



Kick off meeting of the BIEE-ROSE Project on  
Energy Efficiency and SDG7 monitoring in Latin  
America and the Caribbean  
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## New BIEE indicators template on SDG7/OSD7

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# Content

- **Overview of OSD 7**
- Adaptation of the data template
- Annex: List of indicators

# Goal 7 on energy

- To define the sustainable goals various indicators have been proposed corresponding to the different areas of development.
- **Goal 7** addresses **energy** and aims at “ensuring access to affordable, reliable, sustainable and modern energy for all” with three quantified targets.

Topic	Goal	Indicators to monitor
OSD 7.1 <b>Energy access</b>	ensure universal access to affordable, reliable and modern energy services by 2030	share of households with access to electricity, to clean fuels
OSD 7.2 <b>Renewables</b>	increase substantially the share of renewable energy in the global energy mix by 2030	indicators on the penetration of <b>renewables</b> in the energy mix
OSD 7.3 <b>Energy efficiency</b>	double the rate of improvement in energy efficiency by 2030	indicators measuring <b>energy efficiency</b> improvement → BIEE data base has been developed so far to monitor progress in energy efficiency in LACs, through a wide variety of indicators

# Proposed indicators for energy access (7.1)

**% of households with access to clean cooking technologies**

% of clean fuels in households consumption

**% of households with access to electricity**

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*In bold, indicator already available in CEPALSTAT*

# Proposed indicators for renewables (7.2)

Four types of indicators are proposed

**Share of renewables in TPES (in oferta total)**

Share of renewables in power\*

Share of renewables in final energy consumption\*\*

Share of renewables by end-use sector\*

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*Indicator needing additional data to be calculated*

*In bold, indicator already available in CEPALSTAT*

\* See Annex for more details

\*\*Indicator implicitly proposed for monitoring OSD 7.2; indicator also used in Europe to set targets on renewables.

# Proposed indicators to monitor the energy efficiency dimension (7.3)

**Primary energy intensity at purchasing power parities**

**Final energy intensity at purchasing power parities**

Efficiency of power generation

Efficiency of thermal power plants

**Rate of electricity T&D losses**

Energy intensity of industry at purchasing power parities

Energy intensity of transport to GDP at purchasing power parities

Unit consumption of road transport per vehicle

Energy consumption of households per household

Electricity consumption per electrified households

Energy intensity of services at purchasing power parities

Electricity intensity of services at purchasing power parities

Electricity consumption for public lighting per capita

Energy intensity of agriculture at purchasing power parities

# Energy intensity and energy efficiency

- The total energy intensity is **good to describe** the overall trend in energy efficiency **from an economic point of view** but **does not tell anything about the factors behind this trend**.
- Trends in the final energy intensity will not be affected by changes in supply, but will be still influenced by other factors not linked to energy efficiency (eg structural changes).
- To better understand what is going on and better measure the impacts of energy efficiency programmes **more detailed indicators** are required, such as the indicators developed in the framework of **BIEE**.
- In particular an **energy efficiency index** has been developed to measure the overall energy efficiency progress; it is the best indicator to monitor the energy efficiency goal but is difficult to calculate for countries with limited energy consumption data by end-uses and sub-sector

**For countries for which is possible, we will calculate energy efficiency index to monitor goal 7.3**

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# What has changed in the BIEE template?

- The existing BIEE data template needs to be adapted to **include the new indicators on 7.1 and 7.2 goals** based on:
  - Existing data for most of them
  - New data sets for some of them (e.g. renewable electricity capacity)
- To include the new data series and indicators  
→ **new sheet** called « OSD indicators »



# Presentation of the new sheet

One section for each OSD goal

Row data from existing sheets (e.g. Households) or from new data series

OSD Indicators					3	17	18	19	20	21
Series code	Title	Country code	Unit		2002	2003	2004	2005	2006	
<b>7.1 Energy access</b>										
<b>% of households with access to clean cooking technologies</b>										
pcdwgascui	percent of dwelling with natural gas as main cooking fuel	arg	%		51.92	52.44	52.97	53.49	54.01	
pcdwlpqcui	percent of dwelling with LPG as main cooking fuel	arg	%		43.11	42.82	42.53	42.24	41.96	
pcdweleucui	percent of dwelling with electricity as main cooking fuel	arg	%		0.03	0.07	0.10	0.13	0.17	
pcdwcleancui	<b>% of households with access to clean cooking technologies</b>	<b>arg</b>	<b>%</b>		<b>95.1</b>	<b>95.3</b>	<b>95.6</b>	<b>95.9</b>	<b>96.1</b>	
<b>% of clean fuels in households consumption</b>										
gplcfres	Consumption of LPG of residential	arg	ktoe		1 015.00	1 110.00	1 230.00	1 183.00	1 202.00	
gazcfres	Consumption of gas of residential	arg	ktoe		5 833.00	6 042.00	6 118.00	6 602.00	6 597.00	
elccfres	Consumption of electricity of residential	arg	ktoe		1 827.00	1 855.00	1 935.00	2 097.00	2 280.00	
toccfres	Total consumption of households	arg	ktoe		8 944.00	9 302.00	9 560.00	10 170.00	10 361.00	
pccfcleanres	<b>% of clean fuels in households consumption</b>	<b>arg</b>	<b>%</b>		<b>97.0</b>	<b>96.8</b>	<b>97.1</b>	<b>97.2</b>	<b>97.3</b>	

New indicator (in green)

# New data series

- At the beginning of the sheet, **new data series to be entered by national teams** in order to calculate new indicators on renewables

OSD Indicators				17	18	19	20	21	22	23
Series code	Title	Country code	Unit	2002	2003	2004	2005	2006	2007	2008
<b>New data series (to be entered by national teams)</b>										
<b>Renewables electricity production</b>										
edvpd	Solar electricity production	arg								
egepp	Geothermal electricity production	arg								
eanmw	Electricity production from biomass and waste	arg								
elepu	Public electricity production	arg								
<b>Electricity capacity installed</b>										
ethmw	Thermal electricity capacity	arg								
eanmw	<i>Of which biofuels and biomass electricity capacity</i>	arg								
enumw	Nuclear electricity capacity	arg								
ehymw	Hydropower capacity	arg								
solmw	Solar electricity capacity	arg								
eeomw	Wind electricity capacity	arg								
egemw	Geothermal electricity capacity	arg								
elemw	Electricity capacity (gross)	arg								

New data series (in orange background)

# What is expected from national teams?

- We ask national teams to **fill in the new data series** in orange background:
  - Solar electricity production
  - Geothermal electricity production
  - Electricity production from biomass and waste
  - Public electricity production
  - Electricity capacity installed (total, thermal, renewables)
  - Solar thermal heat consumption of residential
  - Solar thermal heat production of tertiary

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# Proposed indicators for power

Share of renewables in power generation (i.e. in power mix):

- Total (actual)
- Total (normalized)
- Without large hydro (actual)
- Without large hydro (normalized)

Share of renewables in electricity capacity

- Total
- Without hydro

Share of renewables in electricity consumption (actual)

Share of renewables in electricity consumption (normalized)

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*Indicator needing additional data to be calculated*

# Proposed indicators for renewables: households

Share of renewables in household final consumption

Share of renewables in household final consumption (including renewable electricity)

Share of biomass in household sector

Area of solar water heaters:

- Total area
- Area per capita

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*Indicator needing additional data to be calculated*

# Proposed indicators for renewables: services and industry

Share of renewables in services final consumption

Share of renewables in services final consumption (including renewable electricity)

Share of renewables in industry final consumption

Share of renewables in industry final consumption (including renewable electricity)

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*Indicator needing additional data to be calculated*

# Proposed indicators for renewables: transport

Share of biofuels in transport sector

Share of renewables in transport sector (including renewable electricity)

Share of biofuels in road transport

Share of biofuels in consumption of gasoline and diesel in road transport (i.e. average blending rate)

*Indicator already calculated in BIEE*

*Indicator that can be calculated with current BIEE data*

*Indicator needing additional data to be calculated*