

## Regulatory Indicators for Sustainable Energy (RISE) 2016 Country Data - Japan

### Energy Efficiency

Indicator	Score
National energy efficiency planning	75
Energy efficiency entities	71.43
Information provided to consumers about electricity usage	68.75
EE incentives from electricity rate structures	81.48
Incentives & mandates: large consumers	88.89
Incentives & mandates: public sector	0
Incentives & mandates: utilities	16.67
Financing mechanisms for energy efficiency	91.67
Minimum energy efficiency performance standards	83.33
Energy labeling systems	83.33
Building energy codes	66.67
Carbon Pricing	83.79
<b>Total</b>	67.58

### Renewable Energy

Indicator	Score
Legal framework for renewable energy	100
Planning for renewable energy expansion	23
Incentives and regulatory support for renewable energy	75
Attributes of financial and regulatory incentives	100
Network connection and pricing	64
Counterparty risk	100
Carbon pricing and monitoring	84
<b>Total</b>	78

## Regulatory Indicators for Sustainable Energy (RISE)

**Overall Score**

48.53

### Energy Efficiency

National energy efficiency planning	Score	75
Is there legislation or a national action plan that aims to increase EE?		Yes
Name of EE legislation or action plan		0
Is there an energy efficiency goal or target at the national level?		Yes
National target details		35% reduction from FY 2013 to FY2030. Equivalent of 50,300,000 kL of final fuelconsumption reduction.
Is there a target for the residential sector?		No
Target details		0
Does the target have a milestone or deadline?		No
Is there a commercial services sector target?		No
Target details		0
Does the target have a milestone or deadline?		No
Is there an industrial sector target?		No
Target details		0
Does the target have a milestone or deadline?		No
Is there a power sector target?		Yes

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Target details	-17% in power demand _x000D_= 196.1 billion kWh_x000D_reduction
Does the target have a milestone or deadline?	Yes

Energy efficiency entities	Score	71.43
Are there governmental and/or independent bodies dedicated to setting EE strategy?	Yes	
Name of entity	METI and MLIT	
Are there governmental and/or independent bodies dedicated to setting EE standards?	Yes	
Name of entity	METI_x000D_and MLIT	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	Yes	
Name of entity	METI	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	
Name of entity	METI	
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	No	
Name of entity	No	
Are there governmental and/or independent bodies dedicated to certifying compliance with building EE standards?	Yes	
Name of entity	0	
Are there governmental and/or independent bodies dedicated to selecting and/or approving third party auditors tasked with	No	

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certifying EE standards?	
Name of entity	No

Information provided to consumers about electricity usage	Score	68.75
Residential customers		
Is it mandatory for utilities to provide reports of their energy usage, in a bill or by other means?	Yes	
Commercial customers		
Is it mandatory for utilities to provide reports of their energy usage, in a bill or by other means?	Yes	
Industrial customers		
Is it mandatory for utilities to provide reports of their energy usage, in a bill or by other means?	Yes	
Residential customers		
At what intervals do customers receive these reports (times per year)?	12	
Do the reports include the price levels customers pay for energy usage?	Yes	
Commercial customers		
At what intervals do customers receive these reports (times per year)?	12	
Do the reports include the price levels customers pay for energy usage?	Yes	
Industrial customers		

