Throughout the world, regulatory frameworks have been the driving force for smart grid infrastructure investment. Electric utilities are in many cases state-owned and in all cases are regulated entities, meaning the policies regulators put in place will often be the dominant driver of the market. Smart grid infrastructure is a classic example of an investment with wide ranging benefits – from smoother demand profiles to increased use of renewable energy and lower T&D loss rates – that are sometimes difficult to capture in a simple business case without clear government regulations. As a result, government activity such as the US Smart Grid Investment Grant (SGIG) program and the EU goal of 80% smart meters by 2020 have driven the largest deployments globally.

Northeast Group’s Global Smart Grid Regulatory Index describes in detail 10 key policy indicators across 52 countries to show which countries offer the most attractive smart grid regulatory frameworks.

In some countries and for some utilities, the business case for smart grid is convincing even without strong regulations. Typically, this is the case if electricity consumption is high and most customers are wealthy, if non-technical loss rates are high, or if electricity prices are high – or typically, a combination of all of these factors. Most of the leading countries score well in both regulatory development and benefit potential. Others, like Nigeria, have poor regulatory frameworks but strong enough benefits to enable future large-scale smart grid deployments. Less commonly, some countries such as China have a strong government push for smart grid despite more limited benefit potential. This study ranks each country by both factors – regulatory development and benefit potential – to determine the strength of smart grid drivers and
barriers and likelihood of near-term investments.

Northeast Group has been scoring the regulatory frameworks of emerging market countries since 2011. As smart grid markets mature in many developed countries, emerging markets will provide large growth opportunities. But in the near term, many of the largest opportunities remain in developed countries. The Global Smart Grid Regulatory Index widens Northeast Group’s analysis to include all OECD countries as well as the leading emerging market countries. Combined, these 52 countries will invest $470 billion in smart grid infrastructure from 2016 to 2026.

Key questions answered in this study:

- Which countries have the most developed smart grid regulatory frameworks?
- Which countries have the most smart grid benefit potential?
- What are the key smart grid indicators for 52 leading countries?
- What risk factors could delay deployments in all leading countries?

Table of Contents

i. Executive summary 1
ii. Methodology 8
Argentina 15
Australia 16
Austria 17
Belgium 18
Brazil 19
Canada 20
Chile 21
China 22
Colombia 23
Czech Republic 24
Denmark 25
Egypt 26
Estonia 27
Finland 28
Table of Contents (cont.)

France 29
Germany 30
Greece 31
Hungary 32
Iceland 33
India 34
Indonesia 35
Ireland 36
Israel 37
Italy 38
Japan 39
Luxembourg 40
Malaysia 41
Mexico 42
Netherlands 43
New Zealand 44
Nigeria 45
Norway 46
Philippines 47
Poland 48
Portugal 49
Romania 50
Russia 51
Saudi Arabia 52
Singapore 53
Slovakia 54
Slovenia 55
South Africa 56
South Korea 57
Spain 58
Sweden 59
<table>
<thead>
<tr>
<th>Country</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>60</td>
</tr>
<tr>
<td>Thailand</td>
<td>61</td>
</tr>
<tr>
<td>Turkey</td>
<td>62</td>
</tr>
<tr>
<td>Ukraine</td>
<td>63</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>64</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>65</td>
</tr>
<tr>
<td>United States</td>
<td>66</td>
</tr>
</tbody>
</table>

**List of Figures, Boxes, and Tables**

1. Global smart grid regulatory rankings (map)  
2. Global smart grid regulatory rankings (chart)  
3. Global smart grid regulatory rankings (table)  
4. Smart grid benefit score rankings  
5. Global smart grid potential  
6. Global smart grid potential (by region)  
7. Differences between matrix scoring in Northeast Group’s studies  
8. Regulatory framework criteria methodology  
9. Global electricity prices  
10. Global non-technical loss rates  
11. Global high-income customer %  

In addition, each country summary contains one table and one chart, for an additional 104 tables and charts
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<th>STATE</th>
<th>POSTAL CODE</th>
<th>COUNTRY</th>
</tr>
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