



## Implementing an energy efficiency policies database in Latin American countries: methodology, lessons, and findings

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### ABSTRACT

Both governments and energy efficiency professionals need to monitor energy efficiency progress at national and regional level. The UN-ECLAC has a long experience of implementation of energy efficiency monitoring systems in Latin American countries (LACs) with the support of the French and European cooperation. 10 years ago, an energy efficiency monitoring system, called (BIEE: Base de Información de Eficiencia Energética), has been developed within the region. The current project, called BIEE-ROSE (ROSE: Regional Observatory of Sustainable Energy), has extended the scope to the monitoring of the Objective of Sustainable Development n°7 (OSD 7) and to an interactive energy efficiency policy database. This type of database can help policy makers to address different questions (identify successful measures, share good practices, find innovative measures, etc.). Also, the combination of top-down indicators with the policies database facilitates the energy efficiency monitoring analysis by tracking the impact of measures on the indicators. The database developed for LACs has been replicated and “customised” from the database MURE implemented in Europe during the last 20 years. The database is publicly available through the website and information is collected by national teams through an administration interface.

The aim of this article is to share our experience in implementing such a tool for the first time in Latin America.

After having presented the project rationale, this paper covers three aspects of the implementation:

- 1) a technical one where we will explain and comment on how the customisation of the database has been carried out and how this exchange between LACs and the project coordination has been organised;
- 2) the operational aspects, particularly the appropriation of the tool and commitment to participate, facilitated by trainings, appointment of pioneer countries and a regional meeting to exchange good practices;
- 3) the key findings through a quantitative analysis and a cross country comparison of policies practices in Latin America.

Conclusions are drawn on the ease and conditions of replication of this database in the LACs context, on the appropriation of the tool by countries and on how we believe this database can be made more sustainable.

### Introduction

Energy efficiency potential remains high in LACs: about 15-20% of energy consumption could be avoided using measures with short payback periods (UN-ECLAC 2014). The situation is quite unbalanced within the region with some countries having made a lot of progress in terms of energy efficiency and others still dealing with energy access issues. In this context, the exchange of good practices in terms of policies between countries of the region could help to expand successful measures. Also, improved data collection on energy efficiency evaluation should help to draw more robust conclusions about the success and/or the failures of national programmes.

Implementing an energy efficiency monitoring system has many benefits both for governments and for the professionals acting in the energy efficiency field (Bosseboeuf and Schuzny 2015). A comprehensive monitoring system should encompass a database on energy efficiency indicators, an energy efficiency policy and measures (P&Ms) database and a tool or an end-use facility which links these two databases for facilitating the analysis (ADEME and AFD 2022). This article focuses on the implementation of one dimension of this monitoring system i.e., the energy efficiency P&Ms database.

They are many good practices of P&Ms database such as IEA (IEA and IRENA 2022), EEA (EEA 2022), WEC (WEC 2008), NewClimate Institute (NewClimate Institute 2022), and MURE for the European countries (ODYSSEE-MURE 2021). Their scope depends on the country coverage, the classification of policy types, the level of description (i.e. sectoral and regional breakdown), the inclusion of ex-post evaluation, etc. Sometimes they are part of a more extended scope covering all the climate policy impacts.

These databases provide answers to various questions raised by policy makers for their own purposes (Bosseboeuf 2021) such as:

- What are the new P&Ms implemented in EU countries which go beyond the EU directives requirement?
- What are the good practices to tackle fuel poverty?
- How many countries have white certificates?
- What type of regulations are used in the industry sector?
- What are the methodologies are used for ex-post evaluations? etc.

Within the strategic framework of IPEEC (International Partnership for Energy Efficiency Cooperation) and now the Energy Efficiency hub, the French cooperation, including ADEME (the Agency for Ecological Transition), AFD (the French Development Agency) and ENERDATA s operating the UN-ECLAC (Commission of United Nations for Latin America and the Caribbean countries) project BIEE-ROSE (UN-ECLAC 2022), which implemented an OSD7 monitoring system in LACs (Bosseboeuf and Lapillonne 2020). The UN-ECLAC required the French cooperation to operate this implementation to launch an interactive database on energy efficiency P&Ms following the implementation process and the general technical specifications of the European MURE database (ODYSSEE-MURE 2021).

The aim of this article is to share our experience in the replication of a P&Ms database for the first time in Latin America.

After having presented the project rationale, this paper covers three aspects of its implementation:

- The technical aspects where we explain and discuss how the customisation of the database has been carried out and the governance of the project implementation.
- The operational aspects, particularly the appropriation of the tool by the users.
- The key findings through a quantitative analysis and a cross country comparison of P&Ms.

Conclusions are drawn on the ease and conditions of replication of this database in the LACs context, on the appropriation of the tool by countries and on how we consider this database can be made more sustainable.

## **Technical implementation of the policies database**

### **Presentation of the policies and measures database**

The P&Ms database has been developed as an interactive web interface on the model of the European database (MURE). The database provides:

- A detailed description of the P&Ms, which has been filled in and validated by the countries (decentralised collection of information);
- A systematic characterisation of P&Ms based on a dozen of predefined descriptive parameters;

- A user-friendly interface allowing users to consult and extract P&Ms according to various criteria they have selected (e.g., by sector, by type and sub-type such as minimum energy efficiency standards (MEPS), by end-use) (see Figure 1 and Figure 2).

The focus of the BIEE policy database is on energy efficiency, renewables<sup>1</sup> and energy access in end-use sectors (i.e., households, industry, transport and services). This matches the three sub-goals of SDG7 of the United Nations, “Ensuring access to affordable, reliable, sustainable and modern energy for all”.

The online database currently contains around 210 active measures<sup>2</sup> in 16 countries<sup>3</sup> and is available at <https://biee-cepal.enerdata.net/measures>.

COUNTRY	SECTOR	TITLE	TYPES	STARTING DATE
Argentina	Households	Labeling for households appliances	Mandatory information	2007
Brazil	Households	Procel Seal	Information	1993
Colombia	Households	Energy Efficiency Labeling	Mandatory information	2016
Ecuador	Households	Regulation of labeling of electrical appliances and highly consuming equipment	Mandatory information	2009
Honduras	Households	Preparatory measure for EE labelling	Mandatory information	
Mexico	Households	Energy efficiency labeling on energy-consuming equipment	Mandatory information	1995
Nicaragua	Households	Energy Efficiency Labelling	Mandatory information	2009
Panama	Households	Energy Efficiency Labelling for ACs, refrigerators/freezers and lamps	Mandatory information	2018
Peru	Households	Energy Efficiency Labeling Programme	Mandatory information	2013
Uruguay	Households	Energy Efficiency Labelling - Refrigerators	Mandatory information	2012

Figure 1 - Example of a search for measures in the BIEE policy database. *Source:* BIEE P&Ms database

<sup>1</sup> Measures on renewables that only address the power sector are not included as they are already well covered by other database and more similar from one country to the other; moreover, the development of renewables in the power sector is usually driven by market mechanisms.

<sup>2</sup> Almost 260 if proposed measures and measures that are no longer active are included.

<sup>3</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay

COUNTRY	SECTOR	TITLE
Argentina	Households	Labeling
Brazil	Households	Procedures
Colombia	Households	Energy efficiency
Ecuador	Households	Regulations
Honduras	Households	Preparation
Mexico	Households	Energy efficiency
Nicaragua	Households	Energy efficiency
Panama	Households	Energy efficiency
Peru	Households	Energy efficiency
Uruguay	Households	Energy efficiency

Status	Issuing date	Starting date	Ending date	Semi quantitative Impact
Ongoing	2010	2012		Medium

Figure 2 - Example of a measure description: labelling of refrigerators in Uruguay. *Source:* BIEE P&Ms database

## Customisation of classifications of P&Ms

In the BIEE policy database, P&Ms are organised into 5 sectors (Horizontal measures, Households, Services, Industry, Transport) and 7 main types (mandatory information, regulations, financial, fiscal, information, sectoral programmes and other).

Sectoral measures are also classified by sub-type (e.g., mandatory labels or mandatory audits for mandatory information; subsidies or soft loans for financial measures), and according to their targeted use, i.e., which actors they are aimed at (e.g., SMEs in industry, low-income households, public buildings in services, modal shift in transport, etc.). The sub-types, uses and targets depend on the sector.

Several other measures' descriptors are added, such as their status (i.e., on-going, planned, ended), date of implementation, expected qualitative impact in terms of energy savings (high, medium, low) and results of impact evaluation studies.

The classification was adapted from the European database MURE to the Latin American context, in terms of policy measures implemented. Several adaptations have been proposed before the launching of the database and during the testing period, such as:

- New categories have also been added that are less common in Europe but widely used in LACs, such as: "Energy awards", "Information/education" in all sectors, "Voluntary labelling" in the households and services sectors or "Pilot projects" as several LACs have pilot projects which may give an idea about the kind of P&M that could be developed in the coming years.
- Some other sub-types of measures were removed or simplified as they are less relevant in the region: as in most LACs space heating is marginal and the largest efficiency potential in buildings relates to measures targeting new construction rather than renovation.
- Adaptation of targeted end-uses by sector: for instance, by adding "Mining industry" as this sector represents in some LACS countries a large share of industrial consumption (e.g. Chile); removal of stakeholders linked to building renovation, such as housing associations, renters or owner occupants; simplification of sub-sectors targeted in industry as measures mostly target electric motors.
- As the region is largely dominated by Spanish speaking countries but also with some English or Portuguese speaking countries, the menu is available in both languages and countries can enter P&Ms either in English or in Spanish. The technical coordination team was in charge of the translation of the main characteristics (title and short description) into the other language. The public database is thus available in both languages.

## The role of the technical coordination and national teams

The national teams are in charge of collecting and entering the information on P&Ms into the database while the technical coordination is in charge of the maintenance of the database as well as the quality check (see next section).

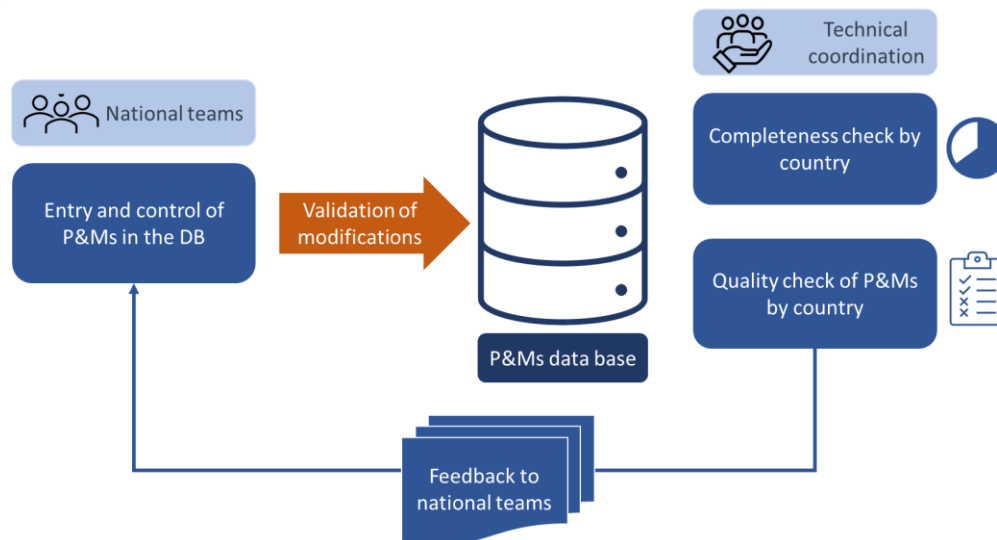


Figure 3 - Development and updating of the P&M's database

## Operational aspects of the BIEE policies database implementation

### Presentation of the private interface

To add a new P&M or modify an existing one in the database, countries must access the “private” web interface protected by a password. P&Ms are entered into the database via a form whose fields correspond to the different classification categories, as described above (sector, type, end-use, target, etc.). Some fields are to be selected from a list (e.g., type, end-use or target) and some others are free where text must be entered (e.g., description, impact). Some fields are mandatory (title, short description, status, etc.) to ensure a comprehensive description of all the measures.

This interface allows national teams to be completely independent to input or modify P&M into the database in a user-friendly way. The technical coordination oversees the publication of new measures on the online public database after a quality control.

The implementation of the P&Ms database has been carried in 3 steps as explained below.

### Appointment of pioneer countries

After the development of the software of the BIEE P&Ms database by the technical coordination from July to September 2020, the database has been tested by 4 volunteer countries: Brazil, Chile, Mexico, and Uruguay. These countries had to input 3 P&Ms in the private interface of the database. Several exchanges were necessary to help them using the software and with the classification of P&Ms. We also took advantage of this trial to make some adjustments in terms of user-friendliness (e.g., help information bubble for each field).

To guide the national teams in entering their P&Ms, a pedagogical user guide was written and made available to the teams in the administrator interface. It has been regularly enriched in line with the feedback

received, in particular from the pioneer countries. The guide also contains a Frequently Asked Questions (AFQs) section containing recurring questions.

### **Training meeting**

The technical coordination organized a training meeting to extend the database to other countries. The meeting was attended by around 60 participants from 15 countries. In addition to the presentation of the P&M database, several sessions were organized to help countries in handling the P&Ms database updating:

- on how to parametrize and describe the measures to be included in the database;
- on how to concretely enter a new measure in the private interface;
- on how to query information from the public part of the database.
- on feedbacks from the pioneer countries about possible improvements of the database.

### **Data collection and quality control process**

Once the testing period ended, national teams were invited to collect and input data for all relevant P&Ms into the database. During this period, the technical coordination oversaw the quality control and the consistency of the database between countries.

The control of the information collected was done through the implementation of an internal quality control of the database to trace any changes in the database and to regularly monitor the progress of the P&Ms input. It enabled to provide regular feedback to national teams, which are compiled in a quality report on the information collected.

In addition, the technical coordination provided a "hotline" service to respond quickly to requests from national teams on the content and classification of P&Ms.

### **Regional meeting to exchange good practices**

After several months, a regional meeting was organised to exchange good practices on P&Ms. The meeting was attended by 65 participants from 19 countries. Several national teams presented selected P&Ms and initiatives<sup>4</sup>. The cross-country analysis provided by the technical coordination during this meeting enabled to identify missing P&Ms for some national teams.

### **Cross country comparison of policies practices in Latin America**

Based on the analysis of the P&Ms database, a cross country comparison enables to see the main P&Ms implemented in the region, and to identify the most innovative ones (Sudries and Lapillonne 2022).

### **Overview of P&Ms in Latin America**

The implementation of energy efficiency measures in Latin America has intensified since 2010, with almost three quarters of all measures implemented since then (140 out of 240 P&Ms).

30% of measures are cross-sectoral, i.e., not sector specific, which is logical, as it is the necessary backbone to start implementing sectoral measures (Figure 4). If cross-sectoral measures are not considered, the households sector (residential buildings) is the dominant sector addressed by energy efficiency measures, as it concentrates 36% of all sectoral measures Figure 4.

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<sup>4</sup> Presentations are available here: <https://biee-cepal.enerdata.net/en/events>

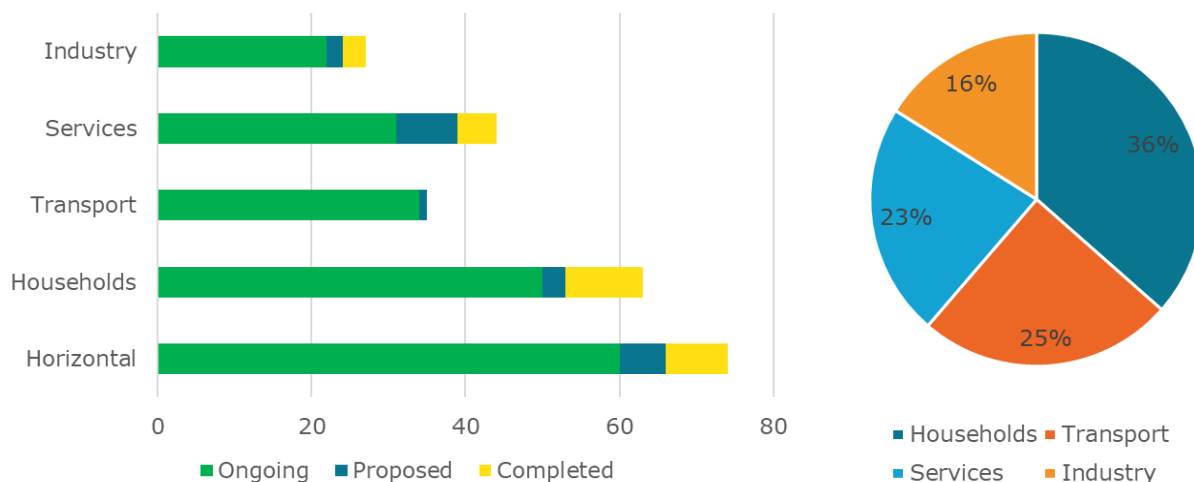


Figure 4 - Number of measures by sector in LACs and share of measures by sector in LACS (excluding Horizontal). *Source:* BIEE P&Ms database

Buildings (households and services) attract around 60% of all the measures, a share three times higher than their participation in the final energy demand (around 23% for the region). The main reason is the fact it is the easiest sector to tackle with regulation; the main type of measure identified. In addition, considering the size and continuous growth of household appliances market in LACs, equipment efficiency plays a very significant role in energy efficiency strategies. Governments in the region have widely used regulations for that purpose, by establishing MEPS and mandatory energy efficiency labels<sup>5</sup> for electrical appliances to eliminate the inefficient products from the markets: MEPS and labels represent around one third of P&Ms (Figure 5). P&Ms have also focused on public services (public buildings and public lighting), as it is a sector on which they have a direct influence.

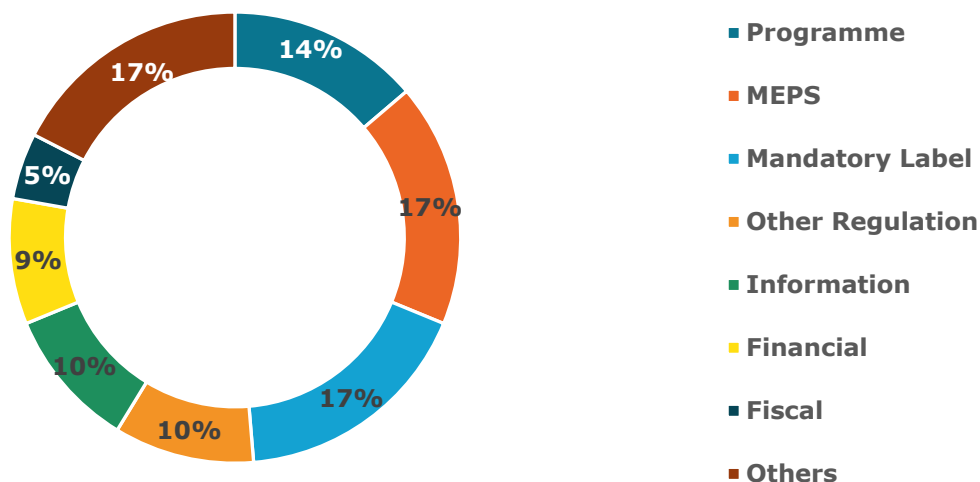


Figure 5 - Distribution of all measures by type<sup>6</sup>. *Source:* BIEE P&Ms database

<sup>5</sup> Regulation are by definition mandatory and include MEPS and other obligations for consumers. Labels, as defined in our classification, refer to mandatory labels. Voluntary labels are classified under information measures.

<sup>6</sup> Including horizontal measures.

The most active countries (i.e. with a large number of measures) such as Uruguay, Mexico, Costa Rica or Brazil, have a more balanced mix of the different types of measures and a better coverage by sector, whereas countries with few measures mainly have regulations and general measures (like programmes<sup>7</sup> and others) and focused on some sectors only.

## Cross-sectoral measures in Latin America

The institutional setting of energy efficiency policies and the level of commitment of countries to energy efficiency can be characterized by the existence of:

- Energy efficiency laws, giving a more durable status to energy efficiency policies;
- national energy efficiency programmes with quantitative targets to be achieved;
- institutions supporting the implementation of programmes, in terms of dedicated national and regional energy efficiency specific institutions (e.g., agencies);
- other horizontal actions to promote energy efficiency.

10 out of the 16 countries included in the project have an energy efficiency law and a national energy efficiency programme. However only half of these programmes have quantitative targets. Only two countries have a national energy efficiency agency: Mexico since 1989 and Chile since 2005. Three countries have a department in the Ministry of Energy dedicated to energy efficiency, Nicaragua, Peru and Uruguay, while two more countries also have organisations dedicated to energy efficiency, Ecuador and Honduras.

Two countries have set innovative cross-sectoral measures: Brazil, with an energy saving obligation for electric utilities, and Uruguay, with a competitive subsidy programme through energy efficiency certificates.

The **Energy saving obligation in Brazil** (PEE) was implemented in 2000 under the supervision of ANEEL, the Brazilian Electricity Regulatory Agency. It required electricity suppliers to spend 0.5 % of their yearly net operating income in energy efficiency projects. Between 2008 and 2012, most projects targeted low-income households. PEE has been adapted several times. By the end of 2019, it is estimated that PEE has saved 63 TWh and 2.8 GW. Such obligation exists only in Brazil where a total budget should be devoted for Demand Side Management programmes implemented by electric utilities.

The **Energy Efficiency Certificates scheme** (CEE), that was introduced in 2016 in **Uruguay**, is a competitive fund mechanism granted by the Ministry of Industry, Energy and Mining (MIEM) for energy efficiency measures that have been implemented in all sectors. Every year MIEM opens a call for eligible projects which may receive funds based on the amount of energy saved over the lifetime of the energy efficiency project<sup>8</sup>. The reference price of the energy certificate is determined each year by the Ministry, based on the resources of Fideicomiso Uruguayo de Ahorro y Eficiencia Energética (FUDAEE), the national energy efficiency fund, and the energy saving target.

## Labelling and MEPS are the most implemented measures in the region

Among regulations, mandatory energy efficiency labels are widely implemented and are important to guide consumers in purchasing energy efficient products, as they raise their awareness about the energy performance of products by allowing comparison across all models in the market. At the same time, they

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<sup>7</sup> Programmes refer to sectoral programmes combining different types of measures (e.g. programme of electrification of transport, combining subsidies and regulations).

<sup>8</sup> All types of energy efficiency measures are eligible (e.g., solar water heaters, micro generation, replacement of electrical appliances or lamps with a more efficient equipment or lamp (label A), electric vehicles, etc.).



motivate manufacturers or importers to pay attention to the energy performance of the equipment they sell and to remove inefficient appliances from the market<sup>9</sup>.

There exist two main types of energy efficiency labels: comparative labels that enable the consumers to compare with other products on the markets and labels that qualify appliances to be efficient (“endorsement” labels). Energy labels are mostly comparative in Latin America with two types: a classification by efficiency class with letters (A, B, C, etc.), which is generally the case in the region (e.g., Argentina) or labels that display the consumption of the appliance and compare it with the standard (e.g., Mexico) (see Figure 6).

Endorsement labels are also used in Mexico and Brazil as complement to comparative labels (e.g., Procel Seal in Brazil for electric motors).



Figure 6 - Example of comparative labels: Argentina and Mexico

Unfortunately, labels are not sufficient to transform the market alone: they are the first step but need to be complemented with MEPS to remove inefficient equipment and appliances.

Most countries (11 out of 16) have implemented MEPS on refrigerators, air conditioning and lamps (Figure 7 **Erreur ! Source du renvoi introuvable.**). Electric motors and washing machines have MEPS in 40% of the countries. Efficiency standards on new buildings are implemented in 4 countries and planned in one country<sup>10</sup>.

MEPS are often based on energy efficiency labels in combination with MEPS: the lowest efficiency class is used to set the level of the MEPS.

<sup>9</sup> [https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about\\_en](https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about_en) ; <https://www.iea.org/reports/energy-labels-standards>

<sup>10</sup> The collected data and the modes of expression of MEPS, which vary among countries, did not allow an easy comparison of their level of ambition compared to EU countries or the US. It should also be noted that the early movers have regularly strengthens the level of their standards (e.g. Brazil and Mexico).



Figure 7 - Share of countries with efficiency standards by type of equipment in LACs. *Source:* BIEE P&Ms database

### Main P&Ms in buildings sector

Around 70% of the participating countries have labels for households' appliances. These labels are mandatory in most countries and the number of mandatory labels for household's equipment is close to 10 in 5 countries. Labelling is well developed for refrigerators and air conditioning (AC). In some countries (Argentina or Mexico), some of the appliances has mandatory labels and others have voluntary labels: the voluntary approach is generally an initial step before making them mandatory.

Energy efficiency labels are quite effective from sales perspective: for instance, in Chile, the share of refrigerators with label class under A+ ranges from 15% in 2007 to 95% in 2014.

Labelling programs are also being introduced for residential buildings to show the energy performance of buildings based on how much they consume: this is the case in 3 countries in LACs (Argentina, Chile and Brazil).

Around two thirds of countries (10 out of 16) have implemented at least one MEPS on appliances. The aim of performance standards is to require a minimum energy performance level of new appliances so as to remove the least efficient products from the market.

As AC is an important source of electricity use in buildings in some countries, regulations to foster the adoption of efficient AC have been promoted in the region. MEPS for AC in residential are mandatory in 10 countries (i.e. two third of countries), and planned in 1 country.

Around 75% of LACs have implemented a phase-out of incandescent lighting that are replaced by CFL (Compact Fluorescent Lamps) and increasingly LEDs. Usually, this phase-out is linked to the adoption of MEPS for lighting with different dates of enforcement depending on the size of lamps<sup>11</sup>.

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, the national energy efficiency agency of Mexico, MEPS on refrigerators have led to a saving of over 60% in Mexico since the introduction of the first MEPS.

<sup>11</sup> It is worth noting that Cuba, which did not participate to the project, was the first country in the world to phase-out incandescent bulbs.

## **Main P&Ms in transport sector**

Five countries have an energy efficiency label for cars and light vehicles in LACs. They have been implemented for already quite some years in Brazil (2009), Chile, and Uruguay (2013) and are more recent in Argentina (2019) and Ecuador (2021). These labels are mandatory in Argentina, Chile, and Ecuador. Costa Rica has implemented in 2019 a mandatory labelling to identify clean vehicles (based on local emissions), which is different from energy efficiency labelling.

The fact that MEPS on vehicles are less common is probably due to the fact that in many countries most of new vehicles are second hand imported vehicles which make standard more difficult to implement and enforce.

The other most important measures in transport sector relate to the promotion of the electrification of transport which represent around half of the measures in the sector and are present in only six countries. Costa Rica and Uruguay are the most advanced in supporting the electrification of transport modes in LACs with 8 measures each, combining a mix of fiscal incentives, subsidies, and regulations. Panama and Ecuador are just starting by designing a national strategy for electric mobility.

There is unfortunately no evaluation as to the impact of these labels.

## **Main P&Ms in industry sector**

As electric motors and electric motor-driven systems are estimated to account for approximately 70% of the electricity consumption in industry, the most frequent measures are MEPS (6 countries), followed by energy efficiency labels for electric motors (5 countries). Two countries have mandatory requirement for large consumers (energy consumption reporting in Mexico and energy saving plans in Costa Rica). Financial and fiscal measures exist in 2 countries (Costa Rica and Ecuador) and have ended in two other countries (Argentina and Uruguay).

## **Conclusions**

After two years of implementation, we consider that the launching of the P&Ms database in LACs has been successful and has fulfilled the requirements of both international bodies (UN-ECLAC, Latin American Energy Organisation (OLADE) and AFD) and the 16 participating countries. More than 250 policies have been included in the database with their related descriptions. It is also clear that the replication of the existing MURE P&Ms database, developed over the last 20 years in the European context, has considerably reduced the time spent on database development and, therefore, the cost of implementation (same software). It is also important to note that the operational aspects, mainly the governance of the project (collaborative process, decentralized data collection with centralized data quality control), were easily replicated even though country participation was not funded (except participation of regional meetings), which differs from the European experience supported by the H2020 program. In addition, from the point of view of the database management (increasing the coverage, quality control) and the participating countries, we can consider that the data collection and the management of the database are easier than for indicators, apart from the information on ex-post evaluation of P&Ms.

However, the low priority given to energy efficiency in LACs, the lack of practice in bottom-up evaluation and the staff turnover have led the coordinators to give more emphasis on the training including on the associated materials and guidelines. The appointment of the pioneer countries, setting an example of the feasibility of the project and being our ambassador to show the strategic interest of this database, has certainly contributed to this success story. The commitment varies across countries: countries with an energy efficiency agency (e.g., Chile, Mexico), a strong energy efficiency law (e.g., Mexico), advanced policies such as white certificates (e.g., Uruguay) or a staff motivation, were more active than some other countries.

As we operate both the energy efficiency indicators and the P&Ms databases for UN-ECLAC in LACs (ADEME and AFD 2022), we consider with caution that LACs are more interested in the energy efficiency indicators database than in the P&Ms database, which more or less corresponds to the European practice. This is consistent with the multiple benefits of energy efficiency indicators for policy makers (Bosseboeuf and Lapillonne 2018). However, the country willingness to share the information among countries is less sensitive on P&Ms than on energy efficiency indicators.

We had sufficient material to conduct a cross country comparative analysis of P&Ms in LACs. The implementation of energy efficiency P&Ms in the region has intensified since 2010, with almost three quarters of all measures implemented since then. From a sectoral perspective the households' sector is the dominant sector addressed by energy efficiency P&Ms, as it concentrates 36% of all sectoral measures. The P&Ms coverage of the transport sector is undoubtedly insufficient with regards to the share of the transport consumption and its dynamics. We observe that countries with a larger number of policies have a more balanced policy-mix (e.g., Mexico, Uruguay).

For the energy efficiency indicators database<sup>12</sup>, after 10 years of implementation, we have a better understanding about the way countries are using the database (e.g., Mexico). This is not the case for the P&Ms database for which only the number of website visits and later the number of downloads of the regional report on P&Ms implementation, when published by UN-ECLAC, will provide us with information.

Considering that this first attempt was a success not only in quantitative terms but also because it facilitated the exchange of information between countries and created a regional network of policy analysts, we decided to extend this program for the next two years. We will also discuss on how to maintain and update the database for increase countries' commitment and dissemination. From a technical perspective, we will focus on building capacity for ex-post evaluation of P&Ms, linking the two databases and further disseminating our combined tool.

## References

- ADEME (Agence française de la transition écologique) and AFD (Agence française de développement). 2022. BIEE: Base de Información de Eficiencia Energética. <https://biee-cepal.enerdata.net/>
- ADEME (Agence française de la transition écologique) and partners of ODYSSEE-MURE. 2022. ODYSSEE-MURE: A decision-support tool for energy efficiency policy evaluation. <https://www.odysseemure.eu/>
- Bosseboeuf D. 2021. [Introduction to the MURE Database and Facilities on Energy Efficiency Policies](#). Virtual meeting: ODYSSEE-MURE
- Bosseboeuf D. and Lapillonne B. 2020. [Kick off meeting of the BIEE-ROSE Project on Energy Efficiency and SDG7 monitoring in LACs: work programme 2020-2021](#). Virtual meeting: UN-ECLAC
- Bosseboeuf D. and Lapillonne B. 2018. [Importance of advanced energy efficiency indicators](#). Mexico: FLACSO
- Bosseboeuf D. and Schuzny A. 2015. *Energy efficiency indicators: a success story coming from 19 Latin American countries*. ECEEE
- EEA (European Environment Agency). 2022. EEA database on climate change mitigation policies and measures in Europe. <http://pam.apps.eea.europa.eu/>

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<sup>12</sup> <https://biee-cepal.enerdata.net/en/datamapper>

IEA (International Energy Agency) and IRENA (International Renewable Energy Agency). 2022. IEA Policies database. <https://www.iea.org/policies>

NewClimate Institute. 2022. Climate Policy Database. <https://climatepolicydatabase.org/>

Sudries L. and Lapillonne. B. 2022. *Monitoring of SDG 7 policies in Latin American countries*. Santiago de Chile: UN-ECLAC (to be published)

UN-ECLAC (United Nations - Economic Commission for Latin America and the Caribbean). 2022. Programa Base de Indicadores de Eficiencia Energética (BIEE) del Observatorio Regional sobre Energías Sostenibles (ROSE). <https://www.cepal.org/es/proyectos/programa-biee-base-de-indicadores-de-eficiencia-energetica>

UN-ECLAC (United Nations - Economic Commission for Latin America and the Caribbean). 2014. [\*Energy efficiency in Latin America and the Caribbean: progress and challenges of the past five years\*](#). Chile: UN-ECLAC

WEC (World Energy Council). 2008. [\*Energy Efficiency Policies around the World: Review and Evaluation\*](#). London: WEC