



Getting electricity

- Getting an electricity connection is easiest in Iceland, where it takes 4 procedures and 22 days and costs 14.4% of income per capita (\$5,554).
- *Doing Business* recorded 14 reforms making it easier to get electricity worldwide between June 2012 and June 2013—and has recorded 45 since 2010.
- The Russian Federation made the biggest improvement in the ease of getting electricity in 2012/13.
- The Russian Federation and Tanzania are among the economies making the greatest progress toward the frontier in regulatory practice in getting electricity since 2009.
- Europe and Central Asia has the most complex processes for getting electricity but also implemented the most reforms to make electricity regulations more business-friendly in 2012/13.
- Making utilities' internal processes more efficient has been the most common feature of reforms to make it easier to get electricity since 2010.

For more information on good practices and research related to getting electricity, visit <http://www.doingbusiness.org/data/exploretopics/getting-electricity>. For more on the methodology, see the section on getting electricity in the data notes.

Electricity matters for businesses. Unreliable electricity supply, lack of distribution network in rural areas and high connection costs all hinder business activity. Where the quality and accessibility of infrastructure services are good, they encourage investment, productivity and growth.¹ World Bank Enterprise Surveys in 137 economies show that firms consider getting electricity the second biggest obstacle to their business.² Self-supply is often prohibitively expensive, especially for small firms.³ The first step in getting electricity is for a customer to obtain a connection—and this is the key step that the getting electricity indicators aim to measure.

Doing Business measures the procedures, time and cost for a small to medium-size business to get a new electricity connection for a warehouse (figure 12.1). To make the data comparable across 189 economies, *Doing Business* uses a standardized case study of a new warehouse requiring a connection 150 meters long and with a power need of 140 kilovolt-amperes. The warehouse is assumed to be located in the largest business city, in an area where warehouses usually locate and electricity is most easily available.⁴

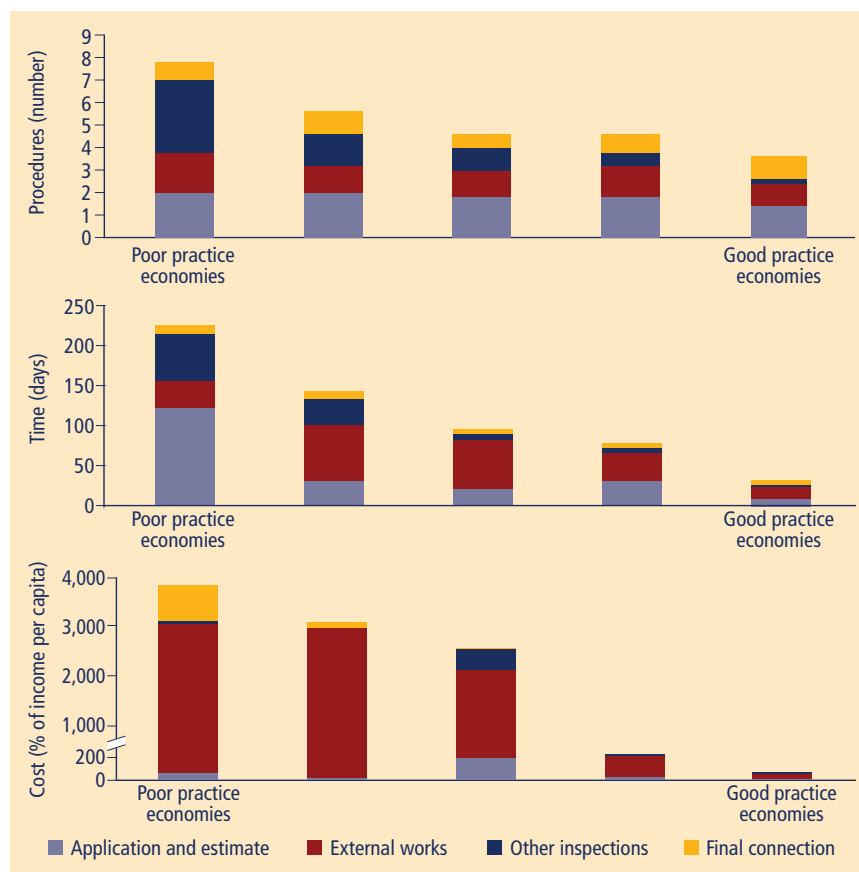
WHO REFORMED IN GETTING ELECTRICITY IN 2012/13?

