



ENERGY EFFICIENCY IN CITIES

MEXICO

BACKGROUND

- Cities in Latin America will increasingly face challenges in the use of energy for service provision.
- Population and energy demand increases
- Cities continue to expand
- Increased demand on:
 - ∞ Energy services
 - ∞ Electricity
 - ∞ Water
 - ∞ Transportation
 - ∞ Among others

OVERVIEW OF THE ENERGY SECTOR IN MEXICO

2010

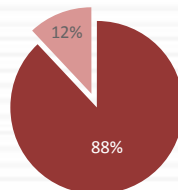
112 million
inhabitants



384 cities



72% of the total
population is located in
cities**



25 million vehicles using
petrol and diesel



2027

130 million
inhabitants

489 cities

88% of the total
population will be
located in cities*

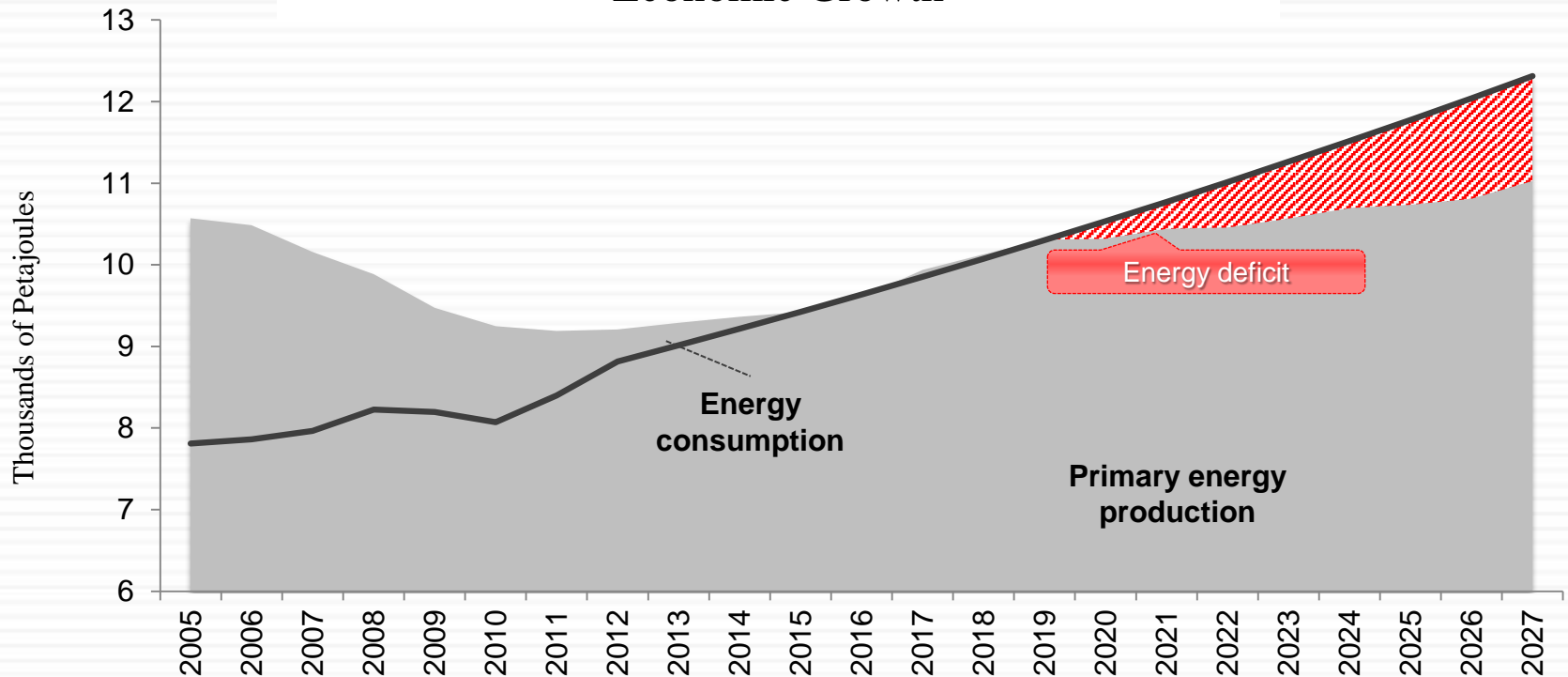
63 million vehicles will use
petrol and diesel

BACKGROUND

- It is expected that in the next 30 years, 50% more houses will be constructed.
- Urban areas will consume nearly 50% of the country's energy production.
- Enhancing urban energy efficiency is therefore a key element to strengthening long-term sustainability in Latin American cities, in particular large-urbanized cities like those located in Mexico.

OVERVIEW OF THE ENERGY SECTOR

Mexico: Energy Production and Consumption and Economic Growth



STAKEHOLDERS INVOLVED

- Ministry of Energy. - Energy sector planning and promoting efficient use of energy.
- Ministry of Environment and Natural Resources. - Sustainable use of natural resources.
- Ministry of Agricultural, Regional and Urban Development. - Population planning and land use planning of cities and metropolitan areas under sustainable development criteria.

ENERGY EFFICIENCY MEASURES IN CITIES

- The Law on Fiscal Coordination is the legal framework in Mexico that regulates the relationship between states and municipalities on financial and fiscal issues.
- The law establishes the contributions to be made by states and municipalities to the federal budget, and defines the fiscal institutions at the state, municipal and federal level.
- Some public utility services are regulated at the national level, through a number of federal entities
 - ∞ SCT (freight transport)
 - ∞ CONAGUA (water)
 - ∞ SEMARNAT (solid waste)
 - ∞ SEDATU (urban transport policies)

NATIONAL PROJECT ON ENERGY EFFICIENCY IN STREET LIGHTING SYSTEMS

It aims to provide technical assistance and to obtain financing to all municipalities to replace their inefficient lighting street lighting systems for efficient equipment. This program is operated by CONUEE with financial support from SENER

ENERGY EFFICIENCY IN WATER PUMPING AND DISTRIBUTION SYSTEMS

CONUEE provides technical information and best practices guides to support municipalities to increase energy efficiency of their water pumping systems. This program is carried out closely with the National Water Commission.

ENERGY DIAGNOSTICS FOR MUNICIPALITIES

SENER supported by the World Bank aims to develop a strategy to promote energy efficiency in 32 municipalities to reduce energy consumption and identify investment opportunities that can generate greater benefits in terms of savings, conservation and reduction of emissions of greenhouse emissions. For this purpose the tool used is called TRACE.

The Tool for Rapid Assessment of City Energy (TRACE), developed by ESMAP (Energy Sector Management Assistance Program), is a simple and practical tool for conducting rapid assessments of energy use in cities.

ENERGY DIAGNOSTICS FOR MUNICIPALITIES

The tool helps prioritize sectors with significant energy savings potential, and identifies appropriate energy efficiency (EE) interventions across six sectors :

- Transport
- Municipal Buildings
- Water and Wastewater
- Street Lighting
- Solid Waste
- Power & Heat

ENERGY DIAGNOSTICS FOR MUNICIPALITIES

In many cities around the world, these six sectors are often managed by the city government, and as such local authorities have a large degree of influence over public utility services.

TRACE is a low-cost, user-friendly, and practical tool that can be applied in any socioeconomic setting. It allows local authorities to get a rapid assessment of their city's energy performance, and to identify areas where a more in-depth analysis is warranted.

* As part of these actions two energy diagnostics have been developed, for Puebla and Leon.



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