

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

Clean Cooking

| Indicator | Score |
|---------------------------|-------|
| Planning | 67 |
| Scope of planning | 83 |
| Standards and Labeling | 72 |
| Incentives and attributes | 100 |
| Total | 80.5 |

Electricity Access

| Indicator | Score |
|--|-------|
| Existence and monitoring of officially approved electrification plan | 100 |
| Scope of officially approved electrification plan | 100 |
| Framework for grid electrification | 100 |
| Framework for minigrids | 100 |
| Framework for stand-alone systems | 100 |
| Consumer affordability of electricity | 100 |
| Utility Transparency and Monitoring | 100 |
| Utility Creditworthiness | 100 |
| Total | 100 |

Energy Efficiency

| Indicator | Score |
|---|-------|
| National energy efficiency planning | 83 |
| Energy efficiency entities | 75 |
| Information provided to consumers about electricity usage | 42 |
| EE incentives from electricity rate structures | 81 |

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|--|--------------|
| Incentives & mandates: Industrial and Commercial End users | 92 |
| Incentives & mandates: public sector | 100 |
| Incentives & mandates: utilities | 79 |
| Financing mechanisms for energy efficiency | 75 |
| Minimum energy efficiency performance standards | 80 |
| Energy labeling systems | 50 |
| Building energy codes | 57 |
| Transport | 67 |
| Carbon Pricing and Monitoring | 50 |
| Total | 71.62 |

Renewable Energy

| Indicator | Score |
|--|--------------|
| Legal framework for renewable energy | 100 |
| Planning for renewable energy expansion | 71 |
| Incentives and regulatory support for renewable energy | 71 |
| Attributes of financial and regulatory incentives | 17 |
| Network connection and use | 79 |
| Counterparty risk | 77 |
| Carbon Pricing and Monitoring | 50 |
| Total | 66.43 |

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| Overall Score | 79.64 |
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Clean Cooking

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

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|--|------|
| Is the data publicly available? | No |
| Is the data gender disaggregated? | No |
| 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)? | Yes |
| 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? | 2013 |
| Has the plan gone through public consultation? | No |
| Have consultations taken the gender of participants into account? | Yes |
| Are there agencies dedicated to the following functions? | - |
| Setting clean cooking strategy/action plan | Yes |
| Setting, monitoring and enforcing standards for clean cooking solutions | Yes |
| Tracking access and adoption of clean cooking solutions | Yes |

| Scope of planning | Score | 83 |
|---|-------|----|
| Does the plan take into account geographical and demographical considerations to prioritize the most vulnerable consumers? | Yes | |
| Does the plan include considerations and action items for involving women throughout the supply chain of clean cooking solutions? | Yes | |
| Is there a targeted awareness raising strategy to drive adoption of clean cooking solutions, such as any of the following | - | |

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|---|--|
| Training programs for new stove technologies | Yes |
| Cooking competitions with stove technologies | |
| Nationally-sponsored educational campaigns for new stove technologies | Village-level government conducts public-awareness campaigns |
| 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? | No |
| Is there a last mile distribution strategy ³ in place for cooking fuels? | Yes |
| Is there a last mile distribution strategy in place for cooking technologies? | Yes |

| Standards and Labeling | Score | 72 |
|--|------------------------|-----------|
| Are there standards for the following aspects of clean cooking solutions | - | |
| Efficiency | Yes | |
| Emissions | Yes | |
| Safety | No | |
| Have the standards been adopted from external standards or developed domestically? | Developed domestically | |

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|--|-----|
| Is there a verification program in place for standards? | Yes |
| Does the program work with a standards testing facility or lab? | Yes |
| Does the stove testing facility or lab need to be accredited? | Yes |
| Have the standards been verified through field testing? | No |
| Have labeling schemes been adopted on clean cooking products for the following | - |
| Efficiency | Yes |
| Emissions | Yes |

| Incentives and attributes | Score | 100 |
|---|-------|------------|
| Are there specific financing facilities available to support suppliers/consumers to develop/purchase clean cooking solutions? | | Yes |
| Are there specific financing or subsidy programs for clean cooking solutions targeted to low income consumers? | | Yes |
| 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 | | Gas stoves |

Electricity Access

| Existence and monitoring of officially approved electrification plan | Score | 100 |
|--|-------|------|
| Is there an officially approved national electrification plan? | | #N/A |

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|--|------|
| Are the electrification plan and the updates publicly available? | #N/A |
| Is there a requirement for periodic progress reports tracking progress towards the defined energy access target? | #N/A |
| Does the reporting actually take place? | #N/A |
| Are there institution(s) responsible for carrying out the following functions | - |
| Setting electrification strategy | #N/A |
| Setting electrification milestones and deadlines | #N/A |
| Coordinating generation, transmission, and distribution plans and their implementation | #N/A |
| Reporting progress towards the defined energy access target/milestones with periodic reports | #N/A |
| Is the electrification plan developed based on demand assessment? | #N/A |
| Were there any public consultations while developing the plan? | #N/A |
| Is there a provision for the plan periodic evaluations? | #N/A |

| Scope of officially approved electrification plan | Score | 100 |
|--|-------|------|
| Does the plan target a service level (e.g., power availability, number of guaranteed hours of power supply, etc.)? | | #N/A |
| Does the electrification plan include off-grid solutions (either/or both minigrids and standalone systems)? | | #N/A |
| Does the plan include productive uses (e.g. agricultural, commercial, and industrial activities)? | | #N/A |
| Does the plan include community facilities (e.g. health centers, schools, administrative buildings)? | | #N/A |

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|--|------|
| Does the plan include areas with informally settled people/groups? | #N/A |
| Does the plan specifically address the electricity access of female-headed households? | #N/A |
| Does the plan set up a specific target on female-headed households' electrification? | #N/A |
| Are there geospatial maps conveying the timeframe of planned grid extension? | #N/A |
| Are these geospatial maps made publicly available? | #N/A |

| Framework for grid electrification | Score | 100 |
|---|--------------|------------|
| 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)? | #N/A | |
| Are there capital subsidies paid to the utilities to provide distribution systems to rural areas/villages? | #N/A | |
| 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? | #N/A | |
| Are there consumer financing mechanisms targeting specifically female headed households? | #N/A | |
| Are there consumer financing mechanisms targeting low-income households? | #N/A | |
| 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.)? | #N/A | |
| Is there a periodic reporting system in place to ensure standards compliance? | #N/A | |

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| Framework for minigrids | Score | 100 |
|--|-------|------|
| Are there programs which aim to develop minigrid systems or support the development of minigrids systems? | | #N/A |
| Do the regulations clarify what will occur when the interconnected grid reaches a minigrid?. | | #N/A |
| Are there national programs which aim to develop stand-alone systems or support the development of stand-alone systems? | | #N/A |
| Are minigrids legally allowed to operate in the country? | | #N/A |
| Can minigrids be owned and operated by private operators? | | #N/A |
| Do the regulations detail procedures for consumers to get connected to minigrids? | | #N/A |
| Do the regulations differ by size of minigrids? | | #N/A |
| Are mini-grid operators legally allowed to charge a different tariff from the national tariff? | | #N/A |
| Are there publicly funded mechanisms to secure viability gap funding for operators? | | #N/A |
| Are there duty exemptions and/or capital subsidies for minigrid systems and/or individual components? | | #N/A |
| Are there specific financing facilities (access to credit etc.) available to support operators? | | #N/A |
| Are there duty exemptions and/or subsidies to support standalone home systems? | | #N/A |
| Are there legal restrictions that limit the prices standalone home system retailers or service providers can charge? | | #N/A |
| Are there specific financing facilities available to support operators/consumers to develop/ purchase standalone home systems? | | #N/A |

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|---|------|
| Are there technical standards detailing the requirements for minigrids to connect the grid? | #N/A |
| Are technical standards made publicly available? | #N/A |
| Are there safety standards for minigrids (e.g. overcurrent protection, system control etc.)? | #N/A |
| Are these safety standards made publicly available? | #N/A |
| Has the government adopted international quality standards for stand-alone systems? | #N/A |
| Has the government adopted international testing methods or does it accept testing done in another country? | #N/A |
| Are there environmental regulations on the disposal of solar devices and standalone home system products or components? | #N/A |

| Framework for stand-alone systems | Score | 100 |
|---|--------------|------------|
| Are there programs which aim to develop minigrid systems or support the development of minigrids systems? | #N/A | |
| Do the regulations clarify what will occur when the interconnected grid reaches a minigrid?. | #N/A | |
| Are there national programs which aim to develop stand-alone systems or support the development of stand-alone systems? | #N/A | |
| Are there publicly funded mechanisms to secure viability gap funding for operators? | #N/A | |
| Are there duty exemptions and/or capital subsidies for minigrid systems and/or individual components? | #N/A | |
| Are there specific financing facilities (access to credit etc.) available to support operators? | #N/A | |

