

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

### Energy Efficiency

Indicator	Score
National energy efficiency planning	66.67
Energy efficiency entities	85.71
Information provided to consumers about electricity usage	62.5
EE incentives from electricity rate structures	66.67
Incentives & mandates: large consumers	61.11
Incentives & mandates: public sector	25
Incentives & mandates: utilities	70.83
Financing mechanisms for energy efficiency	83.33
Minimum energy efficiency performance standards	66.67
Energy labeling systems	66.67
Building energy codes	0
Carbon Pricing	0
<b>Total</b>	<b>54.6</b>

### Renewable Energy

Indicator	Score
Legal framework for renewable energy	100
Planning for renewable energy expansion	77
Incentives and regulatory support for renewable energy	50
Attributes of financial and regulatory incentives	28
Network connection and pricing	67
Counterparty risk	17
Carbon pricing and monitoring	0
<b>Total</b>	<b>48.43</b>

## Regulatory Indicators for Sustainable Energy (RISE)

<b>Overall Score</b>	<b>34.34</b>
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### Energy Efficiency

<b>National energy efficiency planning</b>	<b>Score</b>	<b>66.67</b>
Is there legislation or a national action plan that aims to increase EE?		Yes
Name of EE legislation or action plan		Ministry of Electricity and Renewable Energy Institutional Strategic Plan 214-217 214
Is there an energy efficiency goal or target at the national level?		Yes
National target details		The overall goal is 1448 GWh/y (2017) with a 2012 baseline of 667 GWh/y (unconsumed energy accumulated by implementing energy saving measures).
Is there a target for the residential sector?		No
Target details		N/A
Does the target have a milestone or deadline?		No
Is there a commercial services sector target?		No
Target details		N/A
Does the target have a milestone or deadline?		No
Is there an industrial sector target?		No
Target details		N/A
Does the target have a milestone or deadline?		No

## Regulatory Indicators for Sustainable Energy (RISE)

Is there a power sector target?	No
Target details	N/A
Does the target have a milestone or deadline?	No

Energy efficiency entities	Score	85.71
Are there governmental and/or independent bodies dedicated to setting EE strategy?	Yes	
Name of entity	Ministerio de Electricidad y Energía Renovable (Ministry of Electricity and Renewable Energy (MEER))	
Are there governmental and/or independent bodies dedicated to setting EE standards?	Yes	
Name of entity	Agencia de Regulación y Control (Regulation and Control Agency of the Ministry of Electricity and Renewable Energy, ARCONEL)	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	No	
Name of entity	ARCONEL	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	
Name of entity	ARCONEL	
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Name of entity	Servicio Ecuatoriano De Normalizacion (Ecuadorian Service for Standardization (INEN))
Are there governmental and/or independent bodies dedicated to certifying compliance with building EE standards?	No
Name of entity	INEN
Are there governmental and/or independent bodies dedicated to selecting and/or approving third party auditors tasked with certifying EE standards?	No
Name of entity	Organismo de Acreditacion Ecuatoriano (Ecuadorian Audit Authority (OAE))

Information provided to consumers about electricity usage	Score	62.5
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	

## Regulatory Indicators for Sustainable Energy (RISE)

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
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

## Regulatory Indicators for Sustainable Energy (RISE)

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	
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

<b>EE incentives from electricity rate structures</b>	<b>Score</b>	<b>66.67</b>
Residential customers		
Are customers charged a flat fee (per connection)?	No	
Are customers charged constant block rates?	No	
Are customers charged declining block rates?	No	
Are customers charged increasing block rates?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Commercial customers	
Are customers charged a flat fee (per connection)?	No
Are customers charged constant block rates?	No
Are customers charged declining block rates?	Yes
Are customers charged increasing block rates?	No
Industrial customers	
Are customers charged a flat fee (per connection)?	No
Are customers charged constant block rates?	No
Are customers charged declining block rates?	Yes
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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
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?	Yes
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?	Yes
Are tariffs adjusted according to seasons?	Yes



## Regulatory Indicators for Sustainable Energy (RISE)

Do customers pay according to time-of-day electricity use or receive peak-time rebates?	Yes
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Incentives & mandates: large consumers	Score	61.11
What is the threshold for classifying large consumers?		Large-scale energy users are defined as those having a monthly power demand of greater than 650 kW during the previous 6 months and an annual consumption greater than 4,500 MWh during the last 12 months.
Large consumer EE mandate/incentive regulations		
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		N/A
Are energy audits mandated for large consumers?		No
Are energy efficiency progress reports mandated for large consumers?		No
Interval of reports		N/A
Are energy-management systems mandated for large consumers?		No
Details		N/A
Are there penalties in place for non-compliance with regulatory obligations for large consumers?		No

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Is there a measurement and verification program in place?	No
Is verification done by a third party?	No
Are there financial incentives for large consumers to invest in energy efficiency?	No
Details	N/A
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	0
Is there a program to publicly recognize large-scale users that have achieved significant energy savings measures?	No
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)	603752.01

Incentives & mandates: public sector	Score	25
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
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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Public procurement guidelines for EE	Ecuador National Service of Public Procurement (SERCOP), Manual of Good Practices in the Public Procurement for Development 215
Do public budgeting regulations and practices allow public entities to retain energy savings?	No
Public budgeting regulations for EE	

<b>Incentives &amp; mandates: utilities</b>	<b>Score</b>	<b>70.83</b>
Name of utility energy efficiency regulation program		
Electricity generation		
Are utilities required to carry out energy efficiency activities in this area?	No	
Details		N/A
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	
Are there mandates or incentives for new and/or brownfield co-generation?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Transmission & distribution	
Are utilities required to carry out energy efficiency activities in this area?	Yes
Details	N/A
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?	Yes
Details	N/A
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?	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
Is there public budget funding available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	N/A
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

<b>Financing mechanisms for energy efficiency</b>	<b>Score</b>	<b>83.33</b>
Residential 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?	No
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?	Yes
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	There is a program Named "Programa para la Renovación de Equipos de Consumo Energético Ineficiente (Program for the Substitution of Devices with Inefficient Energetic Usage (RENOVA))" supported by the Government that finances the substitution of an old refrigerator by a new one rated with "Efficiency A", a program to substitute gas stoves by induction stoves, and a program to substitute regular light bulbs by highly efficient ones.
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
Commercial services sector	
Are there tax incentives available for energy efficiency investments?	Yes



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## Regulatory Indicators for Sustainable Energy (RISE)

	regular light bulbs by highly efficient ones.
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
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
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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		Energia Plan de Normalizacion y Etiquetado
Refrigerators		
Have minimum energy performance standards been adopted?		Yes
Details of standards		Class A; kw/h per year.
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
Air conditioners	
Have minimum energy performance standards been adopted?	Yes
Details of standards	Class E; Ratio of thermal power to electrical power
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	Class G; lm/W.
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	

## Regulatory Indicators for Sustainable Energy (RISE)

Have minimum energy performance standards been adopted?	Yes
Details of standards	Ratio of output (mechanical) power to input (electrical) power. The minima are 43% (single phase motors) or 68% (three phase motors)
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
Other industrial equipment	
Have minimum energy performance standards been adopted?	No
Details of standards	N/A
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	N/A
Is there a verification program in place?	No

## 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?	No
Are the standards based on external/international standards?	No
Heavy duty vehicles	
Have minimum energy performance standards been adopted?	No
Details of standards	N/A
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

<b>Energy labeling systems</b>	<b>Score</b>	<b>66.67</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?	Yes	
Air conditioners		
Have energy efficiency labeling schemes been adopted?	Yes	
Is the labeling scheme mandatory?	Yes	



## Regulatory Indicators for Sustainable Energy (RISE)

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
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	

## Regulatory Indicators for Sustainable Energy (RISE)

Have energy efficiency labeling schemes been adopted?	No
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>0</b>
Are there energy efficiency codes for new residential buildings?	No	
Are there energy efficiency codes for new commercial buildings?	No	
Is the energy efficiency code for new residential buildings its own stand-alone, separate code or part of the overall building code?	No	
Is the energy efficiency code for new 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 new residential buildings?	No	
Is there any provision for regular updates to the code for new commercial buildings?	No	
EE building code regulations	Ecuador Ecuatorian Service for Standardization (INEN) Ecuadorian Standard (NTE) 256:29 Energy Efficiency in Buildings	
When was the code last updated for residential buildings?	N/A	
When was the code last updated for commercial buildings?	N/A	
Is there a system to ensure compliance with building energy efficiency codes?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Is it carried out by a third party?	No
Are renovated residential buildings required to meet a building energy codee?	No
Are renovated commercial buildings required to meet a building energy code?	No
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?	No
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	No

## Regulatory Indicators for Sustainable Energy (RISE)

of new building stocks that must be LEED certified)?	
Details	N/A
LEED incentives	No
Local program details	N/A

<b>Carbon Pricing</b>	<b>Score</b>	<b>0</b>
Is there a carbon pricing mechanism in place?		No
For any carbon pricing mechanism (e.g. carbon tax, emission trading system), what is the portion of national GHG emissions covered)?		0
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?		No

## 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		Organic Law of the Public Service of Electric Energy 2015
Is private sector ownership of renewable energy generation legally authorized?		Yes

<b>Planning for renewable energy expansion</b>	<b>Score</b>	<b>77</b>
Does an official renewable energy target exist?		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Overall target	Cumulative installed capacity of 8,741.5 MW (principally hydroenergy) or 60% of the installed capacity based on RE by 2017, from a 2012 RE baseline of 5,518.7 MW (representing 43.1% of the installed capacity).
Solar target	
Wind target	
Hydro target	
Biomass target	
Geothermal target	
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?	Yes
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?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

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?	No
Name of the integration study	0
Year of the integration study	NA
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?	Yes
Solar atlas is validated by at least 5 ground-based measurements taken for a period of at least a year;	Yes
Solar atlas has a spatial resolution of 5km or less;	Yes
Solar atlas is based on modeling inputs covering at least a 10 year period;	Yes
Solar atlas is accompanied by an explanation of the methodology and instrumentation	Yes
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?	No

## 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;	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	Yes
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?	Yes
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?	No
Does the country publish or endorse a national biomass resource map or atlas?	Yes
Biomass atlas is validated by ground-based survey or officially reported data;	Yes
Biomass atlas is accompanied by an explanation of the methodology and instrumentation.	Yes
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?	No
The governmentn 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



## 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	50
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	Operador Nacional de Electricidad (National Electricity Operator (CENACE)).	
Projects guaranteed off-take	Yes	
Solar Feed-in-tariff Price (\$ cents/kWh)	12	

## Regulatory Indicators for Sustainable Energy (RISE)

Solar Feed-in-tariff Max. capacity (single)	NA
Solar Feed-in-tariff Max. capacity (total)	NA
Solar Feed-in-tariff Closing date	42735
Wind Feed-in-tariff Price (\$ cents/kWh)	2
Wind Feed-in-tariff Max. capacity (single)	NA
Wind Feed-in-tariff Max. capacity (total)	NA
Wind Feed-in-tariff Closing date	42735
Hydro Feed-in-tariff Price (\$ cents/kWh)	7
Hydro Feed-in-tariff Max. capacity (single)	depending of the guaranteed price level, 10, 30, and 50MW under the state well-being plan (see above).
Hydro Feed-in-tariff Max. capacity (total)	NA
Hydro Feed-in-tariff Closing date	42735
Biomass Feed-in-tariff Price (\$ cents/kWh)	10
Biomass Feed-in-tariff Max. capacity (single)	NA
Biomass Feed-in-tariff Max. capacity (total)	100 MW
Biomass Feed-in-tariff Closing date	42735
Geothermal Feed-in-tariff Price (\$ cents/kWh)	3
Geothermal Feed-in-tariff Max. capacity (single)	NA
Geothermal Feed-in-tariff Max. capacity (total)	NA

## Regulatory Indicators for Sustainable Energy (RISE)

Geothermal Feed-in-tariff Closing date	42735
Competitive bidding	No
Auction 1 - Year	NA
Auction 1 - Technology	NA
Auction 1 - Project-specific tender and size (MW)	NA
Auction 1 - Auction for total and size (MW)	NA
Auction 1 - Standard PPA and Term	NA
Auction 1 - Price ceiling	No
Auction 1 - Winning bid (\$ cents/kWh)	NA
Auction 1 - Government body in charge	NA
Auction 2 - Year	NA
Auction 2 - Technology	NA
Auction 2 - Project-specific tender and size (MW)	NA
Auction 2 - Auction for total and size (MW)	NA
Auction 2 - Standard PPA and Term	NA
Auction 2 - Price ceiling	No
Auction 2 - Winning bid (\$ cents/kWh)	NA
Auction 2 - Government body in charge	NA
Winning bid guaranteed off-take	No
Mandates	No

## Regulatory Indicators for Sustainable Energy (RISE)

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?)	No
Investment tax credit	No
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?	Yes
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

<b>Attributes of financial and regulatory incentives</b>	<b>Score</b>	<b>28</b>
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?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

If there is a guaranteed tariff, is there a mechanism to adjust the level of the tariff for new entrants (e.g., declination)?	No
If there is a guaranteed tariff, is there a mechanism to differentiate tariffs based on the size of the generation plant?	Yes
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?	No

<b>Network connection and pricing</b>	<b>Score</b>	<b>67</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)?		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
Do the rules define the size and allocation of costs for transmission and distribution wheeling charges? (e.g., wheeling charges, locational pricing?)		Yes
Do the rules consider customer type/size in determining eligibility for purchasing electricity from a third party?		Yes
connection cost document		Self-generators Participation in the Electricity Sector - Regulation No. CONELEC - 001/14

## Regulatory Indicators for Sustainable Energy (RISE)

Does the country have a grid code that includes measures or standards addressing variable renewable energy?	No
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	17
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		17
Are the financial statements of the largest utility publicly available?		0
Are the financial statements of the largest generation company publicly available?	No	
Are the financial statements of the largest transmission company publicly available?	No	
Are the financial statements of the largest distribution company publicly available?	No	
Are the financial statements of the largest retail electricity sales company publicly available?	No	
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		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

government)?	
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	0
Financial statements independently audited?	0
Are the financial statements of the largest generation company audited?	No
Are the financial statements of the largest transmission company audited?	No
Are the financial statements of the largest distribution company audited?	No
Are the financial statements of the largest retail electricity sales company audited?	No
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?	Yes
Name of the selected utility	Empresa Electrica Quito

## Regulatory Indicators for Sustainable Energy (RISE)

data - 17.1. Current ratio (working capital ratio)	no data
data - 17.2 Debt Service Coverage Ratio	N/A
data - 17.3 Days payable outstanding	no data
data - 17.4 EBITDA margin	no data
Current ratio (working capital ratio) of selected utility	0
Debt Service Coverage Ratio of selected utility	0
Days payable outstanding of selected utility	0
EBITDA margin of selected utility	0

<b>Carbon pricing and monitoring</b>	<b>Score</b>	<b>0</b>
Is there a carbon pricing mechanism in place?		No
For any carbon pricing mechanism (e.g. carbon tax, emission trading system), what is the portion of national GHG emissions covered)?		0%
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?		No