## Regulatory Indicators for Sustainable Energy (RISE)

At what intervals do customers receive these reports (times per year)?	12
Do the reports include the price levels customers pay for energy usage?	Yes
Does the regulator track utilities' compliance with laws for providing energy usage information to customers?	No
Residential customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	Yes
Method of comparison	If a TEPCO customer choose to register its Power Accounting Book website, the site can show the customer the comparison
Commercial customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	No
Method of comparison	The Business Platform website does not provide the comparison
Industrial customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	No
Method of comparison	The Business Platform website does not provide the comparison
Residential customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Commercial customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	Yes
Industrial customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	Yes
All customers	
Can customers access real time feedback on energy usage (for either prepaid or post-paid systems)?	Yes
Do customers have 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>81.48</b>
Residential customers		
Are customers charged a flat fee (per connection)?	Yes	
Are customers charged constant block rates?	No	
Are customers charged declining block rates?	No	
Are customers charged increasing block rates?	Yes	
Commercial customers		
Are customers charged a flat fee (per connection)?	Yes	
Are customers charged constant block rates?	Yes	
Are customers charged declining block rates?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Are customers charged increasing block rates?	No
Industrial customers	
Are customers charged a flat fee (per connection)?	Yes
Are customers charged constant block rates?	Yes
Are customers charged declining block rates?	No
Are customers charged increasing block rates?	No
Residential customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	Yes
Do customers pay reactive power charges (per kVAR)?	No
Commercial customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	Yes
Do customers pay reactive power charges (per kVAR)?	No
Industrial customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	Yes
Do customers pay reactive power charges (per kVAR)?	No
Residential customers	
Are customers charged based on real-time pricing?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Are customers charged based on variable peak pricing?	No
Are customers charged based on critical peak pricing?	No
Are tariffs adjusted according to seasons?	Yes
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	No
Commercial customers	
Are customers charged based on real-time pricing?	No
Are customers charged based on variable peak pricing?	No
Are customers charged based on critical peak pricing?	No
Are tariffs adjusted according to seasons?	Yes
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	No
Industrial customers	
Are customers charged based on real-time pricing?	No
Are customers charged based on variable peak pricing?	No
Are customers charged based on critical peak pricing?	No
Are tariffs adjusted according to seasons?	Yes
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	No

### Incentives & mandates: large consumers

**Score**

**88.89**

What is the threshold for classifying large consumers?

At enterprise level, 1,500 kL of crude oil equivalent



## Regulatory Indicators for Sustainable Energy (RISE)

	of energy use annually. At factory (plant) level, 3,000 kL of crude oil equivalent of energy use annually.
Large consumer EE mandate/incentive regulations	Standards of Judgment for Business Operators are mentioned in Article 5 of the Act on Rational use of Energy It is summarized at the ECCJ website tables. Also the METI documents tell the following. The energy use reduction target for enterprises which use more than 1,5 kL of crude oil equivalent of energy per year is to reduce more than 1% its energy consumption per unit of production annually or the reduction of energy consumption (kL) per unit of production at normalized electricity demand timeframe.
Is it required for the consumption and/or savings of large-scale energy users to be tracked and documented on a regular basis?	Yes
Are efficiency targets mandated for large consumers?	Yes
Details	0
Are energy audits mandated for large consumers?	No
Are energy efficiency progress reports mandated for large consumers?	Yes
Interval of reports	annual
Are energy-management systems mandated for large consumers?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Details	0
Are there penalties in place for non-compliance with regulatory obligations for large consumers?	Yes
Is there a measurement and verification program in place?	Yes
Is verification done by a third party?	Yes
Are there financial incentives for large consumers to invest in energy efficiency?	No
Details	0
Are there tax incentives for large consumers to invest in energy efficiency?	No
Are there other incentives for large consumers to invest in energy efficiency?	Yes
Details	Subsidy.
Is there a program to publicly recognize large-scale users that have achieved significant energy savings measures?	Yes
Are energy savings and/or financial savings publicized?	Yes
Does the program offer assistance (from a government or independent entity) to large-scale users to identify energy savings investments opportunities?	No
Primary Energy Consumption (MJ - latest GTF data from 2012)	1527795.742

Incentives & mandates: public sector	Score	0
Are there binding energy savings obligations for public buildings?		No
Are energy savings from efficiency activities at public buildings tracked (either in-house or by a third party)?		No