Regulatory Indicators for Sustainable Energy (RISE)

| | |
|--|------|
| Are there duty exemptions and/or subsidies to support standalone home systems? | #N/A |
| Are there legal restrictions that limit the prices standalone home system retailers or service providers can charge? | #N/A |
| Are there specific financing facilities available to support operators/consumers to develop/ purchase standalone home systems? | #N/A |
| Are there technical standards detailing the requirements for minigrids to connect the grid? | #N/A |
| Are technical standards made publicly available? | #N/A |
| Are there safety standards for minigrids (e.g. overcurrent protection, system control etc.)? | #N/A |
| Are these safety standards made publicly available? | #N/A |
| Has the government adopted international quality standards for stand-alone systems? | #N/A |
| Has the government adopted international testing methods or does it accept testing done in another country? | #N/A |
| Are there environmental regulations on the disposal of solar devices and standalone home system products or components? | #N/A |

| Consumer affordability of electricity | Score | 100 |
|---|--------------|------------|
| 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? | | |

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| Utility Transparency and Monitoring | Score | 100 |
|---|-------|-----|
| Are the financial statements of the largest utility publicly available for each of the following | | - |
| Generation | | No |
| Transmission | | Yes |
| Distribution | | Yes |
| Retail sales | | No |
| If yes, are they audited by an independent auditor for each of the following | | - |
| Generation | | No |
| Transmission | | Yes |
| Distribution | | Yes |
| Retail sales | | No |
| 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 | | No |
| 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 |

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

| | | |
|---------------------------------|--------------|------------|
| Utility Creditworthiness | Score | 100 |
| No Data Found | | |

Energy Efficiency

| | | |
|---|--------------|-----------|
| National energy efficiency planning | Score | 83 |
| 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 | Yes | |
| 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 | |

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| Energy efficiency entities | Score | 75 |
|---|--------------|-----------|
| 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 | | Yes |
| Selecting and/or approving third party auditors tasked with certifying EE standards | | Yes |
| Are energy efficiency programs developed based on market analyses with plans open to public consultation and periodic evaluation? | | No |
| Are there professional certification/accreditation programs mandated for any of the following energy efficiency activities | | - |
| Energy auditing/energy management | | Yes |
| Energy efficiency financing | | Yes |
| Monitoring and verification of energy consumption/savings | | No |
| Building energy efficiency construction/design | | Yes |
| Other | | |

Information provided to consumers about

Score

42

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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 |

| EE incentives from electricity rate structures | Score | 81 |
|--|--------------|-----------|
| 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 | |

| Incentives & mandates: Industrial and Commercial End users | Score | 92 |
|--|-------|----|
| 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.) | Yes | |
| Mandatory audits | Yes | |
| Progress/tracking reports | Yes | |
| Energy-management system (computer technologies to optimize energy use) | Yes | |
| Are there penalties in place for non-compliance with regulatory obligations for EE? | Yes | |
| 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? | Yes | |
| Is there a measurement and verification program in place? | Yes | |
| Are energy efficiency incentives in place for large-scale users? | Yes | |
| Is there an energy efficiency mandate or incentive program for SMEs? | Yes | |
| Is there a program to publicly recognize end users that have achieved significant energy savings measures? | Yes | |

Regulatory Indicators for Sustainable Energy (RISE)