Economies where getting an electricity connection is easy share several good practices. Other economies are adopting some of these practices (table 12.1). Between June 2012 and June 2013 *Doing Business* recorded 14 reforms that made getting electricity easier.

Across regions, increasing the efficiency of utilities' internal processes has been the most common reform. It is also among the most effective ways to reduce connection delays. In Colombia the utility Codensa opened a one-stop shop for builders that provides counseling on and review and approval of electricity connection projects. Codensa reduced the time to prepare feasibility studies by eliminating the preparation of quotes and enabling clients to request the studies online. Utilities in Malaysia and Sri Lanka made getting electricity easier by improving communications with contractors, introducing electronic document management systems and increasing staff and resources for inspections.

Other economies have adopted broader approaches. The Russian Federation's MOESK, Moscow's electricity utility, overhauled the steps required to obtain a connection (figure 12.2). For example, the utility now obtains excavation permits for customers and eliminated the need for them to get electricity applications from MKS, a subsidiary of MOESK. In addition, the Federal Service for Ecological, Technological and Nuclear Supervision now conducts risk-based inspections only for larger installations. And the Moscow Regional Energy Commission revised fee structures and lowered connection charges to standardized rates.⁵ These changes have halved the number of procedures required to obtain an electricity connection, reduced the time by more than 40% and cut the cost by nearly 80%, making the Russian Federation the economy that improved the most in the ease of getting electricity in 2012/13.

FIGURE 12.1 Duplicated inspections and long delays make it harder to get electricity
Averages by ranking group



Note: Poor practice economies are the 5 lowest-ranked economies on the ease of getting electricity. The second column represents the 5 economies ranked from 137 to 141 on the ease of getting electricity. The third column represents the 5 economies ranked from 90 to 94. The fourth column represents the 5 economies ranked from 45 to 49. Good practice economies are the 5 top-ranked economies. The application and estimate stage involves all procedures related to submitting an application and obtaining an estimate of the cost of works or technical conditions to obtain a connection. This stage also includes the time needed for any inspections by the electricity utility. The external works stage involves all procedures that occur during construction, such as purchasing materials and establishing the connection. The other inspections stage involves all procedures related to approval of internal wiring or the connection by agencies outside the electricity utility. The final connection stage involves all procedures required to finalize the connection, such as signing the supply contract and installing the meter.

Source: *Doing Business* database.

In Burundi the electricity utility Regideso ended its monopoly on the sale of transformers and other equipment needed for electricity connections. Since June 2012 this change has decreased the time to obtain a connection by 30 days because customers can now import materials instead of buying them from Regideso if the materials are not in the company's stock. The utility also opened a center that combines all the internal services of the utility involving new connections.

WHAT HAVE WE LEARNED FROM 5 YEARS OF DATA?

Since 2010, 41 economies have implemented 45 changes to regulations and their implementation that made it easier to get electricity. Sub-Saharan Africa made the most such reforms, with 12, followed by Europe and Central Asia with 10. The average time to connect to the electrical grid fell in Latin America and the Caribbean from 77 days to 65 and in Europe and Central Asia from 170 days to 150. In Sub-Saharan Africa it dropped from 159 days to 134 (figure 12.3).

The types of reforms recorded in getting electricity have varied by income group. Upper-middle-income economies have made the most changes in the past 4 years, with 16. More than half of these improved connection process efficiency.

TABLE 12.1 Who made getting electricity easier in 2012/13—and what did they do?

