

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

Energy Efficiency

Indicator	Score
National energy efficiency planning	66.67
Energy efficiency entities	100
Information provided to consumers about electricity usage	61.11
EE incentives from electricity rate structures	88.89
Incentives & mandates: large consumers	88.89
Incentives & mandates: public sector	50
Incentives & mandates: utilities	75
Financing mechanisms for energy efficiency	91.67
Minimum energy efficiency performance standards	66.67
Energy labeling systems	66.67
Building energy codes	93.33
Carbon Pricing	70
Total	76.57

Renewable Energy

Indicator	Score
Legal framework for renewable energy	100
Planning for renewable energy expansion	60
Incentives and regulatory support for renewable energy	63
Attributes of financial and regulatory incentives	56
Network connection and pricing	83
Counterparty risk	100
Carbon pricing and monitoring	70
Total	76

Regulatory Indicators for Sustainable Energy (RISE)

Overall Score

50.86

Energy Efficiency

National energy efficiency planning	Score	66.67
Is there legislation or a national action plan that aims to increase EE?		Yes
Name of EE legislation or action plan		Belgium EU National Energy Efficiency Plan
Is there an energy efficiency goal or target at the national level?		Yes
National target details		9.6 Mtoe primary energy savings by 2020
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?		No
Target details		0

Regulatory Indicators for Sustainable Energy (RISE)

Does the target have a milestone or deadline?	No
---	----

Energy efficiency entities	Score	100
Are there governmental and/or independent bodies dedicated to setting EE strategy?	Yes	
Name of entity	Ministry of Energy	
Are there governmental and/or independent bodies dedicated to setting EE standards?	Yes	
Name of entity	Ministry of Economy	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	Yes	
Name of entity	0	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	
Name of entity	0	
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	Yes	
Name of entity	Ministry of economy	
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 certifying EE standards?	Yes	
Name of entity	Idem	

Regulatory Indicators for Sustainable Energy (RISE)

Information provided to consumers about electricity usage	Score	61.11
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)?		1
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		
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

Regulatory Indicators for Sustainable Energy (RISE)

Does the regulator track utilities' compliance with laws for providing energy usage information to customers?	Yes
Residential 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	N/A
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	N/A
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	N/A
Residential customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	Yes
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	

Regulatory Indicators for Sustainable Energy (RISE)

Can customers access real time feedback on energy usage (for either prepaid or post-paid systems)?	No
Do customers have 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	88.89
Residential customers		
Are customers charged a flat fee (per connection)?	No	
Are customers charged constant block rates?	Yes	
Are customers charged declining block rates?	No	
Are customers charged increasing block rates?	No	
Commercial customers		
Are customers charged a flat fee (per connection)?	No	
Are customers charged constant block rates?	Yes	
Are customers charged declining block rates?	No	
Are customers charged increasing block rates?	No	
Industrial customers		
Are customers charged a flat fee (per connection)?	No	
Are customers charged constant block rates?	Yes	
Are customers charged declining block rates?	No	
Are customers charged increasing block rates?	No	

Regulatory Indicators for Sustainable Energy (RISE)

Residential customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	No
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)?	Yes
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)?	Yes
Residential 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?	No
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	Yes
Commercial customers	

Regulatory Indicators for Sustainable Energy (RISE)

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?	No
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	Yes
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?	No
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	Yes

Incentives & mandates: large consumers	Score	88.89
What is the threshold for classifying large consumers?		overall energy consumption 0.5 PJ/year
Large consumer EE mandate/incentive regulations		Leefmilieu Natuur en Energie
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?		No
Details		0

Regulatory Indicators for Sustainable Energy (RISE)

Are energy audits mandated for large consumers?	Yes
Are energy efficiency progress reports mandated for large consumers?	Yes
Interval of reports	yearly
Are energy-management systems mandated for large consumers?	No
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	:
Are there tax incentives for large consumers to invest in energy efficiency?	Yes
Are there other incentives for large consumers to invest in energy efficiency?	No
Details	Fiscal measures (tax deduction 13.5 %)
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

Regulatory Indicators for Sustainable Energy (RISE)

Primary Energy Consumption (MJ - latest GTF data from 2012)	2342512.09
---	------------

Incentives & mandates: public sector	Score	50
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)?		Yes
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?		Yes
Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services?		Yes
Public procurement guidelines for EE		Belgium Overheidsopdrachten
Do public budgeting regulations and practices allow public entities to retain energy savings?		No
Public budgeting regulations for EE		

Incentives & mandates: utilities	Score	75
Name of utility energy efficiency regulation program		Belgian Government Regulation VR214165DOC.759
Electricity generation		
Are utilities required to carry out energy efficiency activities in this area?		Yes

Regulatory Indicators for Sustainable Energy (RISE)

Details	action obligations
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
Are there penalties in place for non-compliance with EE requirements?	Yes
Are there mandates or incentives for new and/or brownfield co-generation?	Yes
Transmission & distribution	
Are utilities required to carry out energy efficiency activities in this area?	Yes
Details	action obligations
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
Are there penalties in place for non-compliance with EE requirements?	Yes
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

Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
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

Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
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
Is there ESCO financing available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	Yes
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	Yes
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?	Yes
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	Yes
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

Regulatory Indicators for Sustainable Energy (RISE)

Are these available as government-driven financing mechanisms?	No
--	----

Financing mechanisms for energy efficiency	Score	91.67
Residential 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?	Yes	
Are credit lines available for energy efficiency investments?	Yes	
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?	No	
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	
Are these available as government-driven financing mechanisms?	No	

Regulatory Indicators for Sustainable Energy (RISE)

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

Regulatory Indicators for Sustainable Energy (RISE)

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

Regulatory Indicators for Sustainable Energy (RISE)

Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	Yes
Are these available as government-driven financing mechanisms?	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 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 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
Details	
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
Industrial sector	
Are there tax incentives available for energy efficiency investments?	Yes

Regulatory Indicators for Sustainable Energy (RISE)

Are there discounted "green" mortgages available for energy efficiency investments?	No
Is on-bill financing/re-payment available for energy efficiency investments?	Yes
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?	No
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
Are these available as government-driven financing mechanisms?	No
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	Yes
Are these available as government-driven financing mechanisms?	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

Regulatory Indicators for Sustainable Energy (RISE)

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 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 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 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
Details	
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

Minimum energy efficiency performance standards	Score	66.67
EE standards regulations		EU Ecodesign

Regulatory Indicators for Sustainable Energy (RISE)

	requirements
Refrigerators	
Have minimum energy performance standards been adopted?	Yes
Details of standards	EEI 1.62
Is there a verification program in place?	Yes
Is it carried out by a third party?	Yes
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	Yes
Lighting equipment	
Have minimum energy performance standards been adopted?	Yes
Details of standards	EEI < 0.2 to 1.75
Is there a verification program in place?	Yes
Is it carried out by a third party?	Yes
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	Yes
Industrial electric motors	
Have minimum energy performance standards been adopted?	Yes
Details of standards	EE >75.9 to 96 %
Is there a verification program in place?	Yes

Regulatory Indicators for Sustainable Energy (RISE)

Is it carried out by a third party?	Yes
Is there a penalty for non-compliance with energy efficiency standards?	Yes
Are the standards based on external/international standards?	Yes
Other industrial equipment	
Have minimum energy performance standards been adopted?	No
Details of standards	0
Is there a verification program in place?	No
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	No
Are the standards based on external/international standards?	No
Light duty vehicles	
Have minimum energy performance standards been adopted?	No
Details of standards	0
Is there a verification program in place?	No
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	No
Are the standards based on external/international standards?	No
Heavy duty vehicles	
Have minimum energy performance standards been adopted?	No

Regulatory Indicators for Sustainable Energy (RISE)

Details of standards	0
Is there a verification program in place?	No
Is it carried out by a third party?	No
Is there a penalty for non-compliance with energy efficiency standards?	No
Are the standards based on external/international standards?	No

Energy labeling systems	Score	66.67
Refrigerators		
Have energy efficiency labeling schemes been adopted?	Yes	
Is the labeling scheme mandatory?	Yes	
Is the labeling scheme based on external/international standards?	Yes	
Air conditioners		
Have energy efficiency labeling schemes been adopted?	Yes	
Is the labeling scheme mandatory?	Yes	
Is the labeling scheme based on external/international standards?	Yes	
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?	Yes	

Regulatory Indicators for Sustainable Energy (RISE)

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

Building energy codes	Score	93.33
Are there energy efficiency codes for new residential buildings?		Yes

Regulatory Indicators for Sustainable Energy (RISE)

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	EPBD Belgium
When was the code last updated for residential buildings?	2014
When was the code last updated for commercial buildings?	2014
Is there a system to ensure compliance with building energy efficiency codes?	Yes
Is it carried out by a third party?	Yes
Are renovated residential buildings required to meet a building energy code?	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?	Yes
Is the energy efficiency code for renovated commercial buildings different from the code for new buildings?	Yes
Is the energy efficiency code for renovated residential buildings its own stand-alone, separate code or part of the overall building code?	Yes

Regulatory Indicators for Sustainable Energy (RISE)

Is the energy efficiency code for renovated 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 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?	Yes
Are commercial and residential buildings required to disclose property energy usage at the point of sale or when leased?	Yes
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
Details	financial allowance
LEED incentives	No
Local program details	certification according to EPB Directive

Carbon Pricing	Score	70
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)?	0.4	

Regulatory Indicators for Sustainable Energy (RISE)

Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes
---	-----

Renewable Energy

Legal framework for renewable energy	Score	100
Does a legal framework for renewable energy development exist?		Yes
Name of the Law		0
Is private sector ownership of renewable energy generation legally authorized?		Yes

