Readiness for Investment in Sustainable Energy (RISE)

Surveying the policy and regulatory environment for energy efficiency investments

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Introduction to RISE

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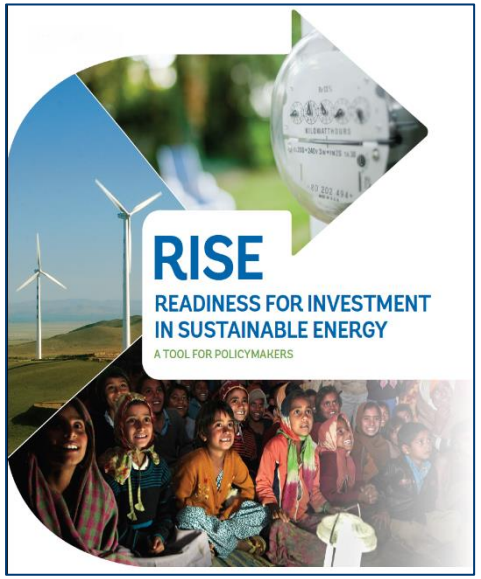
Overview

RISE is a tool to help assess government support for sustainable energy investments

- A suite of indicators assessing policies, regulations, and support mechanisms for private investments
- A product of the Sustainable Energy for All (SE4ALL) knowledge hub
- Separate sections cover each of the SE4ALL pillars: RE, EE and energy access
- Information is verified by the World Bank staff
- Results are published in a report and data is available online at http://rise.worldbank.org



RISE Pilot Report, Nov 2014

- Pilot was conducted in 17 countries in 2014, first full global edition covering 110 countries in early 2016
- Annual/bi-annual updates will ensure information is up-to-date and RISE is a living resource

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Target audience

RISE is primarily a tool for policymakers (and those who advise them), but it can benefit anyone else with an interest in sustainable energy

Policymakers

- Design policies to achieve sustainable energy objectives
- Identify best practices to support private energy investments
- Information on policies and practices around the world
- Compare country policy frameworks quickly and easily

Investors and developers

- Free access to data on power sector policies and regulations
- Identify countries that prioritize sustainable energy
- Receive support from new and more effective policies

Donors and funding agencies

- Identify potential high-impact policy reforms in each country
- Evaluate the success of a range of policy design elements

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Organization of indicators

RISE evaluates countries with indicators encompassing:

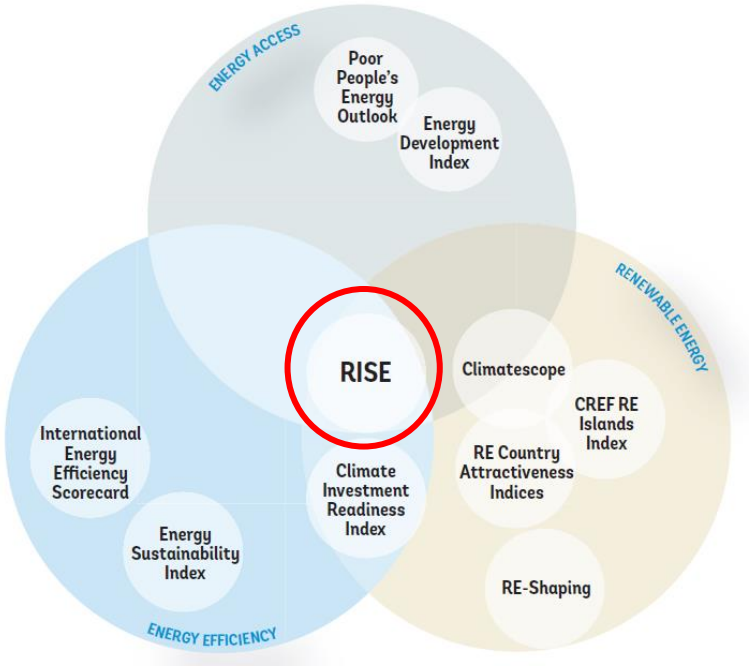
	Policies and Regulations	Cross-cutting	Procedural Efficiency
Renewable Energy	Planning, incentives, mandates, and policies to directly support sustainable energy	Power sector-wide pricing, performance, and procedures, that affect sustainable energy	Realized time, costs, and procedures to implement key sustainable energy activities
Energy Efficiency			
Energy Access			

All indictors have been carefully designed to be:

Objective	Yes/no or quantitative answers
Actionable	Under direct control of policymakers
Context neutral	Relevant independent of sector structure or maturity
Consensus	Widely agreed to support investment

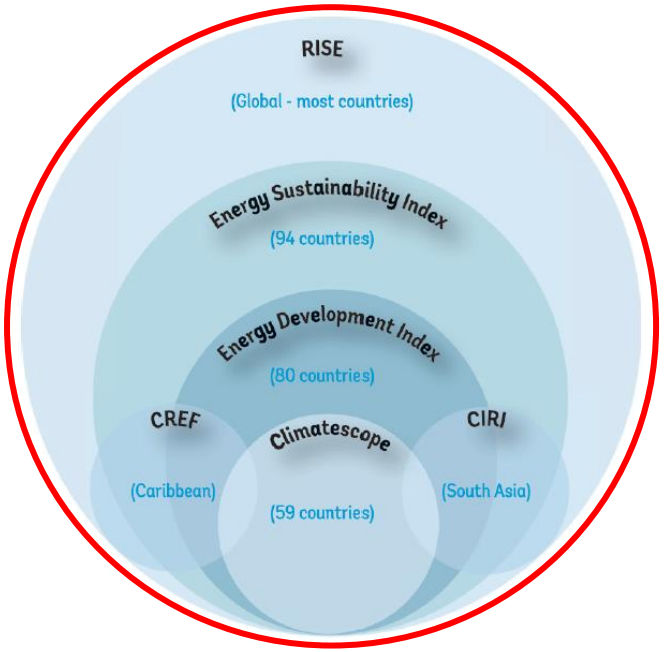
What makes RISE different from other indicator projects?

RISE has broad coverage, validated open data, and informs specific policy recommendations



Greatest geographic coverage →

← *Greatest thematic coverage*



But other initiatives cover topics RISE does not

By working together we can provide a more complete picture

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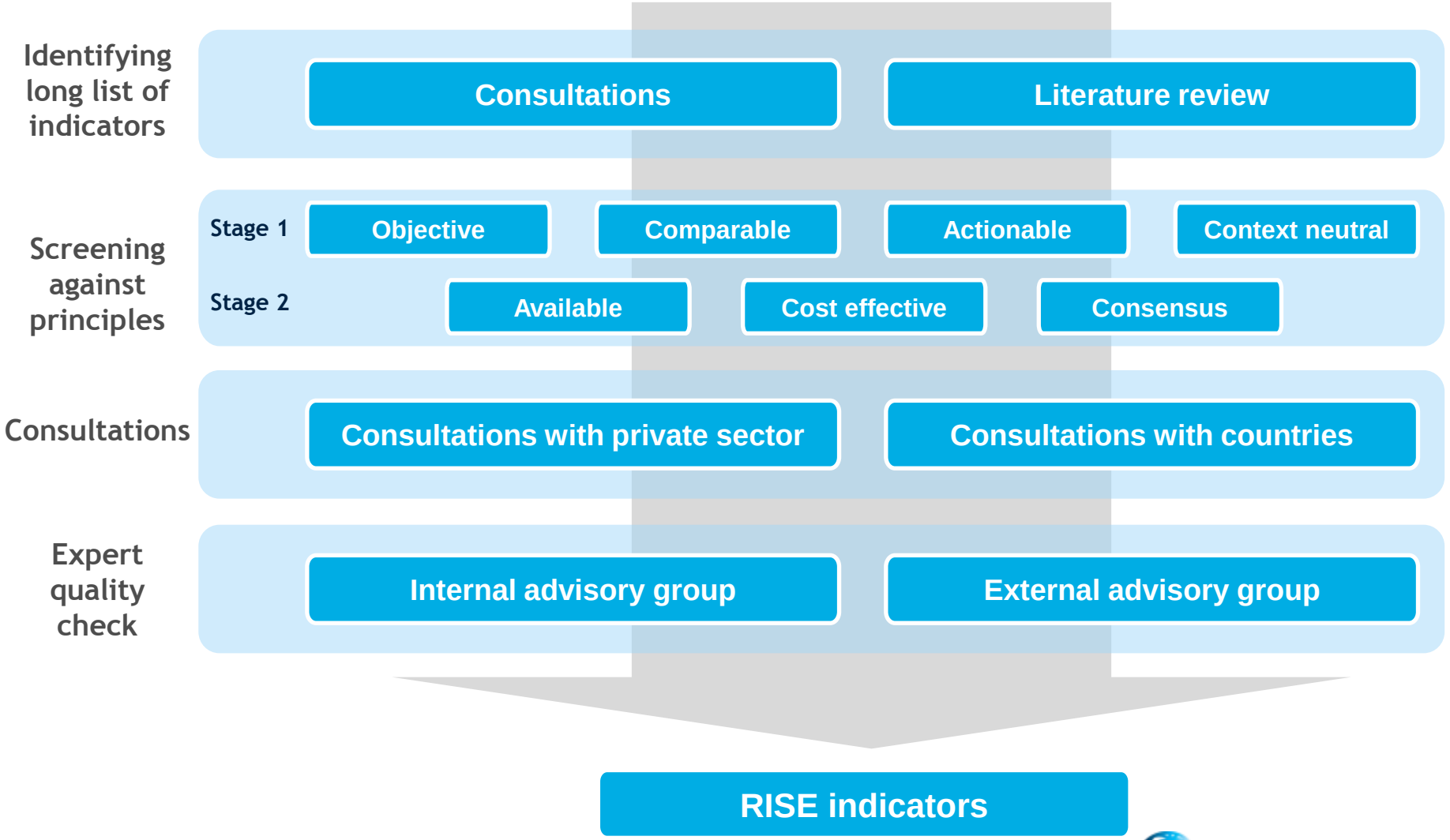
Methodology: Developing the original indicators

RISE's indicators were developed in multiple steps with broad input



110 countries: *Top 50 SE4All "high impact" countries in each pillar* and all 78 SE4LL opt-in countries***

96% global population | 91% global energy consumption | 97% global access deficit

preliminary results in this presentation

OECD: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Greece, Japan, Netherlands, Spain, Switzerland, Turkey

non-OECD: China, Indonesia, South Africa

* Access, efficiency and renewables, as reported in *Global Tracking Framework 2015*

* * Those above 5 million population

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Timeline for RISE global rollout

2015

1. Advisor consultations
2. Data collection
3. **Data validation & interpretation (now)**

2016

4. Report drafting
5. Publication
6. Website launch

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RISE EE indicators relevant to industrial & commercial consumers

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RISE energy efficiency indicators & key data points

→*those most relevant to business behaviour in red*

Policies and Regulations

- National energy efficiency plan
  - Legislation/action plan
  - National targets
  - Sectoral targets
- Energy efficiency entities
  - Levels
  - Functions
  - Budget
- Information provided to electricity consumers
  - Reports on electricity use
  - Quality of information
  - Comparison with other users
  - Energy saving information
- Mandates & incentives: Utilities
  - Mandates for utilities
  - Cost recovery for utilities
- Mandates & incentives: Public entities
  - Obligations for public buildings & other public facilities
  - Public procurement of energy efficient products
  - Multi-year contracts
  - Retention of energy savings
- Mandates & incentives: Large Consumers
  - Mandates for large consumers
  - Incentives for large consumers
  - Performance recognition
- Financing mechanisms
  - Type of mechanism
  - Sector
- Minimum energy efficiency performance standards
  - Type of product
  - Verification
  - Penalties for non-compliance
  - Domestic / external
- Energy labeling system
  - Type of product
  - Mandatory / voluntary
  - Domestic / external
- Building energy codes
  - Residential / commercial
  - New / existing
  - Compliance system
  - Updates
  - Labels & certificates
  - Energy use disclosure
  - Incentives
- Incentives from electricity pricing
  - Electricity rate structure
  - Demand charge (large customers)
  - Time of use tariffs

Cross Cutting

- Fossil Fuel Subsidy for Power Generation
- Carbon pricing mechanism
  - Carbon pricing mechanism
  - MRV system
- Retail price of electricity (not scored)
  - Residential users
  - Industrial users
  - Commercial users

Procedural Efficiency

- Securing EE appliance standards certification
  - Time and cost of procedures

RISE EE indicators relevant to business behaviour (1)

Questions used to collect data

Mandates & incentives: utilities

1. Are utilities required to carry out energy efficiency activities in (i) generation, (ii) transmission and distribution networks, and **(iii) demand-side management?**

Mandates & incentives: large consumers

2. Mandates for large-scale users

a. Are there any of the following energy-efficiency mandates for large energy users?
   i. Targets (*e.g.* kWh savings or lower energy intensity or CO_2 reductions)
   ii. Mandatory audits
   iii. Progress/tracking reports
   iv. Energy-management system (computer technologies to optimize energy use, eg: SCADA)

b. Are there penalties in place for non-compliance with regulatory obligations for energy efficiency?

c. Is it required for the consumption and/or savings of large-scale energy users to be tracked and documented on a regular basis?

d. Is there a measurement and verification program in place?

3. Incentives for large-scale users

a. Are energy efficiency incentives in place for large scale users? please tick applicable programs:
   i. Financial incentives (*e.g.* preferred lending rates or grants)
   ii. Tax/duty incentives

4. Performance recognition

a. Is there a program to publicly recognize large scale users that have achieved significant energy savings measures?

b. Are energy savings and/or financial savings publicized?

c. Does the program offer assistance (from a government or independent entity) to large scale users to identify energy savings investments opportunities?

RISE EE indicators relevant to business behaviour (2)

Questions used to collect data

Financing mechanisms

5. Are any of the following **financing mechanisms for energy efficiency activities** available in the (i) residential sector, **(ii) commercial services sector, and (iii) industrial sector**?

- Tax duties/incentives
- Discounted "green" mortgages
- On-bill financing/pre-payment
- Credit lines and/or revolving funds with banks for EE activities
- Energy services agreements (pay-for-performance contracts)
- Green or EE bonds
- Vendor credit and/or leasing for EE activities
- Partial risk guarantees

Minimum energy efficiency performance standards (MEPS)

6. Have **minimum energy efficiency performance standards** been adopted for:
   - Industrial electric motors
   - Other industrial equipment

7. Penalties for non-compliance

a. Is there a verification program in place?
b. Is it carried out by a third party?
c. Is there a penalty for non-compliance with energy efficiency standards?

Energy labels

8. Have **energy labeling schemes** been adopted for:
   - Industrial electric motors
   - Other industrial equipment

RISE EE indicators relevant to business behaviour (3)

Questions used to collect data
Building energy

9. Building energy codes in place

a. Are there energy efficiency codes for new commercial buildings?

10. Building energy information

a. Is there a mandatory standardized rating or labeling system for the energy performance of existing buildings? (eg: ASHRAE Building Energy Quotient)

b. Are commercial buildings required to disclose property energy usage at the point of sale or when leased?

c. Are large commercial buildings required to disclose property energy usage annually?

11. High quality incentive programs

a. Are there mandates or targets for new building stocks to achieve high quality energy performance certifications, such as LEED? (eg: certain % of new building stocks must be LEED certified)

RISE EE indicators relevant to business behaviour (4)

Questions used to collect data

Electricity rates

12. What is the **average unit price of electricity** for i) residential users, **ii) commercial users, iii) industrial users**?

13. Electricity rate structure

What types of electricity rate structure do commercial services customers and/or industrial customers face:

- Flat fee (per connection)
- Constant (uniform) block rates
- Declining block rates
- Increasing block rates

14. Electricity Charges

What types of electricity charges do commercial services and/or industrial customers face:

- Energy (kWh)
- Demand (kW)
- Reactive power (kVar)

15. Time of use tariffs

Are any of the following time of use (TOU) rate structures applied to the commercial services sector and/or industrial sector:

- Real time pricing
- Variable pricing
- Critical peak pricing
- Seasonal rate
- Peak time rebates

Fossil fuel subsidy

16. What is the amount of **fossil fuel subsidy to the power sector**?

- **Among these indicators, which are most influential on the EE behaviour of businesses?**

  → *workshop survey results tomorrow*

- **Are the preliminary results in line with what you know about these countries?**

- **What conclusions can we draw from these preliminary results?**

rise.worldbank.org