Feature	Economies	Some highlights
Improved process efficiency ^a	Belarus; Colombia; Ecuador; Malaysia; Mexico; Mongolia; Nicaragua; Sri Lanka; United Arab Emirates; Turkey	In Colombia the utility Codensa opened a one-stop shop for electricity connections and made its internal processes more efficient, reducing the time to get a connection by 60 days. Sri Lanka's Ceylon Electricity Board introduced an electronic document management system that streamlined its internal workflow and cut by 22 days the time to process new applications.
Improved regulation of connection processes and costs	Burundi; FYR Macedonia; Mongolia; Russian Federation	In the former Yugoslav Republic of Macedonia the government adopted a new distribution grid code that set time limits for approving new connections and standardized connections with capacity below 400 kilowatts. The law also fixed connection fees per kilowatt. The time to obtain an electricity connection was reduced by 44 days and the cost by 13%.
Streamlined approval process ^b	Russian Federation; Ukraine	In the Russian Federation the utility MOESK reduced the steps in getting a connection. The utility obtains permits for customers, who also no longer need electricity applications from MKS, a MOESK subsidiary. The Federal Service for Ecological, Technological and Nuclear Supervision now conducts risk-based inspections only for larger installations.

a. Refers to utilities or public agencies reengineering their internal processes to reduce the time and number of internal approvals.

b. Refers to utilities or public agencies working with each other to centralize procedures on behalf of the customer or to reduce the duplication of formalities.

Source: *Doing Business* database.

Electricity utilities in these economies tended to focus on streamlining procedures and reducing delays by making internal processes more efficient and training staff. For example, Mexico's electricity utility, Comisión Federal de Electricidad, streamlined the process for obtaining electricity, offered training to contractors and implemented a geographic information system (GIS) that maps the electricity network. This commitment has paid off: the time to obtain a new electricity connection in Mexico City dropped from 291 days in 2009 to 85 in 2013.

Most reforms in lower-middle-income economies have involved streamlining coordination among agencies to eliminate unnecessary or duplicate approval requirements. These procedures become a burden when they are carried out by several agencies, or when it is the customer and not the utility who obtains the required administrative permits for the construction works. Ukraine's Ministry of Energy and Coal Industry eliminated the need for the State Energy Inspectorate to inspect electrical installations because other agencies conduct similar inspections.

Shortening connection times and streamlining processes were not the only reforms. Since 2010, 27 economies have reduced electricity connection costs using different strategies. Trinidad and Tobago thoroughly revised its capital contribution policy, drastically lowering costs for customers to connect to the grid.⁶ Between 2009 and 2013 the Russian Federation cut the cost of an electricity connection by more than 90%. In 2012 the Republic of Korea introduced a policy under which customers pay only 30% of connection costs up front and the remaining 70% over the next 2 years, enabling entrepreneurs to invest the outstanding amount in developing their businesses.

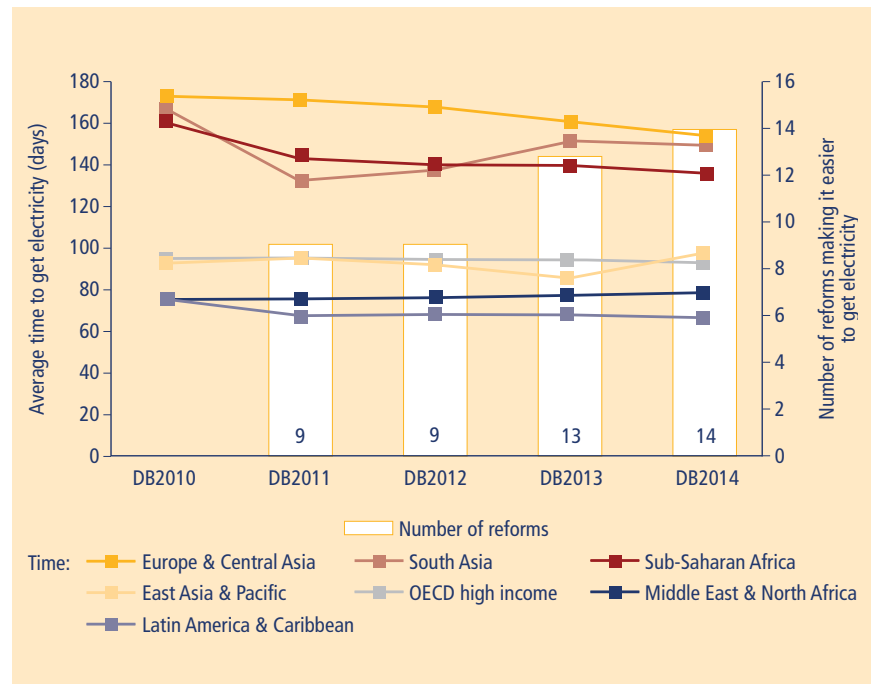
Since 2009 the Russian Federation and Tanzania have been among the economies making the most progress in narrowing the gap with the regulatory systems of economies with the most efficient practices in connecting new customers (figure 12.4).

