

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

### Energy Efficiency

Indicator	Score
National energy efficiency planning	91.67
Energy efficiency entities	85.71
Information provided to consumers about electricity usage	68.75
EE incentives from electricity rate structures	74.07
Incentives & mandates: large consumers	88.89
Incentives & mandates: public sector	100
Incentives & mandates: utilities	87.5
Financing mechanisms for energy efficiency	100
Minimum energy efficiency performance standards	97.22
Energy labeling systems	83.33
Building energy codes	86.67
Carbon Pricing	60.51
<b>Total</b>	85.36

### Renewable Energy

Indicator	Score
Legal framework for renewable energy	100
Planning for renewable energy expansion	70
Incentives and regulatory support for renewable energy	100
Attributes of financial and regulatory incentives	89
Network connection and pricing	89
Counterparty risk	100
Carbon pricing and monitoring	61
<b>Total</b>	87

## Regulatory Indicators for Sustainable Energy (RISE)

**Overall Score**

57.45

### Energy Efficiency

National energy efficiency planning	Score	91.67
Is there legislation or a national action plan that aims to increase EE?		Yes
Name of EE legislation or action plan		NRCAN ecoENERGY Strategy
Is there an energy efficiency goal or target at the national level?		Yes
National target details		Reduce GHG emissions by 30% below 2005 levels by 2030. Reduce GHG emissions by 17% below 2005 levels 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?		Yes
Target details		9-10 Mt of annual GHG reductions by 2020
Does the target have a milestone or deadline?		Yes
Is there an industrial sector target?		Yes
Target details		Reduce GHGs to 81 Mt by 2020
Does the target have a milestone or deadline?		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Is there a power sector target?	Yes
Target details	0
Does the target have a milestone or deadline?	Yes

<b>Energy efficiency entities</b>	<b>Score</b>	<b>85.71</b>
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	natural Resources Canada	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	No	
Name of entity	OEB	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	
Name of entity	OEB and Ministry of Energy	
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	Yes	
Name of entity	SCC, NRCan	
Are there governmental and/or independent bodies dedicated to certifying compliance with building EE standards?	Yes	
Name of entity	N/A	

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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	Standards Council of Canada

<b>Information provided to consumers about electricity usage</b>	<b>Score</b>	<b>68.75</b>
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	

## Regulatory Indicators for Sustainable Energy (RISE)

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
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

## Regulatory Indicators for Sustainable Energy (RISE)

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>74.07</b>
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?	Yes	
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?	Yes	
Industrial customers		

## Regulatory Indicators for Sustainable Energy (RISE)

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
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)?	No
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)?	No
Do customers pay reactive power charges (per kVAR)?	No
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

## Regulatory Indicators for Sustainable Energy (RISE)

Are tariffs adjusted according to seasons?	Yes
Do customers pay according to time-of-day electricity use or receive peak-time rebates?	Yes
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?	Yes
Industrial 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

Incentives & mandates: large consumers	Score	88.89
What is the threshold for classifying large consumers?		Those that use >250,000 KWh of electricity/yr
Large consumer EE mandate/incentive regulations		Ontario Long Term Energy Plan 213



## Regulatory Indicators for Sustainable Energy (RISE)

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	Public agencies are required to develop an energy Conservation and Demand Management (CDM) plan, which should outline conservation goals and objectives
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
Details	0
Are there penalties in place for non-compliance with regulatory obligations for large consumers?	No
Is there a measurement and verification program in place?	Yes
Is verification done by a third party?	No
Are there financial incentives for large consumers to invest in energy efficiency?	Yes
Details	On-bill financing
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

## Regulatory Indicators for Sustainable Energy (RISE)

Details	0
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?	Yes
Primary Energy Consumption (MJ - latest GTF data from 2012)	2151513.057

Incentives & mandates: public sector	Score	100
Are there binding energy savings obligations for public buildings?	Yes	
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)?	Yes	
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	Green Energy Act - Conservation for Public Agencies	
Do public budgeting regulations and practices allow public entities to retain energy savings?	Yes	
Public budgeting regulations for EE	Green Energy Act - Conservation for Public Agencies	

## Regulatory Indicators for Sustainable Energy (RISE)

Incentives & mandates: utilities	Score	87.5
Name of utility energy efficiency regulation program		OPA Conservation First Framework
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?		No
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		
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 -		

## Regulatory Indicators for Sustainable Energy (RISE)

Are utilities required to carry out energy efficiency activities in this area?	Yes
Details	0
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
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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	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?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Are these available as government-driven financing mechanisms?	Yes
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

<b>Financing mechanisms for energy efficiency</b>	<b>Score</b>	<b>100</b>
Residential sector		
Are there tax incentives available for energy efficiency investments?	Yes	
Are there discounted "green" mortgages available for energy efficiency investments?	Yes	
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?	Yes	
Are partial risk guarantees available for energy efficiency investments?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Are there any other financing mechanisms available for energy efficiency investments?	No
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Details	
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## Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Are credit lines available for energy efficiency investments?	Yes
Are energy services agreements or ESCOs available for energy efficiency investments?	Yes
Are green bonds available for energy efficiency investments?	Yes
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
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Details	
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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?	Yes
Are credit lines available for energy efficiency investments?	Yes
Are energy services agreements or ESCOs available for energy efficiency investments?	Yes
Are green bonds available for energy efficiency investments?	Yes
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
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Are these available as government-driven financing mechanisms?	No
Details	
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## Regulatory Indicators for Sustainable Energy (RISE)

Are these available as government-driven financing mechanisms?	No
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<b>Minimum energy efficiency performance standards</b>	<b>Score</b>	<b>97.22</b>
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EE standards regulations	NRCAN Regulations and Standards
Refrigerators	
Have minimum energy performance standards been adopted?	Yes
Details of standards	Range. Type 1 is 0.31 AV + 248.4.
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
Air conditioners	
Have minimum energy performance standards been adopted?	Yes
Details of standards	

<b>Energy labeling systems</b>	<b>Score</b>	<b>83.33</b>
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Refrigerators	
Have energy efficiency labeling schemes been adopted?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

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?	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?	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?	No
Is the labeling scheme mandatory?	No
Is the labeling scheme based on external/international standards?	No

## Regulatory Indicators for Sustainable Energy (RISE)

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
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

<b>Building energy codes</b>	<b>Score</b>	<b>86.67</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?	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?	Yes	
Is there any provision for regular updates to the code for new commercial buildings?	Yes	
EE building code regulations		Ontario Building Code, Supplementary Standard SB-1: Energy Efficiency for

## Regulatory Indicators for Sustainable Energy (RISE)

	Housing
When was the code last updated for residential buildings?	2013
When was the code last updated for commercial buildings?	2015
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 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?	Yes
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?	Yes
Is there any provision for regular updates to the code for renovated commercial buildings?	Yes
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

## Regulatory Indicators for Sustainable Energy (RISE)

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
Details	SaveONEnergy for new home builders, Enbridge Savings by Design program, discounted mortgages, home insurance discounts for LEED certified homes, grants, and rebates
LEED incentives	Yes
Local program details	Enbridge Gas Distribution own internal program, "Energy Star" products via HydroOne and the IESO, and Toronto Hydro.

<b>Carbon Pricing</b>	<b>Score</b>	<b>60.51</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)?		0.210137860465053
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?		Yes

## Renewable Energy



## Regulatory Indicators for Sustainable Energy (RISE)

<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		Green Energy Act, 2009
Is private sector ownership of renewable energy generation legally authorized?		Yes

<b>Planning for renewable energy expansion</b>	<b>Score</b>	<b>70</b>
Does an official renewable energy target exist?		Yes
Overall target		30-40% of electricity generation, 19,700 MW of cumulative installed capacity. See validation worksheet for further details
Solar target		10,700 MW for combined wind, solar, and bio-energy by 2021
Wind target		10,700 MW for combined wind, solar, and bio-energy by 2021
Hydro target		9,300 MW by 2025
Biomass target		10,700 MW for combined wind, solar, and bio-energy by 2021
Geothermal target		No
Does a renewable energy action plan or strategy to attain the target exist?		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

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?	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	Study is in progress
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;	No

## Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Are the solar resource planning or zoning guidance outputs publically available?	Yes
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	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?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Are the wind resource planning or zoning guidance outputs publically available?	Yes
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?	Yes
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	Yes
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?	Yes
Are the hydro resource planning or zoning guidance outputs publically available?	Yes
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?	Yes
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.	Yes
Has the biomass resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Are the biomass resource planning or zoning guidance outputs publically available?	Yes
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
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?nt process?	No
Are the geothermal resource planning or zoning guidance outputs publically available?	No

<b>Incentives and regulatory support for renewable energy</b>	<b>Score</b>	<b>100</b>
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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
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## Regulatory Indicators for Sustainable Energy (RISE)

