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ENERGY POLICY SIMULATOR

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November 2019

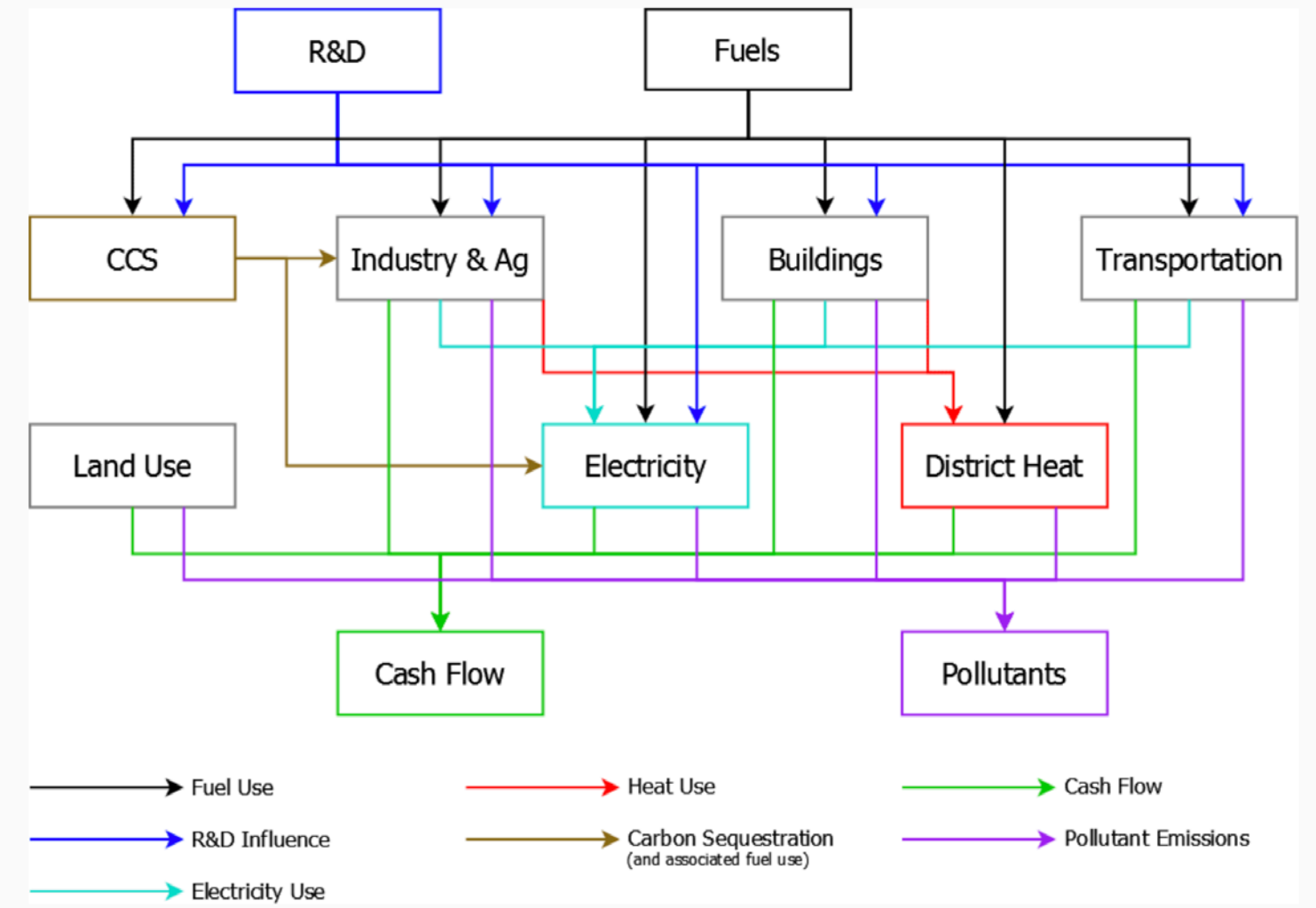
BACKGROUND

- Often energy policies are evaluated in isolation
- Complex interactions and feedbacks (not sum of individual effects)
- Analysis of policy arrays
  - Sector specific technologies (e.g. LDV fuel economy standards)
  - Economy wide policies (e.g. carbon tax)
  - Framework → Energy Policy Simulator

ENERGY POLICY SIMULATOR (EPS)