FIGURE 12.2 The Russian Federation made obtaining an electricity connection easier, faster and cheaper



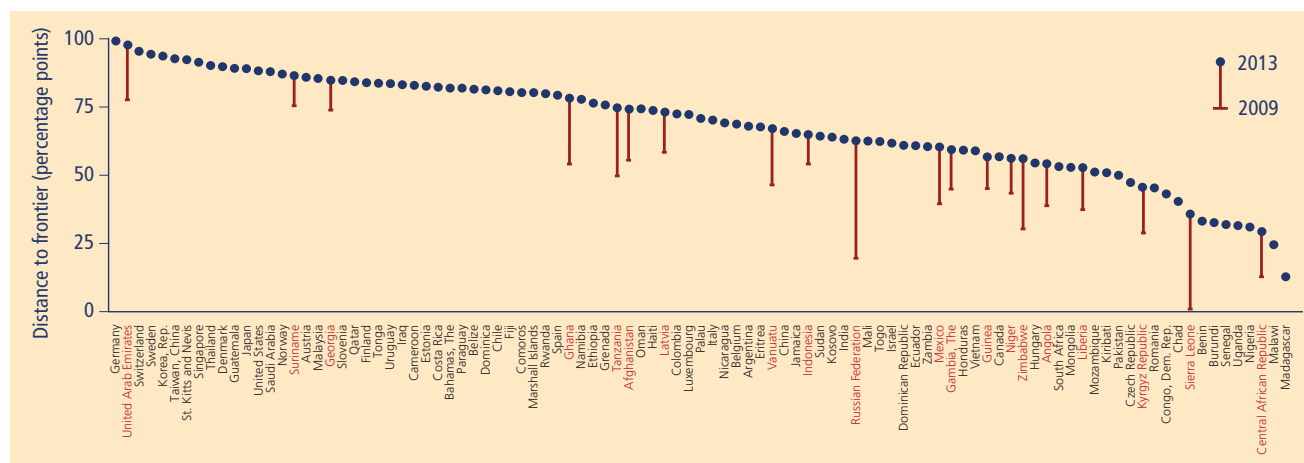
Source: Doing Business database.

FIGURE 12.3 Sub-Saharan Africa has achieved the most time savings in getting electricity



Note: To ensure accurate comparisons, the figure shows data for the same 183 economies for all years, from DB2010 (2009) to DB2014 (2013). The economies added to the *Doing Business* sample after 2009 and so excluded here are Barbados, Libya, Malta, Myanmar, San Marino and South Sudan. This figure uses regional classifications for 2013. *Doing Business* began recording reforms in getting electricity in DB2011. Source: Doing Business database.

FIGURE 12.4 The Russian Federation and Tanzania are among the economies advancing the most toward the frontier in getting electricity over the past 5 years



Note: The distance to frontier scores shown in the figure indicate how far each economy is from the best performance achieved by any economy on the getting electricity indicators since DB2010 (2009). The scores are normalized to range between 0 and 100, with 100 representing the frontier. The data refer to the 183 economies included in DB2010 (though for practical reasons the figure does not show all 183). Barbados, Libya, Malta, Myanmar, San Marino and South Sudan were added in subsequent years. The vertical bars show the improvement in the 20 economies advancing the most toward the frontier in getting electricity between 2009 and 2013.

Source: *Doing Business* database.

NOTES

This topic note was written by Iana Ashchian, Maya Choueiri, Caroline Frontigny and Jayashree Srinivasan.

1. World Bank 2010.

2. World Bank Group 2010.
 3. Iimi 2008.
 4. For more details on the methodology, see the data notes. *Doing Business* records all the procedures, the time and the cost required for a business to obtain an electricity connection for a newly constructed building, including an extension or expansion of the existing infrastructure. All

3 aspects have the same weight, and the ranking on the ease of getting electricity is the simple average of an economy's percentile rankings on those 3 components.
 5. Resolution 421 adopted by the Moscow Regional Energy Commission on December 12, 2012.
 6. For more information, see the case study on Trinidad and Tobago.