

Barriers to EE programs in LAC

- ***Lack of information***
- Poor social valuation of the potential of energy savings
- The purchase of equipment used to be based on price than energy efficiency
- Uncertainty on the ex-ante assessments of the returns of EE projects
- Unreliability in ex-post evaluations given ***the lack information***
- Strong preference to expand the generation than implement EE programs (doubt of its effectiveness)
- *Very few professionals trained in EE projects*
- Absence of coordinating agents / promoters of EE projects



**INDICADORES DE POLÍTICAS PÚBLICAS
EN MATERIA DE EFICIENCIA ENERGÉTICA
EN AMÉRICA LATINA Y EL CARIBE**

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Coordinador

Indicators of public policies of EE in Latin America and the Caribbean

- *Review of principles, methodologies and proposals for national based indicators evaluation of policies and programs*
- *It focuses on three case studies selected from countries in the region*

<http://bit.ly/EficienciaE4>

Types of indicators

- **Diagnostic Indicators:** Energy Intensities (economic and physical units), specific consumptions, etc....
- **Performance Indicators on policies:** they inform about the existence, scope, legal and regulatory status and intergovernmental coordination (labelling, agencies, fiscal incentives, etc.)
- **Performance Indicators on programs:** they provide information about activities and programs that promote energy efficiency:
 - *Indicators about the quality of the programs (sectoral scope, targets, available budgets and HHRR, etc.)*
 - *Indicators about the results of the programs (penetration, avoided emissions, savings, etc.)*



BIEE Program

(B_{ase} de I_{ndicadores} de EE)



ODYSEE – MURE Project

- ODYSEE: the BEST regional implementation strategy of an EE indicators database
- Implemented by ADEME in 29 + 1 EU countries
- Web: <http://www.odysee-indicators.org/>
- MURE: A description of different policies and programs on EE implemented by EU countries



BIEE Program: Objectives

- **Develop a database to assess policies and programs** on EE in the participant countries
- **Promote capacity building** on EE indicators
- Define **a common baseline** based on available information
- Motivate the maturity in the implementation of EE policies and programs based on monitoring, measure and standardization
- Promote the **regional comparability** (at the aggregate and sectoral level)
- **Enhance regional coordination** on EE issues in the regional and global agenda.



BIEE Program participants:

- **Program management:** ECLAC (based on funds from the UN and the GIZ - ADEME)
- **Technical management:** Technical coordination Committee (ECLAC – ADEME/IPEEC) + ENERDATA
- **Operative structure:** Technical Coordination Committee + National coordination by means of the **National Teams**.
- **19 Countries participating (all LA):**
 - ✓ **South America:** Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela
 - ✓ **Mesoamerica:** Costa Rica, El Salvador, Guatemala, Honduras, México, Nicaragua, Panamá, Dominican Republic, Cuba



BIEE Program: Process / Activities

1. **Governments commitments**
2. **Capacity Building Workshops** (presentation of the indicators' template, introduce the data compilation process, estimations and calculations, selection of indicators)
3. **Decentralized data collection process** (based on available information) (National consultants if needed)
4. **National database**
5. **Reporting** including analysis and trends comparison: *National Report on EE Monitoring*
6. **Website** + regional network of officers and experts
7. **BIEE Program Regional Meeting (2) + Technical Study Tour to Europe**

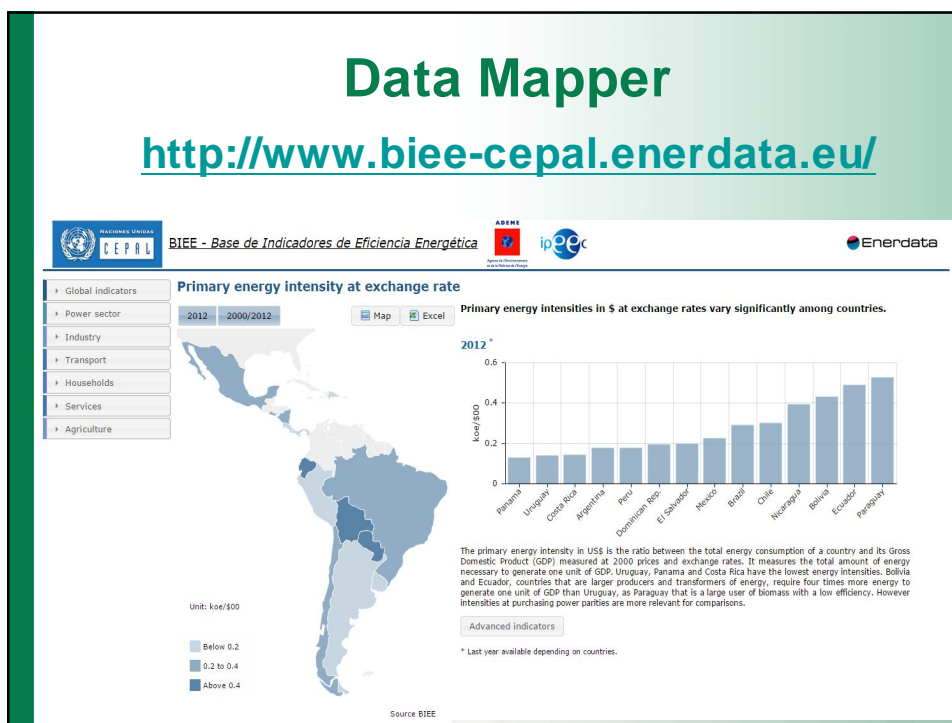






Data Mapper

<http://www.biee-cepal.enerdata.eu/>



<http://www.cepal.org/drni/bieenet>

unite connections bringing people together

Particular Perfiles Comunidades Aplicaciones

Andrés SCHUSCHNY Compartir Español

ECLAC - Economic Commission for Latin America

Comunidades Esta comunidad Búsqueda

BIEENET Dejar de seguir esta comunidad Acciones de comunidad

Red social del Proyecto BIEE
(Base de Indicadores de Eficiencia Energética)

La Red del Proyecto BIEE es una iniciativa realizada por la Unidad de Recursos Naturales y Energía (URNE) de la División de Recursos Naturales e Infraestructura (DRNI) de la Comisión Económica para América Latina y el Caribe (CEPAL), Naciones Unidas (ONU) cuyo objetivo es contribuir al desarrollo de políticas públicas que promuevan la eficiencia energética en los países de la Región de América Latina y el Caribe sobre bases informadas.

Basándose en la exitosa experiencia realizada por la Unión Europea en el marco del proyecto ODYSSEE, el proyecto cuenta con el valioso apoyo técnico de la ADEME (Agence de l'Environnement et de la Maîtrise de l'Energie del Gobierno de Francia) en el marco de la iniciativa IPEEC (International Partnership for Energy Efficiency Cooperation).

El objetivo principal del proyecto es desarrollar una herramienta común para la evaluación de tendencias y de las políticas nacionales de eficiencia energética en los países de la región de América Latina y el Caribe, tanto a nivel global como sectorial. Esto permitirá también a los países participantes evaluar sus logros nacionales, de una forma consistente, homogénea y comparable tanto con otros países de la región, como con países o bloques extraregionales. El proyecto reforzará la capacidad y expertise de las agencias nacionales de eficiencia energética existentes (o de las unidades ministeriales a cargo de este tema), en la utilización de instrumentos analíticos y herramientas de evaluación, contribuyendo así al logro de una planificación más robusta y certera de nuevas políticas energéticas sostenibles.

El desarrollo de esta red de nicho es facilitar el intercambio y difusión de información estadística, metodológica, técnica, legal y reglamentaria, entre las instituciones y funcionarios participantes. Esperamos que esta red se constituya en una verdadera base de conocimiento desde donde se pueda recuperar y recuperar la documentación metodológica facilitada durante el proyecto. Así mismo, se espera que la red se convierta en una verdadera herramienta de comunicación que facilite la conversación y el intercambio de información entre quienes en ella participan.

Marcadores importantes
Resaltar recursos web clave

Miembros
Ver todo (30 personas)

Eventos próximos
No hay eventos próximos.
Ver todos los eventos

Galería multimedia
Subir
Ver todos (31)

Etiquetas





Reports coming

- Costa Rica (1st. draft)
- Ecuador (1st. draft)
- Paraguay (1st. draft)
- México (finishing)
- Guatemala (finishing)
- El Salvador (finishing)
- Panamá, Bolivia, Colombia, Perú, Cuba, Dominican Republic, Honduras, Venezuela (in progress)



Sectors / Indicators



“Macro” sector

- Macro-economic data: GDP by sector, exchange rates
- Demography (population)
- Energy balances data: primary and final energy consumption by sector: industry, transport, households, services, et agriculture
- Degree-days for cspace heating and climatic corrections (cooling degree-days)

DATA

INDICATORS

- Primary intensity*
- Final intensity: total and by sector*
- Ratio final/primary intensity



Energy sector

- Energy consumption of the power sector: own use of energy sector, oil&gas sector, refineries
- Power sector: production, imports/exports, consumption (inputs), losses, input of thermal plants
- Gas, charcoal, coke, blast furnace, biofuel: input, production

DATA

INDICATORS

- Efficiency of energy transformation
- Efficiency of power sector (average, thermal)
- Efficiency of refineries
- Efficiency of gas plants, charcoal plants, coke power plants
- Power & transmission losses
- Share of hydro and wind in gross electricity production



Industrial sector

- Value added at constant price by industrial branch
- Production index by industrial branch
- Physical production for energy intensive products
- Final energy consumption by industrial branch

DATA

INDICATORS

- Energy intensity by branch*
- Unit consumption by intensive products
- Energy intensity at constant structure*



Transport sector

- Stock and sales of vehicles by type
- Average distance per vehicle\$
- Passenger and Goods traffic in pass-km & ton-km
- Energy consumption by mode and by type of road vehicles
- Specific consumption by vehicles (average, new)

DATA

INDICATORS

- Energy consumption per capita;
- Intensity;
- Energy cons. of road transport per vehicle;
- Unit consumption per car equivalent;
- Unit consumption per vehicle;
- Consumption per unit of traffic;
- Mobility in public transport per capita;
- Share of public transport for passengers;
- Share of non-road for goods



Household sector

- Number of households;
- Annual construction;
- Characteristics of dwellings: number by fuel and end-use, floor area;
- Electrical appliances: stock, sales, equipment rate, specific consumption;
- Efficient equipment (CFL, solar water heaters, biomass cooking stove): number, sales;
- Energy consumption: by end uses;
- Specific consumption of new dwellings

DATA

INDICATORS

- Energy intensity;
- Electricity consumption per electrified households;
- Energy (electricity) consumption per households;
- Energy consumption per households and climate corrected;
- Energy consumption of space heating per dwelling, per m2, with climate corrections;
- Electricity consumption for air conditioning; per dwelling, per m2, with climate corrections;
- Energy consumption of cooking
- SHW: installed capacity, % dwellings; heat production;
- Efficient equipment (label A or equivalent) refrigerator, washing machine, AC;



Service sector

- Energy consumption of services (public & commercial);
- Energy consumption by branches (8 branches);
- Energy consumption by fuel and end-uses;
- Floor area of buildings;
- Annual construction of buildings;
- Value added by branches;
- Activity data: nb of beds in hospitals, pupils/students, person-nights in hotels-restaurants

DATA

INDICATORS

- Energy (and electricity) intensity (real and normal climate);
- Energy (and electricity) consumption per employee and by branches;
- Electricity consumption of public lighting per capita;
- Electricity consumption of air conditioning per employee and/or m² (observed and at normal climate)



ECLAC

Agricultural sector

- **Macro indicators:**
 - ✓ Total energy intensity / Diesel intensity / Electric intensity
- **Macro indicators by activity**
 - ✓ Energy intensities separated for agriculture, fishing and forestry
- **Explanatory indicators of energy intensity**
 - ✓ Rate of mechanization of agriculture
 - ✓ % of agriculture area with irrigation
 - ✓ Rate of equipment in electric and diesel pumps
- Specific consumption for fishing per boat
- Specific consumption by type of crop



ECLAC

Quality check / Data corrections

- Once the DB is complete, a quality check is needed to ensure consistency of the data and a relatively well defined set of indicators
- The need for adjustments, such as GDP at USDPPP to homogenize differences in prices levels and exchange rates
- Adjustments based of the "*economic structure*" that considers the composition of the productive matrix and structural change
- Adjustments based on energy requirements (taking into account climatic differences): "degree days"



Concluding remarks

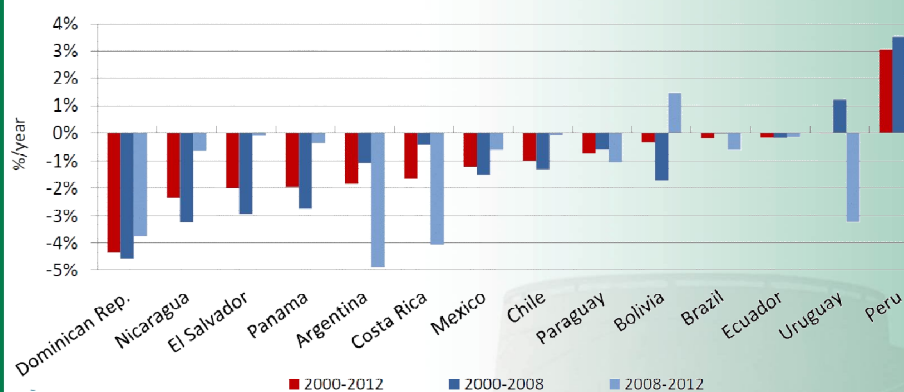
- BIEE allowed in LAC to establish a methodology and identified concrete EE indicators for information based policy making
- BIEE & Indicators as drivers to generate a potential demand for better basic statistical information (surveys, end use energy balances, etc.)
- The relevance of regional & international benchmarking for a better assess and to access for funding



Some comparative results

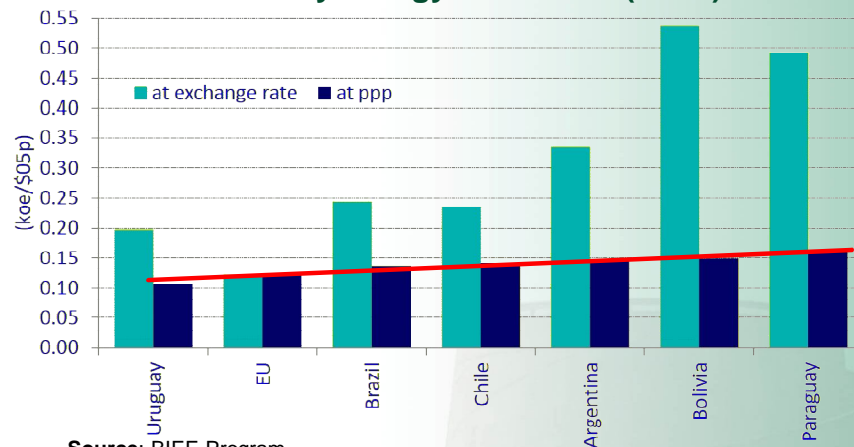


Primary energy intensity (%/year)



Adjusted primary intensities @ppp

Primary energy intensities (2008)

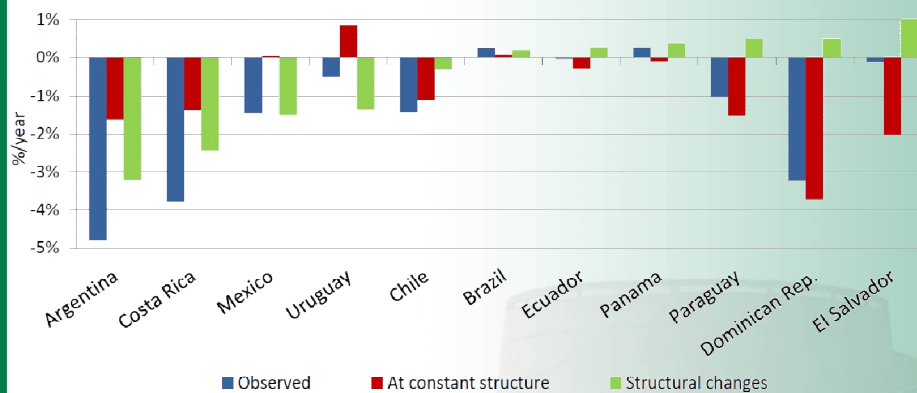


Source: BIEE Program



The use of PPP makes more realistic comparison and attenuates differences between countries but it does not affect the trend
It is possible to show energy intensities adjusted at a certain GDP structure

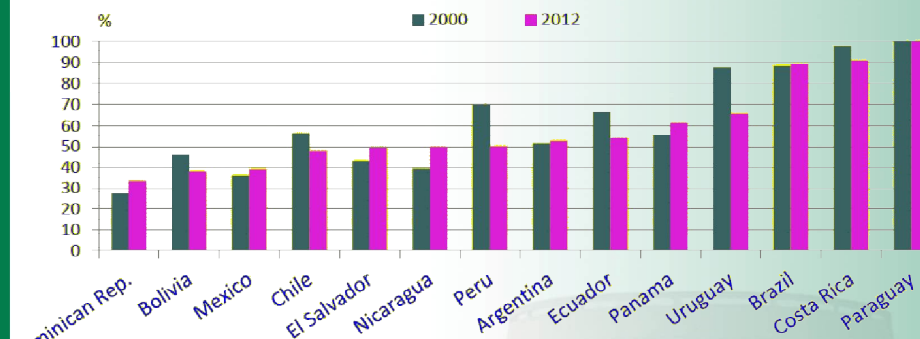
Impact of structural changes in the GDP on the final intensity (2000-2012)



Source: BIEE Program - Enerdata



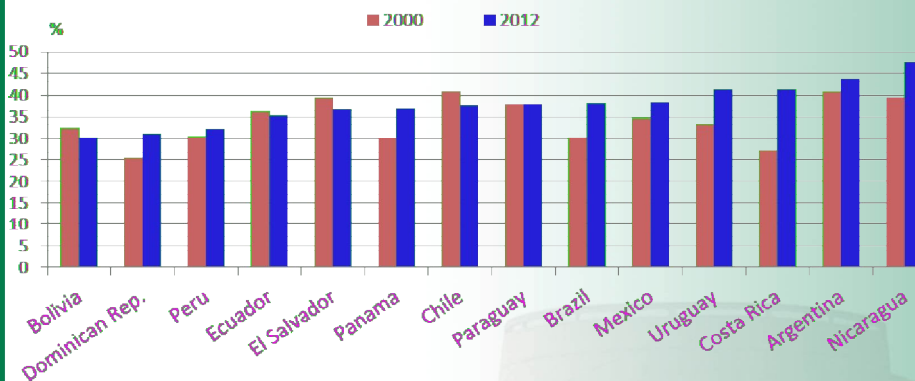
Efficiency of power generation (2000-2012)



Source: BIEE Program - Enerdata



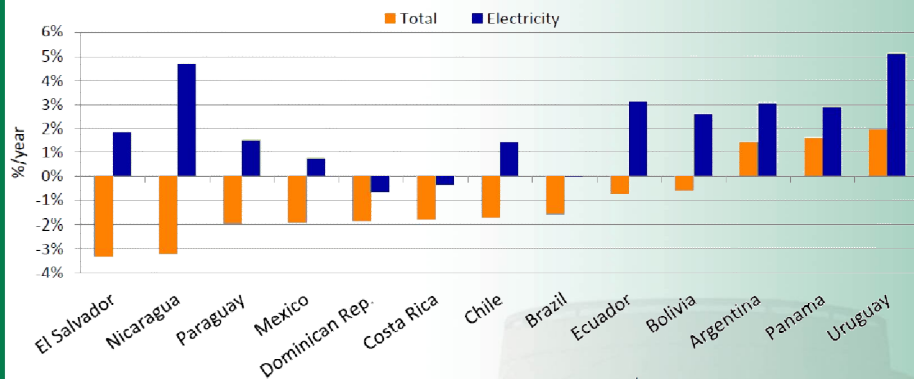
Efficiency of thermal power generation (2000-2012)



Source: BIEE Program - Enerdata



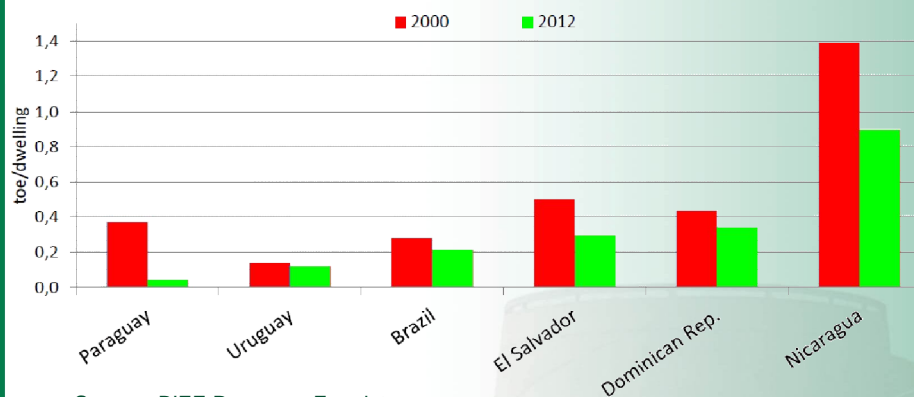
Trends in specific consumption per household (2000-2012, %/year)



Source: BIEE Program - Enerdata



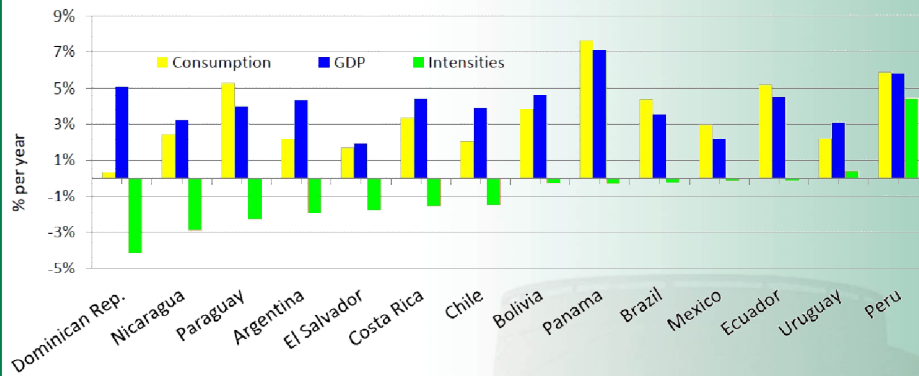
Unit consumption per dwelling for cooking (2000-2012, %/year)



Source: BIEE Program - Enerdata



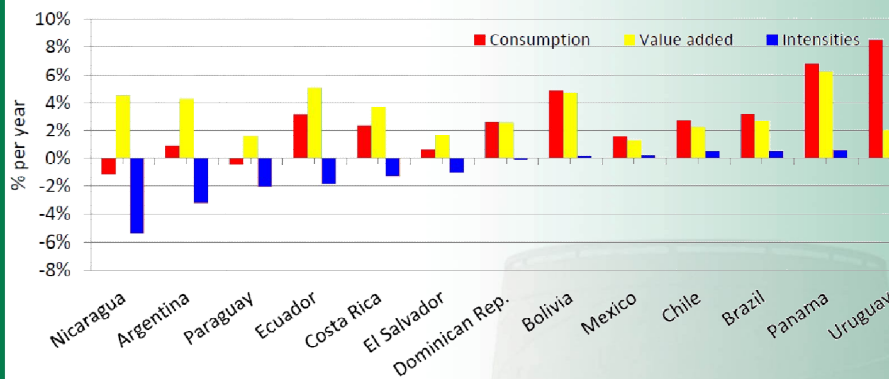
Trends in transport consumption, GDP and intensity (2000-2012, %/year)



Source: BIEE Program - Enerdata



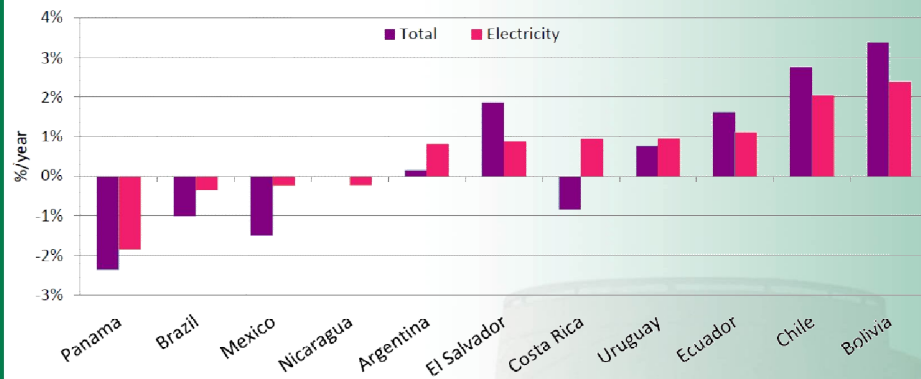
Energy intensity trends in industry (2000-2012, %/year)



Source: BIEE Program - Enerdata



Trends in energy intensity of services (2000-2012, %/year)



Source: BIEE Program - Enerdata





Thank you

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Natural Resources and
Infraestructure Division

ECLAC – United Nations



ECLAC