WRI MÉXICO

LOW-COST POLICY OPTIONS FOR ACHIEVING MEXICO'S NDC AND LONG-TERM CLIMATE GOALS

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CONTEXT – QUESTION ADDRESSED

What are the most cost-effective alternative policy mixes (combination of policies, measures, technologies) to achieve:

1. the non-conditional and conditional NDC mitigation targets (22% and 35% respectively) by 2030;
2. a more ambitious scenario in line with the 2ºC warming target, and
3. the long-term (2050) strategy goals.

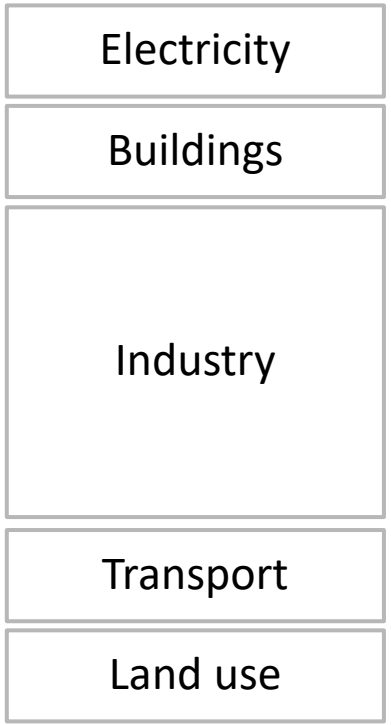
Fuente: Energy Innovation

APPROACH

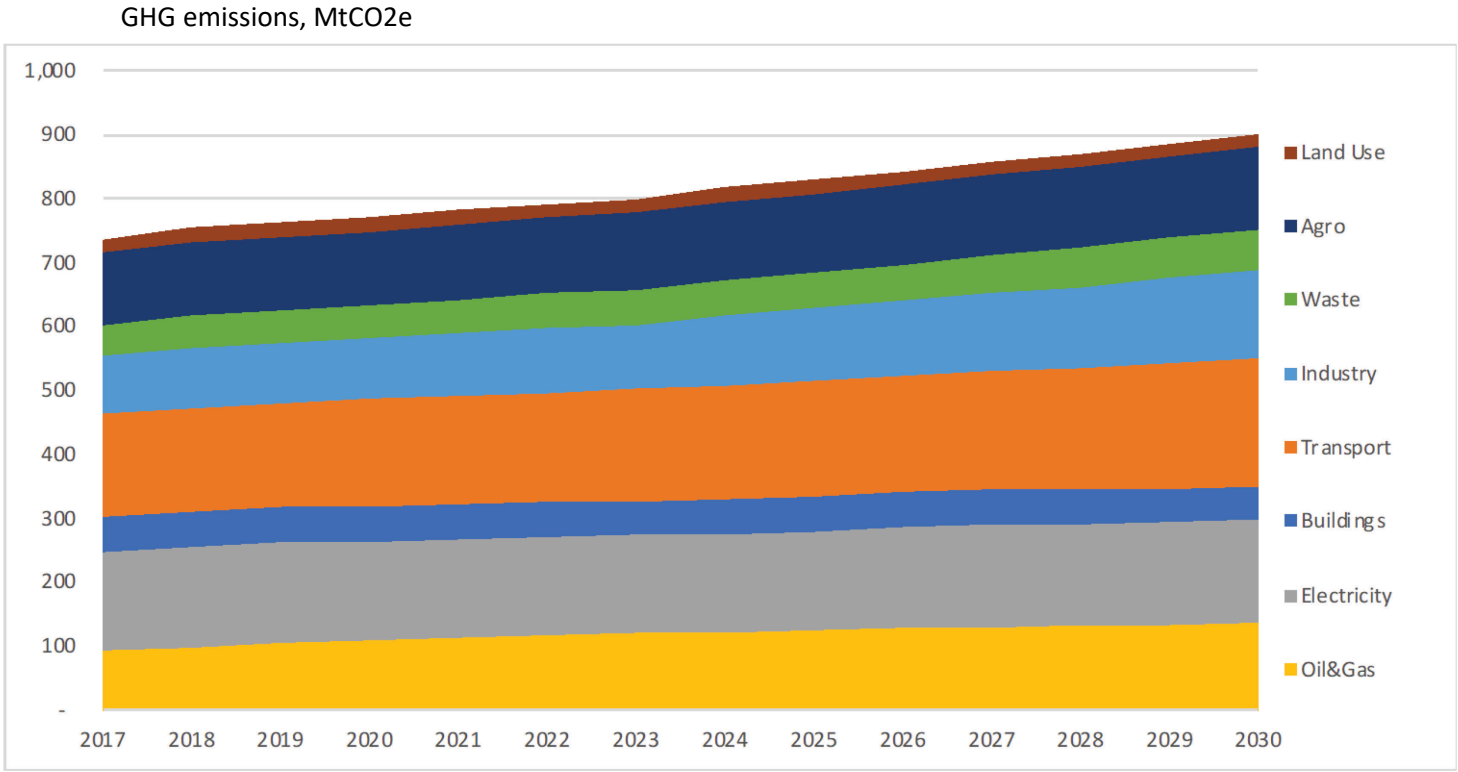
- To answer this question
  - Energy Policy Simulator(EPS) model,
  - It allows the user to control different policies that affect energy use and emissions in various sectors of the economy,
  - Examples of such: carbon tax, fuel economy standards for vehicles, reducing methane leakage from industry, and accelerated R&D, advancement of various technologies, among several others.
  - This system dynamics model is designed to operate at national scale and includes every major sector of the economy, reporting outputs at annual intervals.
  - The current version for Mexico is built with updated input data, more disaggregated sectors, and a longer timeframe, that spans up to 2050.