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|--|-----|
| Are energy savings and/or financial savings publicized? | Yes |
| 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 | 100 |
|---|--------------|------------|
| 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) ? | Yes | |
| Is there a reporting mechanism to track and enforce energy savings in public sector facilities (either in-house or by a third party)? | Yes | |
| Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services? | Yes | |
| Are procurement guidelines updated periodically to reflect technological advances and best practices in energy efficient products and services? | Yes | |
| Do public budgeting regulations and practices allow public entities to retain energy savings at the following levels? | Yes | |

| Incentives & mandates: utilities | Score | 79 |
|---|--------------|-----------|
| Generation | - | |
| Are utilities required to carry out energy efficiency activities in this area? | Yes | |
| Are there penalties in place for non-compliance with EE requirements? | Yes | |
| Are energy savings or other target indicators measured to track performance in meeting EE requirements? | Yes | |

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? | Yes |
| Are there penalties in place for non-compliance with EE requirements? | Yes |
| Are energy savings or other target indicators measured to track performance in meeting EE requirements? | Yes |
| 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? | Yes |
| 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 | Yes |
| 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 | Yes |
| Partial risk guarantees | Yes |
| Program cost recovery | No |
| On-bill financing/pre-payment | No |
| Decoupling | No |

| Financing mechanisms for energy efficiency | Score | 75 |
|--|-------|----|
| 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 | Yes | |
| Discounted "green" mortgages | No | |
| On-bill financing | No | |
| Credit lines and/or revolving funds with banks for energy efficiency activities | No | |
| 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 | Yes | |

Regulatory Indicators for Sustainable Energy (RISE)

| | |
|---|-----|
| Discounted “green” mortgages | Yes |
| On-bill financing | No |
| Credit lines and/or revolving funds with banks for energy efficiency activities | No |
| Green or energy efficiency bonds | Yes |
| Energy services agreements (pay-for-performance contracts) | Yes |
| Vendor credit and/or leasing for energy efficiency activities | No |
| Partial risk guarantees | Yes |
| Industrial sector | - |
| Tax incentives | Yes |
| Discounted “green” mortgages | Yes |
| On-bill financing | No |
| Credit lines and/or revolving funds with banks for energy efficiency activities | No |
| Green or energy efficiency bonds | Yes |
| Energy services agreements (pay-for-performance contracts) | Yes |
| Vendor credit and/or leasing for energy efficiency activities | No |
| Partial risk guarantees | Yes |
| 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 | - |

| Minimum energy efficiency performance standards | Score | 80 |
|---|--------------|-----------|
| Have minimum energy performance standards been adopted for the following product categories? | - | |
| Refrigerators | Yes | |
| Heating, ventilation and/or air conditioning (HVAC) | Yes | |
| Lighting equipment | Yes | |
| Industrial electric motors | Yes | |
| Other industrial equipment | Yes | |
| Light vehicles (heavy duty transport vehicles were tracked but not included in the scoring) | Yes | |
| 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 | 50 |
|---|-------|-----|
| Have energy efficiency labeling schemes been adopted for? | | - |
| Refrigerators | | Yes |
| HVAC | | Yes |
| Lighting equipment | | Yes |
| Industrial electric motors | | Yes |
| Other industrial equipment | | Yes |
| Transport vehicles | | Yes |
| 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 | 57 |
|--|-------|-----|
| Are there energy efficiency codes for new residential buildings? | | Yes |
| Are there energy efficiency codes for new commercial buildings? | | Yes |
| Are the building energy efficiency standards required to be updated on a regular basis to reflect technological advances and | | - |

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| | |
|--|-----|
| changes in best practices for building energy efficiency in each sector | |
| Residential buildings | Yes |
| Commercial buildings | Yes |
| 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? | Yes |
| Are renovated buildings required to meet a building energy code, in each sector | - |
| Residential sector | Yes |
| Commercial sector | Yes |
| 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 | Yes |

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of new building stocks that must be LEED certified)?

| Transport | Score | 67 |
|---|-------|-----|
| Is there a national database or national reporting system to periodically track and report the following transport efficiency metrics | | - |
| Fuel per mile driven | | Yes |
| 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 | | Yes |
| Other | | No |
| 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 | | Yes |
| 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) | Yes |
| Freight rail mandatory fuel economy standards or efficiency incentives | No |
| Energy efficiency procurement standards or incentives for municipal rail and bus fleets | Yes |
| Efficient fuel switching mandate or incentive programs for commercial/industrial vehicle fleets | No |
| Other | No |
| Is there a requirement for periodic reporting to verify compliance or progress of the program(s)? | No |

| | | |
|--------------------------------------|--------------|-----------|
| Carbon Pricing and Monitoring | Score | 50 |
| No Data Found | | |

