

## Regulatory Indicators for Sustainable Energy (RISE) 2017 Country Data - Benin

### Clean Cooking

| Indicator                 | Score    |
|---------------------------|----------|
| Planning                  | 0        |
| Scope of planning         | 0        |
| Standards and Labeling    | 0        |
| Incentives and attributes | 0        |
| <b>Total</b>              | <b>0</b> |

### Electricity Access

| Indicator  | Score        |
|--|--------------|
| Existence and monitoring of officially approved electrification plan | 69           |
| Scope of officially approved electrification plan                    | 50           |
| Framework for grid electrification                                   | 33           |
| Framework for minigrids  | 70           |
| Framework for stand-alone systems                                    | 89           |
| Consumer affordability of electricity                                | 52           |
| Utility Transparency and Monitoring                                  | 94           |
| Utility Creditworthiness   | 50           |
| <b>Total</b>   | <b>63.38</b> |

### Energy Efficiency

| Indicator   | Score |
|---|-------|
| National energy efficiency planning                       | 77    |
| Energy efficiency entities                                | 61    |
| Information provided to consumers about electricity usage | 42    |
| EE incentives from electricity rate structures            | 81    |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |              |
|--|--------------|
| Incentives & mandates: Industrial and Commercial End users | 8            |
| Incentives & mandates: public sector                       | 0            |
| Incentives & mandates: utilities                           | 0            |
| Financing mechanisms for energy efficiency                 | 52           |
| Minimum energy efficiency performance standards            | 17           |
| Energy labeling systems                                    | 0            |
| Building energy codes                                      | 0            |
| Transport  | 0            |
| Carbon Pricing and Monitoring                              | 50           |
| <b>Total</b>   | <b>29.85</b> |

## Renewable Energy

| Indicator  | Score        |
|--|--------------|
| Legal framework for renewable energy                   | 50           |
| Planning for renewable energy expansion                | 70           |
| Incentives and regulatory support for renewable energy | 31           |
| Attributes of financial and regulatory incentives      | 8            |
| Network connection and use                             | 13           |
| Counterparty risk                                      | 48           |
| Carbon Pricing and Monitoring                          | 50           |
| <b>Total</b>   | <b>38.57</b> |

|                      |              |
|----------------------|--------------|
| <b>Overall Score</b> | <b>32.95</b> |
|----------------------|--------------|

## Clean Cooking

| Planning   | Score |
|--|-------|
| Does the government track household level data on cooking solutions? | 0     |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |   |
|--|---|
| Is the data publicly available?  |   |
| Is the data gender disaggregated?  |   |
| Is there a national or regional plan to scale up access to clean cooking solutions, or is access to clean cooking solutions covered as a part of any other government plan (regardless of the sector)? |   |
| If not, is there a draft plan that has been prepared but not yet been approved?  |   |
| If yes, when was the latest national plan officially approved?   |   |
| Has the plan gone through public consultation?   |   |
| Have consultations taken the gender of participants into account?  |   |
| Are there agencies dedicated to the following functions?   | - |
| Setting clean cooking strategy/action plan   |   |
| Setting, monitoring and enforcing standards for clean cooking solutions  |   |
| Tracking access and adoption of clean cooking solutions  |   |

| Scope of planning   | Score | 0 |
|---|-------|---|
| Does the plan take into account geographical and demographical considerations to prioritize the most vulnerable consumers?        |       |   |
| Does the plan include considerations and action items for involving women throughout the supply chain of clean cooking solutions? |       |   |
| Is there a targeted awareness raising strategy to drive adoption of clean cooking solutions, such as any of the following         |       | - |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |  |
|---|--|
| Training programs for new stove technologies  |  |
| Cooking competitions with stove technologies  |  |
| Nationally-sponsored educational campaigns for new stove technologies               |  |
| Private sector advertising campaigns for new stove technologies                     |  |
| Partnerships with CSOs and community-based organizations                            |  |
| Other   |  |
| Details of other program  |  |
| Does the awareness strategy include targeted messages to both men and women?        |  |
| Is there a last mile distribution strategy <sup>3</sup> in place for cooking fuels? |  |
| Is there a last mile distribution strategy in place for cooking technologies?       |  |

| <b>Standards and Labeling</b>  | <b>Score</b> | <b>0</b> |
|--|--------------|----------|
| Are there standards for the following aspects of clean cooking solutions           |              | -        |
| Efficiency   |              |          |
| Emissions  |              |          |
| Safety   |              |          |
| Have the standards been adopted from external standards or developed domestically? |              |          |

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|  |   |
|--|---|
| Is there a verification program in place for standards?                        |   |
| Does the program work with a standards testing facility or lab?                |   |
| Does the stove testing facility or lab need to be accredited?                  |   |
| Have the standards been verified through field testing?                        |   |
| Have labeling schemes been adopted on clean cooking products for the following | - |
| Efficiency   |   |
| Emissions  |   |

| Incentives and attributes   | Score | 0 |
|---|-------|---|
| Are there specific financing facilities available to support suppliers/consumers to develop/purchase clean cooking solutions?   |       |   |
| Are there specific financing or subsidy programs for clean cooking solutions targeted to low income consumers?  |       |   |
| Are there duty exemptions, tax benefits, and/or subsidies to support clean cooking solutions?   |       |   |
| Are there programs for commercial entities to invest in efficient, low-emission stoves? (time stamping) Please indicate the year in which each program was first made available |       |   |

### Electricity Access

| Existence and monitoring of officially approved electrification plan | Score | 69  |
|--|-------|-----|
| Is there an officially approved national electrification plan?       |       | Yes |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Are the electrification plan and the updates publicly available?   | Yes |
| Is there a requirement for periodic progress reports tracking progress towards the defined energy access target? | No  |
| Does the reporting actually take place?  | No  |
| Are there institution(s) responsible for carrying out the following functions                                    | -   |
| Setting electrification strategy   | Yes |
| Setting electrification milestones and deadlines   | Yes |
| Coordinating generation, transmission, and distribution plans and their implementation                           | Yes |
| Reporting progress towards the defined energy access target/milestones with periodic reports                     | Yes |
| Is the electrification plan developed based on demand assessment?  | Yes |
| Were there any public consultations while developing the plan?   | Yes |
| Is there a provision for the plan periodic evaluations?  | No  |

| <b>Scope of officially approved electrification plan</b>   | <b>Score</b> | <b>50</b> |
|--|--------------|-----------|
| Does the plan target a service level (e.g., power availability, number of guaranteed hours of power supply, etc.)? | No           |           |
| Does the electrification plan include off-grid solutions (either/or both minigrids and standalone systems)?        | Yes          |           |
| Does the plan include productive uses (e.g. agricultural, commercial, and industrial activities)?                  | Yes          |           |
| Does the plan include community facilities (e.g. health centers, schools, administrative buildings)?               | Yes          |           |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Does the plan include areas with informally settled people/groups?                     | No  |
| Does the plan specifically address the electricity access of female-headed households? | No  |
| Does the plan set up a specific target on female-headed households' electrification?   | No  |
| Are there geospatial maps conveying the timeframe of planned grid extension?           | Yes |
| Are these geospatial maps made publicly available?                                     | Yes |

| <b>Framework for grid electrification</b>   | <b>Score</b> | <b>33</b> |
|---|--------------|-----------|
| Does the government have a dedicated funding line or budget for electrification (e.g., funded national program, budget item, rural electrification fund to finance grid extension)?         | Yes          |           |
| Are there capital subsidies paid to the utilities to provide distribution systems to rural areas/villages?  | Yes          |           |
| Are there consumer financing mechanisms (i.e. utility loans, on bill financing, micro-loans etc.) and/or direct subsidies available to support the payment of connection fees by consumers? | No           |           |
| Are there consumer financing mechanisms targeting specifically female headed households?  | No           |           |
| Are there consumer financing mechanisms targeting low-income households?  | No           |           |
| Does the government specify standards of performance on reliability (e.g. number of guaranteed hours per day, duration of the electricity, frequency of outages, SAIDI, SAIFI etc.)?        | No           |           |
| Is there a periodic reporting system in place to ensure standards compliance?   | No           |           |

## Regulatory Indicators for Sustainable Energy (RISE)

| Framework for minigrids  | Score | 70  |
|--|-------|-----|
| Are there programs which aim to develop minigrid systems or support the development of minigrids systems?                      |       | Yes |
| Do the regulations clarify what will occur when the interconnected grid reaches a minigrid?.                                   |       | No  |
| Are there national programs which aim to develop stand-alone systems or support the development of stand-alone systems?        |       | Yes |
| Are minigrids legally allowed to operate in the country?   |       | Yes |
| Can minigrids be owned and operated by private operators?  |       | Yes |
| Do the regulations detail procedures for consumers to get connected to minigrids?  |       | No  |
| Do the regulations differ by size of minigrids?  |       | No  |
| Are mini-grid operators legally allowed to charge a different tariff from the national tariff?                                 |       | Yes |
| Are there publicly funded mechanisms to secure viability gap funding for operators?  |       | Yes |
| Are there duty exemptions and/or capital subsidies for minigrid systems and/or individual components?                          |       | Yes |
| Are there specific financing facilities (access to credit etc.) available to support operators?                                |       | Yes |
| Are there duty exemptions and/or subsidies to support standalone home systems?   |       | Yes |
| Are there legal restrictions that limit the prices standalone home system retailers or service providers can charge?           |       | No  |
| Are there specific financing facilities available to support operators/consumers to develop/ purchase standalone home systems? |       | Yes |