## Regulatory Indicators for Sustainable Energy (RISE)

Are there binding energy savings obligations for other public facilities (may include water supply, wastewater services, municipal solid waste, street lighting, transportation, and heat supply)?	No
Are energy savings from efficiency activities at other public facilities tracked?	No
Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services?	No
Public procurement guidelines for EE	
Do public budgeting regulations and practices allow public entities to retain energy savings?	No
Public budgeting regulations for EE	Cabinet Order on Budgets, the Settlement of Accounts, and Accounting

Incentives & mandates: utilities	Score	16.67
Name of utility energy efficiency regulation program		
Electricity generation		
Are utilities required to carry out energy efficiency activities in this area?	Yes	
Details		
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?	Yes	
Are there penalties in place for non-compliance with EE requirements?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Are there mandates or incentives for new and/or brownfield co-generation?	No
Transmission & distribution	
Are utilities required to carry out energy efficiency activities in this area?	No
Details	
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 there penalties in place for non-compliance with EE requirements?	No
Demand-side management -	
Are utilities required to carry out energy efficiency activities in this area?	No
Details	0
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 there penalties in place for non-compliance with EE requirements?	No
Is there a demand-side management department within the selected utility?	No
Do utilities provide customers incentives for demand response, such as peak-time rebates?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Is there public budget funding available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Is there compensation for revenue losses via a tracking account available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Are there credit lines available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Are there partial risk guarantees available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Is there program cost recovery available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Are these available as government-driven financing mechanisms?	No
Is there ESCO financing available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Is there on-bill financing/re-payment available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Are there any other financing mechanisms available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	0
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No

Financing mechanisms for energy efficiency	Score	91.67
Residential sector		

## Regulatory Indicators for Sustainable Energy (RISE)

Are there tax incentives available for energy efficiency investments?	Yes
Are there discounted "green" mortgages available for energy efficiency investments?	No
Is on-bill financing/re-payment available for energy efficiency investments?	No
Are credit lines available for energy efficiency investments?	No
Are energy services agreements or ESCOs available for energy efficiency investments?	No
Are green bonds available for energy efficiency investments?	No
Is vendor credit and/or leasing available for energy efficiency investments?	Yes
Are partial risk guarantees available for energy efficiency investments?	No
Are there any other financing mechanisms available for energy efficiency investments?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
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Are these available as government-driven financing mechanisms?	No
Details	subsidies
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	No
Commercial services sector	
Are there tax incentives available for energy efficiency investments?	Yes
Are there discounted "green" mortgages available for energy efficiency investments?	No
Is on-bill financing/re-payment available for energy efficiency investments?	No
Are credit lines available for energy efficiency investments?	Yes
Are energy services agreements or ESCOs available for energy efficiency investments?	No



## Regulatory Indicators for Sustainable Energy (RISE)

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Are partial risk guarantees available for energy efficiency investments?	No
Are there any other financing mechanisms available for energy efficiency investments?	Yes
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Details	subsidies
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Are these available as government-driven financing mechanisms?	Yes
Industrial sector	
Are there tax incentives available for energy efficiency investments?	Yes
Are there discounted "green" mortgages available for energy efficiency investments?	No
Is on-bill financing/re-payment available for energy efficiency investments?	No
Are credit lines available for energy efficiency investments?	Yes
Are energy services agreements or ESCOs available for energy efficiency investments?	No

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Are these available as government-driven financing mechanisms?	No
Details	subsidies
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No
Are these available as government-driven financing mechanisms?	Yes

<b>Minimum energy efficiency performance standards</b>	<b>Score</b>	<b>83.33</b>
EE standards regulations		Japan Top Runner Program
Refrigerators		
Have minimum energy performance standards been adopted?	Yes	
Details of standards		annual energy consumption (kWh/year)
Is there a verification program in place?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No
Air conditioners	
Have minimum energy performance standards been adopted?	Yes
Details of standards	average cooling/heating energy consumption efficiency (cooling/heating average COP)
Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No
Lighting equipment	
Have minimum energy performance standards been adopted?	Yes
Details of standards	a numerical value obtained by dividing the total luminous flux by consumed wattage (W)
Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Are the standards based on external/international standards?	No
Industrial electric motors	
Have minimum energy performance standards been adopted?	Yes
Details of standards	numeric value (%) obtained by dividing output (input - total loss) by input (W)
Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No
Other industrial equipment	
Have minimum energy performance standards been adopted?	Yes
Details of standards	0
Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No
Light duty vehicles	
Have minimum energy performance standards been adopted?	Yes
Details of standards	fuel efficiency in km/l.