Renewable Energy

| | | |
|---|--------------|------------|
| Legal framework for renewable energy | Score | 100 |
| Does a legal framework for renewable energy development exist? | Yes | |
| Does the legal framework allow private sector ownership of renewable energy generation? | Yes | |

| | | |
|--|--------------|-----------|
| Planning for renewable energy expansion | Score | 71 |
|--|--------------|-----------|

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|--|-----|
| Does an official renewable energy target exist? | Yes |
| Is the target legally binding? | Yes |
| Is the RE target linked to international commitments (eg. NDC or regional commitment)? | Yes |
| Is the target based on a transparent methodology? | Yes |
| 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? | Yes |
| 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? | No |
| Is there an institution responsible for tracking progress in renewable energy development? | Yes |
| Is there any periodic reporting mechanism for renewable energy progress? | No |
| Is there a mechanism for adjusting the plan based on reporting of renewable energy deployment? | No |

Regulatory Indicators for Sustainable Energy (RISE)

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|---|-----|
| 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? | Yes |
| Is the generation plan based on a probabilistic approach? | No |
| 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? | No |
| Has the geospatial planning or zoning guidance been carried out according to best practice by | No |

| Incentives and regulatory support for renewable energy | Score | 71 |
|---|--------------|-----------|
| 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? | Yes | |

Regulatory Indicators for Sustainable Energy (RISE)

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| 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? | Yes |
| Do RE projects receive priority in dispatch? | Yes |
| Are there provisions to compensate seller if offtake infrastructure is not built in time? | Yes |
| Are there mechanisms to compensate RE projects for lost generation due to certain curtailments after project commissioning? | Yes |
| Is the compensation due because of curtailment actually given out. | Yes |
| Is there a biofuels blending mandate or other obligation to use biofuels? | Yes |
| Are there sustainability criteria which biofuels which contribute to the mandate must meet? | No |
| 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. | No |
| Is there at least one scheme to encourage use of electric/hybrid vehicles? (e.g. Tax benefit to consumers and manufacturers, etc.) | Yes |
| Are there any policies to encourage deployment of any renewable energy heating and cooling technologies? | Yes |
| 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 | 17 |
|---|-------|-----|
| 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) | | Yes |
| Are projects awarded through auctions/bids online/on track to be online on stated date? | | Yes |
| Have auctions/bids met stated target for installations? | | Yes |
| 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? | | Yes |
| 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 | 79 |
|----------------------------|-------|----|
| | | |

Regulatory Indicators for Sustainable Energy (RISE)

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|--|-----|
| Does the country have a grid code that clearly specifies connection procedures? | Yes |
| 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? | Yes |
| Is the type of the connection cost allocation policy considered shallow (grid operator pays for connection costs)? | Yes |
| 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)? | Yes |
| Do the rules define the size and allocation of costs for use of the transmission and distribution system (e.g. wheeling charges, locational pricing)? | Yes |
| Does the country carry out regular assessments of the flexibility of the electricity grid and the issues relating to renewables integration? | Yes |
| Can renewable energy projects sell into balancing/ancillary services? | Yes |
| 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) | Yes |
| 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? | Yes |
| Are dispatch operations being carried out in real time? | No |

Regulatory Indicators for Sustainable Energy (RISE)

| Counterparty risk | Score | 77 |
|--|-------|-----|
| Are the following financial ratios of the counterparty deemed creditworthy? | | - |
| Current ratio | | No |
| EBITDA margin | | Yes |
| 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)? | | Yes |
| Are standard PPAs bankable? | | Yes |
| Are the financial statements of the largest utility publicly available in the following categories? | | - |
| Generation | | No |
| Transmission | | Yes |
| Distribution | | Yes |
| Retail sales | | No |
| If yes, are they audited by an independent auditor for the following categories of utilities? | | - |
| Generation | | No |
| Transmission | | Yes |
| Distribution | | Yes |
| Retail sales | | No |

Regulatory Indicators for Sustainable Energy (RISE)

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|---|-----|
| 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 | No |
| 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 |

| Carbon Pricing and Monitoring | Score | 50 |
|--------------------------------------|--------------|-----------|
| No Data Found | | |