## Regulatory Indicators for Sustainable Energy (RISE)

|   |     |
|---|-----|
| Are there technical standards detailing the requirements for minigrids to connect the grid?                             | Yes |
| Are technical standards made publicly available?  | No  |
| Are there safety standards for minigrids (e.g. overcurrent protection, system control etc.)?                            | Yes |
| Are these safety standards made publicly available?   | No  |
| Has the government adopted international quality standards for stand-alone systems?                                     | Yes |
| Has the government adopted international testing methods or does it accept testing done in another country?             | Yes |
| Are there environmental regulations on the disposal of solar devices and standalone home system products or components? | No  |

| <b>Framework for stand-alone systems</b>  | <b>Score</b> | <b>89</b> |
|---|--------------|-----------|
| Are there programs which aim to develop minigrid systems or support the development of minigrids systems?               | Yes          |           |
| Do the regulations clarify what will occur when the interconnected grid reaches a minigrid?.                            | No           |           |
| Are there national programs which aim to develop stand-alone systems or support the development of stand-alone systems? | Yes          |           |
| Are there publicly funded mechanisms to secure viability gap funding for operators?                                     | Yes          |           |
| Are there duty exemptions and/or capital subsidies for minigrid systems and/or individual components?                   | Yes          |           |
| Are there specific financing facilities (access to credit etc.) available to support operators?                         | Yes          |           |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Are there duty exemptions and/or subsidies to support standalone home systems?   | Yes |
| Are there legal restrictions that limit the prices standalone home system retailers or service providers can charge?           | No  |
| Are there specific financing facilities available to support operators/consumers to develop/ purchase standalone home systems? | Yes |
| Are there technical standards detailing the requirements for minigrids to connect the grid?                                    | Yes |
| Are technical standards made publicly available?   | No  |
| Are there safety standards for minigrids (e.g. overcurrent protection, system control etc.)?                                   | Yes |
| Are these safety standards made publicly available?  | No  |
| Has the government adopted international quality standards for stand-alone systems?  | Yes |
| Has the government adopted international testing methods or does it accept testing done in another country?                    | Yes |
| Are there environmental regulations on the disposal of solar devices and standalone home system products or components?        | No  |

| <b>Consumer affordability of electricity</b>  | <b>Score</b> | <b>52</b> |
|---|--------------|-----------|
| What is the annual cost of subsistence consumption (30kWh/month) as a percentage of GNI per household of the bottom 20 percent income households of the population? |              |           |
| How many months does it take for the consumer to pay the connection fee based on savings of the bottom 20 percent of population?                                    |              |           |
| Is there a mechanism to support low-volume consumers such as social or lifeline tariff?   | Yes          |           |

## Regulatory Indicators for Sustainable Energy (RISE)

| Utility Transparency and Monitoring   | Score | 94  |
|---|-------|-----|
| Are the financial statements of the largest utility publicly available for each of the following                              |       | -   |
| Generation  |       | Yes |
| Transmission  |       | Yes |
| Distribution  |       | No  |
| Retail sales  |       | No  |
| If yes, are they audited by an independent auditor for each of the following  |       | -   |
| Generation  |       | Yes |
| Transmission  |       | Yes |
| Distribution  |       | Yes |
| Retail sales  |       | Yes |
| Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)? |       | -   |
| Generation - Electricity available for sale to end-users  |       | Yes |
| Transmission - Transmission loss rate   |       | Yes |
| Distribution - Distribution loss rate   |       | Yes |
| Retail Sales - Bill collection rate   |       | Yes |
| Is the utility operating an incidence/outage recording system (or SCADA/EMS with such functionality)?                         |       | Yes |
| Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?                               |       | Yes |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |     |
|---|-----|
| Are the measurements reported to the regulatory body? | Yes |
| Are the measurements available to public?             | Yes |

|                                 |              |           |
|---------------------------------|--------------|-----------|
| <b>Utility Creditworthiness</b> | <b>Score</b> | <b>50</b> |
| No Data Found                   |              |           |

### Energy Efficiency

|   |              |           |
|---|--------------|-----------|
| <b>National energy efficiency planning</b>  | <b>Score</b> | <b>77</b> |
| Is there legislation or a national action plan that aims to increase EE?                                | Yes          |           |
| Is there an energy efficiency goal or target at the national level?                                     | Yes          |           |
| Are there targets defined for any of the following sectors?   | -            |           |
| Residential sector  | Yes          |           |
| Commercial services sector  | Yes          |           |
| Transport sector  | No           |           |
| Industrial sector   | Yes          |           |
| Power sector  | Yes          |           |
| Are targets derived from detailed analysis that is publicly available?                                  | Yes          |           |
| Is there a requirement for periodic progress reports tracking data related to the efficiency target(s)? | No           |           |