## Regulatory Indicators for Sustainable Energy (RISE)

Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No
Heavy duty vehicles	
Have minimum energy performance standards been adopted?	Yes
Details of standards	fuel efficiency in km/l.
Is there a verification program in place?	Yes
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	No

<b>Energy labeling systems</b>	<b>Score</b>	<b>83.33</b>
Refrigerators		
Have energy efficiency labeling schemes been adopted?	Yes	
Is the labeling scheme mandatory?	Yes	
Is the labeling scheme based on external/international standards?	No	
Air conditioners		
Have energy efficiency labeling schemes been adopted?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Is the labeling scheme mandatory?	No
Is the labeling scheme based on external/international standards?	No
Lighting equipment	
Have energy efficiency labeling schemes been adopted?	Yes
Is the labeling scheme mandatory?	Yes
Is the labeling scheme based on external/international standards?	No
Industrial electric motors	
Have energy efficiency labeling schemes been adopted?	Yes
Is the labeling scheme mandatory?	Yes
Is the labeling scheme based on external/international standards?	No
Other industrial equipment	
Have energy efficiency labeling schemes been adopted?	Yes
Is the labeling scheme mandatory?	Yes
Is the labeling scheme based on external/international standards?	No
Light duty vehicles	
Have energy efficiency labeling schemes been adopted?	Yes
Is the labeling scheme mandatory?	Yes
Is the labeling scheme based on external/international standards?	No



## Regulatory Indicators for Sustainable Energy (RISE)

Heavy duty vehicles	
Have energy efficiency labeling schemes been adopted?	Yes
Is the labeling scheme mandatory?	No
Is the labeling scheme based on external/international standards?	No

<b>Building energy codes</b>	<b>Score</b>	<b>66.67</b>
Are there energy efficiency codes for new residential buildings?	Yes	
Are there energy efficiency codes for new commercial buildings?	Yes	
Is the energy efficiency code for new residential buildings its own stand-alone, separate code or part of the overall building code?	Yes	
Is the energy efficiency code for new commercial buildings its own stand-alone, separate code or part of the overall building code?	Yes	
Is there any provision for regular updates to the code for new residential buildings?	No	
Is there any provision for regular updates to the code for new commercial buildings?	No	
EE building code regulations	The Act on Rational Use of Energy	
When was the code last updated for residential buildings?	2013	
When was the code last updated for commercial buildings?	2014	
Is there a system to ensure compliance with building energy efficiency codes?	No	
Is it carried out by a third party?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Are renovated residential buildings required to meet a building energy codee?	Yes
Are renovated commercial buildings required to meet a building energy code?	Yes
Is the energy efficiency code for renovated residential buildings different from the code for new buildings?	No
Is the energy efficiency code for renovated commercial buildings different from the code for new buildings?	No
Is the energy efficiency code for renovated residential buildings its own stand-alone, separate code or part of the overall building code?	No
Is the energy efficiency code for renovated commercial buildings its own stand-alone, separate code or part of the overall building code?	No
Is there any provision for regular updates to the code for renovated residential buildings?	No
Is there any provision for regular updates to the code for renovated commercial buildings?	No
Is there a mandatory standardized rating or labeling system for the energy performance of existing buildings?	Yes
Is the labeling scheme or rating adopted from external standards?	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 of new building stocks that must be LEED certified)?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Details	Tax reduction measures and subsidies.
LEED incentives	No
Local program details	tax incentives (VW)

