WHAT ARE THE NATIONAL CIRCUMSTANCES THAT INFLUENCE DEEP DECARBONIZATION IN MEXICO?

- Increasing consumption of fossil fuels, especially for transportation (gasoline) and electricity generation (natural gas):
  - Transport: a combination of uncontrolled urban sprawl in inefficient patterns, poor public transport systems, and a cheap supply of oil-based fuels strongly encourages the use of private vehicles with ever lower occupancy rates. Transportation is the largest source of CO₂ emissions in Mexico.
  - Electricity generation: as costs do not fully reflect environmental externalities, natural gas is the most cost-effective source and its consumption for electricity generation increased at an annual rate of 10% from 1990 to 2010.

- Energy subsidy structure reinforces the generalized inefficient use of energy:
  - Price signals for final users do not incentivize efficient use of energy. Low-income sectors cannot afford upfront capital expense to switch to efficient technologies, prolonging their low-performance profile.
  - Numerous traditional economic activities are underdeveloped and fragmented, and do not operate at high efficiency standards.

WHAT ARE THE MOST PROMINENT STRATEGIES TO BE IMPLEMENTED FOR DEEP DECARBONIZATION IN MEXICO?

- Increase energy efficiency. If present patterns persist, future energy demand could double by 2050. An ambitious improvement on energy efficiency across all sectors is of great importance to reach deep decarbonization targets.

- Passenger transport modal shift and cities redesign. With urban population expected to increase to reach around 80% by 2030, urban design and planning becomes a priority to reduce the distance travelled by commuters and to enable non-motorized and mass transportation.

- Electrification and carbon-neutral electricity. As the energy paradigm changes in Mexico, a window of opportunity opens to direct efforts towards zero-carbon electricity generation and electrification of final uses of energy. It is

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**Illustrative pathway: MX - Central**

**Development indicators from 2010 to 2050**

- Population
  - 2010: 114
  - 2050: 151

- GDP
  - 2010: 545 (Bn USD)
  - 2050: 3082 (Bn USD)

- GDP/cap
  - 2010: 8
  - 2050: 20

**Energy-related CO₂ Emissions**

- 2010: 478 MtCO₂
- 2050: 223 MtCO₂

**Energy intensity of GDP**

- 2010: 6.2
- 2050: 2.5

**Electricity emissions intensity**

- 2010: 560 gCO₂/Wh
- 2050: 11

**Electricity share**

- 2010: 15%
- 2050: 40%

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*This illustrative pathway is one of the 2 pathways developed in the DDPP country report.*
COUNTRY FACTSHEET

MEXICO

- Crucial to incentivize dynamic business models to capture fragmented potential for electricity demand management and distributed generation and storage across sectors.
- The predominant role of natural gas (and all other fossil fuels) as a source of energy is consistent with deep decarbonization only if CCS technologies are swiftly developed to be economically viable by 2025.

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