

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

### Energy Efficiency

Indicator	Score
National energy efficiency planning	75
Energy efficiency entities	100
Information provided to consumers about electricity usage	93.75
EE incentives from electricity rate structures	77.78
Incentives & mandates: large consumers	77.78
Incentives & mandates: public sector	100
Incentives & mandates: utilities	83.33
Financing mechanisms for energy efficiency	83.33
Minimum energy efficiency performance standards	100
Energy labeling systems	66.67
Building energy codes	83.33
Carbon Pricing	94.68
<b>Total</b>	<b>86.3</b>

### Renewable Energy

Indicator	Score
Legal framework for renewable energy	100
Planning for renewable energy expansion	100
Incentives and regulatory support for renewable energy	100
Attributes of financial and regulatory incentives	78
Network connection and pricing	89
Counterparty risk	100
Carbon pricing and monitoring	95
<b>Total</b>	<b>94.57</b>

## Regulatory Indicators for Sustainable Energy (RISE)

**Overall Score**

60.29

### Energy Efficiency

National energy efficiency planning	Score	75
Is there legislation or a national action plan that aims to increase EE?		Yes
Name of EE legislation or action plan		The Danish Energy Agreement of March 212
Is there an energy efficiency goal or target at the national level?		Yes
National target details		Reduce gross energy consumption to 744.4 PJ by the year 2020. This entails a 7.6 % reduction in gross energy consumption in 2020 compared with 2010._x000D_
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

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Is there a power sector target?	Yes
Target details	The target is an increase in energy savings by 2.6% (10.7 PJ) of final energy consumption excl. transport compared to the 2010 level in 2013 and 2014 by energy supply companies. From 2015 to 2020 this figure will rise to an 2.9% (12.2 PJ) annually compared to the level in 2010.
Does the target have a milestone or deadline?	Yes

Energy efficiency entities	Score	100
Are there governmental and/or independent bodies dedicated to setting EE strategy?	Yes	
Name of entity	Danish Ministry of Climate, Energy and Building/ Danish Energy Agency	
Are there governmental and/or independent bodies dedicated to setting EE standards?	Yes	
Name of entity	Danish Energy Agency	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	Yes	
Name of entity	Danish Energy Agency/ Danish Energy Regulatory Authority	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	

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Name of entity	Danish Energy Agency
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	Yes
Name of entity	Danish Energy Agency/ Secretariat for Ecodesign and Energy Labelling
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	Danish Energy Agency

<b>Information provided to consumers about electricity usage</b>	<b>Score</b>	<b>93.75</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		

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At what intervals do customers receive these reports (times per year)?	12
Do the reports include the price levels customers pay for energy usage?	Yes
Commercial customers	
At what intervals do customers receive these reports (times per year)?	12
Do the reports include the price levels customers pay for energy usage?	Yes
Industrial customers	
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?	Yes
Method of comparison	Comparison to the energy consumption of a comparable consumer category, if relevant benchmarks exist
Commercial customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Method of comparison	Comparison to the energy consumption of a comparable consumer category, if relevant benchmarks exist
Industrial customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	Yes
Method of comparison	Comparison to the energy consumption of a comparable consumer category, if relevant benchmarks exist
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)?	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

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EE incentives from electricity rate structures	Score	77.78
Residential customers		
Are customers charged a flat fee (per connection)?		Yes
Are customers charged constant block rates?		Yes
Are customers charged declining block rates?		No
Are customers charged increasing block rates?		No
Commercial customers		
Are customers charged a flat fee (per connection)?		Yes
Are customers charged constant block rates?		Yes
Are customers charged declining block rates?		Yes
Are customers charged increasing block rates?		No
Industrial customers		
Are customers charged a flat fee (per connection)?		Yes
Are customers charged constant block rates?		Yes
Are customers charged declining block rates?		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

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Commercial customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	Yes
Do customers pay reactive power charges (per kVAR)?	No
Industrial customers	
Do customers pay energy charges (per kWh)?	Yes
Do customers pay demand charges (per kW)?	Yes
Do customers pay reactive power charges (per kVAR)?	No
Residential customers	
Are customers charged based on real-time pricing?	No
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	
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



## Regulatory Indicators for Sustainable Energy (RISE)

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	77.78
What is the threshold for classifying large consumers?		Denmark follows the EU definition of large enterprises saying that enterprises with 250 employees and an annual turnover over € 50 million or balance over € 43 million qualify as such. Enterprises with ISO 50,001 or ISO 14,001 are exempt._x000D_
Large consumer EE mandate/incentive regulations		Denmark_Order on mandatory energy audits for large enterprises
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

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Are energy audits mandated for large consumers?	Yes
Are energy efficiency progress reports mandated for large consumers?	No
Interval of reports	0
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?	Yes
Details	The Energy Agreement of March 2012 contains a funding scheme for energy efficient use of renewable energy in production processes. DKK 250 million in 2013 and DKK 500 million per year from 2014 to 2020 are available to promote the efficient use of renewable energy in enterprises.
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

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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?	No
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)	726085.41

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	Denmark_Circular on improving energy efficiency in government institutions of 5 July 214	
Do public budgeting regulations and practices allow public entities to retain energy savings?	Yes	
Public budgeting regulations for EE	Denmark_Circular on improving energy	

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efficiency in government institutions of 5 July 214

Incentives & mandates: utilities	Score	83.33
Name of utility energy efficiency regulation program		Denmark_Agreement of 13 November 212 on the energy saving efforts of energy companies
Electricity generation		
Are utilities required to carry out energy efficiency activities in this area?		No
Details		KWH/DA THm/DA
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
Transmission & distribution		
Are utilities required to carry out energy efficiency activities in this area?		Yes
Details		KWH/DA THm/DA
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

## Regulatory Indicators for Sustainable Energy (RISE)

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	KWH/DA THm/DA
Are energy savings or other target indicators measured to track performance in meeting EE requirements?	Yes
Are the requirements measured/validated by an independent third party?	Yes
Are there penalties in place for non-compliance with EE requirements?	Yes
Is there a demand-side management department within the selected utility?	Yes
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

## 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 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?	Yes
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?	No

## Regulatory Indicators for Sustainable Energy (RISE)

<p>Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?</p>	<p style="text-align: center;">No</p>
<p>Are these available as government-driven financing mechanisms?</p>	<p style="text-align: center;">No</p>
<p>Are there any other financing mechanisms available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities?</p>	<p>There are several other financing mechanisms:</p> <ol style="list-style-type: none"> <li>1. Consumers can present an energy savings project to the distribution grid company, which can buy the right to report the respective energy savings. the distribution grid company pays a subsidy corresponding to the amount of energy saving to the consumer.</li> <li>2. So called "Energy Service Providers (Plumbers, Installers, Craftsmen, etc)" can have agreements with obligation distribution grid companies for energy savings. When they execute an energy savings project, the distribution grid company buys the right to report energy savings from the "Energy Service Provider", which gives the consumer a corresponding discount for his services in the energy savings project.</li> </ol>
<p>Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?</p>	<p style="text-align: center;">Yes</p>
<p>Are these available as government-driven financing mechanisms?</p>	<p style="text-align: center;">No</p>

## Regulatory Indicators for Sustainable Energy (RISE)

Financing mechanisms for energy efficiency	Score	83.33
Residential sector		
Are there tax incentives available for energy efficiency investments?		No
Are there discounted "green" mortgages available for energy efficiency investments?		No
Is on-bill financing/re-payment available for energy efficiency investments?		No
Are credit lines available for energy efficiency investments?		No
Are energy services agreements or ESCOs available for energy efficiency investments?		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?		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
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Are these available as government-driven financing mechanisms?		No



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<p>Details</p>	<p>There are several other financing mechanisms:</p> <ol style="list-style-type: none"> <li>1. Consumers can present an energy savings project to the distribution grid company, which can buy the right to report the respective energy savings. the distribution grid company pays a subsidy corresponding to the amount of energy saving to the consumer.</li> <li>2. So called "Energy Service Providers (Plumbers, Installers, Craftsmen, etc)" can have agreements with obligation distribution grid companies for energy savings. When they execute an energy savings project, the distribution grid company buys the right to report</li> </ol>

## Regulatory Indicators for Sustainable Energy (RISE)

	energy savings from the "Energy Service Provider", which gives the consumer a corresponding discount for his services in the energy savings project. 3. Municipalities can get low-interest loans for energy efficiency activities, e.g. in buildings from a the public bank "Kommunekredit"
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
Commercial services sector	
Are there tax incentives available for energy efficiency investments?	No
Are there discounted "green" mortgages available for energy efficiency investments?	No
Is on-bill financing/re-payment available for energy efficiency investments?	No
Are credit lines available for energy efficiency investments?	No
Are energy services agreements or ESCOs available for energy efficiency investments?	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

## Regulatory Indicators for Sustainable Energy (RISE)

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
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
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Details	<p>There are several other financing mechanisms:</p> <ol style="list-style-type: none"> <li>1. Consumers can present an energy savings project to the distribution grid company, which can buy the right to report the respective energy savings. the distribution grid company pays a subsidy corresponding to the amount of energy saving to the consumer.</li> <li>2. So called "Energy Service Providers (Plumbers, Installers, Craftsmen, etc)" can have agreements with obligation distribution grid companies for energy savings. When they execute an energy savings project, the distribution grid company buys the right to report energy savings from the "Energy Service Provider", which gives the consumer a corresponding discount for his services in the energy savings project.</li> <li>3. Municipalities can get low-interest loans for energy efficiency activities, e.g. in buildings from a the public bank "Kommunekredit"</li> </ol>

## 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
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?	No
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?	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

## Regulatory Indicators for Sustainable Energy (RISE)

<p>Details</p>	<p>There are several other financing mechanisms:1. Consumers can present an energy savings project to the distribution grid company, which can buy the right to report the respective energy savings. the distribution grid company pays a subsidy corresponding to the amount of energy saving to the consumer. 2. So called "Energy Service Providers (Plumbers, Installers, Craftsmen, etc)" can have agreements with obligation distribution grid companies for energy savings. When they execute an energy savings project, the distribution grid company buys the right to report energy savings from the "Energy Service Provider", which gives the consumer a corresponding discount for his services in the energy savings project. 3. Municipalities can get low-interest loans for energy efficiency activities, e.g. in buildings from a the public bank "Kommunekredit"</p>
<p>Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?</p>	<p>Yes</p>
<p>Are these available as government-driven financing mechanisms?</p>	<p>No</p>

## Regulatory Indicators for Sustainable Energy (RISE)

### Minimum energy efficiency performance standards

Score

100

EE standards regulations

COMMISSION  
REGULATION (EC) No  
643/29 of 22 July 29  
implementing Directive  
25/32/EC of the European  
Parliament and of the  
Council with regard to  
ecodesign

Refrigerators

Have minimum energy performance standards been adopted?

Yes

Details of standards

Minimum energy efficiency performance standards for refrigerators have been established under Ecodesign. The measurement unit is the Energy Efficiency Index (EEI). For the calculation of the Energy Efficiency Index (EEI), of a household refrigerating appliance model, the Annual Energy Consumption (calculated in kWh/year) of the household refrigerating appliance is compared to its Standard Annual Energy Consumption (kWh/year). For compression-type refrigerating appliances following minimum standards have been set: 1. July 2010 - EEI < 55, 1. July 2012 - EEI < 44, 1. July 2014 - EEI < 42. For Absorption-type and other-type refrigerating appliances following



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minimum standards have been set: 1. July 2010 - EEI < 150, 1. July 2012 - EEI < 125, 1. July 2015 - EEI < 110.

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

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

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

## Regulatory Indicators for Sustainable Energy (RISE)

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

<b>Building energy codes</b>	<b>Score</b>	<b>83.33</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	Denmark_Building Code 21	
When was the code last updated for residential buildings?	2010	
When was the code last updated for commercial buildings?	2010	
Is there a system to ensure compliance with building energy efficiency codes?	Yes	
Is it carried out by a third party?	No	
Are renovated residential buildings required to meet a building energy code?	Yes	

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Are renovated commercial buildings required to meet a building energy code?	Yes
Is the energy efficiency code for renovated residential buildings different from the code for new buildings?	No
Is the energy efficiency code for renovated commercial buildings different from the code for new buildings?	No
Is the energy efficiency code for renovated residential buildings its own stand-alone, separate code or part of the overall building code?	No
Is the energy efficiency code for renovated commercial buildings its own stand-alone, separate code or part of the overall building code?	No
Is there any provision for regular updates to the code for renovated residential buildings?	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?	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	0

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LEED incentives	No
Local program details	0

<b>Carbon Pricing</b>	<b>Score</b>	<b>94.68</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)?	0.893557329784875	
Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes	

## Renewable Energy

<b>Legal framework for renewable energy</b>	<b>Score</b>	<b>100</b>
Does a legal framework for renewable energy development exist?	Yes	
Name of the Law	Danish Electricity Supply Act; Danish Act on the Promotion of Renewable Energy	
Is private sector ownership of renewable energy generation legally authorized?	Yes	

<b>Planning for renewable energy expansion</b>	<b>Score</b>	<b>100</b>
Does an official renewable energy target exist?	Yes	
Overall target	Denmark has decided on short-, mid- and long term targets for RE. The	

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	<p>official target until 2020 is 35% of final energy consumption supplied from renewable energy sources and approximately 50% of electricity consumption supplied by wind power. The mid term target is 100% of electricity and heat provided by renewables until 2035 and the long term target is a fossil fuel free economy by 2050 with the entire energy supply - electricity, heating, industry and transport - to be covered by renewable energy by 2050.</p>
Solar target	
Wind target	<p>appro. 50% of electricity consumption; 1000 MW of newly installed offshore capacity, 500 MW of newly installed nearshore capacity and 500 MW (net) of newly installed onshore capacity</p>
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

## Regulatory Indicators for Sustainable Energy (RISE)

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
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	2009/2014
Does the country have sufficient resource abundance to warrant a solar resource atlas?	No
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

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



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Does the country have sufficient resource abundance to warrant a hydro resource atlas?	No
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?	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?	Yes
Are the biomass resource planning or zoning guidance outputs publically available?	Yes

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Does the country have sufficient resource abundance to warrant a geothermal resource atlas?	No
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

<b>Incentives and regulatory support for renewable energy</b>	<b>Score</b>	<b>100</b>
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	

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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	The public TSO Energinet.dk is responsible for the allocation of feed-in tariffs
Projects guaranteed off-take	No
Solar Feed-in-tariff Price (\$ cents/kWh)	9
Solar Feed-in-tariff Max. capacity (single)	n/a
Solar Feed-in-tariff Max. capacity (total)	Maximum of total capacity under increased support pool of 60 MW for 2015 and 20 MW per year until 2017
Solar Feed-in-tariff Closing date	n/a
Wind Feed-in-tariff Price (\$ cents/kWh)	9
Wind Feed-in-tariff Max. capacity (single)	n/a
Wind Feed-in-tariff Max. capacity (total)	n/a
Wind Feed-in-tariff Closing date	n/a
Hydro Feed-in-tariff Price (\$ cents/kWh)	9
Hydro Feed-in-tariff Max. capacity (single)	10 MW

## Regulatory Indicators for Sustainable Energy (RISE)

Hydro Feed-in-tariff Max. capacity (total)	n/a
Hydro Feed-in-tariff Closing date	n/a
Biomass Feed-in-tariff Price (\$ cents/kWh)	15
Biomass Feed-in-tariff Max. capacity (single)	n/a
Biomass Feed-in-tariff Max. capacity (total)	n/a
Biomass Feed-in-tariff Closing date	n/a
Geothermal Feed-in-tariff Price (\$ cents/kWh)	
Geothermal Feed-in-tariff Max. capacity (single)	
Geothermal Feed-in-tariff Max. capacity (total)	
Geothermal Feed-in-tariff Closing date	
Competitive bidding	Yes
Auction 1 - Year	2009/2010
Auction 1 - Technology	offshore wind power
Auction 1 - Project-specific tender and size (MW)	400 MW
Auction 1 - Auction for total and size (MW)	
Auction 1 - Standard PPA and Term	N/A
Auction 1 - Price ceiling	No
Auction 1 - Winning bid (\$ cents/kWh)	DKK cent 105.1/kWh
Auction 1 - Government body in charge	Danish Energy Agency
Auction 2 - Year	2014/2015

## Regulatory Indicators for Sustainable Energy (RISE)

Auction 2 - Technology	offshore wind power
Auction 2 - Project-specific tender and size (MW)	400 MW
Auction 2 - Auction for total and size (MW)	
Auction 2 - Standard PPA and Term	N/A
Auction 2 - Price ceiling	No
Auction 2 - Winning bid (\$ cents/kWh)	DKK cent 77/kWh
Auction 2 - Government body in charge	Danish Energy Agency
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	No
Accelerated depreciation	No
Reduction in import taxes	No
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

## Regulatory Indicators for Sustainable Energy (RISE)

Are there mechanisms to compensate RE projects for lost generation due to certain curtailments after project commissioning?	Yes
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<b>Attributes of financial and regulatory incentives</b>	<b>Score</b>	<b>78</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)?	No	
If there is a guaranteed tariff, is there a mechanism to differentiate tariffs based on the size of the generation plant?	No	
If there is competitive bidding/auctions, are there provisions to ensure full and timely project completion (e.g., bid-bonds, project milestones, eligibility requirements)	Yes	
If there is a renewable energy mandate, can it be met with tradable certificates (e.g., RECs, ROCs, TECs)?	N/A	
Is the price subsidy/benefit implied by a renewable energy incentive program passed through in full or in part to the final electricity consumer?	Yes	

<b>Network connection and pricing</b>	<b>Score</b>	<b>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	

## Regulatory Indicators for Sustainable Energy (RISE)

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	General Electricity Law No.125.01
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

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	29	
Are the financial statements of the largest utility publicly available?	0	
Are the financial statements of the largest generation company publicly available?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

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)?	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)?	No
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



## Regulatory Indicators for Sustainable Energy (RISE)

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	DONG Energie
data - 17.1. Current ratio (working capital ratio)	2
data - 17.2 Debt Service Coverage Ratio	1
data - 17.3 Days payable outstanding	69
data - 17.4 EBITDA margin	0
Current ratio (working capital ratio) of selected utility	25
Debt Service Coverage Ratio of selected utility	25
Days payable outstanding of selected utility	25
EBITDA margin of selected utility	25

<b>Carbon pricing and monitoring</b>	<b>Score</b>	<b>95</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)?	89%	

## Regulatory Indicators for Sustainable Energy (RISE)

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