Planning for renewable energy expansion	Score	60
Does an official renewable energy target exist?		Yes
Overall target		13.3% of gross final energy consumption
Solar target		1.139 GWh
Wind target		10.474 GWh
Hydro target		440 GWh
Biomass target		11.038 GWh
Geothermal target		29 GWh
Does a renewable energy action plan or strategy to attain the target exist?		Yes
Name of the action plan		0

Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Name of the generation plan	0
Is the expansion plan based on a probabilistic approach?	No
Does the current transmission planning consider renewable energy scale-up?	Yes
Name of the transmission plan	0
Has the country conducted a variable renewable energy integration study?	Yes
Name of the integration study	0
Year of the integration study	2012
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	No

Regulatory Indicators for Sustainable Energy (RISE)

year period;	
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
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;	Yes
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?	Yes
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

Regulatory Indicators for Sustainable Energy (RISE)

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 assessment or equivalent process?	No
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

Regulatory Indicators for Sustainable Energy (RISE)

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?	No
The government has collected and recorded well data at potential geothermal sites?	No
Does the government publish a national geological map?	No
The government has supported surface exploration (geological; geochemical; temp; gradient) at potential sites?	No
The government has supported test drilling at at least one site (slim bore or full well)?	No
The government has supported the creation of a reservoir model at at least one site?	No
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	63
---	--------------	-----------

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	No

Regulatory Indicators for Sustainable Energy (RISE)

Feed-in tariff - Solar	No
Feed-in tariff - Wind	No
Feed-in tariff - Hydro	No
Feed-in tariff - Biomass	No
Feed-in tariff - Geothermal	No
Government body in charge	
Projects guaranteed off-take	No
Solar Feed-in-tariff Price (\$ cents/kWh)	
Solar Feed-in-tariff Max. capacity (single)	
Solar Feed-in-tariff Max. capacity (total)	
Solar Feed-in-tariff Closing date	
Wind Feed-in-tariff Price (\$ cents/kWh)	
Wind Feed-in-tariff Max. capacity (single)	
Wind Feed-in-tariff Max. capacity (total)	
Wind Feed-in-tariff Closing date	
Hydro Feed-in-tariff Price (\$ cents/kWh)	
Hydro Feed-in-tariff Max. capacity (single)	
Hydro Feed-in-tariff Max. capacity (total)	
Hydro Feed-in-tariff Closing date	
Biomass Feed-in-tariff Price (\$ cents/kWh)	

Regulatory Indicators for Sustainable Energy (RISE)

Biomass Feed-in-tariff Max. capacity (single)	
Biomass Feed-in-tariff Max. capacity (total)	
Biomass Feed-in-tariff Closing date	
Geothermal Feed-in-tariff Price (\$ cents/kWh)	
Geothermal Feed-in-tariff Max. capacity (single)	
Geothermal Feed-in-tariff Max. capacity (total)	
Geothermal Feed-in-tariff Closing date	
Competitive bidding	No
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)	

Regulatory Indicators for Sustainable Energy (RISE)

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	Yes
Generation premium	No
Production tax credit	No
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	No
Reduction in import taxes	No
Reduction in sales tax or other taxes	No
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?	No

Regulatory Indicators for Sustainable Energy (RISE)

Attributes of financial and regulatory incentives	Score	56
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?		No
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)?		N/A
If there is a guaranteed tariff, is there a mechanism to differentiate tariffs based on the size of the generation plant?		N/A
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)?		Yes
Is the price subsidy/benefit implied by a renewable energy incentive program passed through in full or in part to the final electricity consumer?		No

Network connection and pricing	Score	83
Are there rules defining the allocation of connection costs?		Yes
What is the type of the connection cost allocation policy (i.e. shallow/deep)?		Shallow
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

Regulatory Indicators for Sustainable Energy (RISE)

Do the rules define the size and allocation of costs for transmission and distribution wheeling charges? (e.g., wheeling charges, locational pricing?)	N/A
Do the rules consider customer type/size in determining eligibility for purchasing electricity from a third party?	Yes
connection cost document	0
Does the country have a grid code that includes measures or standards addressing variable renewable energy?	Yes
Is there more than one balancing area in the country?	No
Are there rules for exchanging power between balancing areas that penalize variable renewable energy (e.g. through imbalance penalties)?	N/A
Are there provisions in the power exchange rules that allow for plant forecasting?	N/A

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	33	
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	

Regulatory Indicators for Sustainable Energy (RISE)

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)?	Yes
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)?	Yes
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

Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Name of the selected utility	Eletrabel (only retail)
data - 17.1. Current ratio (working capital ratio)	0
data - 17.2 Debt Service Coverage Ratio	N/A
data - 17.3 Days payable outstanding	173
data - 17.4 EBITDA margin	0
Current ratio (working capital ratio) of selected utility	0
Debt Service Coverage Ratio of selected utility	0
Days payable outstanding of selected utility	1
EBITDA margin of selected utility	5

Carbon pricing and monitoring	Score	70
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)?	40%	
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes	