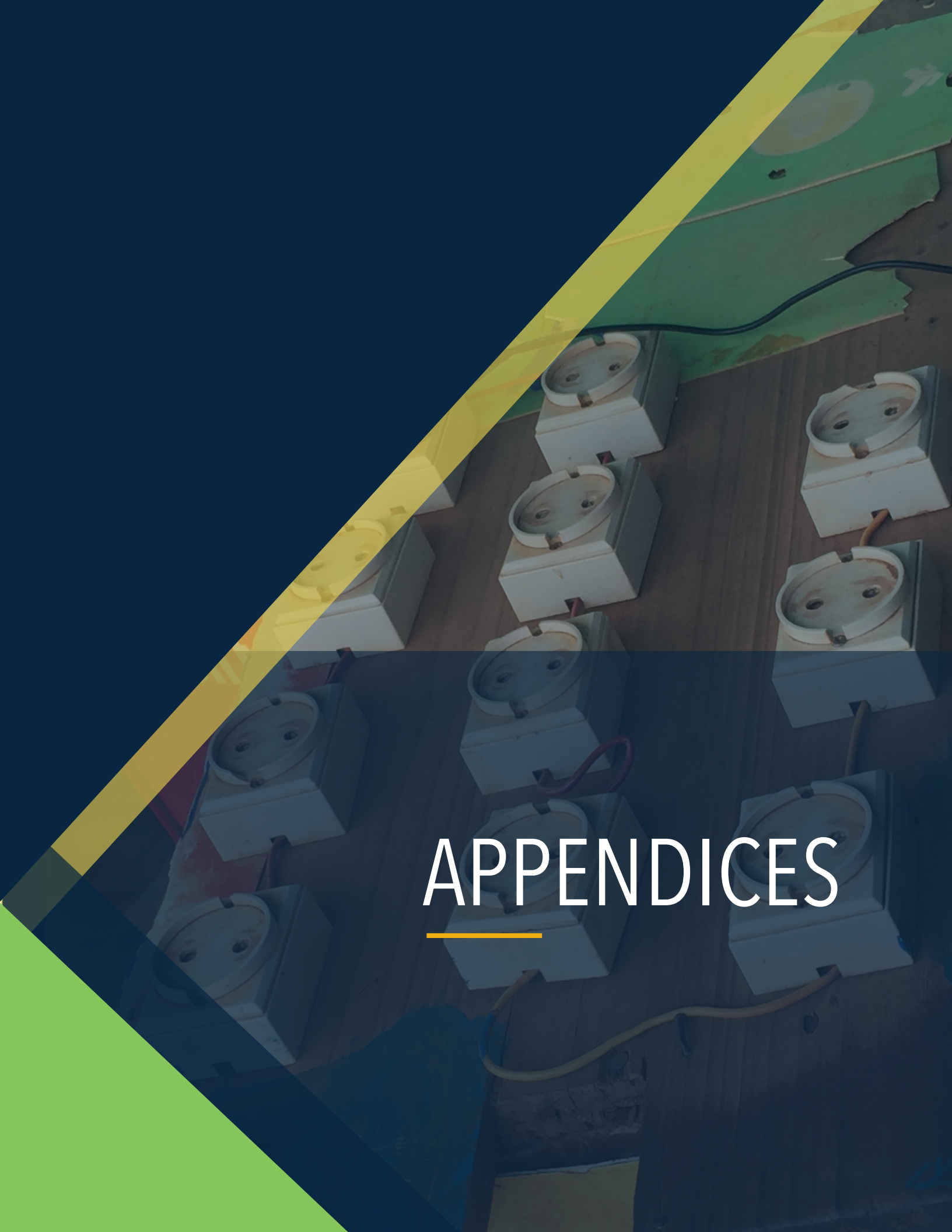

APPENDICES

A. METHODOLOGY

RENEWABLE ENERGY

INDICATOR 1. LEGAL FRAMEWORK FOR RENEWABLE ENERGY

Questions	Scoring	Traffic light
	Sum and divide by 2	
1. Primary legislation		If the score X is:
1.1 Does a legal framework for renewable energy development exist?	Yes – 100, No – 0	x≥ 67 🟢
2. Legal private ownership of generation		33 < x < 67 🟡
2.1 Does the legal framework allow private sector ownership of renewable energy generation?	Yes – 100, No – 0	33 ≤ x 🔴

INDICATOR 2. PLANNING FOR RENEWABLE ENERGY EXPANSION

Questions	Scoring	Traffic light
	X= sum and divide by 7	
3. Renewable energy targets and plans		
3.1 Does an official renewable energy target exist?	Yes – 16.7, No – 0	
3.2 Is the target legally binding?	Yes – 16.7, No – 0	
3.3 Is the RE target linked to international commitments (eg. NDC or regional commitment)?	Yes – 16.7, No – 0	
3.4 Is the target based on a transparent methodology?	Yes – 16.7, No – 0	
3.5 Is there a renewable energy action plan or strategy to attain the target ?	Yes – 16.7, No – 0	
3.6 Is there any provision for consultation with the public on the renewable plan?	Yes – 16.7, No – 0	If the score X is:
4. Electricity- Targets and Plans		x≥ 67 🟢
4.1 Is there an assessment of the role of renewables in electricity supply?	Yes – 50,No – 0	33 < x < 67 🟡
4.2 Is there a target for renewables in electricity?	Yes – 50,No – 0	33 ≤ x 🔴
5. Heating and Cooling- Targets and Plans		
5.1 Is there an assessment of the needs for heating and cooling in buildings and industry in the country and of how renewables can contribute?	Yes – 50,No – 0	
5.2 Is there a specific target for renewables for heating and cooling?	Yes – 50,No – 0	
6. Transport- Targets and Plans		
6.1 Is there an assessment of the potential role for renewables in transport including biofuels and electrification?	Yes – 50,No – 0	
6.2 Is there a specific target for renewables in transport?	Yes – 50,No – 0	

INDICATOR 2. PLANNING FOR RENEWABLE ENERGY EXPANSION *(Continued)*

Questions	Scoring	Traffic light
	X= sum and divide by 7	
7. Institutions and Meeting Targets		
7.1 Does the renewable plan or strategy estimate the amount of investment necessary to meet the RE target?	Yes – 20,No – 0	
7.2 Is there an institution responsible for tracking progress in renewable energy development?	Yes – 20,No – 0	
7.3 Is there any periodic reporting mechanism for renewable energy progress?	Yes – 20,No – 0	
7.4 Is there a mechanism for adjusting the plan based on reporting of renewable energy deployment?	Yes – 20,No – 0	
7.5 Is current policy environment conducive to renewable energy deployment?	Yes – 20,No – 0	
8. Renewable energy in generation and transmission planning		
8.1 Is generation and transmission planning integrated?	Yes - 25, No - 0	If the score X is:
8.2 Is planning for dispatch included in the generation and transmission plan?	Yes - 25, No - 0	$x \geq 67$
8.3 Is the generation plan based on a probabilistic approach?	Yes - 25, No - 0	$33 < x < 67$
8.4 Does the current transmission planning consider renewable energy scale-up?	Yes - 25, No - 0	$33 \leq x$
9. Resource data and siting		
9.1 Does the government endorse and use the solar/wind resource maps and data applicable to their country that are available through the Global Solar Atlas / Global Wind Atlas, or have they published some other solar/wind resource map that conforms to best practice in the last five years?	Yes – 33.33, No – 0	
9.2 Has the country carried out geospatial planning or produced zoning guidance to inform the commercial development of the RE resource?	Yes – 33.33, No – 0	
9.3. Has the geospatial planning or zoning guidance been carried out according to best practice by: i) being undertaken as part of a strategic environmental and social assessment or equivalent process; and ii) by making the outputs publically available?	Yes – 33.33, No – 0	