## Regulatory Indicators for Sustainable Energy (RISE)

| <b>Energy efficiency entities</b>   | <b>Score</b> | <b>61</b> |
|---|--------------|-----------|
| Are there governmental and/or independent bodies that carry out formulation and implementation of EE strategy, policy and regulation for each of the roles listed below |              | -         |
| Setting EE strategy   |              | Yes       |
| Setting EE standards  |              | Yes       |
| Regulating EE activities of energy suppliers  |              | Yes       |
| Regulating EE activities of energy consumers  |              | Yes       |
| Certifying compliance with equipment EE standards   |              | Yes       |
| Certifying compliance with building EE standards  |              | No        |
| Selecting and/or approving third party auditors tasked with certifying EE standards   |              | No        |
| Are energy efficiency programs developed based on market analyses with plans open to public consultation and periodic evaluation?                                       |              | Yes       |
| Are there professional certification/accreditation programs mandated for any of the following energy efficiency activities  |              | -         |
| Energy auditing/energy management   |              | No        |
| Energy efficiency financing   |              | No        |
| Monitoring and verification of energy consumption/savings   |              | No        |
| Building energy efficiency construction/design  |              | No        |
| Other   |              |           |

| <b>Information provided to consumers about</b> | <b>Score</b> | <b>42</b> |
|--|--------------|-----------|
|--|--------------|-----------|

## Regulatory Indicators for Sustainable Energy (RISE)

### electricity usage

|   |     |
|---|-----|
| Is it mandatory for the selected utility to provide the following customers with reports of their energy usage, in a bill or by other means for residential customers, commercial services customers, and industrial customers? |     |
| Residential customers   | Yes |
| Commercial customers  | Yes |
| Industrial customers  | Yes |
| At what intervals do they receive these reports (times per year)?   |     |
| Residential customers   | 12  |
| Commercial customers  | 12  |
| Industrial customers  | 12  |
| Do the reports include the price levels customers pay for energy usage?   |     |
| Residential sector  | Yes |
| Commercial sector   | Yes |
| Industrial sector   | Yes |
| Does the regulator track the utility's compliance with laws for providing energy usage information to customers?  | No  |
| Do customers receive a bill or report which compares them to other users in the same region and/or usage class?   | -   |
| Residential customers   | No  |
| Commercial customers  | No  |
| Industrial customers  | No  |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |    |
|--|----|
| Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?   |    |
| Residential customers  | No |
| Commercial customers   | No |
| Industrial customers   | No |
| Does the selected utility offer customers access real time feedback on energy usage (for either prepaid or post-paid systems)?   | No |
| Does the selected utility offer customers the ability to manage energy usage levels remotely (through apps or other technology mediums that can track real time usage) | No |

| <b>EE incentives from electricity rate structures</b>  | <b>Score</b> | <b>81</b> |
|--|--------------|-----------|
| What types of electricity rate structure do the residential, commercial services, and industrial customers face?                                 | -            |           |
| Residential customers  | -            |           |
| Commercial customers   | -            |           |
| Industrial customers   | -            |           |
| Which of the following charges do electricity customers pay in the commercial services sector and industrial sector?                             | -            |           |
| Commercial sector  | -            |           |
| Industrial sector  | -            |           |
| Are any of the following time-of-use (TOU) rate structures applied to the residential sector, commercial services sector, and industrial sector? | -            |           |

## Regulatory Indicators for Sustainable Energy (RISE)

|                    |   |
|--------------------|---|
| Residential sector | - |
| Commercial sector  | - |
| Industrial sector  |   |

| <b>Incentives &amp; mandates: Industrial and Commercial End users</b>  | <b>Score</b> | <b>8</b> |
|--|--------------|----------|
| Are there any of the following energy-efficiency mandates for large energy users?  | -            |          |
| Targets (e.g. kWh savings or lower energy intensity or carbon dioxide reductions, etc.)  | No           |          |
| Mandatory audits   | No           |          |
| Progress/tracking reports  | No           |          |
| Energy-management system (computer technologies to optimize energy use)  | No           |          |
| Are there penalties in place for non-compliance with regulatory obligations for EE?  | No           |          |
| Is there a requirement for periodic reporting of energy consumption in order to enforce and/or track progress of energy efficiency in large consumers' facilities? | No           |          |
| Is there a measurement and verification program in place?  | No           |          |
| Are energy efficiency incentives in place for large-scale users?   | No           |          |
| Is there an energy efficiency mandate or incentive program for SMEs?   | No           |          |
| Is there a program to publicly recognize end users that have achieved significant energy savings measures?   | No           |          |



## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Are energy savings and/or financial savings publicized?  | No  |
| Does the program offer assistance (from a government or independent entity) to end users to identify energy savings investments opportunities? | Yes |

| Incentives & mandates: public sector  | Score | 0 |
|---|-------|---|
| Are there binding energy savings obligations for public buildings and/or other public facilities (may include water supply, wastewater services, municipal solid waste, street lighting, transportation, and heat supply) ? | No    |   |
| Is there a reporting mechanism to track and enforce energy savings in public sector facilities (either in-house or by a third party)?   | No    |   |
| Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services?   | No    |   |
| Are procurement guidelines updated periodically to reflect technological advances and best practices in energy efficient products and services?   | No    |   |
| Do public budgeting regulations and practices allow public entities to retain energy savings at the following levels?   | No    |   |

| Incentives & mandates: utilities  | Score | 0 |
|---|-------|---|
| Generation  | -     |   |
| Are utilities required to carry out energy efficiency activities in this area?                          | No    |   |
| Are there penalties in place for non-compliance with EE requirements?                                   | No    |   |
| Are energy savings or other target indicators measured to track performance in meeting EE requirements? | No    |   |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |    |
|---|----|
| Are the requirements measured/validated by an independent third party?  | No |
| Transmission and distribution networks  | -  |
| Are utilities required to carry out energy efficiency activities in this area?  | No |
| Are there penalties in place for non-compliance with EE requirements?   | No |
| Are energy savings or other target indicators measured to track performance in meeting EE requirements?   | No |
| Are the requirements measured/validated by an independent third party?  | No |
| Demand-side management  | -  |
| Are utilities required to carry out energy efficiency activities in this area?  | No |
| Are there penalties in place for non-compliance with EE requirements?   | No |
| Are energy savings or other target indicators measured to track performance in meeting EE requirements?   | No |
| Are the requirements measured/validated by an independent third party?  | No |
| Are any of the following mechanisms available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities in the residential, commercial, and/or industrial sectors | -  |
| Public budget financing   | No |
| Compensation for revenue losses from EE activities via a tracking account   | No |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |    |
|---|----|
| Revolving funds and/or credit lines for EE activities | No |
| Partial risk guarantees                               | No |
| Program cost recovery                                 | No |
| On-bill financing/pre-payment                         | No |
| Decoupling  | No |

| <b>Financing mechanisms for energy efficiency</b>  | <b>Score</b> | <b>52</b> |
|--|--------------|-----------|
| Are any of the following financing mechanisms for energy efficiency activities available in the (R) residential sector, (C) commercial services sector, and (I) industrial sector? | -            |           |
| Residential sector   | -            |           |
| Tax incentives   | No           |           |
| Discounted "green" mortgages   | No           |           |
| On-bill financing  | No           |           |
| Credit lines and/or revolving funds with banks for energy efficiency activities  | Yes          |           |
| Green or energy efficiency bonds   | No           |           |
| Energy services agreements (pay-for-performance contracts)   | No           |           |
| Vendor credit and/or leasing for energy efficiency activities  | No           |           |
| Partial risk guarantees  | No           |           |
| Commercial services sector   | -            |           |
| Tax incentives   | No           |           |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |     |
|---|-----|
| Discounted "green" mortgages  | No  |
| On-bill financing   | No  |
| Credit lines and/or revolving funds with banks for energy efficiency activities   | Yes |
| Green or energy efficiency bonds  | No  |
| Energy services agreements (pay-for-performance contracts)  | No  |
| Vendor credit and/or leasing for energy efficiency activities   | No  |
| Partial risk guarantees   | No  |
| Industrial sector   | -   |
| Tax incentives  | No  |
| Discounted "green" mortgages  | No  |
| On-bill financing   | No  |
| Credit lines and/or revolving funds with banks for energy efficiency activities   | Yes |
| Green or energy efficiency bonds  | No  |
| Energy services agreements (pay-for-performance contracts)  | No  |
| Vendor credit and/or leasing for energy efficiency activities   | No  |
| Partial risk guarantees   | No  |
| How many financial and/or non-financial institutions offer financial products for energy efficiency investments in each sector? | -   |
| Residential sector  | -   |