<b>Carbon Pricing</b>	<b>Score</b>	<b>83.79</b>
Is there a carbon pricing mechanism in place?		Yes
For any carbon pricing mechanism (e.g. carbon tax, emission trading system), what is the portion of national GHG emissions covered)?		0.675809722075506
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?		Yes

## Renewable Energy

<b>Legal framework for renewable energy</b>	<b>Score</b>	<b>100</b>
Does a legal framework for renewable energy development exist?		Yes
Name of the Law		The Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities (The FIT law hereafter) The Electricity Business Act
Is private sector ownership of renewable energy generation legally authorized?		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Planning for renewable energy expansion	Score	23
Does an official renewable energy target exist?		Yes
Overall target		% of electricity mix
Solar target		approximately 7.0%
Wind target		approximately 1.7%
Hydro target		approximately 8.8% to 9.2%
Biomass target		approximately 3.7% to 4.6%
Geothermal target		approximately 1.0% to 1.1%
Does a renewable energy action plan or strategy to attain the target exist?		Yes
Name of the action plan		0
Does the plan or strategy define the amount of investment necessary to meet the RE target?		No
The amount of investment identified		0
Is there an institution responsible for tracking progress in renewable energy development?		Yes
Name of the institution		0
Does an electricity generation plan that includes renewable energy development exist?		No
Name of the generation plan		0
Is the expansion plan based on a probabilistic approach?		N/A

## Regulatory Indicators for Sustainable Energy (RISE)

Does the current transmission planning consider renewable energy scale-up?	No
Name of the transmission plan	0
Has the country conducted a variable renewable energy integration study?	No
Name of the integration study	0
Year of the integration study	
Does the country have sufficient resource abundance to warrant a solar resource atlas?	Yes
Does the government publish or endorse a solar resource atlas or other data on the abundance and quality of the resource?	No
Solar atlas is validated by at least 5 ground-based measurements taken for a period of at least a year;	No
Solar atlas has a spatial resolution of 5km or less;	No
Solar atlas is based on modeling inputs covering at least a 10 year period;	No
Solar atlas is accompanied by an explanation of the methodology and instrumentation	No
Has the country carried out strategic planning or produced zoning guidance to inform the commercial development of solar resources?	No
Has the solar resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	No
Are the solar resource planning or zoning guidance outputs publically available?	No
Does the country have sufficient resource abundance to warrant a wind resource atlas?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Does the government publish or endorse a wind resource atlas or other data on the abundance and quality of the resource?	Yes
Wind atlas is validated by at least 5 ground-based measurements taken for a period of at least a year;	No
Wind atlas has a spatial resolution of 5km or less;	Yes
Wind atlas is based on modeling inputs covering at least a 10 year period;	Yes
Wind atlas is accompanied by an explanation of the methodology and instrumentation	No
Has the country carried out strategic planning or produced zoning guidance to inform the commercial development of wind resources?	No
Has the wind resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	No
Are the wind resource planning or zoning guidance outputs publically available?	No
Does the country have sufficient resource abundance to warrant a hydro resource atlas?	Yes
Does the country publish or endorse a national hydro resource map or atlas?	No
Hydro atlas is validated by ground-based water run-off data and/or site surveys from potential sites;	No
Hydro atlas is accompanied by an explanation of the methodology and instrumentation	No
Has the country carried out strategic planning or produced zoning guidance to inform the commercial development of hydro resources?	No
Has the hydro resource planning or zoning guidance been undertaken as part of a strategic environmental and social	No