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	No
Government body in charge	Independent Electricity System Operator
Projects guaranteed off-take	Yes
Solar Feed-in-tariff Price (\$ cents/kWh)	21
Solar Feed-in-tariff Max. capacity (single)	500 kW
Solar Feed-in-tariff Max. capacity (total)	No technology specific maximum.
Solar Feed-in-tariff Closing date	Varies between 18 months and 3 years based on project. See validation worksheet.
Wind Feed-in-tariff Price (\$ cents/kWh)	10
Wind Feed-in-tariff Max. capacity (single)	500 kW
Wind Feed-in-tariff Max. capacity (total)	No technology specific maximum.
Wind Feed-in-tariff Closing date	3 years following the contract date.
Hydro Feed-in-tariff Price (\$ cents/kWh)	19

## Regulatory Indicators for Sustainable Energy (RISE)

Hydro Feed-in-tariff Max. capacity (single)	500 kW
Hydro Feed-in-tariff Max. capacity (total)	No technology specific maximum.
Hydro Feed-in-tariff Closing date	8 years following the contract date.
Biomass Feed-in-tariff Price (\$ cents/kWh)	13
Biomass Feed-in-tariff Max. capacity (single)	500 kW
Biomass Feed-in-tariff Max. capacity (total)	No technology specific maximum.
Biomass Feed-in-tariff Closing date	3 years following the contract date.
Geothermal Feed-in-tariff Price (\$ cents/kWh)	N/A
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	Yes
Auction 1 - Year	2015
Auction 1 - Technology	Bioenergy, wind, solar, waterpower
Auction 1 - Project-specific tender and size (MW)	N.A
Auction 1 - Auction for total and size (MW)	565 MW
Auction 1 - Standard PPA and Term	40 years for waterpower facilities, 20 years for bioenergy, wind, and solar facilities

## Regulatory Indicators for Sustainable Energy (RISE)

Auction 1 - Price ceiling	No
Auction 1 - Winning bid (\$ cents/kWh)	N/A
Auction 1 - Government body in charge	IESO
Auction 2 - Year	2014
Auction 2 - Technology	Hydro
Auction 2 - Project-specific tender and size (MW)	N/A
Auction 2 - Auction for total and size (MW)	40 MW
Auction 2 - Standard PPA and Term	See validation worksheet.
Auction 2 - Price ceiling	No
Auction 2 - Winning bid (\$ cents/kWh)	N/A
Auction 2 - Government body in charge	IESO
Winning bid guaranteed off-take	No
Mandates	No
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



## Regulatory Indicators for Sustainable Energy (RISE)

Reduction in sales tax or other taxes	Yes
Does the country provide prioritized access to the grid for RE?	Yes
Do RE projects receive priority in dispatch?	Yes
Are there provisions to compensate seller if offtake infrastructure is not built in time?	Yes
Are there mechanisms to compensate RE projects for lost generation due to certain curtailments after project commissioning?	Yes

<b>Attributes of financial and regulatory incentives</b>	<b>Score</b>	<b>89</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?	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	
If there is competitive bidding/auctions, are there provisions to ensure full and timely project completion (e.g., bid-bonds, project milestones, eligibility requirements)	No	
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	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

electricity consumer?

<b>Network connection and pricing</b>	<b>Score</b>	<b>89</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		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?		Yes
Are there rules for exchanging power between balancing areas that penalize variable renewable energy (e.g. through imbalance penalties)?		Yes
Are there provisions in the power exchange rules that allow for plant forecasting?		Yes

<b>Counterparty risk</b>	<b>Score</b>	<b>100</b>
Does the government offer or allow backing of utility payments (e.g. through a letter of credit, escrow account, payment guarantee, or other)?		Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Information disclosure	29
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)?	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)?	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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	Yes
Name of the selected utility	Toronto Hydro Corporation
data - 17.1. Current ratio (working capital ratio)	1
data - 17.2 Debt Service Coverage Ratio	3
data - 17.3 Days payable outstanding	66
data - 17.4 EBITDA margin	0
Current ratio (working capital ratio) of selected utility	0
Debt Service Coverage Ratio of selected utility	25
Days payable outstanding of selected utility	25
EBITDA margin of selected utility	18

## Regulatory Indicators for Sustainable Energy (RISE)

Carbon pricing and monitoring	Score	61
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)?		21%
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?		Yes