## Regulatory Indicators for Sustainable Energy (RISE)

|                   |   |
|-------------------|---|
| Commercial sector | - |
| Industrial sector | - |

| <b>Minimum energy efficiency performance standards</b>  | <b>Score</b> | <b>17</b> |
|---|--------------|-----------|
| Have minimum energy performance standards been adopted for the following product categories?    | -            |           |
| Refrigerators   | No           |           |
| Heating, ventilation and/or air conditioning (HVAC)   | Yes          |           |
| Lighting equipment  | Yes          |           |
| Industrial electric motors  | No           |           |
| Other industrial equipment  | No           |           |
| Light vehicles (heavy duty transport vehicles were tracked but not included in the scoring)     | No           |           |
| Are there verification programs that include the following components for each product category | -            |           |
| Refrigerators   | -            |           |
| Heating, ventilation and/or air conditioning (HVAC)   | -            |           |
| Lighting equipment  | -            |           |
| Industrial electric motors  | -            |           |
| Other industrial equipment  | -            |           |
| Light vehicles  | -            |           |

## Regulatory Indicators for Sustainable Energy (RISE)

| Energy labeling systems   | Score | 0  |
|---|-------|----|
| Have energy efficiency labeling schemes been adopted for?                       |       | -  |
| Refrigerators   |       | No |
| HVAC  |       | No |
| Lighting equipment  |       | No |
| Industrial electric motors  |       | No |
| Other industrial equipment  |       | No |
| Transport vehicles  |       | No |
| Do the labeling schemes have the following components for each product category |       | -  |
| Refrigerators   |       | -  |
| HVAC  |       | -  |
| Lighting equipment  |       | -  |
| Industrial electric motors  |       | -  |
| Other industrial equipment  |       | -  |
| Transport vehicles  |       | -  |

| Building energy codes  | Score | 0  |
|--|-------|----|
| Are there energy efficiency codes for new residential buildings?   |       | No |
| Are there energy efficiency codes for new commercial buildings?  |       | No |
| Are the building energy efficiency standards required to be updated on a regular basis to reflect technological advances and |       | -  |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |    |
|--|----|
| changes in best practices for building energy efficiency in each sector  |    |
| Residential buildings  | No |
| Commercial buildings   | No |
| Is commission testing for energy efficiency required for final building acceptance documentation?  | No |
| Is there a requirement for periodic reporting to verify compliance with building energy efficiency requirements?   | No |
| Is verification carried out by a third party?  | No |
| Are renovated buildings required to meet a building energy code, in each sector  | -  |
| Residential sector   | No |
| Commercial sector  | No |
| Are the building energy efficiency standards required to be updated on a regular basis to reflect technological advances and changes in best practices for building energy efficiency in each sector | -  |
| Residential sector   | No |
| Commercial sector  | No |
| Is there a mandatory standardized rating or labeling system for the energy performance of existing buildings?  | No |
| Are commercial and residential buildings required to disclose property energy usage at the point of sale or when leased?   | No |
| Are large commercial and residential buildings required to disclose property energy usage annually?  | No |
| Are there mandates or targets for new building stocks to achieve high quality energy efficiency certifications, such as LEED (Leadership in Energy & Environmental Design) (e.g. percentage          | No |

## Regulatory Indicators for Sustainable Energy (RISE)

of new building stocks that must be LEED certified)?

| Transport   | Score | 0  |
|---|-------|----|
| Is there a national database or national reporting system to periodically track and report the following transport efficiency metrics                                   |       | -  |
| Fuel per mile driven  |       | No |
| Average distance traveled per vehicle   |       | No |
| Distance traveled by public transit as a share of total passenger distance traveled   |       | No |
| Vehicle miles traveled per capita   |       | No |
| Other   |       |    |
| Are there any mandate or incentive programs that support reduction of transport demands or shifts to more energy efficient modes of transport for personal use, such as |       | -  |
| Regularly scheduled teleworking   |       | No |
| Bicycle and/or other non-motorized schemes  |       | No |
| Car sharing   |       | No |
| Public transit subsidies for consumers  |       | No |
| Congestion charges  |       | No |
| Electric vehicle programs   |       | No |
| Other   |       | No |
| Is there a requirement for periodic reporting to verify compliance or progress of the program(s)?   |       | No |



## Regulatory Indicators for Sustainable Energy (RISE)

|   |    |
|---|----|
| Are there any mandate or incentive programs that support reduction of transport demands or shifts to more energy efficient modes of transport for commercial and/or industrial use, such as | -  |
| Heavy duty vehicle fuel economy standards (data already collected in Indicator 10 can be scored here)   | No |
| Freight rail mandatory fuel economy standards or efficiency incentives  | No |
| Energy efficiency procurement standards or incentives for municipal rail and bus fleets   | No |
| Efficient fuel switching mandate or incentive programs for commercial/industrial vehicle fleets   | No |
| Other   |    |
| Is there a requirement for periodic reporting to verify compliance or progress of the program(s)?   | No |

|                                      |              |           |
|--------------------------------------|--------------|-----------|
| <b>Carbon Pricing and Monitoring</b> | <b>Score</b> | <b>50</b> |
| No Data Found                        |              |           |

## Renewable Energy

|   |              |           |
|---|--------------|-----------|
| <b>Legal framework for renewable energy</b>   | <b>Score</b> | <b>50</b> |
| Does a legal framework for renewable energy development exist?                          | No           |           |
| Does the legal framework allow private sector ownership of renewable energy generation? | Yes          |           |

|  |              |           |
|--|--------------|-----------|
| <b>Planning for renewable energy expansion</b> | <b>Score</b> | <b>70</b> |
|--|--------------|-----------|

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Does an official renewable energy target exist?  | Yes |
| Is the target legally binding?   | No  |
| Is the RE target linked to international commitments (eg. NDC or regional commitment)?   | Yes |
| Is the target based on a transparent methodology?  | No  |
| Is there a renewable energy action plan or strategy to attain the target ?   | Yes |
| Is there any provision for consultation with the public on the renewable plan?   | Yes |
| Is there an assessment of the role of renewables in electricity supply?  | Yes |
| Is there a target for renewables in electricity?   | Yes |
| Is there an assessment of the needs for heating and cooling in buildings and industry in the country and of how renewables can contribute? | No  |
| Is there a specific target for renewables for heating and cooling?   | No  |
| Is there an assessment of the potential role for renewables in transport including biofuels and electrification?                           | Yes |
| Is there a specific target for renewables in transport?  | Yes |
| Does the renewable plan or strategy estimate the amount of investment necessary to meet the RE target?                                     | Yes |
| Is there an institution responsible for tracking progress in renewable energy development?   | Yes |
| Is there any periodic reporting mechanism for renewable energy progress?   | Yes |
| Is there a mechanism for adjusting the plan based on reporting of renewable energy deployment?   | No  |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |     |
|---|-----|
| Is current policy environment conducive to renewable energy deployment?   | Yes |
| Is generation and transmission planning integrated?   | Yes |
| Is planning for dispatch included in the generation and transmission plan?  | No  |
| Is the generation plan based on a probabilistic approach?   | Yes |
| Does the current transmission planning consider renewable energy scale-up?  | Yes |
| Does the government endorse and use the solar/wind resource maps and data applicable to their country that are available through the Global Solar Atlas / Global Wind Atlas, or have they published some other solar/wind resource map that conforms to best practice in the last five years? | Yes |
| Has the country carried out geospatial planning or produced zoning guidance to inform the commercial development of the RE resource?  | Yes |
| Has the geospatial planning or zoning guidance been carried out according to best practice by   | No  |

| <b>Incentives and regulatory support for renewable energy</b>   | <b>Score</b> | <b>31</b> |
|---|--------------|-----------|
| Does the country offer long term PPA's for renewable electricity production for large scale producers(e.g. via. feed-in-tariffs, PPA's awarded through auctions etc.) | Yes          |           |
| Does the country offer long term PPA's for renewable electricity production for small scale producers(e.g. via. feed-in-tariffs, PPA's awarded through auctions etc.) | Yes          |           |
| Does the government publish clear and practical guidance on what permissions are required to develop a RE electricity project?  | No           |           |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Does the government offer other direct fiscal incentives for renewable electricity (e.g. capital subsidies, grants or rebates, investment tax credits, tax reductions, production tax credits, FITs for large producers?)  | Yes |
| Does the country provide prioritized access to the grid for RE?  | No  |
| Do RE projects receive priority in dispatch?   | No  |
| Are there provisions to compensate seller if offtake infrastructure is not built in time?  | No  |
| Are there mechanisms to compensate RE projects for lost generation due to certain curtailments after project commissioning?  | No  |
| Is the compensation due because of curtailment actually given out.   | No  |
| Is there a biofuels blending mandate or other obligation to use biofuels?  | No  |
| Are there sustainability criteria which biofuels which contribute to the mandate must meet?  | Yes |
| If there is a plan for producing biofuels in the country, has this included an assessment of sustainability impacts (e.g. against the GBEP Sustainability indicators) including an assessment of impacts on food security. | Yes |
| Is there at least one scheme to encourage use of electric/hybrid vehicles? (e.g. Tax benefit to consumers and manufacturers, etc.)   | No  |
| Are there any policies to encourage deployment of any renewable energy heating and cooling technologies?   | No  |
| Are there specific measures (financial support or promotion) designed to encourage the use of renewables in the heating and cooling sectors?   | No  |
| Are opportunities for renewable heat promoted alongside energy efficiency measures in buildings and/or industry?   | No  |

## Regulatory Indicators for Sustainable Energy (RISE)

| Attributes of financial and regulatory incentives   | Score | 8   |
|---|-------|-----|
| Is competition used to ensure large scale RE generation (projects >10MW) is cost competitive (e.g. through auctions for PPA's)? |       | No  |
| Is there a schedule for future bids/auctions available for investors?   |       | No  |
| Is there a pre-qualification process to select bidders?   |       | No  |
| Are tariffs indexed (in part or in whole) to an international currency or to inflation?   |       | No  |
| Are there provisions to ensure full and timely project completion (e.g. bid-bonds, project milestones)                          |       | No  |
| Are projects awarded through auctions/bids online/on track to be online on stated date?   |       | No  |
| Have auctions/bids met stated target for installations?   |       | No  |
| Can small producers (residential, commercial rooftop PV,etc ) connect to the grid?  |       | Yes |
| Are contracts with fixed tariffs available for such producers?  |       | No  |
| Is there a schedule or clear rules (e.g. capacity based limits) for adjusting the tariff level over time?                       |       | No  |
| Are different tariffs available for different technologies and sizes of the generation plant?                                   |       | No  |
| Is there a mechanism to control the capacity built under each tariff?   |       | No  |
| Are tariffs indexed (in part or in whole) to an international currency or to inflation?   |       | No  |

| Network connection and use | Score | 13 |
|----------------------------|-------|----|
|                            |       |    |

## Regulatory Indicators for Sustainable Energy (RISE)

|  |     |
|--|-----|
| Does the country have a grid code that clearly specifies connection procedures?  | No  |
| Do the connection procedures meet international best practices?  | Yes |
| Does the grid code include measures or standards addressing variable renewable energy?   | Yes |
| Are there rules defining the allocation of connection costs?   | No  |
| Is the type of the connection cost allocation policy considered shallow (grid operator pays for connection costs)?   | No  |
| Are there rules that allow electricity customers to purchase power directly from a third party (i.e. an entity other than the designated utility in a service area)?                             | No  |
| Do the rules define the size and allocation of costs for use of the transmission and distribution system (e.g. wheeling charges, locational pricing)?  | No  |
| Does the country carry out regular assessments of the flexibility of the electricity grid and the issues relating to renewables integration?   | No  |
| Can renewable energy projects sell into balancing/ancillary services?  | No  |
| Are there rules for exchanging power between balancing areas that penalize variable renewable energy, e.g. through imbalance penalties? (only scored in countries with multiple balancing areas) | No  |
| Are there provisions in the power exchange rules that allow for plant forecasting? (only scored in countries with multiple balancing areas)  | No  |
| Does the country integrate high quality forecasting for any variable RE resources (either through subscription service or provided by national agencies) into their dispatch operations?         | No  |
| Are dispatch operations being carried out in real time?  | No  |

## Regulatory Indicators for Sustainable Energy (RISE)

| Counterparty risk  | Score | 48  |
|--|-------|-----|
| Are the following financial ratios of the counterparty deemed creditworthy?  |       | -   |
| Current ratio  |       | Yes |
| EBITDA margin  |       | No  |
| Debt service coverage ratio  |       | No  |
| Days payable outstanding   |       | Yes |
| Is the counterparty underwritten by a government guarantee or are there other mechanisms to ensure credit worthiness (e.g. through a letter of credit, escrow account, payment guarantee, or other)? |       | No  |
| Are standard PPAs bankable?  |       | No  |
| Are the financial statements of the largest utility publicly available in the following categories?  |       | -   |
| Generation   |       | Yes |
| Transmission   |       | Yes |
| Distribution   |       | No  |
| Retail sales   |       | No  |
| If yes, are they audited by an independent auditor for the following categories of utilities?  |       | -   |
| Generation   |       | Yes |
| Transmission   |       | Yes |
| Distribution   |       | Yes |
| Retail sales   |       | Yes |

## Regulatory Indicators for Sustainable Energy (RISE)

|   |     |
|---|-----|
| Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)? | -   |
| Generation - Electricity available for sale to end-users  | Yes |
| Transmission - Transmission loss rate   | Yes |
| Distribution - Distribution loss rate   | Yes |
| Retail Sales – Bill collection rate   | Yes |
| Is the utility operating an incidence/outage recording system (or SCADA/EMS with such functionality)?                         | Yes |
| Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?                               | Yes |
| Are the measurements reported to the regulatory body?   | Yes |
| Are the measurements available to public?   | Yes |

|                                      |              |           |
|--------------------------------------|--------------|-----------|
| <b>Carbon Pricing and Monitoring</b> | <b>Score</b> | <b>50</b> |
| No Data Found                        |              |           |