Energy Efficiency Indicators

Experience in data collection and mapping

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Why is important the EEI for Conuee?



Comply with the LTE and its Regulations



Disseminate information in the Mexican society about EEI



Assess impacts of energy efficiency actions and policies in the last 20 years



Facilitate the monitoring and systematic evaluation of the planning instruments (Strategy and PRONASE)



Strengthen national energy efficiency statistics and promote new studies



International benchmark on EEI regarding other countries

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Conuee´s tracking with international cooperation on IEE



Initiation in the BIEE Project in 2013 with others LA countries

Dialogue between Mexican and French teams in matter of EEI in 2015

Financing of technical assistance with France Government in 2016

Technical support and development of EEI tools in 2016 and continuous improvement today

First delivery of Mexican EEI as a member country in 2018 (January)

BIEE Project results in CONUEE…(1)

- Important data collection by **4 years**.
- Gathering and searching mistakes on national statistics from **33 officials sources.**
- Analysis and processing of **6,800 time series** in 7 sectors.

Sectores	*Instituciones*
Macroeconomía	SIE, INEGI, Banco de México, Banco Mundial, CONAPO, CONUEE, SMN, CONAGUA
Energía	SIE, PEMEX, CFE, CRE
Industria	SIE, INEGI, CANACERO, Cámara Nacional de las Industrias Azucarera y Alcoholera, Cámara del Papel, CAMIMEX, CANACEM, worldsteel, ANIQ
Transporte	SIE, INEGI, IMP, SCT, IMT Instituto Mexicano del Transporte, INECC, CONUEE, AMIA
Residencial	SIE, INEGI, CRE, CONUEE, fide, RUV Registro Único de Vivienda, ANES
Servicios	SIE, INEGI, SEP, SECTUR, SALUD, CONUEE
Agropecuario	SIE, INEGI, SEMARNAT, SAGARPA, CONAGUA, Food and Agriculture Organization of the United Nations

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BIEE Project results in CONUEE…(2)

- More than **150 EEIs**, with different levels of disaggregation.
- **Database of EEI online** into the Conuee´s website, free access.
- **National report on energy efficiency indicators** was developed by CONUEE and French cooperation for ECLAC.
- Mexico **becomes in the 9th** country that finished its national report into ECLAC.



www.biee-conuee.enerdata.net/

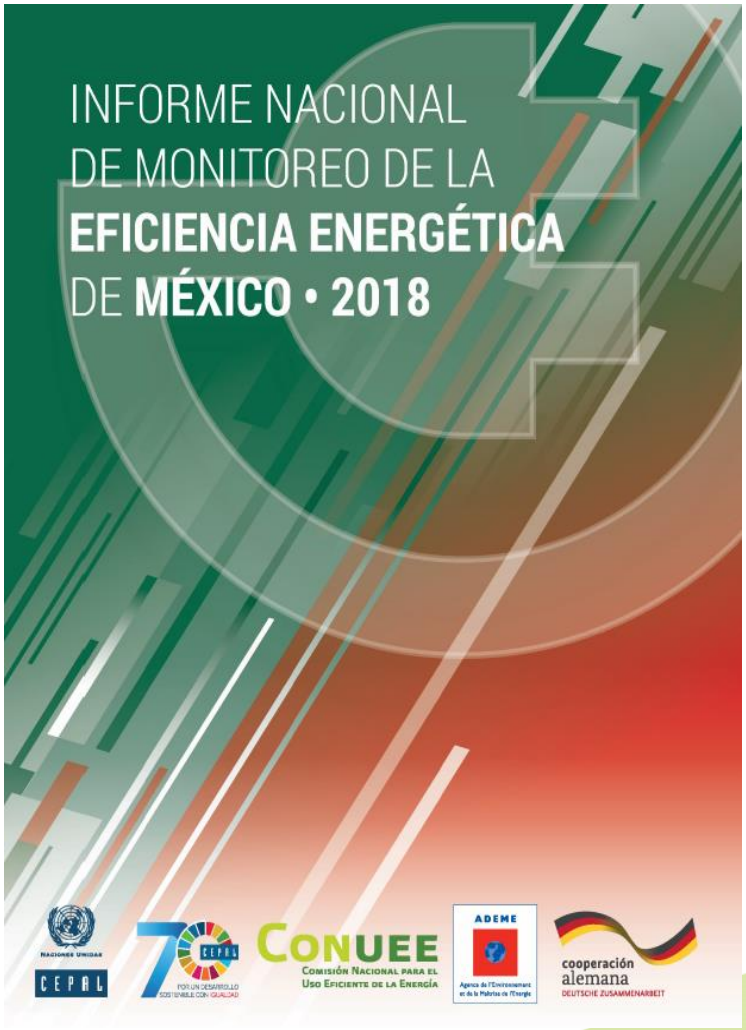


Informe disponible en:
www.cepal.org/es/publicaciones/43612-informe-nacional-monitoreo-la-eficiencia-energetica-mexico-2018

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About the Mexican Energy Efficiency Report

1. Background on EE policies
2. Energy consumption structure
3. First level national EEI
4. Energy sector EEI
5. Industrial Sector EEI
6. Transport Sector EEI
7. Residential sector EEI
8. Commercial & services sector EEI
9. Agricultural Sector EEI
10. Nexus Water-energy

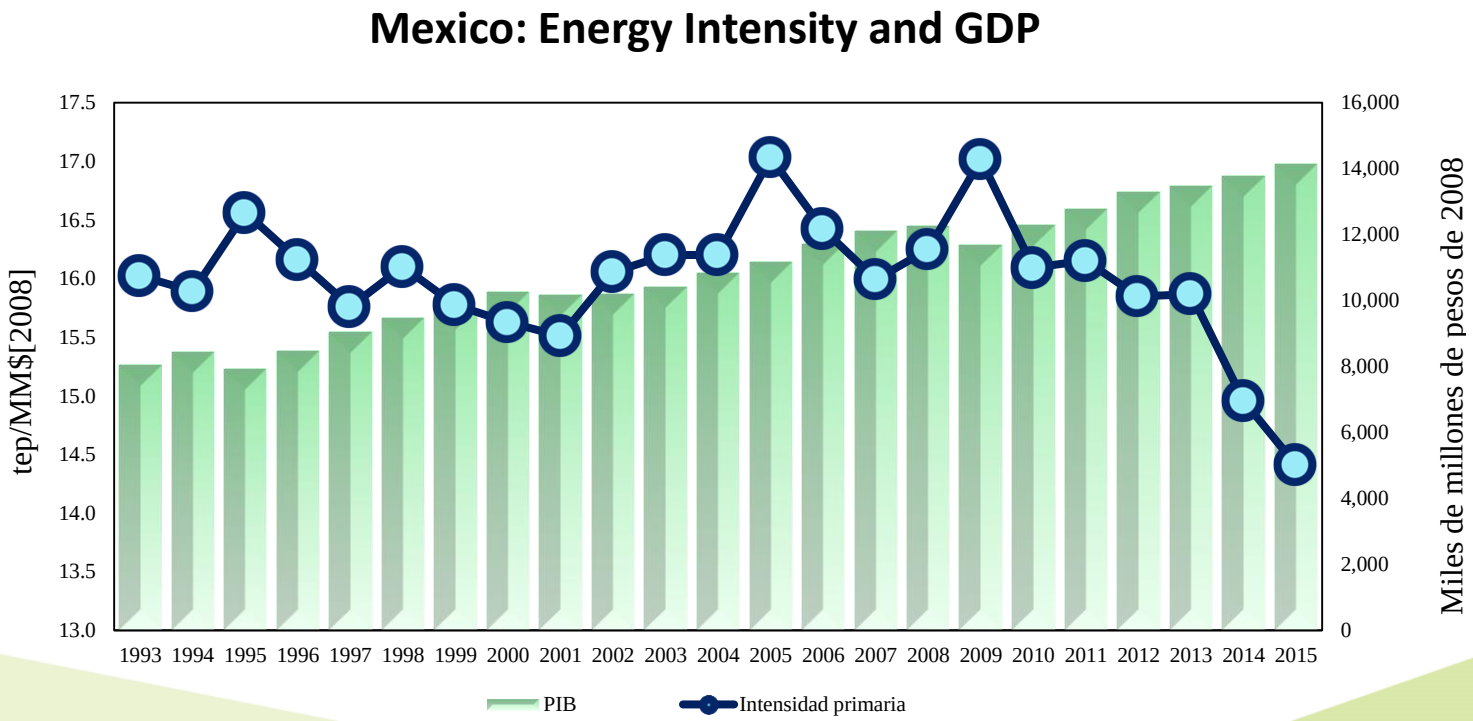


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Highlight: Beyond Energy Intensity…(1)

- **EI** has shown an irregular trend in the last 3 decades.

- In the Mexican case, this indicator presents **limitations** for assess the energy efficiency progress, just because this one includes structural effects.

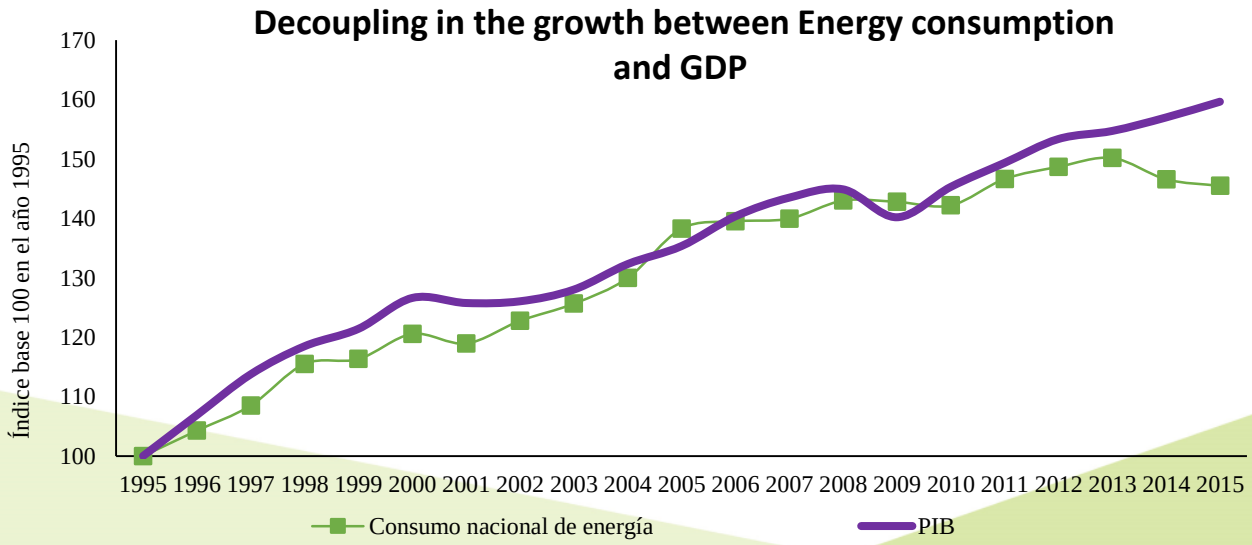


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Highlight: Beyond Energy Intensity…(2)

- EI has increased by:
  - *Irregular growth of GDP*
  - *Power generation with coal and fuel oil*
  - *Natural gas reinjection for oil wells*
  - *Electrical losses on distribution & transmission*

- EI has decreased by:
  - *Structural changes (GDP and sectoral)*
  - *Changes in the fuel mix and improvements into the industrial sector*
  - *Energy Efficiency Standards*
  - *Replacement programs*
  - *Combine cycle in the power generation mix*
  - *Energy Imports (gasoline & natural gas) versus decrease activity in transformation sector*

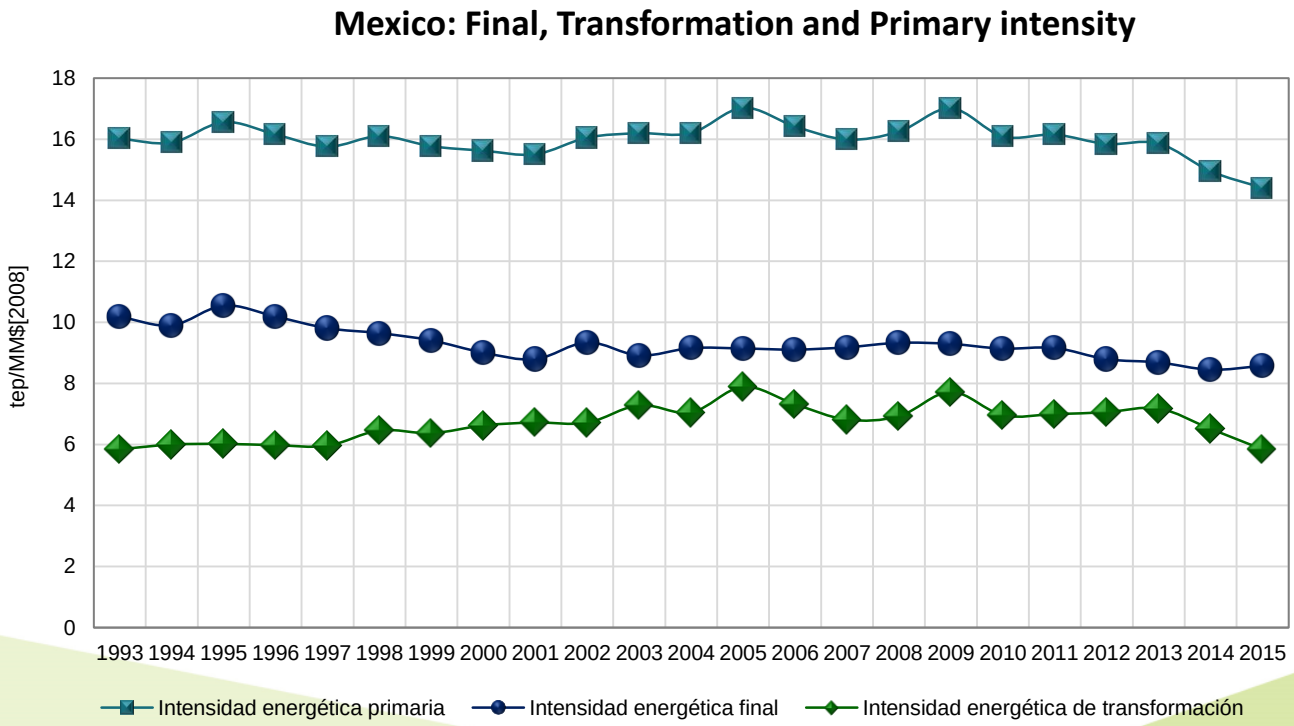


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Highlight: Beyond Energy Intensity…(3)

- **Energy sector consumption** has more impacts in the EI, regarding final energy sectors.

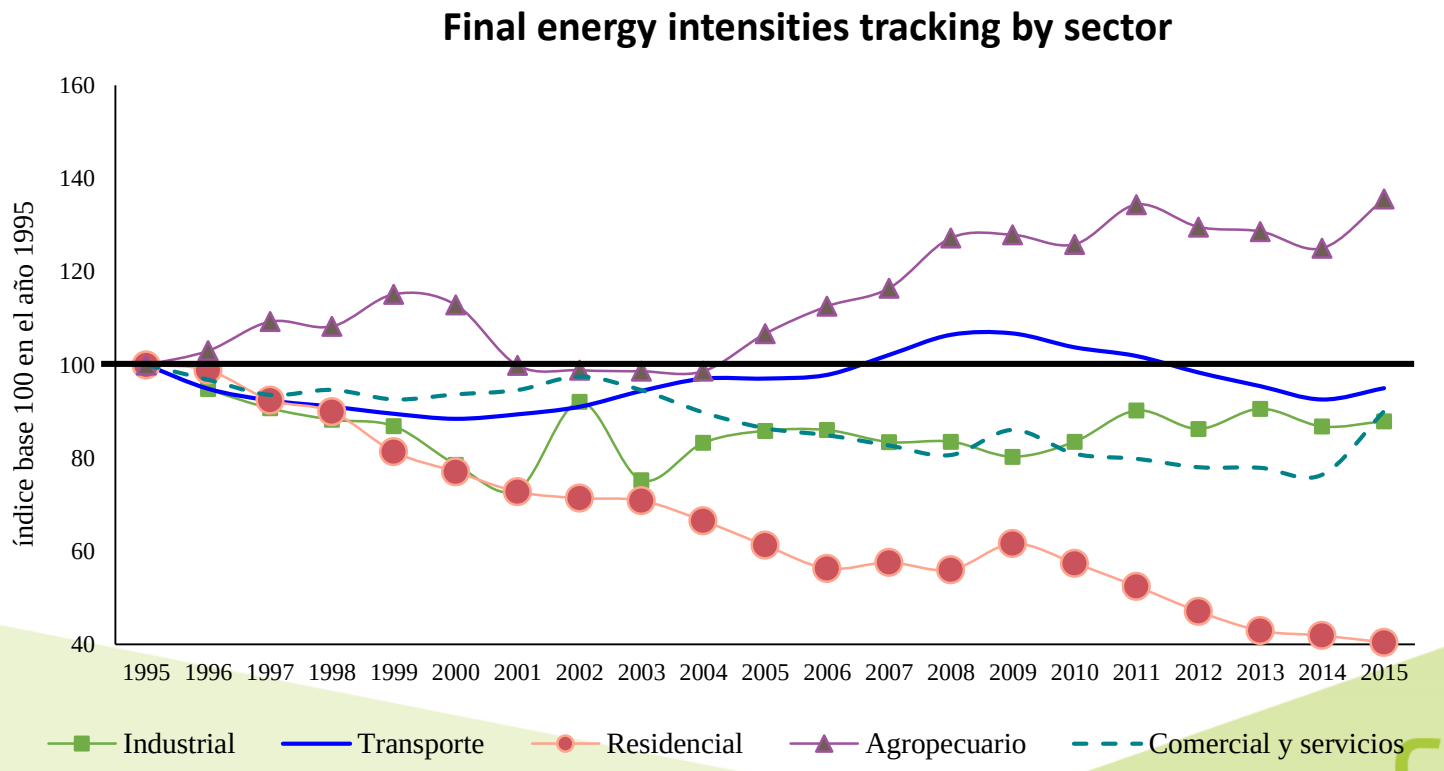
- However, Final Intensity has decreased **1% per year in the last 20 years**, while energy sector was reducing 0.2% its intensity in same period.



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Highlight: Beyond Energy Intensity…(4)

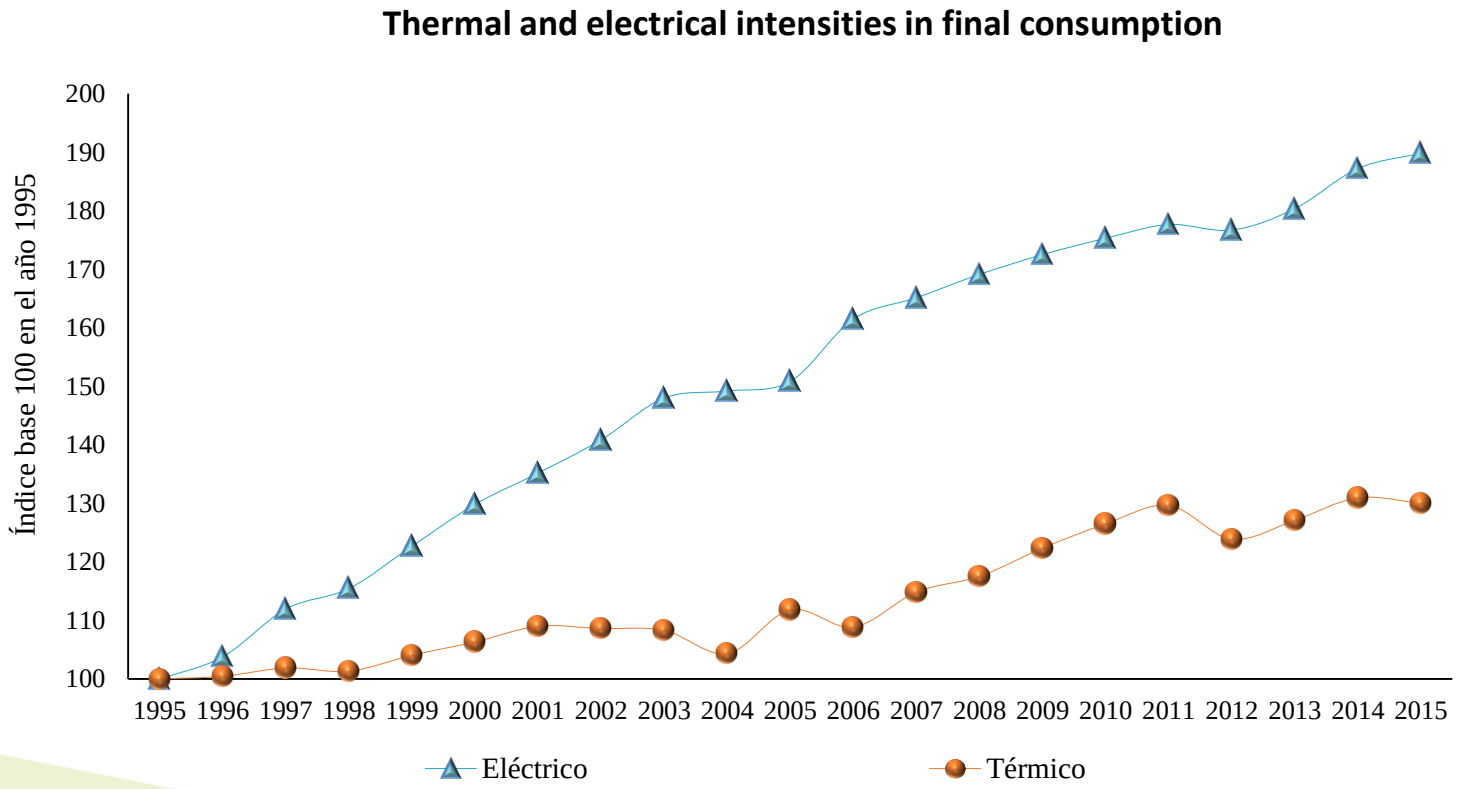
- Tracking in the final energy intensities in the last 20 years:
  - Residential, -45.9%
  - Industrial, -15.6%
  - Commercial & services, -10.9%
  - Transport, -5.6%
  - Agricultural, +37.7%



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Highlight: Beyond Energy Intensity…(5)

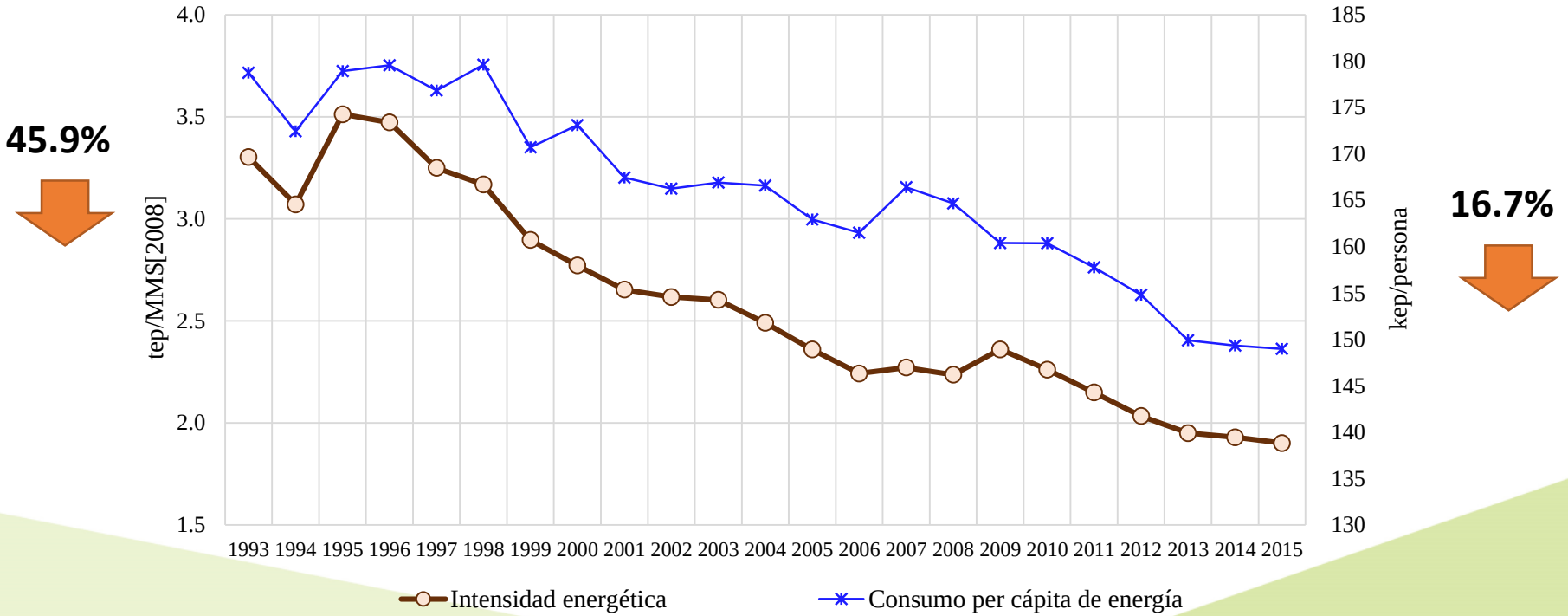
- **Final sectors with incremental share in electricity, have improved their energy efficiency progress.**



Highlight: Beyond Energy Intensity…(6)

- Main public policies on energy efficiency has focused in residential sector since 1995:
  - Energy Efficiency Standards (NOM-ENER).
  - Replacement programs.

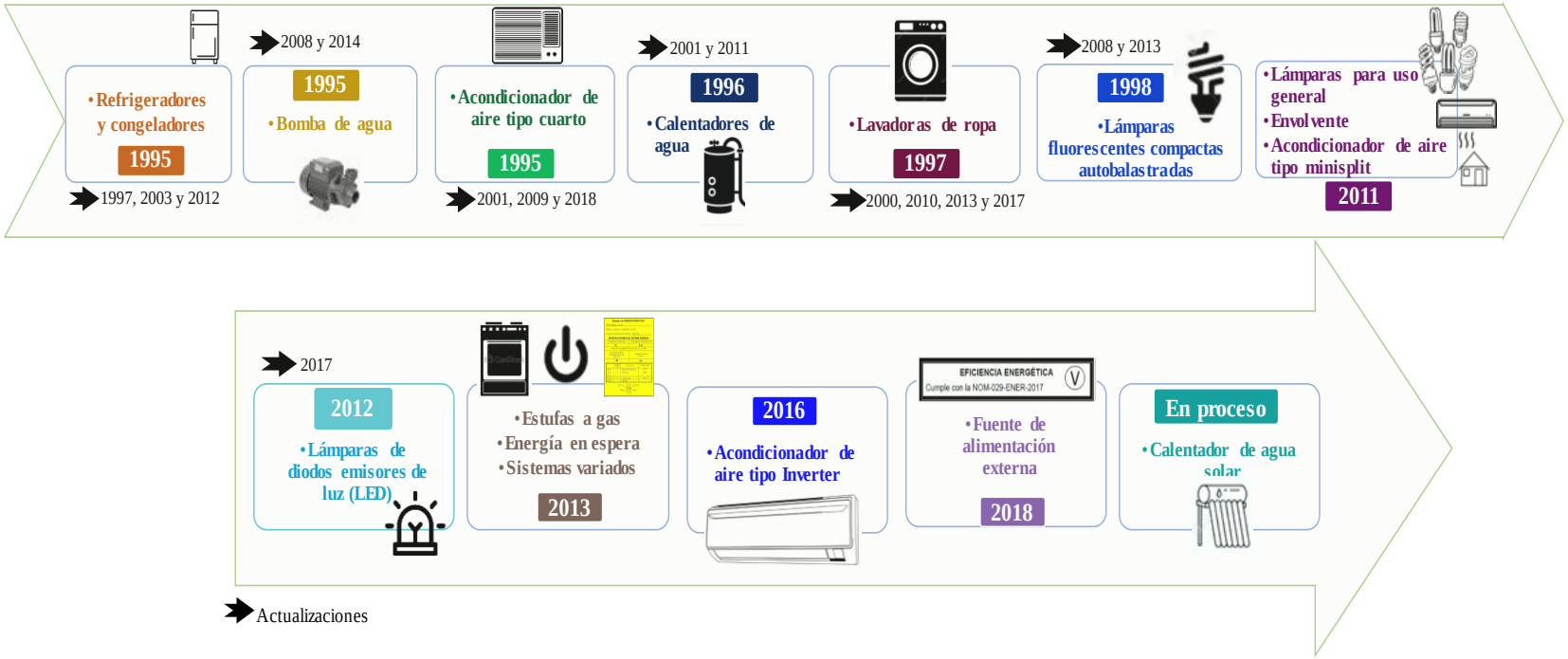
Energy intensity and energy consumption per capita in residential sector



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Highlight: Beyond Energy Intensity…(7)

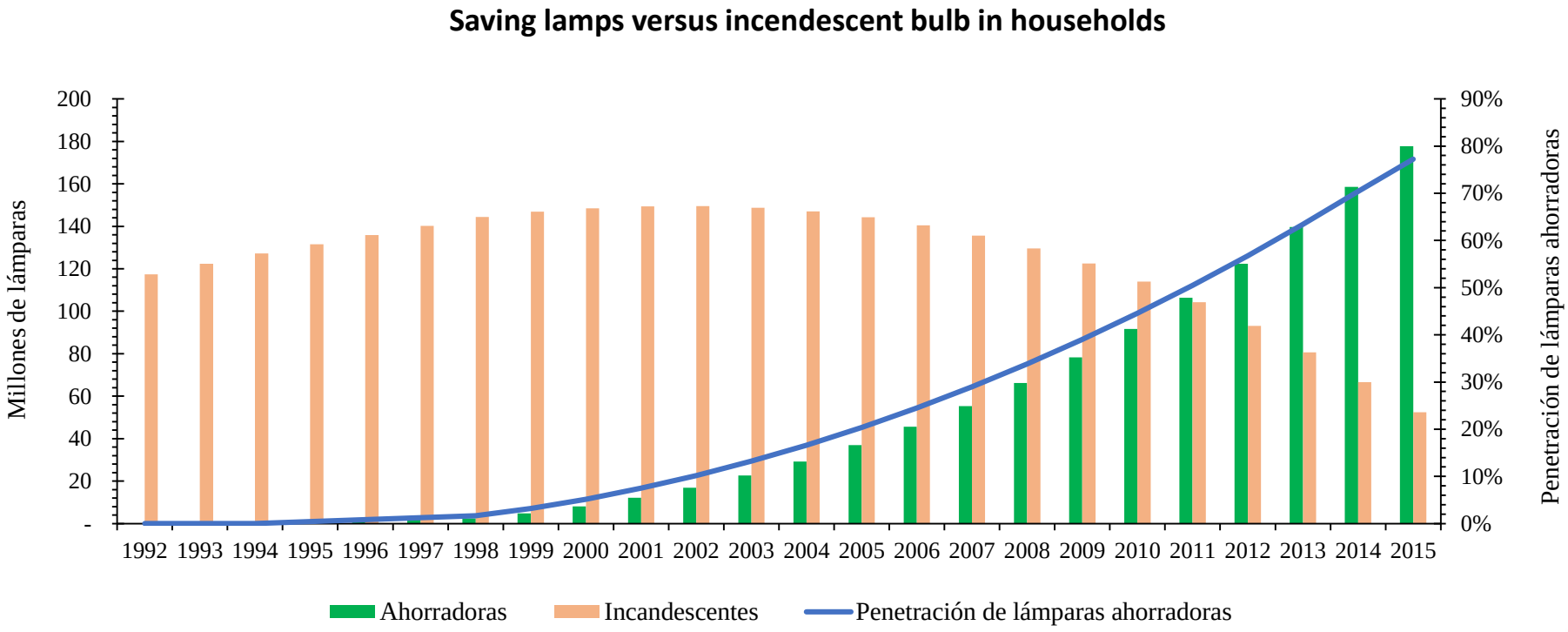
- **More than 50% of MEPS have focused on tecnologies in the residential sector, it means 86%** of the energy consumption in this sector.



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What to do with EEI…(1)

Monitoring the penetration of more efficient technologies



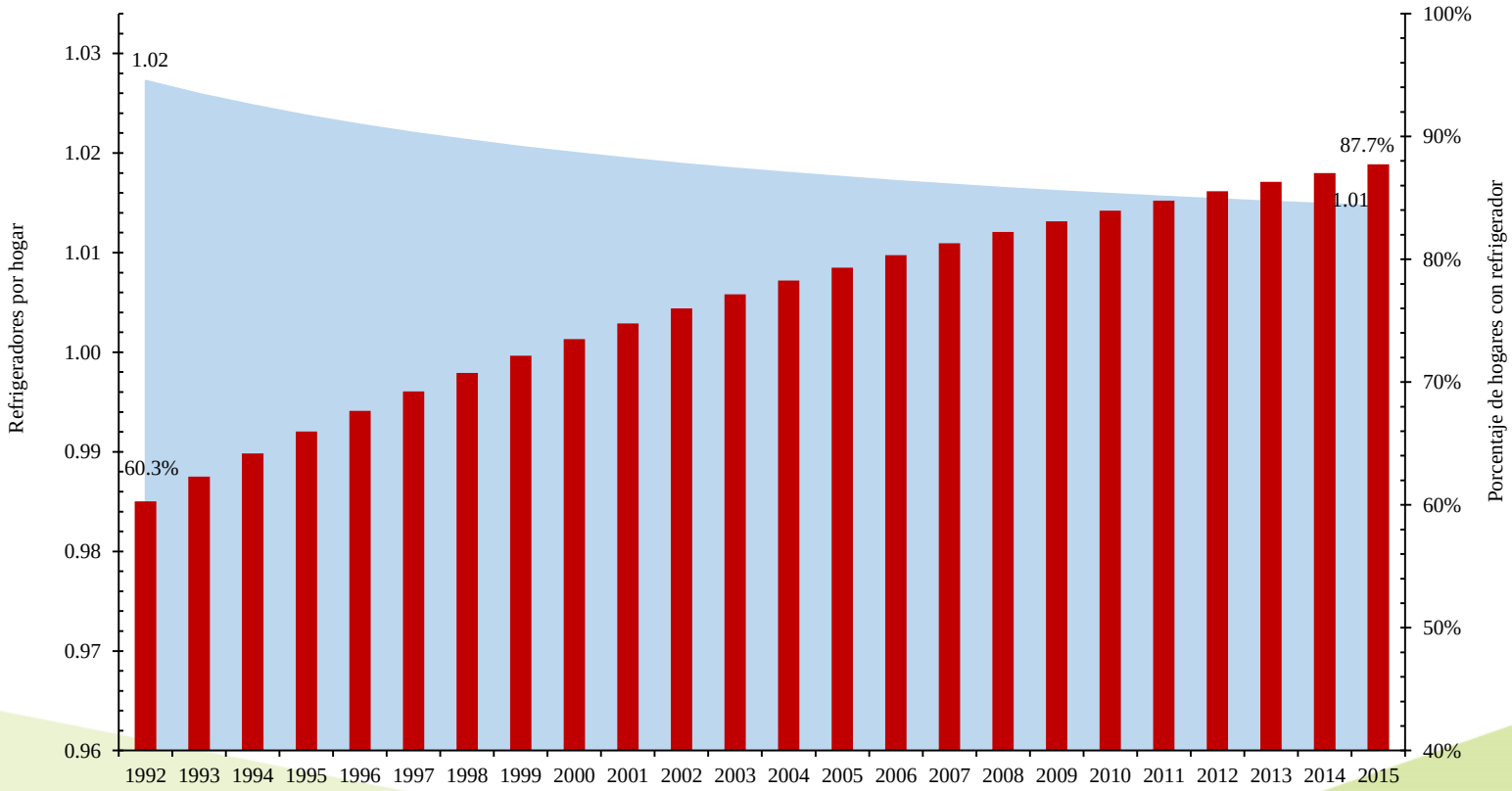
Source: Informe nacional de monitoreo de la eficiencia energética, 2018

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What to do with EEI…(2)

Main equipments on growing/ decreasing in the country

Saturation rate for refrigerators and ownership equipment per households

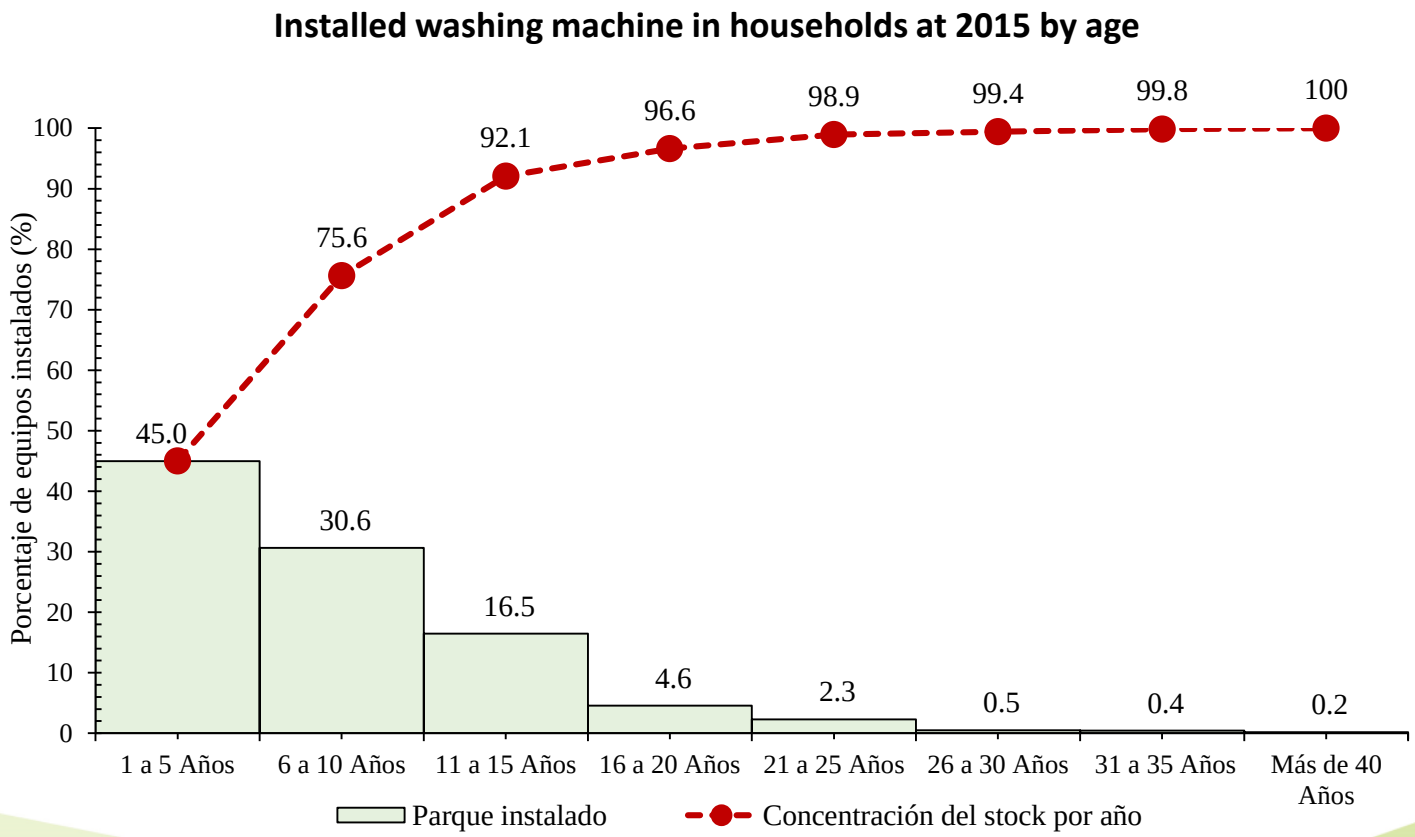


Source: Informe nacional de monitoreo de la eficiencia energética, 2018

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What to do with EEI…(3)

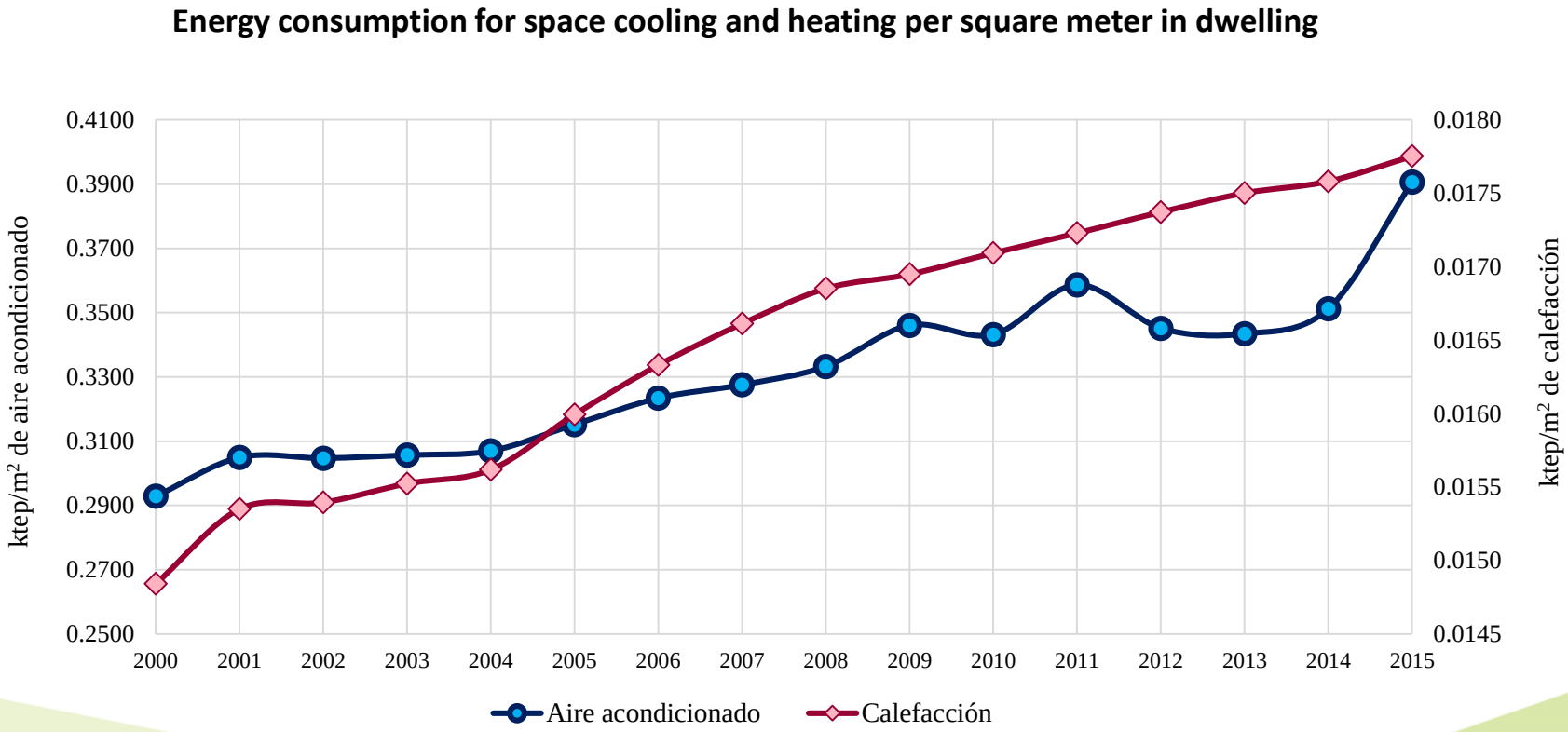
Design new replacement programs in the main final uses



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What to do with EEI…(4)

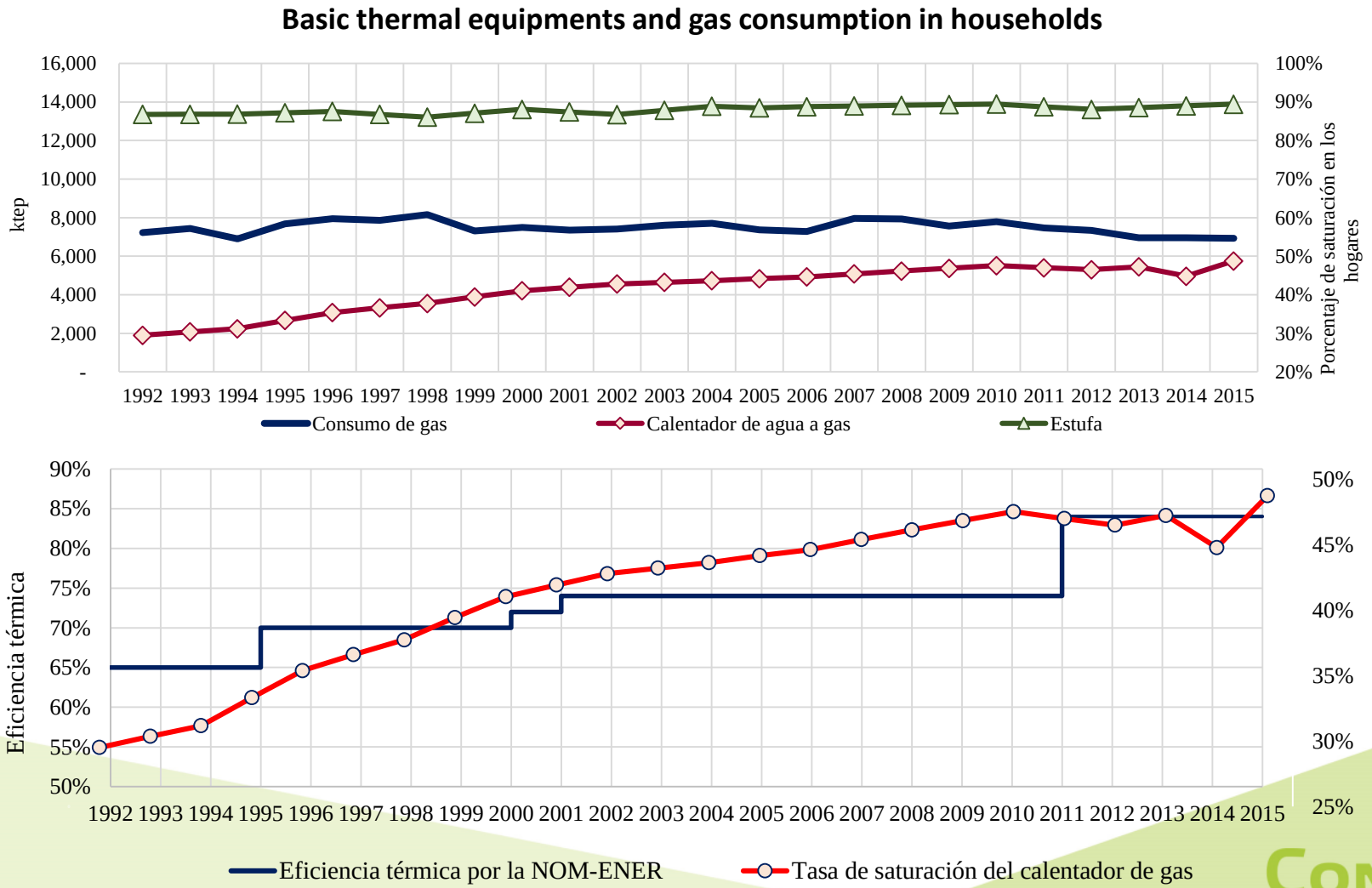
Key final uses on growing linkage to structural necessities on future policies



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What to do with EEI…(5)

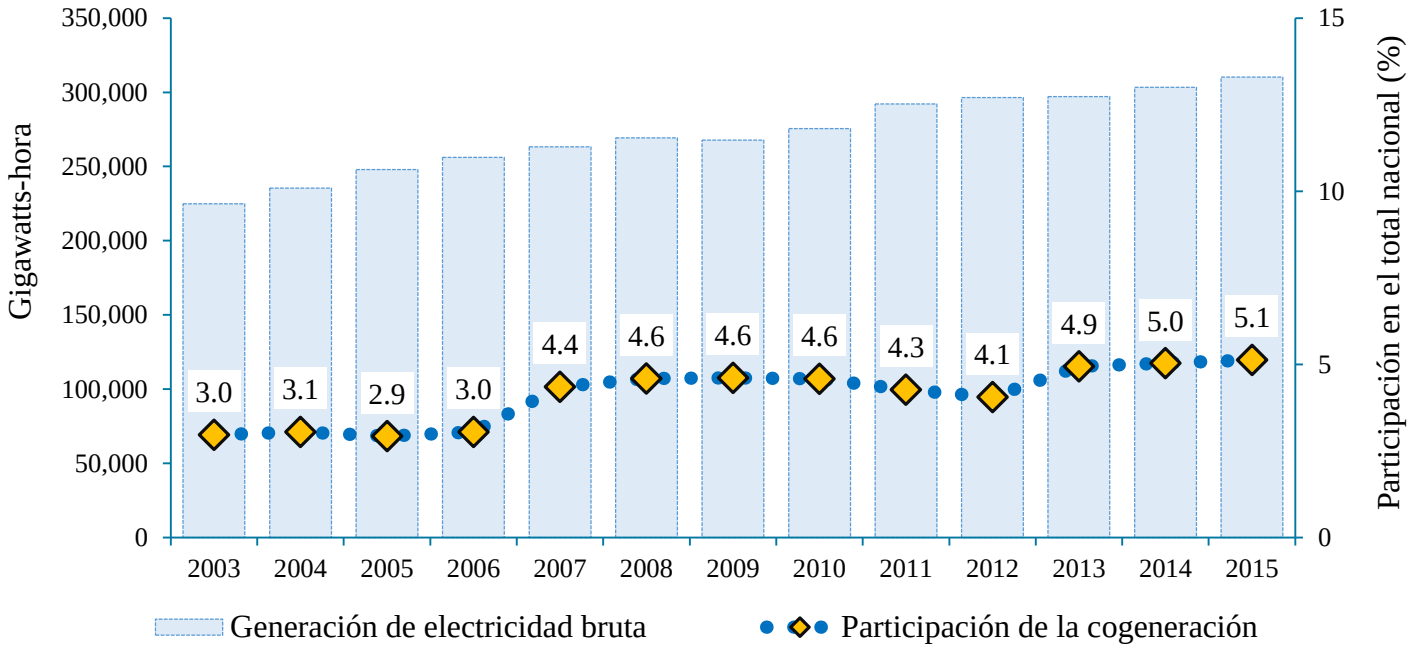
Assess impacts by energy efficiency policies



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What to do with EEI…(6)

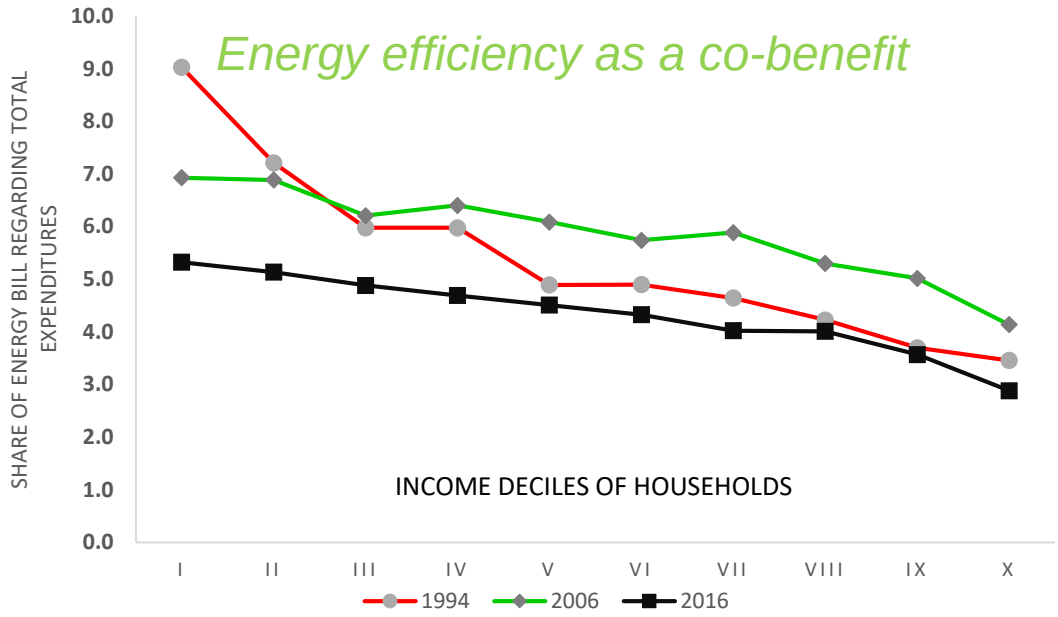
Dissemination Indicators of successful policies, e.g. cogeneration



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What to do with EEI…(7)

Assess and dissemination co-benefits



SOURCE: INEGI.

Muchas gracias

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