EMISSION SOURCES CONSIDERED

1. Electricity generation
2. Energy consumption in buildings
3. Oil and gas
4. Industry
5. Waste
6. Agriculture
7. Transport
8. Land use and silviculture



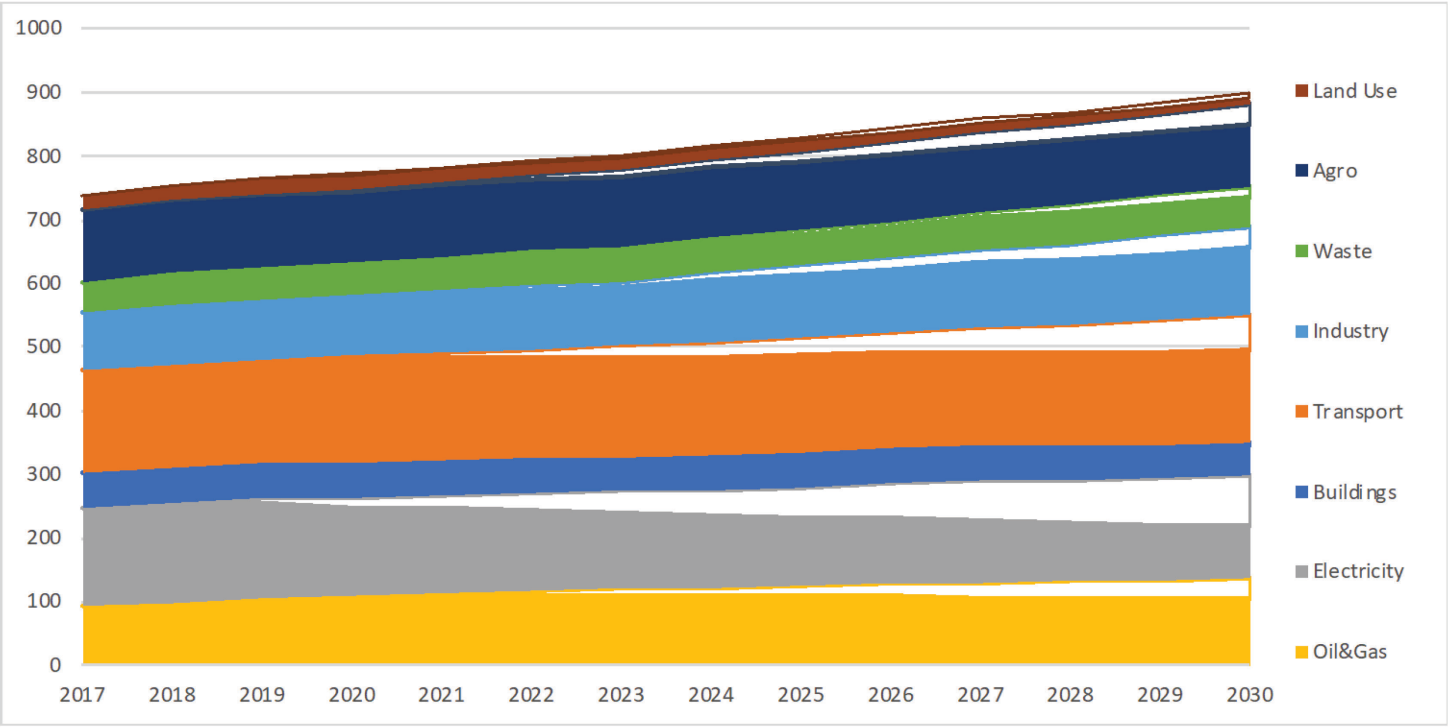
SECTORIAL REFERENCE SCENARIO



Source: WRI, Energy Policy Simulator México v.1.4.1

APPLYING MITIGATION POLICIES

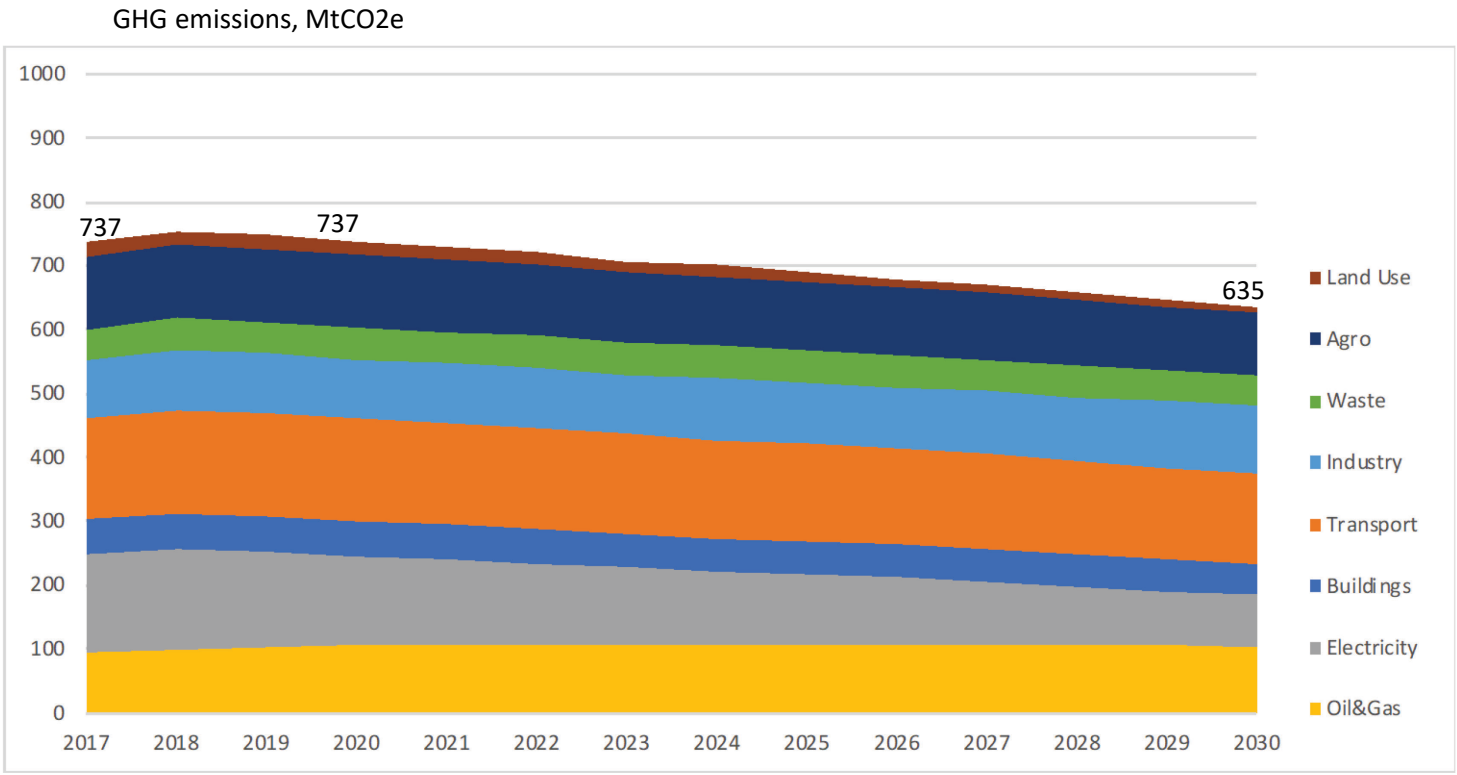
GHG emissions, MtCO2e



Conditional NDC scenario with mitigation policies across sectors

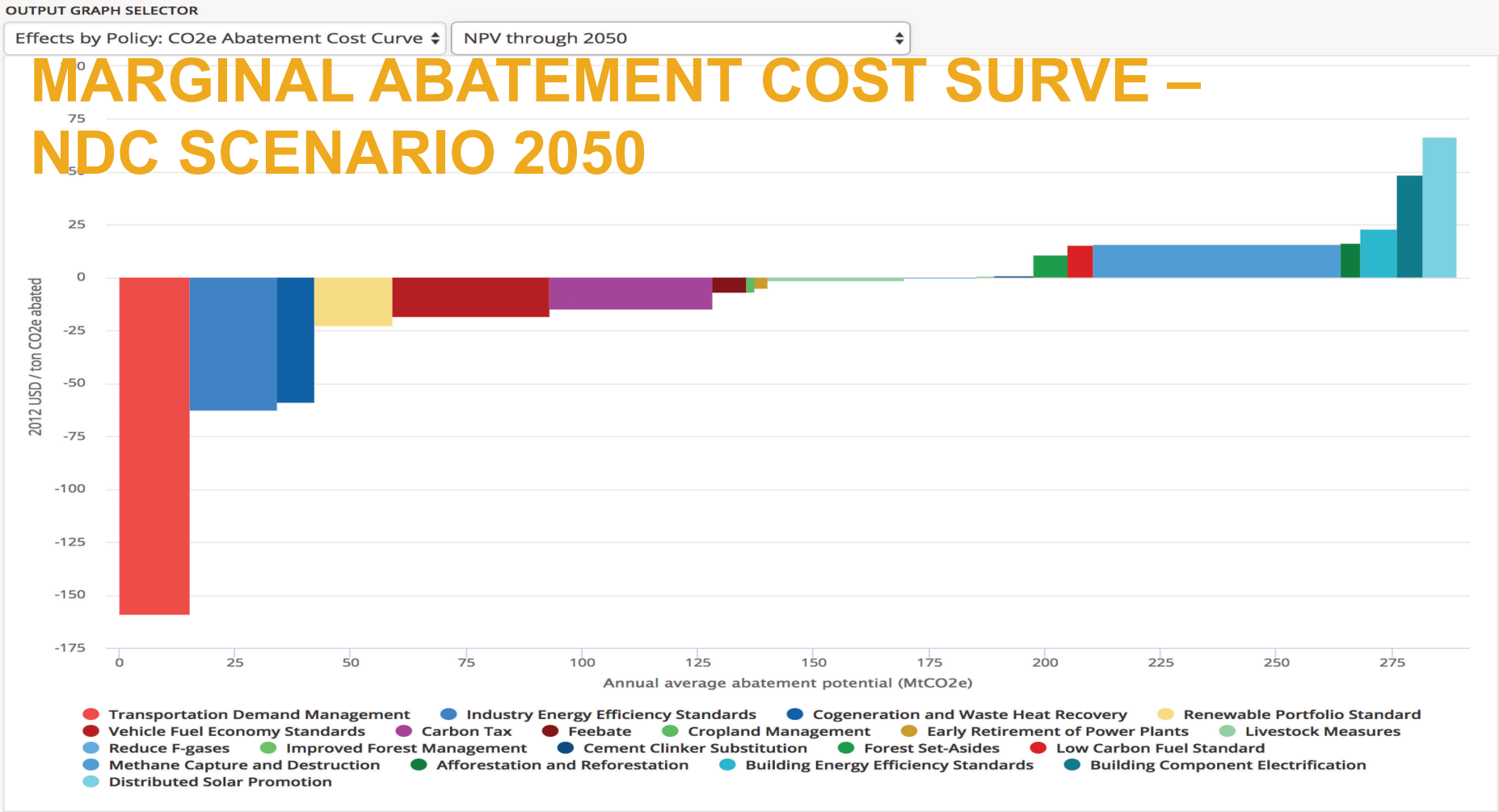
Source: WRI, Energy Policy Simulator México v.1.4.1

CONDITIONAL NDC SCENARIO



Source: WRI, Energy Policy Simulator México v.1.4.1

MARGINAL ABATEMENT COST SURVE – NDC SCENARIO 2050



Source: WRI, Energy Policy Simulator México v.1.4.1

KEY POLICY MESSAGES

- Overall, three sectors (electricity, transportation, and industry) contribute almost two -thirds of the abatement.
- The implementation of the proposed Conditional NDC policy package will require a significant capital investment, but its net effect is positive to the economy considering cost-savings and co-benefits.
- Implementation barriers include limited financial resources, lack of inter-institutional coordination, and lack of capacity. Overall feasibility varies by policy.
- Presently even if its NDC commitments were achieved, Mexico would not be on track to achieve its long-term strategy emissions abatement goal.
- To achieve Mexico´s GHG abatement goals, efforts should be made for: 1) implementing sectoral policies; 2) financing; 3) addressing implementation barriers, and 4) building capacity and innovating.

Source: WRI, Energy Policy Simulator México v.1.4.1

Thanks

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