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# Overview of Energy Efficiency Policy & Measures in LACS

Bruno Lapillonne with Laura Sudries and  
Pierre Labarbe, Enerdata

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# Objective of this overview of Policy & Measures in LACs

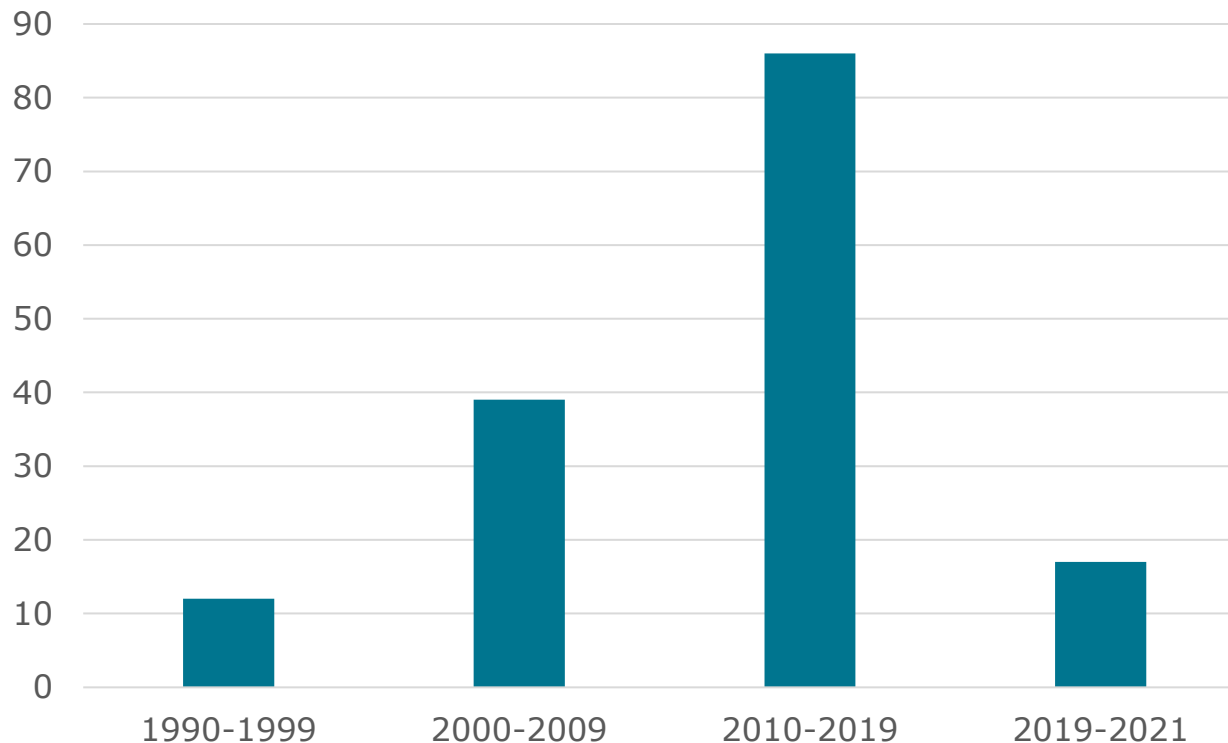
- The objective of this presentation is to provide a first assessment of the **deployment of policy & measures** in Latin American and Caribbean countries (LACs) related to **energy efficiency, energy access** and **end-use renewables**\*.
- It relies mainly on the **BIEE policy data base**, and was completed by additional research. Thus, the number of measures analysed is broader than what is presently in the data base
- This review covers 16 countries (see list in Annex) and is presented by sector and by main types of measures.

*\* Measures on the promotion of renewables in the power sector are not included, as already well documented*

# Overview of policy measures by sector (1/3)

- Around 150 active measures have been identified in the 16 countries (~165 including proposed measures).
- There is clearly an **intensification** of the implementation of energy efficiency measures since 2010, as shown by the dynamics of new measures. Over the period 2010, twice more measures have been introduced than over the previous decade (i.e. 2000-2009).

Number of new measures implemented by period

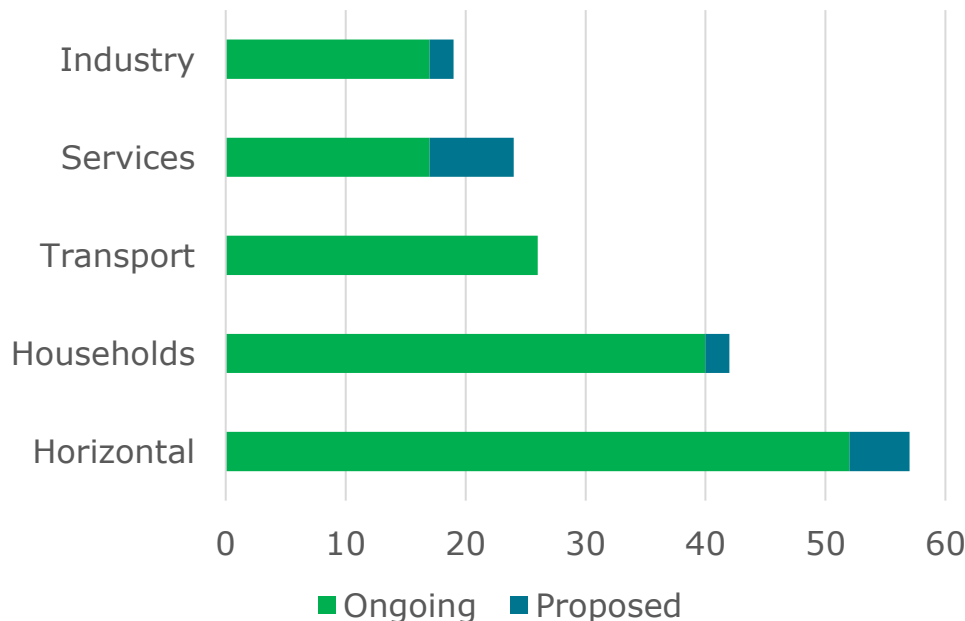


*\*Horizontal measures excluded*

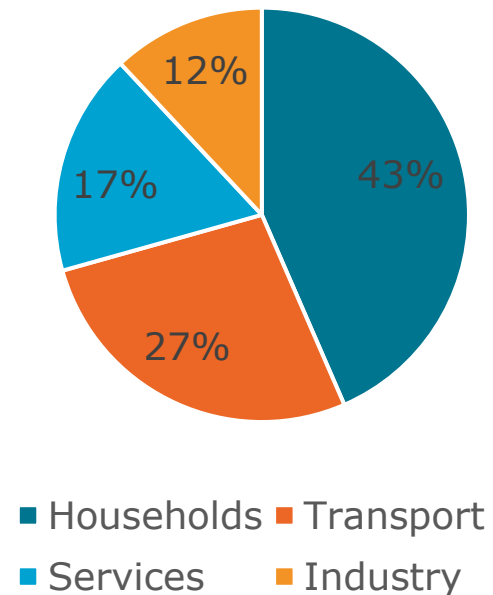
# Overview of policy measures by sector (2/3)

- The majority of measures are **horizontal**, i.e. not sector specific, which is logical, as it is the necessary backbone of sectoral measures.
- **Households** is the dominant **sector** (i.e. excluding horizontal measures): it concentrates 43% of all sectoral measures, followed by **transport** (27%), services (17%) and industry (12%).

Number of measures by sector



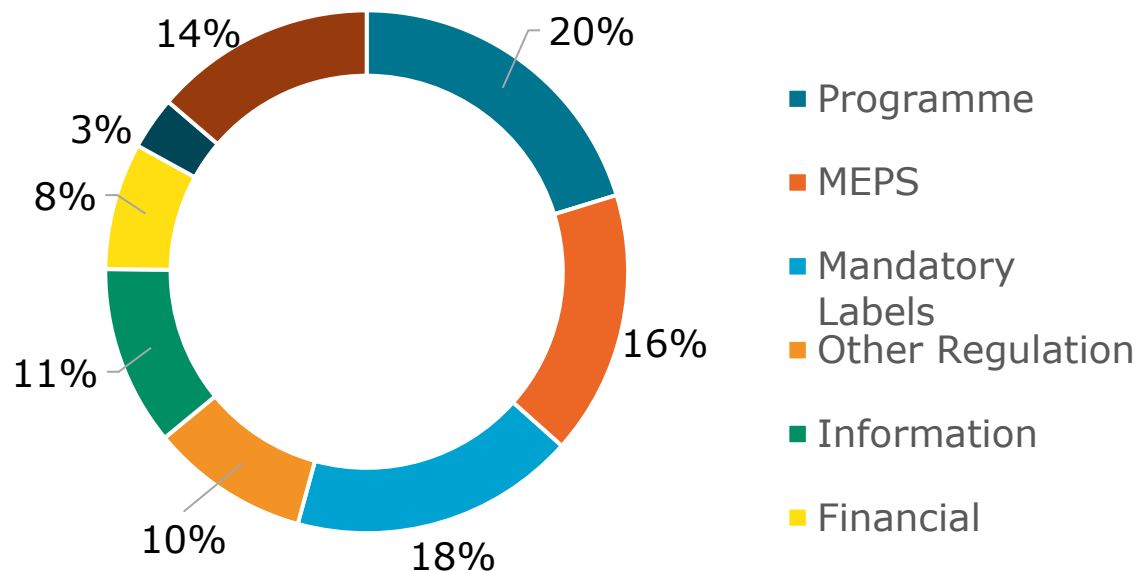
Distribution of sectoral measures\*



\*Ongoing measures; horizontal measures excluded

# Overview of measures by type (3/3)

- One third of measures are **regulations** on **appliances**, combining **mandatory information** on energy efficiency performances (i.e. **energy efficiency labels**) (18% of measures) and **MEPS** (Minimum Energy Performance Standards) (16%).
- Around 20% of measures correspond to **programmes** (i.e. action plans, combining different measures).
- **Financial** or **fiscal** incentives only represent 10% of measures, as well as **other regulations** (mainly energy efficiency **laws**) (10%).



MEPS: Minimum Energy Performance Standards

Overview of EE Pams in LACs

# Horizontal measures

# Horizontal measures

- **Horizontal** measures apply to all measures that cover several sectors at the same time.
- Most LACs have an energy efficiency **law** and a national energy efficiency **plan** (or programme).
- Only two countries have a national **energy efficiency agency** (Mexico and Chile) and two more a Ministry department dedicated to energy efficiency.

	EE Law	EE Programme	EE Agency	Directorate on EE in Ministry
Argentina				
Bolivia				
Brasil				
Chile				
Colombia				
Costa Rica				
Ecuador				
El Salvador				
Guyana				
Honduras				
Mexico				
Nicaragua				
Panama				
Paraguay				
Peru				
Uruguay				

Overview of EE Pams in LACs

# Targets of energy efficiency plans

- 6 LAC countries\*\* have a national energy efficiency plan with **quantitative objectives**, i.e. only **half of countries** with such a plan .
- For the majority of countries, this target is expressed in terms of **reduction of energy consumption** compared to a BAU scenario ( Brasil, Chile, Ecuador and Uruguay)
- For Argentina the target is an energy **intensity reduction** and for Columbia an energy **consumption reduction** compared to an historical value.
- In **EU** countries, all countries have to set up targets, both in terms of amount of **savings** and a **cap** in the level of energy demand.

Argentina	<b>Doubling of energy intensity</b> reduction over 2020-30*
Brasil	<b>-10% electricity</b> consumption in 2030 (-106 TWh)*
Chile	<b>-12%</b> in total <b>final</b> energy demand by 2020* (compared to BAU)
Colombia	<b>-10% electricity</b> consumption in 2022 ( <b>compared to 2017</b> )
Ecuador	<b>543 Mbep avoided</b> by 2035* (compared to BAU)
Uruguay	<b>1690 ktep cumulated energy consumption</b> avoided over 2015-24*

\*Compared to BAU scenario.

\*\*Peru had a target of a 15% reduction of energy demand in 2018 that has not been updated

# Horizontal measures

- Other horizontal measures are less common and more diversified among countries and include:
  - A fund or budget to support investment or audits (3 countries)
  - Energy awards (3 countries)
  - Energy efficiency certificates :case of Uruguay
  - Other EE institutions: research or study centres on energy efficiency
  - etc...
- No country has taxes linked to energy efficiency (energy tax, CO2 tax) that have been introduced in some OECD countries, which are generally unpopular if not well dimensioned (i.e. without redistribution effect) .

# Households

# Measures for households

- $\frac{3}{4}$  of the countries have **labels** for households appliances (generally mandatory) and around 60% have Minimum Energy Performance Standards (MEPS) for appliances.
- **3** countries have subsidies to install **efficient lamps**, **3** more to promote **solar** water heaters and 2 to subsidise fuel switching for cooking.

	Labels for appliances	EE labels for buildings	MEPS	Subsidies for EE lamps
Argentina	V, M			Solar
Bolivia	V			Lamps
Brazil	V			
Chile	M			Solar
Colombia	V			
Costa Rica	M			Solar
Ecuador	M			Cooking
El Salvador				
Guyana				Lamps
Honduras				
Mexico	M			
Nicaragua	M			Lamps
Panama	M			
Paraguay				
Peru	M			Cooking
Uruguay	M			

M: Mandatory, V: Voluntary

# Energy efficiency labels for household appliances

- The number of appliances with labels vary quite a lot among countries.\*
- Refrigerators, AC equipment and lamps are in general the first appliances to be labelled.

Label	Number of appliances	Refrigerators	AC	Lamps
Argentina	9	M	M	M
Brazil	9	V	V	V
Chile	4	M	M	V
Columbia	6	M	M	M
Costa Rica	5	M	M	M
Ecuador	9	M	M	M
Mexico	5	M	M	M
Nicaragua	3	M	M	
Panama	1			M
Peru	9	M	M	M
Uruguay	4	M	M	M

\* Indicative number as definition non homogeneous among countries

M: Mandatory, V: Voluntary

Overview of EE Pams in LACs

# Energy efficiency standards for household appliances

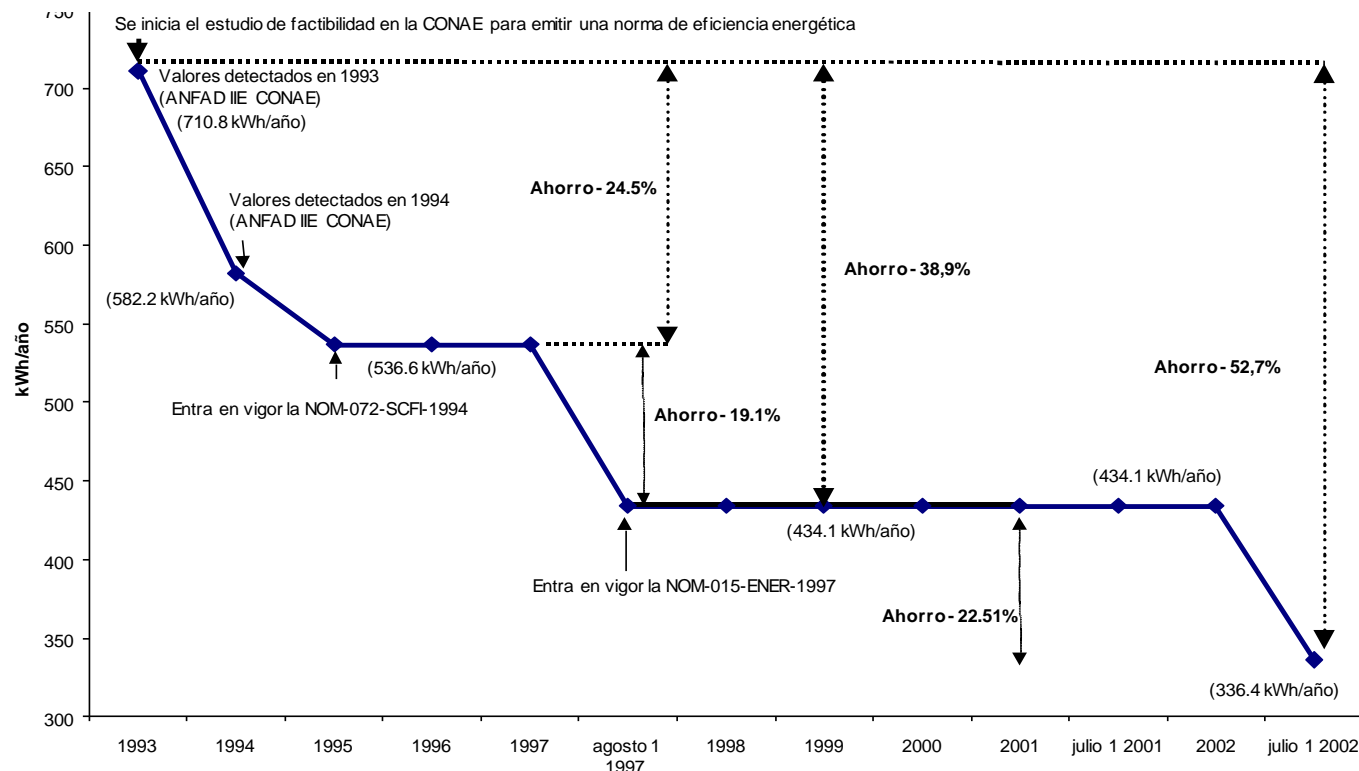
- The appliances with MEPS are similar to the one with labels as the labels are often used to define the minimum energy efficiency requirements.
- Comparing the level of these MEPS would be interesting but given the heterogeneity of types of appliances with MEPS and mode of expression of these MEPS this is a difficult exercise.

MEPS	Refrigerators	AC	Lamps
Argentina			
Brazil			
Chile			
Columbia			
Costa Rica			
Ecuador			
Mexico			
Nicaragua			
Panama			
Peru			
Uruguay			

# Energy efficiency standards for household appliances

- Early implementers of MEPS, Mexico and Brazil, have **tightened twice** their MEPS for refrigerators and AC since mid 90's (by around 20% each time in Mexico for refrigerators and for the most common AC equipment\*\*).
- According to **CONUEE** evaluation, MEPS on refrigerators have led to a saving of over 60% since the introduction of the first MEPS.

## Specific consumption of new refrigerators in Mexico\*



Source: Conuee, 2018

\* Communication from Juan Navarette, CONUEE.

\* Case of a refrigerador of 284 l.

# Transport

# Measures for transport

- Car labelling exist in 4 countries and MEPS for cars and light vehicles in 3 countries.
- 2 countries have MEPS for cars but no label (Costa Rica, Mexico) and 4 countries have labels without MEPS (Argentina, Chile, Ecuador, Uruguay).
- 3 countries are promoting the electrification of transport.

	Car labeling	EE/CO2 standards for cars	Electrification of transport modes	Promotion of soft modes	Driving behavior
Argentina					
Bolivia					
Brasil					
Chile					
Colombia					
Costa Rica					
Ecuador					
El Salvador					
Guyana					
Honduras					
Mexico					
Nicaragua					
Panama					
Paraguay					
Peru					
Uruguay					

# Measures for transport : focus on Costa Rica

- Costa Rica seems to be a pioneer in the support to the electrification of transport modes in LACs with several measures, including 4 fiscal incentives.

National Electric Transportation Plan 2018-2030	Programme
Law on Incentives and Promotion of Electric Transportation.	Fiscal
Regulation of incentives for electric transport	Fiscal
Incentives for used electric vehicles	Fiscal
Exemption of tax on spare parts for electric vehicles	Fiscal
Regulation for network of electric recharging centers for electric cars	Others
Transition to an electric or zero-emission vehicle fleet in public sector	Others

# Services and industry

# Overview of measures in services

	Audits for large buildings	Obligations for large buildings	Public lighting	Sectoral programs	Labels buildings
Argentina				Education	
Bolivia					
Brasil	V				V
Chile					
Colombia					
Costa Rica					
Ecuador					
Salvador					
Guyana					
Honduras				Tourism	
Mexico				Tourism	
Nicaragua					
Panama					
Paraguay					
Peru					
Uruguay					

# Overview of measures in industry

	Mandatory audits for large consumers	Other obligations for large consumers	Training programmes for energy managers	Tax credit for energy efficient product/process	Standards for electric motors
Argentina					
Bolivia					
Brasil					
Chile					
Colombia					
Costa Rica					
Ecuador					
El Salvador					
Guyana					
Honduras					
Mexico					
Nicaragua			Pilot project		
Panama					
Paraguay					
Peru					
Uruguay					

# Next steps

# Next steps

- Not yet conclusion... as still preliminary analysis
- We need your inputs to correct or complement the information for your country if some measures are **missing** or **incomplete** → **send us your comments**.
- Enerdata will be send you **new comments** this week on issues with the measures already in the data base → **take them into account** to guarantee a good quality description of the measures in the data base.
- This review will be further extended to produce a **synthesis report** in **August** that should be published later in 2021 in Spanish and English.

# Annex : List of countries and participants

Country	Sources
<b>Argentina</b>	Diseño y Evaluación de Políticas de Eficiencia Energética, Secretaría de Energía, Energías Renovables y Eficiencia Energética
<b>Bolivia</b>	Enerdata based on information from World Bank
<b>Brasil</b>	Coordenação-Geral de Eficiência Energética, Departamento de Desenvolvimento Energético, Ministério de Minas e Energia
<b>Chile</b>	División Eficiencia Energética, Ministerio de Energía
<b>Colombia</b>	Enerdata based on information from Ministerio de Minas y Energía
<b>Costa Rica</b>	SEPSE, Secretaría de Planificación del Subsector Energía
<b>Ecuador</b>	Dirección de Análisis y Prospectiva Eléctrica, Ministerio de Energía y Recursos Naturales no Renovables
<b>El Salvador</b>	Dirección de Eficiencia Energética, Consejo Nacional de Energía
<b>Guyana</b>	Energy and Energy Statistics Division, Guyana Energy Agency
<b>Honduras</b>	Director, Instituto de Investigación en Energía, UNAH
<b>México</b>	Dirección de Políticas y Programas, CONUEE
<b>Nicaragua</b>	Enerdata based on information from CEPAL and Asamblea Legislativa de Nicaragua
<b>Panamá</b>	Secretaria Nacional de Energía
<b>Paraguay</b>	Viceministerio de Minas y Energía
<b>Peru</b>	Enerdata based on information from Dirección General de Eficiencia Energética, Ministerio de Energía y Minas, and Osinerg, Organismo Supervisor de la Inversión en Energía y Minería
<b>Uruguay</b>	Dirección Nacional de Energía del Ministerio de Industria, Energía y Minería (MIEM)

## Contact:

Laura Sudries

Senior Energy Efficiency Analyst

[Laura.sudries@enerdata.net](mailto:Laura.sudries@enerdata.net)

Bruno Lapillonne

Scientific Director

[Bruno.lapillonne@enerdata.net](mailto:Bruno.lapillonne@enerdata.net)

[www.enerdata.net](http://www.enerdata.net)

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