## Regulatory Indicators for Sustainable Energy (RISE)

assessment or equivalent process?	
Are the hydro resource planning or zoning guidance outputs publically available?	No
Does the country have sufficient resource abundance to warrant a biomass resource atlas?	Yes
Does the country publish or endorse a national biomass resource map or atlas?	No
Biomass atlas is validated by ground-based survey or officially reported data;	No
Biomass atlas is accompanied by an explanation of the methodology and instrumentation.	No
Has the biomass resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	No
Are the biomass resource planning or zoning guidance outputs publically available?	No
Does the country have sufficient resource abundance to warrant a geothermal resource atlas?	Yes
Does the country publish or endorse a national geothermal resource map or atlas?	Yes
The governmentn has collected and recorded well data at potential geothermal sites?	Yes
Does the government publish a national geological map?	Yes
The government has supported surface exploration (geological; geochemical; temp; gradient) at potential sites?	Yes
The government has supported test drilling at at least one site (slim bore or full well)?	Yes
The government has supported the creation of a reservoir model at at least one site?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Has the country carried out strategic geothermal resource planning or produced zoning guidance to inform the commercial development of the resource?	No
Has the geothermal resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	No
Are the geothermal resource planning or zoning guidance outputs publically available?	No

Incentives and regulatory support for renewable energy	Score	75
Is there at least one scheme to support renewable energy per unit of electricity generated? (e.g., feed-in tariff, competitive bidding/auction, mandates, generation premiums, production tax credits)?		Yes
Feed-in tariff		Yes
Feed-in tariff - Solar		Yes
Feed-in tariff - Wind		Yes
Feed-in tariff - Hydro		Yes
Feed-in tariff - Biomass		Yes
Feed-in tariff - Geothermal		Yes
Government body in charge		Ministry of Economy, Trade and Industry
Projects guaranteed off-take		No
Solar Feed-in-tariff Price (\$ cents/kWh)		24
Solar Feed-in-tariff Max. capacity (single)		N/A



## Regulatory Indicators for Sustainable Energy (RISE)

Solar Feed-in-tariff Max. capacity (total)	N/A
Solar Feed-in-tariff Closing date	N/A
Wind Feed-in-tariff Price (\$ cents/kWh)	18
Wind Feed-in-tariff Max. capacity (single)	N/A
Wind Feed-in-tariff Max. capacity (total)	N/A
Wind Feed-in-tariff Closing date	N/A
Hydro Feed-in-tariff Price (\$ cents/kWh)	20
Hydro Feed-in-tariff Max. capacity (single)	below 30MW (30MW not included)
Hydro Feed-in-tariff Max. capacity (total)	N/A
Hydro Feed-in-tariff Closing date	N/A
Biomass Feed-in-tariff Price (\$ cents/kWh)	27
Biomass Feed-in-tariff Max. capacity (single)	N/A
Biomass Feed-in-tariff Max. capacity (total)	N/A
Biomass Feed-in-tariff Closing date	N/A
Geothermal Feed-in-tariff Price (\$ cents/kWh)	22
Geothermal Feed-in-tariff Max. capacity (single)	N/A
Geothermal Feed-in-tariff Max. capacity (total)	N/A
Geothermal Feed-in-tariff Closing date	N/A
Competitive bidding	No

## Regulatory Indicators for Sustainable Energy (RISE)

Auction 1 - Year	
Auction 1 - Technology	
Auction 1 - Project-specific tender and size (MW)	
Auction 1 - Auction for total and size (MW)	
Auction 1 - Standard PPA and Term	
Auction 1 - Price ceiling	No
Auction 1 - Winning bid (\$ cents/kWh)	
Auction 1 - Government body in charge	
Auction 2 - Year	
Auction 2 - Technology	
Auction 2 - Project-specific tender and size (MW)	
Auction 2 - Auction for total and size (MW)	
Auction 2 - Standard PPA and Term	
Auction 2 - Price ceiling	No
Auction 2 - Winning bid (\$ cents/kWh)	
Auction 2 - Government body in charge	
Winning bid guaranteed off-take	No
Mandates	No
Generation premium	No
Production tax credit	No

## Regulatory Indicators for Sustainable Energy (RISE)

Does the government offer other direct fiscal incentives for renewable energy (e.g. capital subsidies, grants or rebates, investment tax credits, tax reductions?)	Yes
Investment tax credit	Yes
Accelerated depreciation	Yes
Reduction in import taxes	No
Reduction in sales tax or other taxes	Yes
Does the country provide prioritized access to the grid for RE?	No
Do RE projects receive priority in dispatch?	Yes
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?	Yes

