to restore outages?»	-Click to Select-  <i>If applicable, please provide information on the automated system used:</i>	
1.2.3 Does any state body/agency independent from the utility (e.g. Regulatory body) monitor outages on a regular basis (e.g. through annual report)?	«DB_ge_Does a regulator - that is an entity separate from the utility - monitor	-Click to Select-  <i>If applicable, please provide the name of the agency and a link/ attachment to a report:</i>	

	the utility's performance on reliability of supply?»		
1.2.4 Are there any financial deterrents mechanisms aimed at limiting outages in « <b>Survey_City</b> » (e.g. customer compensation or fines for utility)?	«DB_ge_ Does the utility either pay compensation to customers or face fines by the regulator (or both) if outages exceed a certain cap?»	-Click to Select- <i>Select all that are applicable</i> <input type="checkbox"/> <i>Utility compensates customers</i> <input type="checkbox"/> <i>Utility is fined</i> <input type="checkbox"/> <i>Other (please comment)</i>	
► If applicable, over what cap of hours of outages is the utility fined or are customers compensated?			

## PART 2 – Tariff for electricity in «Survey\_City» and estimated power outages

### 2.1. Power outages in «Survey\_City»

**Note: If you are from the utility or regulator, please skip this question and go directly to section 2.2 below.**

Approximately, how many outages did you experience between January and December of 2015?

- 0-1                       2-4  
 5-12                     13-100  
 More than 100

### 2.2. Breakdown of tariff for electricity

For the following questions, please assume that:

- The case study warehouse in «Survey\_City» is **locally owned** by an entrepreneur and is used for commercial purposes with the following conditions:
  - Operates **30 days a month** from 9:00am to 5:00pm (**8 hours/day**), with equipment utilized at **80% of capacity** on average without electricity cuts (assumed for simplicity reasons). Although March has 31 days, for calculation purposes, only 30 days has been taken.
  - Has a subscribed **capacity of 140 kVA**, a power factor of 1 (**1 kVA = 1 kW**).
  - Monthly energy consumption of **26,880 kWh/month**, and hourly consumption of 112 kWh.
- If multiple electricity suppliers exist, assume that the **cheapest** supplier per customers served is used.

Please fill in the table below. Alternatively, please send the relevant tariff schedule or your monthly bill for **March 2016** to [DBelectricity@worldbank.org](mailto:DBelectricity@worldbank.org) - or provide a link to the utility's page with tariffs

	March 2016 local currency	Comments Explain <u>any change</u> from March 2015
Energy/usage charge for 26,880 kWh		
Capacity/demand charge for 26,880 kWh		
Administrative/processing costs		
Taxes (excluding VAT)		
Other (please describe)		
<b>TOTAL</b>		

► Please indicate how the consumption bill is calculated and the formula that is used (e.g. if and how electricity prices vary by time of the day, additional fee is charged for subscribed capacity, etc.)

### 2.3. Transparency of tariffs

How are tariffs made available to customers?	<input type="checkbox"/> Not available <input type="checkbox"/> Online/publicly displayed (please provide an attachment or a link in the box below)	
Are customers notified at least 1 billing cycle ahead of upcoming change in the tariff for electricity?	<input type="checkbox"/> YES, please select all applicable options: <input type="checkbox"/> <i>Online</i> <input type="checkbox"/> <i>TV</i> <input type="checkbox"/> <i>Letter from utility</i> <input type="checkbox"/> <i>Newspaper</i> <input type="checkbox"/> <i>Radio</i> <input type="checkbox"/> <i>Other:</i> <input type="checkbox"/> NO	
How much in advance is the tariff change communicated to customers?	<input type="checkbox"/> 6 months ahead or more <input type="checkbox"/> 2 months ahead	<input type="checkbox"/> 3-5 months ahead <input type="checkbox"/> 1 month ahead

► Since 2015, has there been a change in how tariffs and tariffs changes are communicated to customers?

## PART 3 – Obtaining an electricity connection in «Survey\_City»

### 3.1. Case Study Assumptions

The Getting Electricity indicators record all procedures required for a business to obtain a permanent electricity connection and supply for a standardized warehouse. These procedures include completing applications and contracts with electricity utilities, obtaining all necessary clearances from other agencies and installing the external and final connection works between the utility's network and the warehouse entry.

Please provide responses to the questions about procedures and reforms based on the assumptions below:

<b>The warehouse:</b>	<ul style="list-style-type: none"> <li>• Is owned by a local entrepreneur.</li> <li>• Is located in «<b>Survey_City</b>».</li> <li>• Is located in an area where similar warehouses are typically located. In this area a new electricity connection is not subject to a special investment promotion regime (special subsidization or a faster service).</li> <li>• Is in an area where there are no physical constraints. For example, the warehouse is not near a railway.</li> <li>• Is a <b>new construction</b> and is being <b>connected to electricity for the first time</b>.</li> <li>• Has 2 stories, both above ground, with a total surface of approximately 1,300.6 square meters (14,000 square feet). The plot of land on which it is built is 929 square meters (10,000 square feet).</li> <li>• Is used for the storage of refrigerated goods.</li> </ul>
<b>The electricity connection:</b>	<ul style="list-style-type: none"> <li>• Is a <b>permanent</b> connection.</li> <li>• Is a 3-phase, 4-wire Y connection with a subscribed capacity of <b>140 kVA with a power factor of 1 (1 kVA = 1 kW)</b>. (Where the voltage is 120/208 V, this means that the current would be around 400 amperes. Where it is 230/400 V, the current would be almost 200 amperes.)</li> <li>• Connection length is <b>150 meters</b>. The connection is to either the <b>low- or medium-voltage</b> distribution network and is either <b>overhead or underground</b>, whichever is more common in the area where the warehouse is located. (Please see figure 1 below.)</li> <li>• Requires works that involve the <b>crossing of a 10-meter wide road</b> (by excavation, overhead lines, etc.) but are all carried out <b>on public land</b>. There is no crossing of other owners' private property because the warehouse has access to a road.</li> <li>• Includes only negligible length in the customer's private domain.</li> <li>• The <b>internal wiring of the warehouse has already been completed</b>, up to and including the customer's service panel or switchboard and the meter base.</li> <li>• Monthly energy consumption of <b>26,880 kWh/month</b>, and hourly consumption of 112 kWh.</li> </ul>

**3.1.1 Taking into account the assumptions described above, please review the following information and provide updates where necessary:**

	Last year's information	Updated information if applicable
Most likely location of the warehouse in « <b>Survey_City</b> »	«DB_ge_WarehouseLocation»	
Distribution utility that serves the majority of customers in «DB_ge_WarehouseLocation»	«DB_ge_UtilityName»	

## 3.2. Reform Update

**3.2.1 Are you aware of any reform (in practice, laws or regulations) taking place between June 1, 2015, and May 31, 2016 for obtaining an electricity connection for the type of warehouse specified in the case study?**

*A reform would be any change in the process to obtain a new electricity connection that affected the procedures, time or cost, either by law or in practice. Examples include the regulatory agency updating the fee schedules or the distribution utility implementing a more efficient process that has reduced the time to obtain a connection.*

Response	If yes, please provide details on the reform (dates, specific procedures affected, etc.)
-Click to Select-	

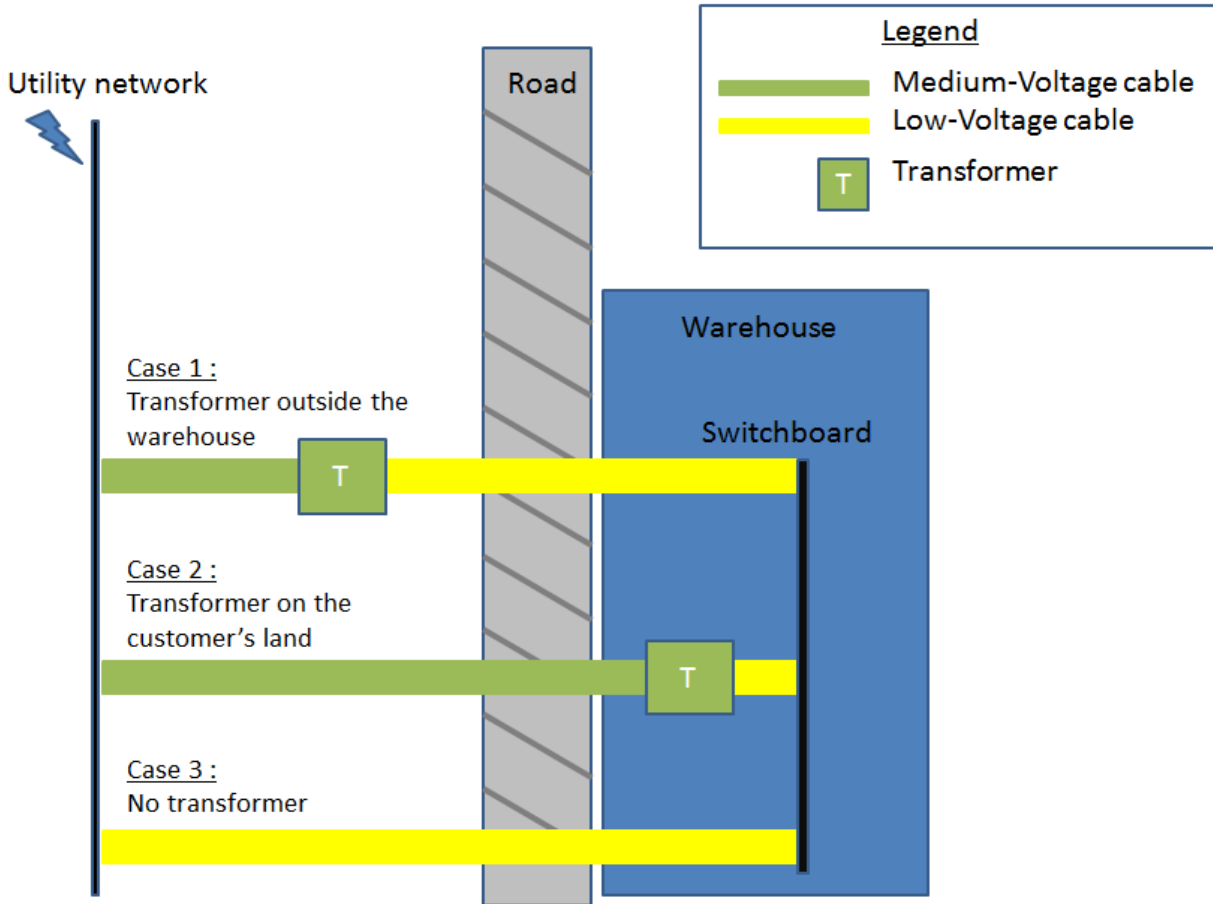
**3.2.2 Are you aware of any such reform expected after June 1, 2016?**

Response	If yes, please provide details on the reform (dates, specific procedures affected, etc.)
-Click to Select-	

### 3.3. Data Update: Connection Works

The answers to the questions in this questionnaire depend on the type of works most likely to be carried out to connect the case study warehouse to electricity in the area indicated in the table in question 3.1.1. Keeping in mind the case study assumptions, please review the options shown in figure 1 and decide which is most likely in that area.

**Figure 1. Options for the type of works needed to connect the case study warehouse to electricity**



**3.3.1 Please confirm or update the most likely type of works by selecting the correct choice below.**

Last year	Response	Please explain
«DB_ge_TypeOfWorks»	-Click to Select-	

**3.3.2 Is it likely that installation of a distribution transformer is needed?**

*To visualize the different options, please refer to the figure 1 above.*

-Click to Select-

**3.3.3 Is it likely that the transformer is installed on customer's land?** -Click to Select-

**3.3.4 For the connection works from the customer's low-voltage switchboard or meter to the point of connection on the utility's network, please describe what part is the responsibility of the utility and what part is handled by the customer's electrical contractor:**



## 3.4 Data Update: Procedures

In responding to the questions below, please keep in mind the following definitions:

- **Time** is measured in **calendar days**, and the minimum time for each procedure is 1 day. Time estimates should reflect the duration of wait times when no bribes are paid.
- A **procedure** is an interaction of the customer or the customer's representative (e.g., electrician or hired electrical contractor or firm) with external parties, including the utility, government agencies, inspectors and notaries. **Procedures sometimes take place simultaneously; when this is the case, it will be indicated in the list of procedures below.**
- **Costs** are those for the **external connection works only** and exclude value added tax (VAT). Costs such as for the internal wiring of the warehouse (up to and including the panel or switchboard) are not recorded. In all cases costs exclude bribes.

For your convenience, last year's answers are included in this questionnaire. They represent a **unified response** based on all the answers we received from various contributors. Because they represent the responses from all *Doing Business* contributors in your economy, they may not match the specific answers that you or colleagues in your firm provided last year.

If you feel that the unified answer we report does not reflect the reality in your economy, kindly provide your own answer in the subsequent sections and indicate whether your change is due to a correction (because last year's information was erroneous) or a reform (because there has been a change in practice or by law since June 1, 2015).

### 3.4.1 Connections to electric network

Please indicate the number of new connection cases you were involved with last year (confidential)

	Number of new connections
Below 50 kVA:	
Between 50 kVA and 100 kVA:	
Between 100 kVA and 200 kVA:	
Above 200 kVA:	

### 3.4.2 List of procedures

Kindly review and update where needed the following list of procedures for obtaining a new electricity connection:

<b>Procedure</b> «DB_ge_DBGEProcList_PROCEDURE_NUMBER_coun»:	«DB_ge_DBGEProcList_ProcedureName_counter» <i>Procedure simultaneous with previous one:</i> «DB_ge_DBGEProcList_ProcedureSimultaneity»
<b>Time</b>	Time last year: «DB_ge_DBGEProcList_ProcedureTimePublished» <b>Time update:</b>
<b>Cost</b>	Cost last year: «DB_ge_DBGEProcList_ProcedureCostPublished». Comments: «DB_ge_DBGEProcList_ProcedureCostComment_» <b>Cost update:</b>
<b>Agency</b>	Agency last year: «DB_ge_DBGEProcList_ProcedureAgency_count» <b>Agency update:</b>
<b>Procedure details:</b>	Details: «DB_ge_DBGEProcList_ProcedureComment_coun» <b>Your comments:</b>
If you made changes to last year's information, are they due to? -Click to Select-	
Please explain the changes and provide the legal basis where applicable:	

### Additional procedures

If you would like to add one or more procedures, please fill out the box below.

<b>Name of the additional procedure:</b>	
<b>Time:</b>	
<b>Cost:</b>	
<b>Agency:</b>	

**Procedure details:**

If you made changes to last year's information, is it due to? -Click to Select-  
Please explain the changes and provide the legal basis where applicable:  
Please indicate which procedure this new procedure follows in the sequence:

**3.4.3 Online procedures: can any procedure to obtain a new electricity connection be completed online?**

If possible, please provide an explanation, the date on which this became possible and a link to the website.

## 3.5 Further Details on the Security Deposit and Excavation Permit

### 3.5.1 Security deposit

Kindly review and update where needed the following details on the security deposit charged for the case study connection (subscribed capacity, 140 kVA; monthly consumption, **26,880** kWh):

	Last year's information	Updated information (if applicable)
1) What is the amount of the security deposit?	«DB_ge_SecurityDepositFullValuePrepopulation»	
2) After how many years is the security deposit returned (for a 5 year contract)?	«DB_ge_SecurityDepositTimePrepopulation»	
3) At what interest does the utility give back the security deposit (percentage)?	«DB_ge_InterestPaidByUtilityPERCENT»	
4) Can the client settle the security deposit with a bank guarantee?	«DB_ge_SecurityDepositInCashOrBondPrepopulation»	

### 3.5.2 Excavation permit or right-of-way clearance for road crossing in the public domain

	Last year's information	Updated information (if applicable)
1) Is an authorization needed for a road crossing (by excavation, overhead lines or other works involved in obtaining an electricity connection) in the public domain?	«DB_ge_ExcavationOrRightOfWayRequired»	
2) Who obtains the permit?	«DB_ge_WhoObtainsPermit»	
3) Where is the permit obtained?	«DB_ge_WhereToObtainPermit»	
4) How long does it take to obtain the permit (in calendar days)?	«DB_ge_TimeToObtainPermit»	
<b>5) How much does the permit cost? (Please indicate the currency)</b>	«DB_ge_CostOfPermitPopulation»	

####

**Thank you very much for completing the Getting Electricity questionnaire!**

We sincerely appreciate your contribution to the *Doing Business* project.

The results will appear in *Doing Business 2017* and on our website: <http://www.doingbusiness.org>.

Your work will be gratefully acknowledged in both, if you wish.