INDICATOR 3. INCENTIVES AND REGULATORY SUPPORT FOR RENEWABLE ENERGY

Questions	Scoring	Traffic light
	Sum and divide by 4	
10. Financial and regulatory support for electricity		
10.1 Does the country offer long term PPA's for renewable electricity production for large scale producers(e.g. via. feed-in-tariffs, PPA's awarded through auctions etc.)	Yes – 25, No – 0	
10.2 Does the country offer long term PPA's for renewable electricity production for small scale producers(e.g. via. feed-in-tariffs, PPA's awarded through auctions etc.)	Yes – 25, No – 0	
10.3 Does the government publish clear and practical guidance on what permissions are required to develop a RE electricity project?	Yes – 25, No – 0	
10.4 Does the government offer other direct fiscal incentives for renewable electricity (e.g. capital subsidies, grants or rebates, investment tax credits, tax reductions, production tax credits, FITs for large producers?)	Yes – 25, No – 0	
11. Electricity Grid access and dispatch		
11.1 Does the country provide prioritized access to the grid for RE?	Yes – 20, No – 0	
11.2 Do RE projects receive priority in dispatch?	Yes – 20, No – 0	
11.3 Are there provisions to compensate seller if offtake infrastructure is not built in time?	Yes – 20, No – 0	
11.4 Are there mechanisms to compensate RE projects for lost generation due to certain curtailments after project commissioning?	Yes – 20, No – 0	If the score X is: $x \geq 67$ ● $33 < x < 67$ ● $33 \leq x$ ●
11.5 Is the compensation due because of curtailment actually given out.	Yes – 20, No – 0	
12 Financial and regulatory support for Transport		
12.1 Is there a biofuels blending mandate or other obligation to use biofuels?	Yes – 25, No – 0	
12.2 Are there sustainability criteria which biofuels which contribute to the mandate must meet?	Yes – 25, No – 0	
12.3 If there is a plan for producing biofuels in the country, has this included an assessment of sustainability impacts (e.g. against the GBEP Sustainability indicators) including an assessment of impacts on food security.	Yes – 25, No – 0	
12.4 Is there at least one scheme to encourage use of electric/hybrid vehicles? (e.g. Tax benefit to consumers and manufacturers, etc.)	Yes – 25, No – 0	
13. Financial and regulatory support for Heating and Cooling		
13.1 Are there any policies to encourage deployment of any renewable energy heating and cooling technologies?	Yes – 33.3, No – 0	
13.2 Are there specific measures (financial support or promotion) designed to encourage the use of renewables in the heating and cooling sectors?	Yes – 33.3, No – 0	
13.3 Are opportunities for renewable heat promoted alongside energy efficiency measures in buildings and/or industry?	Yes – 33.3, No – 0	

INDICATOR 4. ATTRIBUTES OF FINANCIAL AND REGULATORY INCENTIVES

Questions	Scoring	Traffic light
	Sum and divide by 2	
14 Auctions		
14.1 Is competition used to ensure large scale RE generation (projects >10MW) is cost competitive (e.g. through auctions for PPA's)	(14.2 to 14.7 are scored)	
If so:		
14.2 Is there a schedule for future bids/auctions available for investors?	Yes – 16.7, No – 0	
14.3 Is there a pre-qualification process to select bidders?	Yes – 16.7, No – 0	
14.4 Are tariffs indexed (in part or in whole) to an international currency or to inflation?	Yes – 16.7, No – 0	
14.5 Are there provisions to ensure full and timely project completion (e.g. bid-bonds, project milestones)	Yes – 16.7, No – 0	
14.6 Are projects awarded through auctions/bids online/on track to be online on stated date?	Yes – 16.7, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
14.7 Have auctions/bids met stated target for installations?	Yes – 16.7, No – 0	
15 Fixed tariffs for small producers		
15.1 Can small producers (residential, commercial rooftop PV,etc) connect to the grid?	Yes – 16.7, No – 0	
15.2 Are contracts with fixed tariffs available for such producers?	Yes – 16.7, No – 0	
15.3 Is there a schedule or clear rules (e.g. capacity based limits) for adjusting the tariff level over time?	Yes – 16.7, No – 0	
15.4 Are different tariffs available for different technologies and sizes of the generation plant?	Yes – 16.7, No – 0	
15.5 Is there a mechanism to control the capacity built under each tariff?	Yes – 16.7, No – 0	
15.6 Are tariffs indexed (in part or in whole) to an international currency or to inflation?	Yes – 16.7, No – 0	

INDICATOR 5. NETWORK CONNECTION AND USE

Questions	Scoring	Traffic light
	Sum and divide by 3	
16. Connection and cost allocation		
16.1 Does the country have a grid code that clearly specifies connection procedures?	Yes – 20, No – 0	
16.2 Do the connection procedures meet international best practices?	Yes – 20, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
16.3 Does the grid code include measures or standards addressing variable renewable energy?	Yes – 20, No – 0	
16.4 Are there rules defining the allocation of connection costs?	Yes – 20, No – 0	
16.5 What is the type of the connection cost allocation policy (i.e. shallow/ deep)?	Shallow – 20, Deep – 0	

INDICATOR 5. NETWORK CONNECTION AND USE *(Continued)*

Questions	Scoring	Traffic light
	Sum and divide by 3	
17. Network usage and pricing		
17.1 Do the rules define the size and allocation of costs for use of the transmission and distribution system (e.g. wheeling charges, locational pricing?)	Yes - 50, No - 0	
17.2 Are the rules being used in practice?	Yes - 50, No - 0	
18. Renewable grid integration		
18.1 Does the country carry out regular assessments of the flexibility of the electricity grid and the issues relating to renewables integration?	Yes – 16.7, No - 0	
18.2 Can renewable energy projects sell into balancing/ancillary services?	Yes – 16.7, No - 0	
18.3 Are there rules for exchanging power between balancing areas that penalize variable renewable energy (e.g. through imbalance penalties)? *	Yes – 16.7, No - 0	
18.4 Are there provisions in the power exchange rules that allow for plant forecasting?*	Yes – 16.7, No - 0	
18.5 Does the country integrate high quality forecasting for any variable RE resources (either through subscription service or provided by national agencies) into their dispatch operations?	Yes – 16.7, No - 0	
18.6 Are dispatch operations being carried out in real time?	Yes – 16.7, No - 0	
***Only scored in countries with multiple balancing areas.**		

If the score X is:
x≥ 67
33 < x < 67
33 ≤ x

INDICATOR 6. COUNTERPARTY RISK

Questions	Scoring	Traffic light
	Sum and divide by 3.If there is one answer just look at that, otherwise average	
19. Credit worthiness	**SUM**	
19.1. If counterparty is the utility, is it credit worthy? Based on the following financial ratios:		
Current ratio	<1 -- 0 in between -- scale >= 1.2 – 25	
EBITDA margin	<0 – 0 in between -- scale >= 15% -- 25	
Debt service coverage ratio	<1 – 0 in between -- scale >= 1.2 – 25	
Days payable outstanding	>180 – 0 in between -- scale <=90 -- 25	
20. Payment risk mitigation		
20.1 If the counterparty is a special purpose entity, is it underwritten by a government guarantee or are there other mechanisms to ensure credit worthiness (e.g. through a letter of credit, escrow account, payment guarantee, or other)?	Yes- 50, No-0	
20.2 Are standard PPAs bankable?	Yes- 50, No-0	

If the score X is:
x≥ 67
33 < x < 67
33 ≤ x

INDICATOR 6. COUNTERPARTY RISK *(Continued)*

Questions	Scoring	Traffic light
	Sum and divide by 3.If there is one answer just look at that, otherwise average	
21. Utility Transparency and Monitoring		
21.1 Are the financial statements of the largest utility publicly available?		
a) Generation	Yes – 25/8, No - 0	
b) Transmission	Yes – 25/8, No - 0	
c) Distribution	Yes – 25/8, No - 0	
d) Retail sales	Yes – 25/8, No - 0	
If yes, are they audited by an independent auditor?		
e) Generation	Yes – 25/8, No - 0	
f) Transmission	Yes – 25/8, No - 0	
g) Distribution	Yes – 25/8, No - 0	
h) Retail sales	Yes – 25/8, No - 0	
21.2 Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)?	Yes – 25/8, No - 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
a) Generation - Electricity available for sale to end-users	Yes – 25/4, No - 0	
b) Transmission - Transmission loss rate	Yes – 25/4, No - 0	
c) Distribution - Distribution loss rate	Yes – 25/4, No - 0	
d) Retail Sales – Bill collection rate	Yes – 25/4, No - 0	
21.3 Is the utility operating an incidence/outage recording system (or SCADA/EMS with such functionality)?	Yes – 25, No – 0	
21.4 Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?	Yes – 25/3, No – 0	
a) Are the measurements reported to the regulatory body?	Yes – 25/3, No – 0	
b) Are the measurements available to public?	Yes – 25/3, No – 0	

INDICATOR 7. CARBON PRICING AND MONITORING

Questions	Scoring	Traffic light
VI. Counterparty Risk	*Sum*	
24.1 Is there a carbon pricing mechanism (eg: carbon tax, emission trading) implemented?	Yes – 50, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
25.1 Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes – 50, No – 0	

ENERGY EFFICIENCY

INDICATOR 1. NATIONAL ENERGY EFFICIENCY PLANNING

Questions	Scoring	Traffic light
	Sum and divide by 3	
1. National energy efficiency legislation/action planning		
1.1 Is there legislation or a national action plan that aims to increase EE?	Yes – 50, No – 0	
1.2 Is there an energy efficiency goal or target at the national level?	Yes – 50, No – 0	
2. Sub-sectoral targets		
2.1 Are there targets defined for any of the following sectors?		If the score X is:
• Residential sector	Yes – 20, No – 0	x≥ 67
• Commercial services sector	Yes – 20, No – 0	33 < x < 67
• Transport sector	Yes – 20, No – 0	33 ≤ x
• Industrial sector	Yes – 20, No – 0	
• Power sector	Yes – 20, No – 0	
3. Scope of targets		
3.1 Are targets derived from detailed analysis that is publicly available?	Yes – 50,No – 0	
3.2 Is there a requirement for periodic progress reports tracking data related to the efficiency target(s)?	Yes – 50,No – 0	

INDICATOR 2. ENERGY EFFICIENCY ENTITIES

Questions	Scoring	Traffic light
4. Human Capital and Institutions		
4.1 Are there governmental and/or independent bodies that carry out formulation and implementation of EE strategy, policy and regulation for each of the roles listed below:		
• Setting EE strategy	For each role	If the score X is:
• Setting EE standards	Yes – 50, No – 0	x≥ 67
• Regulating EE activities of energy suppliers	Sum and divide by the 7 roles	33 < x < 67
• Regulating EE activities of energy consumers		33 ≤ x
• Certifying compliance with equipment EE standards		
• Certifying compliance with building EE standards		
• Selecting and/or approving third party auditors tasked with certifying EE standards		
4.2 Are energy efficiency programs developed based on market analyses with plans open to public consultation and periodic evaluation?	Yes – 25, No – 0	
4.3 Are there professional certification/accreditation programs mandated for energy efficiency activities. Select all that apply:		If the score X is:
• Energy auditing/energy management	Yes to at least 1 – 25, No to all – 0	x≥ 67
• Energy efficiency financing		33 < x < 67
• Monitoring and verification of energy consumption/savings		33 ≤ x
• Building energy efficiency construction/design		
• Other		

INDICATOR 3. INFORMATION PROVIDED TO CONSUMERS ABOUT ELECTRICITY USAGE

Questions	Scoring	Traffic light
	Sum and divide by 4	
5. Reports on electricity usage		
5.1 Is it mandatory for the selected utility to provide the following customers with reports of their energy usage, in a bill or by other means for residential customers, commercial services customers, and industrial customers?	Each sector: Yes – 33.3, No – 0	
6. Quality of information in report		
6.1 At what intervals do they receive these reports (times per year)?	≤1 month – 100 1-6 months – 75 6-12 months – 50 >12 months – 0 Divide by 3 sectors	
6.2 Do the reports include the price levels customers pay for energy usage?	Each sector: Yes – 33.3, No – 0	
6.3 Does the regulator track the utility's compliance with laws for providing energy usage information to customers?	Each sector: Yes – 33.3, No – 0	
7. Comparison with other users	Each sector: Yes – 33.3, No – 0	
7.1 Do customers receive a bill or report which compares them to other users in the same region and/or usage class?		
8. Information related to energy savings		
8.1 Do customers receive a bill or report that shows their energy usage compared to previous bills or reports over time?	Each sector: Yes – 33.3, No – 0 Divide by 3 sectors	
8.2 Does the selected utility offer customers access real time feedback on energy usage (for either prepaid or post-paid systems)?	Yes – 33.3, No – 0	
8.3 Does the selected utility offer customers the ability to manage energy usage levels remotely (through apps or other technology mediums that can track real time usage)	Yes – 33.3, No – 0	

If the score X is:

x≥ 67 ●

33 < x < 67 ●

33 ≤ x ●

INDICATOR 4. EE INCENTIVES FROM ELECTRICITY RATE STRUCTURES

Questions	Scoring	Traffic light
	Sum and divide by 3	
9. Electricity rate structure 9.1 What types of electricity rate structure do the residential, commercial services, and industrial customers face? ***(time stamping) please indicate the years in which the electricity rate structure is in place for each type of customers.*** • Flat fee (per connection) • Constant (uniform) block rates • Declining block rates • Increasing block rates	Flat fee – 33.3 Declining block – 0 Constant block – 67 Increasing block – 100 If a country selects more than one option, the highest score is selected. Sum and divide by the 3 sectors	
10. Demand charges (large customers) 10.1 Which of the following charges do electricity customers pay in the commercial services sector, and industrial sector? • Energy (kWh) • Demand (kW) • Reactive power (kVAr)	Yes – 33.3, No – 0 Sum and divide by the 2 sectors	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
11. Time of use tariffs 11.1 Are any of the following time-of-use (TOU) rate structures applied to the residential sector, commercial services sector, and industrial sector? • Real-time pricing • Variable peak pricing • Critical peak pricing • Seasonal rate • Peak-time rebates and/or time of day tariffs	For each sector Yes to 1 or more – 100 No to all – 0 Sum and divide by the 3 sectors	

INDICATOR 5. INCENTIVES & MANDATES: INDUSTRIAL AND COMMERCIAL END USERS

Questions	Scoring	Traffic light
	Sum and divide by 4	
12. Mandates for large consumers		
12.1 Are there any of the following energy-efficiency mandates for large energy users? • Targets (e.g. kWh savings or lower energy intensity or carbon dioxide reductions, etc.) • Mandatory audits • Progress/tracking reports • Energy-management system (computer technologies to optimize energy use)	Yes to 1 or more 33.3– , No to all – 0	
12.2 Are there penalties in place for non-compliance with regulatory obligations for EE?	Yes – 33.3, No – 0	
12.3 Is there a requirement for periodic reporting of energy consumption in order to enforce and/or track progress of energy efficiency in large consumers' facilities?	Yes – 16.7, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
12.4 Is there a measurement and verification program in place?	Yes – 16.7, No – 0	
13. Incentives for large consumers 13.1 Are energy efficiency incentives in place for large-scale users?	Yes – 100, No – 0	
14. Small-medium size enterprises (SMEs) 14.1 Is there an energy efficiency mandate or incentive program for SMEs?	Yes – 100, No – 0	
15. Performance recognition		
15.1 Is there a program to publicly recognize end users that have achieved significant energy savings measures?	Yes – 33.3 No – 0	
15.2 Are energy savings and/or financial savings publicized?	Yes – 33.3 No – 0	
15.3 Does the program offer assistance (from a government or independent entity) to end users to identify energy savings investments opportunities?	Yes – 33.3 No – 0	

INDICATOR 6. INCENTIVES & MANDATES: PUBLIC SECTOR

Questions	Scoring	Traffic light
	Sum and divide by 4	
16. Obligations for public infrastructure		
16.1 Are there binding energy savings obligations for public buildings and/or other public facilities (may include water supply, wastewater services, municipal solid waste, street lighting, transportation, and heat supply) ?	Yes – 100, No – 0	
17. Tracking and enforcement of obligations		
Is there a reporting mechanism to track and enforce energy savings in public sector facilities (either in-house or by a third party)?	Yes – 100, No – 0	
18. Public procurement of energy efficiency products		
18.1 Is there a specific policy or mandated guidelines for public procurement of energy-efficient products and services at the following levels: • National level • Region/state/province level • Municipal/city/county level	Yes on at least one level – 50 No to all – 0	If the score X is: $x \geq 67$ 🟢 $33 < x < 67$ 🟡 $33 \leq x$ 🔴
18.2 Are procurement guidelines updated periodically to reflect technological advances and best practices in energy efficient products and services?	Yes – 50, No – 0	
19. Ability to retain energy savings		
19.1 Do public budgeting regulations and practices allow public entities to retain energy savings at the following levels? Tick all applicable levels: • National level • Region/state/province level • Municipal/city/county level	Yes on at least one level – 100 No to all – 0	

INDICATOR 7. INCENTIVES & MANDATES: UTILITIES

Questions	Scoring	Traffic light
	Sum and divide by 2	
20. Mandates for utilities		
For each area: (i) generation, (ii) transmission and distribution networks, and (iii) demand-side management:	Sum and divide by the 3 areas	
20.1 Are utilities required to carry out energy efficiency activities in this area?		
20.2 Are there penalties in place for non-compliance with EE requirements?	Yes – 25, No – 0	
20.3 Are energy savings or other target indicators measured to track performance in meeting EE requirements?	Yes – 25, No – 0	
20.4 Are the requirements measured/validated by an independent third party?	Yes – 25, No – 0 Yes – 25, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
21. Cost recovery for utilities		
21.1 Are any of the following mechanisms available for utilities to recover costs associated with or revenue lost from mandated energy efficiency activities: Public budget financing Compensation for revenue losses from EE activities via a tracking account Revolving funds and/or credit lines for EE activities Partial risk guarantees Program cost recovery On-bill financing/pre-payment Decoupling	Yes to 3 or more – 100 Yes to 2 or less – 50 No to all – 0	

INDICATOR 8. FINANCING MECHANISMS FOR ENERGY EFFICIENCY

Questions	Scoring	Traffic light
	Sum and divide by 2	
22. Financing mechanisms available in each sector		
22.1 Are any of the following financing mechanisms for energy efficiency activities available in the (R) residential sector, (C) commercial services sector, and (I) industrial sector? ***(time stamping)*** If yes, please indicate the years in which the financing mechanisms are available for each type of customers. • Discounted "green" mortgages • On-bill financing/repayment • Credit lines and/or revolving funds with banks for energy efficiency activities • Energy services agreements (pay-for-performance contracts) • Green or energy efficiency bonds • Vendor credit and/or leasing for energy efficiency activities • Partial risk guarantees • Other ****Market/government mechanism information was tracked but not incorporated into the scoring***	For each sector, Yes to 3 or more – 50 Yes to 1 or 2 – 25 No to all – 0 Average of the 3 sectors	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
22.2 How many financial and/or non-financial institutions offer financial products for energy efficiency investments in each sector? • None • Between 1-3 • More than 3	For each sector, More than 3– 50 Between 1-3 – 40 None – 0 Average of the 3 sectors	

INDICATOR 9. MINIMUM ENERGY EFFICIENCY PERFORMANCE STANDARDS

Questions	Scoring	Traffic light
	Sum and divide by 2	
23. Have minimum energy performance standards been adopted for?		
23.1 Refrigerators	For each category,	
23.2 Heating, ventilation and/or air conditioning (HVAC)	Yes – 100, No – 0	
23.3 Lighting equipment	Sum and divide by the 6 categories	
23.4 Industrial electric motors		
23.5 Other industrial equipment		
23.6 Light vehicles (heavy duty transport vehicles were tracked but not included in the scoring)		If the score X is: x≥ 67 🟢 33 < x < 67 🟡 33 ≤ x 🔴
24. Verification and penalties for non-compliance	For each category,	
24.1 Are the standards mandatory?	Yes – 20, No – 0	
24.2 Is there a requirement for periodic reporting to verify compliance with standards?	Yes – 20, No – 0	
24.3 Is the verification of standards compliance carried out by a third party?	Yes – 20, No – 0	
24.4 Is there a penalty for non-compliance with energy efficiency standards?	Yes – 20, No – 0	
24.5 Is there a periodic update of standards to reflect technological advances and changes in best practices for energy efficiency standards?	Yes – 20, No – 0	
	Sum and divide by the 6 categories	

INDICATOR 10. ENERGY LABELING SYSTEMS

Questions	Scoring	Traffic light
	Sum and divide by 2	
25. Have energy efficiency labeling schemes been adopted for?		
25.1 Refrigerators	For each category,	
25.2 HVAC	Yes – 100, No – 0	
25.3 Lighting equipment	Sum and divide by the 6 categories	
25.4 Industrial electric motors		
25.5 Other industrial equipment		If the score X is: x≥ 67 🟢 33 < x < 67 🟡 33 ≤ x 🔴
25.6 Transport vehicles		
26. Mandatory vs voluntary labeling system	For each category,	
26.1 Are any of the above labeling schemes mandatory?	Yes – 50, No – 0	
26.2 Is there a periodic update of standards to reflect technological advances and changes in best practices for energy efficiency labels?	Yes – 50, No – 0	
	Sum and divide by the 6 categories	

INDICATOR 11. BUILDING ENERGY CODES

Questions	Scoring	Traffic light
	Sum and divide by 5	
27. New residential and commercial buildings		
27.1 Are there energy efficiency codes for new residential buildings?	Yes – 25, No – 0	
27.2 Are there energy efficiency codes for new commercial buildings?	Yes – 25, No – 0	
27.2 Are the building energy efficiency standards required to be updated on a regular basis to reflect technological advances and changes in best practices for building energy efficiency?	For each sector Yes – 25, No – 0	
28. Compliance system		
28.1 Is commission testing for energy efficiency required for final building acceptance documentation?	Yes – 33.3, No – 0	
28.2 Is there a requirement for periodic reporting to verify compliance with building energy efficiency requirements?	Yes – 33.3, No – 0	
28.3 Is verification carried out by a third party?	Yes – 33.3, No – 0	
29. Renovated buildings	For each sector	If the score X is: $x \geq 67$ ● $33 < x < 67$ ● $33 \leq x$ ●
29.1 Are renovated buildings required to meet a building energy code, in residential and commercial sectors?	Yes – 25, No – 0	
29.2 Are the building energy efficiency standards required to be updated on a regular basis to reflect technological advances and changes in best practices for building energy efficiency?	Yes – 25, No – 0	
30. Building energy information		
30.1 Is there a mandatory standardized rating or labeling system for the energy performance of existing buildings?	Yes – 33.3, No – 0	
30.2 Are commercial and residential buildings required to disclose property energy usage at the point of sale or when leased?	Yes – 33.3, No – 0	
30.3 Are large commercial and residential buildings required to disclose property energy usage annually?	Yes – 33.3, No – 0	
31. Building energy efficiency incentives		
31.1 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 – 100 , No – 0	

INDICATOR 12. TRANSPORT SECTOR

Questions	Scoring	Traffic light
	Sum and divide by 3	
32. Planning		
32.1 Is there a national database or national reporting system to periodically track and report the following transport efficiency metrics: • Fuel per mile driven • Average distance traveled per vehicle • Distance traveled by public transit as a share of total passenger distance traveled • Vehicle miles traveled per capita • Other	Yes to 1 or more – 100, No to all – 0	
33. Private transport		
33.1 Are there any mandate or incentive programs that support reduction of transport demands or shifts to more energy efficient modes of transport for personal use, such as: • Regularly scheduled teleworking • Bicycle and/or other non-motorized schemes • Car sharing • Public transit subsidies for consumers • Congestion charges • Electric vehicle programs • Other	Yes to 1 or more – 50, No to all – 0	If the score X is: x≥ 67 🟢 33 < x < 67 🟡 33 ≤ x 🔴
33.2 Is there a requirement for periodic reporting to verify compliance or progress of the program(s)?	Yes – 50, No, 0	
34. Commercial and/or industrial transport		
34.1 Are there any mandate or incentive programs that support reduction of transport demands or shifts to more energy efficient modes of transport for commercial and/or industrial use, such as: • Heavy duty vehicle fuel economy standards (data already collected in Indicator 10 can be scored here) • Freight rail mandatory fuel economy standards or efficiency incentives • Energy efficiency procurement standards or incentives for municipal rail and bus fleets • Efficient fuel switching mandate or incentive programs for commercial/industrial vehicle fleets • Other	Yes to 1 or more – 50, No to all – 0	
34.2 Is there a requirement for periodic reporting to verify compliance or progress of the program(s)?	Yes – 50, No, 0	

INDICATOR 13. CARBON PRICING AND MONITORING

Questions	Scoring	Traffic light
	Sum	
35.1 Is there a carbon pricing mechanism (eg: carbon tax, emission trading) implemented?"	Yes – 50, No – 0	If the score X is: x≥ 67 🟢 33 < x < 67 🟡 33 ≤ x 🔴
35.2 Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?	Yes – 50, No – 0	

ENERGY ACCESS

INDICATOR 1. EXISTENCE OF OFFICIALLY APPROVED ELECTRIFICATION PLAN

Questions	Scoring	Traffic light
	Sum and divide by 4	
1. Existence	≤ 5 yrs – 100	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
1.1 Is there an officially approved national electrification plan?	5 > X ≤ 10 yrs - 50, other – 0	
2. Public availability of electrification plan	Yes – 100, No – 0	
2.1 Are the electrification plan and the updates publicly available?		
3. Targets and implementation	Yes – 50, No – 0	
3.1 Is there a requirement for periodic progress reports tracking progress towards the defined energy access target?	Yes – 50, No – 0	
3.2 Does the reporting actually take place?		
4. Institutions		
4.1 Are there institution(s) responsible for carrying out the following functions: • Setting electrification strategy • Setting electrification milestones and deadlines • Coordinating generation, transmission, and distribution plans and their implementation • Reporting progress towards the defined energy access target/milestones with periodic reports	For each role If yes to one or more - 25, if no to all - 0	
4.2 Is the electrification plan developed based on demand assessment?	Yes – 25, No – 0	
4.3 Were there any public consultations while developing the plan?	Yes – 25, No – 0	
4.4 Is there a provision for the plan periodic evaluations?	Yes – 25, No – 0	

INDICATOR 2. SCOPE OF OFFICIALLY APPROVED ELECTRIFICATION PLAN

Questions	Scoring	Traffic light
	Sum and divide by 6	
5. Service level target		
5.1 Does the plan target a service level (e.g. power availability, number of guaranteed hours of power supply etc.)?	Yes – 100, No – 0	
6. Inclusion of off-grid solutions		
6.1 Does the electrification plan include off-grid solutions (either/or both minigrids and standalone systems)?	Yes – 100, No – 0	
7. Inclusion of community and productive services		
7.1 Does the plan include productive uses (e.g. agricultural, commercial, and industrial activities)?	Yes – 50, No – 0	
7.2 Does the plan include community facilities (e.g. health centers, schools, administrative buildings)?	Yes – 50, No – 0	
8. Inclusion of informally settled people	Yes – 100, No – 0	
8.1 Does the plan include areas with informally settled people/groups?		
9. Gender Sensitivity		
9.1 Does the plan specifically address the electricity access of female-headed households?	Yes – 50, No – 0	
9.2 Does the plan set up a specific target on female-headed households' electrification?	Yes – 50, No – 0	
10. Geospatial mapping		
10.1 Are there geospatial maps conveying the timeframe of planned grid extension?	Yes – 50, No – 0	
10.2 Are these geospatial maps made publicly available?	Yes – 50, No – 0	

If the score X is:

$x \geq 67$ 🟢

$33 < x < 67$ 🟡

$33 \leq x$ 🔴

INDICATOR 3. FRAMEWORK FOR GRID ELECTRIFICATION

Questions	Scoring	Traffic light
	Sum and divide by 3	
11. Funding support to grid electrification		
11.1 Does the government have a dedicated funding line or budget for electrification (e.g. funded national program, budget item, rural electrification fund to finance grid extension)?	Yes – 50, No – 0	
11.2 Are there capital subsidies paid to the utilities to provide distribution systems to rural areas/villages?	Yes – 50, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
12. Funding support for consumer connections		
12.1 Are there consumer financing mechanisms (i.e. utility loans, on bill financing, micro-loans etc.) and/or direct subsidies available to support the payment of connection fees by consumers?	Yes – 100, No – 0	
13. Standards of performance on quality of supply		
13.1 Does the government specify standards of performance on reliability (e.g. number of guaranteed hours per day, duration of the electricity, frequency of outages, SAIDI, SAIFI etc.)?	Yes – 50, No – 0	
13.2 Is there a periodic reporting system in place to ensure standards compliance?	Yes – 50, No – 0	

INDICATOR 4. FRAMEWORK FOR MINIGRIDS

Questions	Scoring	Traffic light
	Sum and divide by 5	
14. Existence of national program		
14.1 Are there programs which aim to develop minigrid systems or support the development of minigrids systems?	Yes – 50, No – 0	
14.2 Do the regulations clarify what will occur when the interconnected grid reaches a minigrid?.	Yes – 50, No – 0	
15. Legal framework for operation		
15.1 Are minigrids legally allowed to operate in the country?	Yes – 25, No – 0	
15.2 Can minigrids be owned and operated by private operators?	Yes – 25, No – 0	
15.3 Do the regulations detail procedures for consumers to get connected to minigrids?	Yes – 25, No – 0	
15.4 Do the regulations differ by size of minigrids?	Yes – 25, No – 0	
16. Ability to charge cost-reflective tariffs		If the score X is: $x \geq 67$ ● $33 < x < 67$ ● $33 \leq x$ ●
16.1 Are minigrid operators legally allowed to charge a different tariff from the national tariff?	Yes – 100, No – 0	
17. Financial incentives		
17.1 Are there publicly funded mechanisms to secure viability gap funding for operators?	Yes – 33.3, No – 0	
17.2 Are there duty exemptions and/or capital subsidies for minigrid systems and/or individual components?	Yes – 33.3, No – 0	
17.3 Are there specific financing facilities (access to credit etc.) available to support operators?	Yes – 33.3, No – 0	
18. Standards and quality		
18.1 Are there technical standards detailing the requirements for minigrids to connect to the main grid?	Yes – 25, No – 0	
18.2 Are technical standards made publicly available?	Yes – 25, No – 0	
18.3 Are there safety standards for minigrids (e.g. overcurrent protection, system control etc.)?	Yes – 25, No – 0	
18.4 Are safety standards made publicly available?	Yes – 25, No – 0	

INDICATOR 5. FRAMEWORK FOR STANDALONE SYSTEMS

Questions	Scoring	Traffic light
	Sum and divide by 3	
19. Existence of national program		
19.1 Is there a national program which aims to develop standalone systems or supports standalone systems development?	Yes – 100, No – 0	
20. Financial Incentives		
20.1 Are there duty exemptions and/or subsidies to support standalone home systems?	Yes – 33.3, No – 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
20.2 Are there legal restrictions that limit the prices standalone home system retailers or service providers can charge?	No– 33.3, Yes – 0	
20.3 Are there specific financing facilities available to support operators/consumers to develop/ purchase standalone home systems?	Yes – 33.3, No – 0	
21. Standards and quality		
21.1 Has the government adopted international quality standards for standalone systems?	Yes – 33.3, No – 0	
21.2 Has the government adopted international testing methods or does it accept testing done in another country?	Yes – 33.3, No – 0	
21.3 Are there environmental regulations on the disposal of solar devices and standalone home system products or components?	Yes – 33.3, No – 0	

INDICATOR 6. CONSUMER AFFORDABILITY OF ELECTRICITY

Questions	Scoring	Traffic light
	Sum and divide by 3	
22. Cost of subsistence consumption	If the percentage x is:	
22.1 What is the annual cost of subsistence consumption (30kWh/month) as a percentage of GNI per household of bottom 20 percent of population?	X ≥10% - 0 5% < x < 10% - scale x ≤5% - 100	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
23. Affordability of the connection fee	X ≤ 12 months - 100 X between 12 and 36 months– scale X ≥ 36 months - 0)	
23.1 How many months does it take for the consumer to pay the connection fee based on savings of the bottom 20 percent of population?		
24. Policy to support low-volume consumers		
24.1 Is there a mechanism to support low-volume consumers such as social or lifeline tariff?	Yes – 100, No – 0	

INDICATOR 7. UTILITY TRANSPARENCY AND MONITORING

Questions	Scoring	Traffic light
	Sum and divide by 4	
25. Public financial statements		
25.1 Are the financial statements of the largest utility publicly available?		
a) Generation	Yes – 12.5, No - 0	
b) Transmission	Yes – 12.5, No - 0	
c) Distribution	Yes – 12.5, No - 0	
d) Retail sales	Yes – 12.5, No – 0	
25.2 If yes, are they audited by an independent auditor?		
e) Generation	Yes – 12.5, No – 0	
f) Transmission	Yes – 12.5, No – 0	
g) Distribution	Yes – 12.5, No – 0	
h) Retail sales	Yes – 12.5, No – 0	
26. Public annual reports		If the score X is: x≥ 67 33 < x < 67 33 ≤ x
26.1 Are the following metrics published in a primary official document (by the utility, regulator or ministry and/or government)?		
a) Generation - Electricity available for sale to end-users	Yes -- 25, No -- 0	
b) Transmission - Transmission loss rate	Yes -- 25, No -- 0	
c) Distribution - Distribution loss rate	Yes -- 25, No -- 0	
d) Retail Sales – Bill collection rate	Yes -- 25, No – 0	
27. Usage of outage recording system		
27.1 Is the utility operating an incidence/outage recording system (or SCADA/EMS with such functionality)?	Yes -- 100, No – 0	
28. Public reliability measurements		
28.1 Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?	Yes – 33.3, No -- 0	
28.2 Are the measurements reported to the regulatory body?	Yes – 33.3, No -- 0	
28.3 Are the measurements available to public?	Yes – 33.3, No -- 0	

INDICATOR 8. UTILITY CREDITWORTHINESS

Questions	Scoring	Traffic light
Time stamping is from - to 2017. Indicate "0" for "no" and "1" for "yes".	*Sum*	
29. Current ratio	<1 -- 0 in between -- scale >= 1.2 -- 25	If the score X is: x≥ 67 33 < x < 67 33 ≤ x
30. EBITDA margin	<0 -- 0in between -- scale >= 15% -- 25	
31. Debt service coverage ratio	<1 -- 0in between -- scale >= 1.2 – 25	
32. Days payable outstanding	>180 -- 0in between -- scale <=90 – 25	

CLEAN COOKING SOLUTIONS

INDICATOR 1. PLANNING

Questions	Scoring	Traffic light
	Sum and divide by 3	
1. Tracking		
1.1 Does the government track household level data on cooking solutions1?	Yes – 33.3, No – 0	
(time stamping) If yes, please indicate the year in which the tracking began		
1.2 Is the data publicly available?	Yes – 33.3, No – 0	
1.3 Is the data gender disaggregated?	Yes – 33.3, No – 0	
2. Existence of plan		
2.1 Is there a national or regional plan to scale up access to clean cooking solutions, or is access to clean cooking solutions covered as a part of any other government plan (regardless of the sector)?	Yes – 33.3, No –0	
2.2 Has the plan gone through public consultation?	Yes - 33.3, No – 0	
2.2.1 Have consultations taken the gender of participants into account?	Yes - 33.3, No – 0	
3. Institutional Capacity		
3.1 Are there agencies dedicated to the following functions? If so, for each agency, indicate whether it is a government agency or an independent body, has a dedicated budget or funding line, and the name of the agency: i. Setting clean cooking strategy/action plan ii. Setting, monitoring and enforcing standards for clean cooking solutions iii. Tracking access and adoption of clean cooking solutions (time stamping) If yes, please indicate the years in which each institution was given the responsibility(-ies).	For each agency: Yes – 33.3, No – 0	

If the score X is:

- $x \geq 67$
- $33 < x < 67$
- $33 \leq x$

INDICATOR 2. SCOPE OF PLANNING

Questions	Scoring	Traffic light
	Sum and divide by 3	
4. Aspects of the plan		
4.1 Does the plan take into account geographical and demographical considerations to prioritize the most vulnerable consumers2?	Yes – 50, No – 0	
4.2 Does the plan include considerations and action items for involving women throughout the supply chain of clean cooking solutions?	Yes – 50, No – 0	
5. Awareness strategy		
5.1 Is there a targeted awareness raising strategy to drive adoption of clean cooking solutions? Select any of the following that apply: • Training programs for new stove technologies • Cooking competitions with stove technologies • Nationally-sponsored educational campaigns for new stove technologies • Private sector advertising campaigns for new stove technologies • Partnerships with CSOs and community-based organizations • Other	Yes to one or more - 50, No to all - 0	If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
5.2 Does the awareness strategy include targeted messages to both men and women?	Yes – 50, No – 0	
6. Last mile distribution		
6.1 Is there a last mile distribution strategy3 in place for cooking fuels?	Yes – 50, No – 0	
6.2 Is there a last mile distribution strategy in place for cooking technologies?	Yes – 50, No – 0	

INDICATOR 3. STANDARDS AND LABELING

Questions	Scoring	Traffic light
	Sum and divide by 3	
7. Standards		
7.1 Are there standards for the following aspects of clean cooking solutions: i. Efficiency ii. Emissions i. If yes, what kind of standards? (eg: PM 2.5) iii. Safety	For each: Yes – 33.3, No – 0	
8. Monitoring and verification		If the score X is: x≥ 67 ● 33 < x < 67 ● 33 ≤ x ●
8.1 Is there a verification program in place for standards?	Yes – 25, No – 0	
8.2 Does the program work with a standards testing facility or lab?	Yes – 25, No – 0	
8.3 Does the stove testing facility or lab need to be accredited?	Yes – 25, No – 0	
8.4 Have the standards been verified through field testing?	Yes – 25, No – 0	
9. Labeling		
9.1. Have labeling schemes been adopted on clean cooking products for: i. Efficiency ii. Emissions (time stamping) Please indicate the year in which each labeling scheme was adopted.	For each: Yes – 50, No – 0 Yes – 50, No – 0	

INDICATOR 4. INCENTIVES AND ATTRIBUTES

Questions	Scoring	Traffic light
	Sum and divide by 2	
10. Financing mechanisms		
10.1 Are there specific financing facilities available to support suppliers/consumers to develop/purchase clean cooking solutions?	Yes – 50, No – 0	
Specify the aspects that apply: • Supplier or consumer • Type of fuel • Specific stove technology		
(time stamping) Please indicate the year in which each financing facility was first made available		
10.2 Are there specific financing or subsidy programs for clean cooking solutions targeted to low income consumers?	Yes – 50, No – 0	
Select the aspects that apply: • Supplier/consumer • Type of fuel • Specific stove technology		If the score X is: $x \geq 67$ ● $33 < x < 67$ ● $33 \leq x$ ●
(time stamping) Please indicate the year in which each program was first made available		
11. Supplier incentives		
11.1 Are there duty exemptions, tax benefits, and/or subsidies to support clean cooking solutions?	Yes – 50, No – 0	
Specify the aspects that apply: • Type of incentive • Type of fuel • Specific stove technology		
(time stamping) Please indicate the year in which each incentive was first made available		
11.2 Are there programs for commercial entities to invest in efficient, low-emission stoves? (time stamping) Please indicate the year in which each program was first made available	Yes – 50, No – 0	

CLEAN COOKING PILOT COUNTRIES

South Asia	East Asia & Pacific	Latin America	Sub-Saharan Africa
India	China	Haiti	Ghana
Nepal	Indonesia	Guatemala	Kenya
	Lao PDR		Madagascar
			Rwanda
			Uganda

B. QUESTIONS TO ASSESS POLICY ENFORCEMENT

ELECTRICITY ACCESS

- Is there a requirement for periodic progress reports tracking progress towards the defined energy access target?
- Does the reporting actually take place?
- Is there a provision for the plan periodic evaluation?
- Does the government specify standards of performance on reliability?
- Is there a periodic reporting system in place to ensure standards compliance?
- Are there publicly funded mechanisms to secure viability gap funding for operators?
- Are there duty exemptions and/or capital subsidies for mini grid systems and/or individual components?
- Are there specific financing facilities available to support operators?
- Is there a national program which aims to develop standalone systems or support stand-alone systems' development?
- Are there specific financing facilities to support operators/consumers to develop/purchase standalone home systems?
- Is there a mechanism to support low-volume consumers such as social or lifeline tariff?
- Is the utility operating an incidence/outage recording system (or SCADA/EMS with such functionality)?
- Is the utility measuring the SAIDI and SAIFI or any other measurements for service reliability?
- Are the measurements reported to the regulatory body?
- Are the measurements available to public?

RENEWABLE ENERGY

- Is there an institution responsible for tracking progress in renewable energy development?
- Is there any periodic reporting mechanism for renewable energy progress?
- Is current policy environment conducive to renewable energy deployment?
- Is the compensation due because of curtailment actually given out?
- Is there a pre-qualification process to select bidders?
- Are there provisions to ensure full and timely project completion (e.g. bid-bonds, project milestones)

- Do the connection procedures meet international best practices?
- Are dispatch operations being carried out in real time?
- Are standard PPAs bankable?
- Are the measurements reported to the regulatory body?
- Is there a monitoring, reporting and verification system for greenhouse gas emissions in place?

ENERGY EFFICIENCY

- Is there a requirement for periodic progress reports tracking data related to the efficiency target(s)?
- Are energy efficiency programs developed based on market analyses with plans open to public consultation and periodic evaluation?
- Is there a requirement for periodic reporting of energy consumption in order to enforce and/or track progress of energy efficiency in large consumers' facilities?
- Is there a reporting mechanism to track and enforce energy savings in public sector facilities (either in-house or by a third party)?
- Are there penalties in place for non-compliance with EE requirements? Generation, T&D and DSM
- Are energy savings or other target indicators measured to track performance in meeting EE requirements? Generation, T&D and DSM
- Are the requirements measured/validated by an independent third party? Generation, T&D and DSM
- Is there a requirement for periodic reporting to verify compliance with standards? Refrigerators, HVAC, lighting equipment, industrial electric motors, transport vehicles, other industrial equipment
- Is the verification of standards compliance carried out by a third party? Refrigerators, HVAC, lighting equipment, industrial electric motors, transport vehicles, other industrial equipment
- Is there a penalty for non-compliance with energy efficiency standards? Refrigerators, HVAC, lighting equipment, industrial electric motors, transport vehicles, other industrial equipment
- Is there a periodic update of standards to reflect technological advances and changes in best practices for energy efficiency labels? Refrigerators, HVAC, lighting equipment, industrial electric motors, transport vehicles, other industrial equipment
- Is commission testing for energy efficiency required for final building acceptance documentation?
- Is there a requirement for periodic reporting to verify compliance with building energy efficiency requirements?
- Is verification carried out by a third party?

C. THE 133 COUNTRIES IN THE 2018 EDITION OF THE RISE REPORT

REGIONAL AND INCOME CLASSIFICATION (WORLD BANK, JUNE 2017)

Economy	Code	Region	Income group
Afghanistan*	AFG	South Asia	Low income
Algeria	DZA	Middle East & North Africa	Upper middle income
Angola*	AGO	Sub-Saharan Africa	Lower middle income
Argentina	ARG	Latin America & Caribbean	Upper middle income
Armenia	ARM	Europe & Central Asia	Lower middle income
Australia	AUS	OECD High Income	High income
Austria	AUT	OECD High Income	High income
Azerbaijan	AZE	Europe & Central Asia	Upper middle income
Bahrain	BHR	Middle East & North Africa	High income
Bangladesh*	BGD	South Asia	Lower middle income
Belarus	BLR	Europe & Central Asia	Upper middle income
Belgium	BEL	OECD High Income	High income
Benin*	BEN	Sub-Saharan Africa	Low income
Bolivia	BOL	Latin America & Caribbean	Lower middle income
Brazil	BRA	Latin America & Caribbean	Upper middle income
Bulgaria	BGR	Europe & Central Asia	Upper middle income
Burkina Faso*	BFA	Sub-Saharan Africa	Low income
Burundi*	BDI	Sub-Saharan Africa	Low income
Cambodia*	KHM	East Asia & Pacific	Lower middle income
Cameroon*	CMR	Sub-Saharan Africa	Lower middle income
Canada	CAN	OECD High Income	High income
Central African Republic*	CAF	Sub-Saharan Africa	Low income
Chad*	TCD	Sub-Saharan Africa	Low income
Chile	CHL	OECD High Income	High income
China	CHN	East Asia & Pacific	Upper middle income
Colombia	COL	Latin America & Caribbean	Upper middle income
Congo, Dem. Rep.*	COD	Sub-Saharan Africa	Low income
Congo, Rep.*	COG	Sub-Saharan Africa	Lower middle income

Economy	Code	Region	Income group
Costa Rica	CRI	Latin America & Caribbean	Upper middle income
Côte d'Ivoire*	CIV	Sub-Saharan Africa	Lower middle income
Croatia	HRV	Europe & Central Asia	Upper middle income
Czech Republic	CZE	OECD High Income	High income
Denmark	DNK	OECD High Income	High income
Dominican Republic	DOM	Latin America & Caribbean	Upper middle income
Ecuador	ECU	Latin America & Caribbean	Upper middle income
Egypt, Arab Rep.	EGY	Middle East & North Africa	Lower middle income
El Salvador	SLV	Latin America & Caribbean	Lower middle income
Eritrea*	ERI	Sub-Saharan Africa	Low income
Ethiopia*	ETH	Sub-Saharan Africa	Low income
Finland	FIN	OECD High Income	High income
France	FRA	OECD High Income	High income
Germany	DEU	OECD High Income	High income
Ghana*	GHA	Sub-Saharan Africa	Lower middle income
Greece	GRC	OECD High Income	High income
Guatemala*	GTM	Latin America & Caribbean	Lower middle income
Guinea*	GIN	Sub-Saharan Africa	Low income
Haiti*	HTI	Latin America & Caribbean	Low income
Honduras*	HND	Latin America & Caribbean	Lower middle income
Hungary	HUN	OECD High Income	High income
India*	IND	South Asia	Lower middle income
Indonesia*	IDN	East Asia & Pacific	Lower middle income
Iran, Islamic Rep.	IRN	Middle East & North Africa	Upper middle income
Ireland	IRL	OECD High Income	High income
Israel	ISR	Middle East & North Africa	High income
Italy	ITA	OECD High Income	High income
Jamaica	JAM	Latin America & Caribbean	Upper middle income
Japan	JPN	OECD High Income	High income
Jordan	JOR	Middle East & North Africa	Lower middle income
Kazakhstan	KAZ	Europe & Central Asia	Upper middle income
Kenya*	KEN	Sub-Saharan Africa	Lower middle income
Korea, Rep.	KOR	OECD High Income	High income
Kuwait	KWT	Middle East & North Africa	High income
Kyrgyz Republic	KGZ	Europe & Central Asia	Lower middle income

Economy	Code	Region	Income group
Lao PDR*	LAO	East Asia & Pacific	Lower middle income
Lebanon	LBN	Middle East & North Africa	Upper middle income
Liberia*	LBR	Sub-Saharan Africa	Low income
Madagascar*	MDG	Sub-Saharan Africa	Low income
Malawi*	MWI	Sub-Saharan Africa	Low income
Malaysia	MYS	East Asia & Pacific	Upper middle income
Maldives	MDV	South Asia	Upper middle income
Mali*	MLI	Sub-Saharan Africa	Low income
Mauritania*	MRT	Sub-Saharan Africa	Lower middle income
Mexico	MEX	Latin America & Caribbean	Upper middle income
Mongolia*	MNG	East Asia & Pacific	Lower middle income
Morocco	MAR	Middle East & North Africa	Lower middle income
Mozambique*	MOZ	Sub-Saharan Africa	Low income
Myanmar*	MMR	East Asia & Pacific	Lower middle income
Nepal*	NPL	South Asia	Low income
Netherlands	NLD	OECD High Income	High income
New Zealand	NZL	East Asia & Pacific	High income
Nicaragua*	NIC	Latin America & Caribbean	Lower middle income
Niger*	NER	Sub-Saharan Africa	Low income
Nigeria*	NGA	Sub-Saharan Africa	Lower middle income
Norway	NOR	OECD High Income	High income
Oman	OMN	Middle East & North Africa	High income
Pakistan*	PAK	South Asia	Lower middle income
Papua New Guinea*	PNG	East Asia & Pacific	Lower middle income
Panama	PAN	Latin America & Caribbean	Upper middle income
Paraguay	PRY	Latin America & Caribbean	Upper middle income
Peru	PER	Latin America & Caribbean	Upper middle income
Philippines*	PHL	East Asia & Pacific	Lower middle income
Poland	POL	OECD High Income	High income
Portugal	PRT	OECD High Income	High income
Qatar	QAT	Middle East & North Africa	High income
Romania	ROU	Europe & Central Asia	Upper middle income
Russian Federation	RUS	Europe & Central Asia	Upper middle income
Rwanda*	RWA	Sub-Saharan Africa	Low income
Saudi Arabia	SAU	Middle East & North Africa	High income
Senegal*	SEN	Sub-Saharan Africa	Low income

Economy	Code	Region	Income group
Serbia	SRB	Europe & Central Asia	Upper middle income
Sierra Leone*	SLE	Sub-Saharan Africa	Low income
Singapore	SGP	East Asia & Pacific	High income
Slovak Republic	SVK	OECD High Income	High income
Solomon Islands*	SLB	East Asia & Pacific	Lower middle income
Somalia*	SOM	Sub-Saharan Africa	Low income
South Africa*	ZAF	Sub-Saharan Africa	Upper middle income
South Sudan*	SSD	Sub-Saharan Africa	Low income
Spain	ESP	OECD High Income	High income
Sri Lanka	LKA	South Asia	Lower middle income
Sudan	SDN	Sub-Saharan Africa	Lower middle income
Sweden	SWE	OECD High Income	High income
Switzerland	CHE	OECD High Income	High income
Tajikistan	TJK	Europe & Central Asia	Lower middle income
Tanzania*	TZA	Sub-Saharan Africa	Low income
Thailand	THA	East Asia & Pacific	Upper middle income
Togo*	TGO	Sub-Saharan Africa	Low income
Tunisia	TUN	Middle East & North Africa	Lower middle income
Turkey	TUR	Europe & Central Asia	Upper middle income
Turkmenistan	TKM	Europe & Central Asia	Upper middle income
Uganda*	UGA	Sub-Saharan Africa	Low income
Ukraine	UKR	Europe & Central Asia	Lower middle income
United Arab Emirates	ARE	Middle East & North Africa	High income
United Kingdom	GBR	OECD High Income	High income
United States	USA	OECD High Income	High income
Uruguay	URY	Latin America & Caribbean	High income
Uzbekistan	UZB	Europe & Central Asia	Lower middle income
Vanuatu*	VUT	East Asia & Pacific	Lower middle income
Venezuela, RB	VEN	Latin America & Caribbean	Upper middle income
Vietnam	VNM	East Asia & Pacific	Lower middle income
West Bank and Gaza	PSE	Middle East & North Africa	Lower middle income
Yemen, Rep. *	YEM	Middle East & North Africa	Lower middle income
Zambia*	ZMB	Sub-Saharan Africa	Lower middle income
Zimbabwe*	ZWE	Sub-Saharan Africa	Low income

*Countries included in the electricity access analysis. Electricity access policies were not assessed in countries with less than 10% of the population and fewer than 1 million people lack access to electricity