Attributes of financial and regulatory incentives	Score	100
Is the market entry mechanism for private RE projects defined? (e.g. 1st come 1st served; tenders)	Yes	
Details		0
Are projects subject to development timelines or milestones?	Yes	
Are tariffs indexed (in part or in whole) to an international currency or to inflation?	Yes	
If there is a guaranteed tariff, is there a mechanism to adjust the level of the tariff for new entrants (e.g., declination)?	Yes	
If there is a guaranteed tariff, is there a mechanism to differentiate tariffs based on the size of the generation plant?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

If there is competitive bidding/auctions, are there provisions to ensure full and timely project completion (e.g., bid-bonds, project milestones, eligibility requirements)	N/A
If there is a renewable energy mandate, can it be met with tradable certificates (e.g., RECs, ROCs, TECs)?	N/A
Is the price subsidy/benefit implied by a renewable energy incentive program passed through in full or in part to the final electricity consumer?	Yes

<b>Network connection and pricing</b>	<b>Score</b>	<b>64</b>
Are there rules defining the allocation of connection costs?	Yes	
What is the type of the connection cost allocation policy (i.e. shallow/deep)?	Deep	
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 transmission and distribution wheeling charges? (e.g., wheeling charges, locational pricing?)	No	
Do the rules consider customer type/size in determining eligibility for purchasing electricity from a third party?	Yes	
connection cost document	The Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities Implementing Regulations (The FIT law Implementing Regulations)	
Does the country have a grid code that includes measures or standards addressing variable renewable energy?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Is there more than one balancing area in the country?	Yes
Are there rules for exchanging power between balancing areas that penalize variable renewable energy (e.g. through imbalance penalties)?	No
Are there provisions in the power exchange rules that allow for plant forecasting?	Yes

Counterparty risk	Score	100
Does the government offer or allow backing of utility payments (e.g. through a letter of credit, escrow account, payment guarantee, or other)?	No	
Information disclosure	25	
Are the financial statements of the largest utility publicly available?	0	
Are the financial statements of the largest generation company publicly available?	Yes	
Are the financial statements of the largest transmission company publicly available?	Yes	
Are the financial statements of the largest distribution company publicly available?	Yes	
Are the financial statements of the largest retail electricity sales company publicly available?	Yes	
Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)?	0	
Is the transmission loss rate published in a primary official document (by the utility, regulator or ministry and/or government)?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Is the distribution loss rate published in a primary official document (by the utility, regulator or ministry and/or government)?	Yes
Is the bill collection rate published in a primary official document (by the utility, regulator or ministry and/or government)?	No
Is the amount of electricity available for sale to end-users published in a primary official document (by the utility, regulator or ministry and/or government)?	Yes
Information Auditing	33
Financial statements independently audited?	0
Are the financial statements of the largest generation company audited?	Yes
Are the financial statements of the largest transmission company audited?	Yes
Are the financial statements of the largest distribution company audited?	Yes
Are the financial statements of the largest retail electricity sales company audited?	Yes
Monitoring Reliability	0
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 data reported to the regulatory body?	Yes
Are the data available to the public?	No
Name of the selected utility	TEPCO

## Regulatory Indicators for Sustainable Energy (RISE)

data - 17.1. Current ratio (working capital ratio)	1
data - 17.2 Debt Service Coverage Ratio	1
data - 17.3 Days payable outstanding	24
data - 17.4 EBITDA margin	0
Current ratio (working capital ratio) of selected utility	25
Debt Service Coverage Ratio of selected utility	0
Days payable outstanding of selected utility	25
EBITDA margin of selected utility	0

<b>Carbon pricing and monitoring</b>	<b>Score</b>	<b>84</b>
Is there a carbon pricing mechanism in place?	Yes	
For any carbon pricing mechanism (e.g. carbon tax, emission trading system), what is the portion of national GHG emissions covered)?	68%	
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes	