

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

### Energy Efficiency

Indicator	Score
National energy efficiency planning	100
Energy efficiency entities	85.71
Information provided to consumers about electricity usage	39.58
EE incentives from electricity rate structures	57.41
Incentives & mandates: large consumers	33.33
Incentives & mandates: public sector	0
Incentives & mandates: utilities	12.5
Financing mechanisms for energy efficiency	66.67
Minimum energy efficiency performance standards	0
Energy labeling systems	0
Building energy codes	26.67
Carbon Pricing	0
<b>Total</b>	<b>35.16</b>

### Renewable Energy

Indicator	Score
Legal framework for renewable energy	50
Planning for renewable energy expansion	62
Incentives and regulatory support for renewable energy	25
Attributes of financial and regulatory incentives	0
Network connection and pricing	0
Counterparty risk	3
Carbon pricing and monitoring	0
<b>Total</b>	<b>20</b>

## Regulatory Indicators for Sustainable Energy (RISE)

<b>Overall Score</b>	<b>18.39</b>
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### Energy Efficiency

<b>National energy efficiency planning</b>	<b>Score</b>	<b>100</b>
Is there legislation or a national action plan that aims to increase EE?	Yes	
Name of EE legislation or action plan	National Energy Efficiency Action Plan (NEEAP) for Lebanon (211-215)	
Is there an energy efficiency goal or target at the national level?	Yes	
Natonal target details	save minimum 5% of total demand growth rate	
Is there a target for the residential sector?	Yes	
Target details	149 GWh (Buidlings residential, commercial and Public)	
Does the target have a milestone or deadline?	Yes	
Is there a commercial servcies sector target?	Yes	
Target details	149 GWh (Buidlings residential, commercial and Public)	
Does the target have a milestone or deadline?	Yes	
Is there an industrial sector target?	Yes	
Target details	Savings 610 GWh	
Does the target have a milestone or deadline?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Is there a power sector target?	Yes
Target details	776 GWh savings
Does the target have a milestone or deadline?	Yes

Energy efficiency entities	Score	85.71
Are there governmental and/or independent bodies dedicated to setting EE strategy?	Yes	
Name of entity	Lebanese center for energy conservation	
Are there governmental and/or independent bodies dedicated to setting EE standards?	Yes	
Name of entity	Lebanese Standards Institution (LIBNOR)/Lebanese Green Buildings Council (LGBC)	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy suppliers?	No	
Name of entity	Lebanese center for energy conservation	
Are there governmental and/or independent bodies dedicated to regulating EE activities of energy consumers?	Yes	
Name of entity	Lebanese center for energy conservation	
Are there governmental and/or independent bodies dedicated to certifying compliance with equipment EE standards?	Yes	
Name of entity	LIBNOR	

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Are there governmental and/or independent bodies dedicated to certifying compliance with building EE standards?	Yes
Name of entity	Order of Engineers and Architects (OEA)/Urban planning
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	LIBNOR

<b>Information provided to consumers about electricity usage</b>	<b>Score</b>	<b>39.58</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)?	6	
Do the reports include the price levels customers pay for energy usage?	Yes	

## Regulatory Indicators for Sustainable Energy (RISE)

Commercial customers	
At what intervals do customers receive these reports (times per year)?	6
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)?	6
Do the reports include the price levels customers pay for energy usage?	Yes
Does the regulator track utilities' compliance with laws for providing energy usage information to customers?	No
Residential customers	
Do customers receive a bill or report which compares them to other users in the same region and/or usage class?	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	

## Regulatory Indicators for Sustainable Energy (RISE)

Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	No
Commercial customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	No
Industrial customers	
Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	No
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>57.41</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	
Commercial customers		
Are customers charged a flat fee (per connection)?	No	

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

## Regulatory Indicators for Sustainable Energy (RISE)

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



## Regulatory Indicators for Sustainable Energy (RISE)

Incentives & mandates: large consumers	Score	33.33
What is the threshold for classifying large consumers?		0
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?		No
Are efficiency targets mandated for large consumers?		No
Details		0
Are energy audits mandated for large consumers?		No
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?		No
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?		Yes
Details		low interest loan with a ceiling of USD 20 million with a grace period of 4 years
Are there tax incentives for large consumers to invest in energy efficiency?		No

## Regulatory Indicators for Sustainable Energy (RISE)

Are there other incentives for large consumers to invest in energy efficiency?	No
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?	No
Primary Energy Consumption (MJ - latest GTF data from 2012)	300420.4

<b>Incentives &amp; mandates: public sector</b>	<b>Score</b>	<b>0</b>
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	
Are energy savings from efficiency activities at other public facilities tracked?	No	
Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services?	No	
Public procurement guidelines for EE		
Do public budgeting regulations and practices allow public entities to retain energy savings?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

Public budgeting regulations for EE	
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Incentives & mandates: utilities	Score	12.5
Name of utility energy efficiency regulation program		
Electricity generation		
Are utilities required to carry out energy efficiency activities in this area?		Yes
Details		34475 MWH
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		431553 MWH
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

## Regulatory Indicators for Sustainable Energy (RISE)

Demand-side management -	
Are utilities required to carry out energy efficiency activities in this area?	Yes
Details	No requirements
Are energy savings or other target indicators measured to track performance in meeting EE requirements?	No
Are the requirements measured/validated by an independent third party?	No
Are there penalties in place for non-compliance with EE requirements?	No
Is there a demand-side management department within the selected utility?	No
Do utilities provide customers incentives for demand response, such as peak-time rebates?	No
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,	No

## Regulatory Indicators for Sustainable Energy (RISE)

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

## Regulatory Indicators for Sustainable Energy (RISE)

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

<b>Financing mechanisms for energy efficiency</b>	<b>Score</b>	<b>66.67</b>
Residential sector		
Are there tax incentives available for energy efficiency investments?	No	
Are there discounted "green" mortgages available for energy efficiency investments?	Yes	
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	

## Regulatory Indicators for Sustainable Energy (RISE)

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

Are these available as government-driven financing mechanisms?	No
Industrial sector	
Are there tax incentives available for energy efficiency investments?	No
Are there discounted "green" mortgages available for energy efficiency investments?	Yes
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?	No
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Are these available as government-driven financing mechanisms?	No
Details	
Are these available as solely market-driven financing mechanisms without any direct government approval, subsidy, authorization or other mediation procedure?	No

## Regulatory Indicators for Sustainable Energy (RISE)

Are these available as government-driven financing mechanisms?	No
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Minimum energy efficiency performance standards	Score	0
EE standards regulations		
Refrigerators		
Have minimum energy performance standards been adopted?	No	
Details of standards	0	
Is there a verification program in place?	No	
Is it carried out by a third party?	No	
Is there a penalty for non-compliance with energy efficiency standards?	No	
Are the standards based on external/international standards?	No	
Air conditioners		
Have minimum energy performance standards been adopted?	No	
Details of standards	0	
Is there a verification program in place?	No	
Is it carried out by a third party?	No	
Is there a penalty for non-compliance with energy efficiency standards?	No	
Are the standards based on external/international standards?	No	

## Regulatory Indicators for Sustainable Energy (RISE)

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

## Regulatory Indicators for Sustainable Energy (RISE)

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

<b>Energy labeling systems</b>	<b>Score</b>	<b>0</b>
Refrigerators		

## 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
Air conditioners	
Have energy efficiency labeling schemes been adopted?	No
Is the labeling scheme mandatory?	No
Is the labeling scheme based on external/international standards?	No
Lighting equipment	
Have energy efficiency labeling schemes been adopted?	No
Is the labeling scheme mandatory?	No
Is the labeling scheme based on external/international standards?	No
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?	No
Other industrial equipment	
Have energy efficiency labeling schemes been adopted?	No
Is the labeling scheme mandatory?	No

## Regulatory Indicators for Sustainable Energy (RISE)

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

<b>Building energy codes</b>	<b>Score</b>	<b>26.67</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	



## Regulatory Indicators for Sustainable Energy (RISE)

EE building code regulations	GEF&MPWT_25_Thermal Standard for Buildings in Lebanon
When was the code last updated for residential buildings?	0
When was the code last updated for commercial buildings?	0
Is there a system to ensure compliance with building energy efficiency codes?	No
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?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Is the labeling scheme or rating adopted from external standards?	No
Are commercial and residential buildings required to disclose property energy usage at the point of sale or when leased?	No
Are large commercial and residential buildings required to disclose property energy usage annually?	No
Are there mandates or targets for new building stocks to achieve high quality energy efficiency certifications, such as LEED (Leadership in Energy & Environmental Design) (e.g. percentage of new building stocks that must be LEED certified)?	Yes
Details	discounted mortgages for homeowners, low interest loans
LEED incentives	Yes
Local program details	Building Research Establishment Environmental Assessment Methodolog (breeam)

<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

## Regulatory Indicators for Sustainable Energy (RISE)

Legal framework for renewable energy	Score	50
Does a legal framework for renewable energy development exist?		No
Name of the Law		0
Is private sector ownership of renewable energy generation legally authorized?		Yes

Planning for renewable energy expansion	Score	62
Does an official renewable energy target exist?		Yes
Overall target		12% of electricity generation
Solar target		PV 252 GWh_x000D_CSP 170.6 GWh_x000D_SWH 292 GWh
Wind target		581.66 GWh
Hydro target		1656 GWh
Biomass target		
Geothermal target		
Does a renewable energy action plan or strategy to attain the target exist?		No
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

## Regulatory Indicators for Sustainable Energy (RISE)

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	2011
Does the country have sufficient resource abundance to warrant a solar resource atlas?	Yes
Does the government publish or endorse a solar resource atlas or other data on the abundance and quality of the resource?	No
Solar atlas is validated by at least 5 ground-based measurements taken for a period of at least a year;	No
Solar atlas has a spatial resolution of 5km or less;	No
Solar atlas is based on modeling inputs covering at least a 10 year period;	No
Solar atlas is accompanied by an explanation of the methodology and instrumentation	No

## Regulatory Indicators for Sustainable Energy (RISE)

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;	No
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?	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

## Regulatory Indicators for Sustainable Energy (RISE)

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?	No
Does the country publish or endorse a national biomass resource map or atlas?	No
Biomass atlas is validated by ground-based survey or officially reported data;	No
Biomass atlas is accompanied by an explanation of the methodology and instrumentation.	No
Has the biomass resource planning or zoning guidance been undertaken as part of a strategic environmental and social assessment or equivalent process?	No
Are the biomass resource planning or zoning guidance outputs publically available?	No
Does the country have sufficient resource abundance to warrant a geothermal resource atlas?	No

## Regulatory Indicators for Sustainable Energy (RISE)

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>25</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	No	
Feed-in tariff - Solar	No	

## Regulatory Indicators for Sustainable Energy (RISE)

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



## Regulatory Indicators for Sustainable Energy (RISE)

Biomass Feed-in-tariff Max. capacity (total)	
Biomass Feed-in-tariff Closing date	
Geothermal Feed-in-tariff Price (\$ cents/kWh)	
Geothermal Feed-in-tariff Max. capacity (single)	
Geothermal Feed-in-tariff Max. capacity (total)	
Geothermal Feed-in-tariff Closing date	
Competitive bidding	No
Auction 1 - Year	
Auction 1 - Technology	
Auction 1 - Project-specific tender and size (MW)	
Auction 1 - Auction for total and size (MW)	1MW
Auction 1 - Standard PPA and Term	
Auction 1 - Price ceiling	No
Auction 1 - Winning bid (\$ cents/kWh)	
Auction 1 - Government body in charge	
Auction 2 - Year	
Auction 2 - Technology	
Auction 2 - Project-specific tender and size (MW)	
Auction 2 - Auction for total and size (MW)	1MW
Auction 2 - Standard PPA and Term	

## Regulatory Indicators for Sustainable Energy (RISE)

Auction 2 - Price ceiling	No
Auction 2 - Winning bid (\$ cents/kWh)	
Auction 2 - Government body in charge	
Winning bid guaranteed off-take	No
Mandates	No
Generation premium	No
Production tax credit	No
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?	No
Do RE projects receive priority in dispatch?	No
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

**Attributes of financial and regulatory incentives      Score      0**

## Regulatory Indicators for Sustainable Energy (RISE)

Is the market entry mechanism for private RE projects defined? (e.g. 1st come 1st served; tenders)	No
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
If there is a guaranteed tariff, is there a mechanism to adjust the level of the tariff for new entrants (e.g., declination)?	N/A
If there is a guaranteed tariff, is there a mechanism to differentiate tariffs based on the size of the generation plant?	N/A
If there is competitive bidding/auctions, are there provisions to ensure full and timely project completion (e.g., bid-bonds, project milestones, eligibility requirements)	N/A
If there is a renewable energy mandate, can it be met with tradable certificates (e.g., RECs, ROCs, TECs)?	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>0</b>
Are there rules defining the allocation of connection costs?	No	
What is the type of the connection cost allocation policy (i.e. shallow/deep)?	N/A	
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)?	No	
Do the rules define the size and allocation of costs for transmission and distribution wheeling charges? (e.g., wheeling charges, locational pricing?)	N/A	

## Regulatory Indicators for Sustainable Energy (RISE)

Do the rules consider customer type/size in determining eligibility for purchasing electricity from a third party?	N/A
connection cost document	0
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

<b>Counterparty risk</b>	<b>Score</b>	<b>3</b>
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	0	
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	

## Regulatory Indicators for Sustainable Energy (RISE)

Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)?	0
Is the transmission loss rate published in a primary official document (by the utility, regulator or ministry and/or government)?	No
Is the distribution loss rate published in a primary official document (by the utility, regulator or ministry and/or government)?	No
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)?	No
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)?	No
Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?	Yes

## Regulatory Indicators for Sustainable Energy (RISE)

Are the data reported to the regulatory body?	No
Are the data available to the public?	No
Name of the selected utility	Electricité du Liban (EDL)
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	