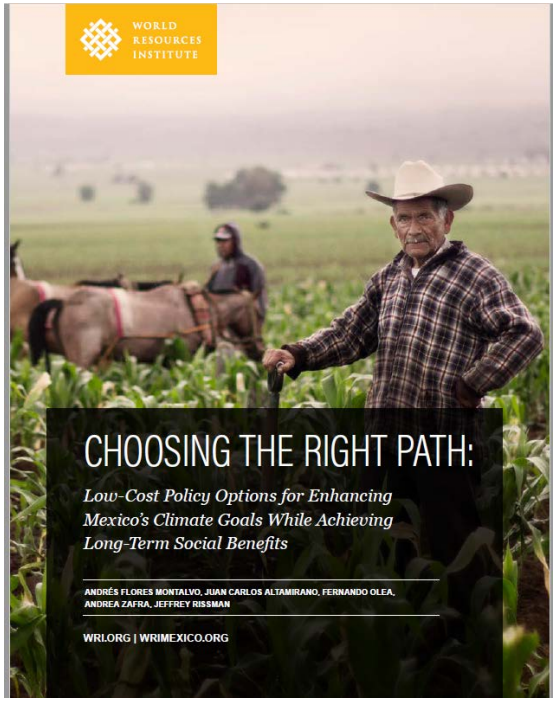
- System dynamics approach
- EPS include
  - Stocks (e.g. installed wind capacity)
  - Flows (e.g. energy generated by wind)
- Model function along two dimensions
  - Equations defining variables (fuel economy standards)
  - Data arrays/matrices (kilometers traveled by a passenger)

EPS STRUCTURE



NATIONAL ANALYSIS

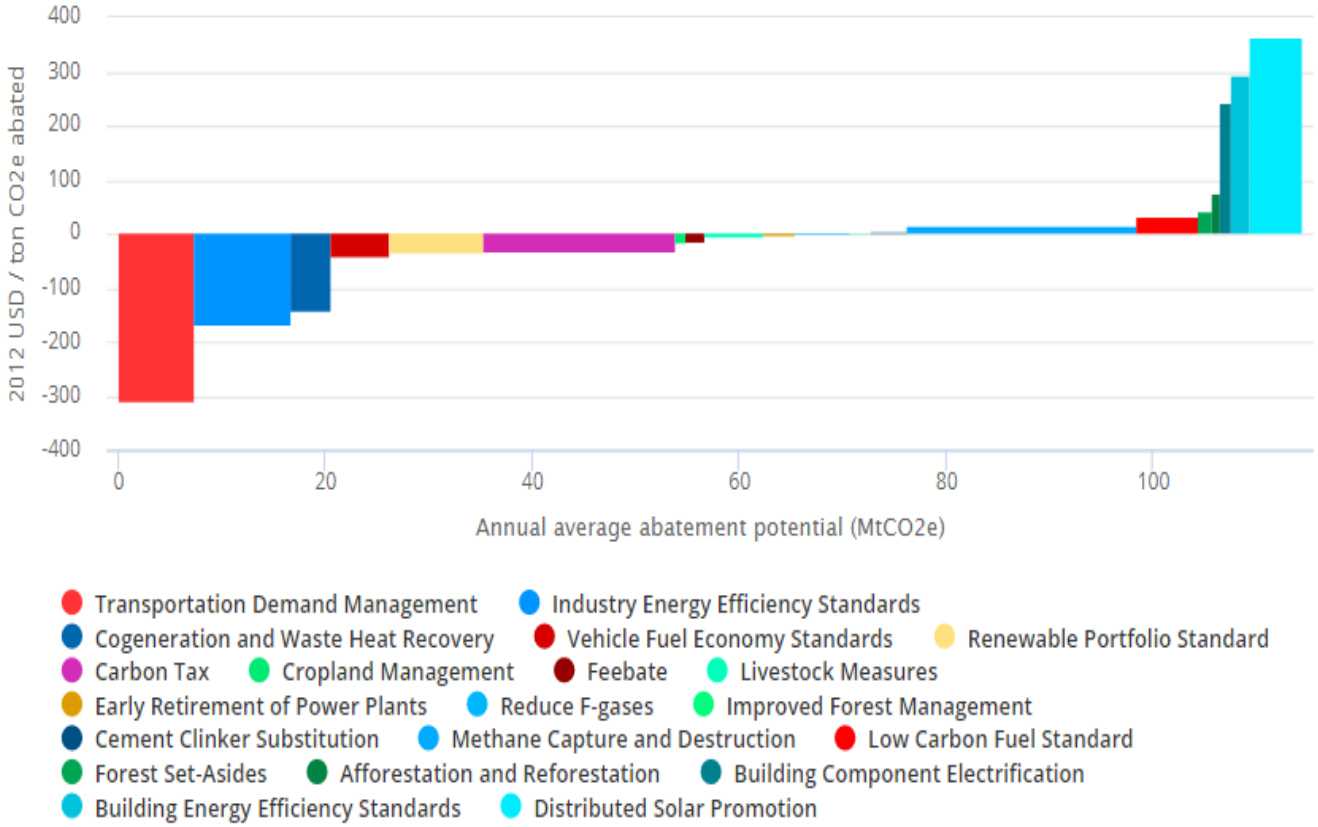
- Mix of 21 policy levers (out of 58) to achieve Mexico's NDC
- Model outputs
  - emissions of 12 pollutants, use of fuels
  - cash flow changes
  - electricity generation mix
  - lives saved from avoided particulate-caused mortality



https://www.wri.org/publication/choosing-right-path

MEXICO: LOW-COST CLIMATE POLICIES

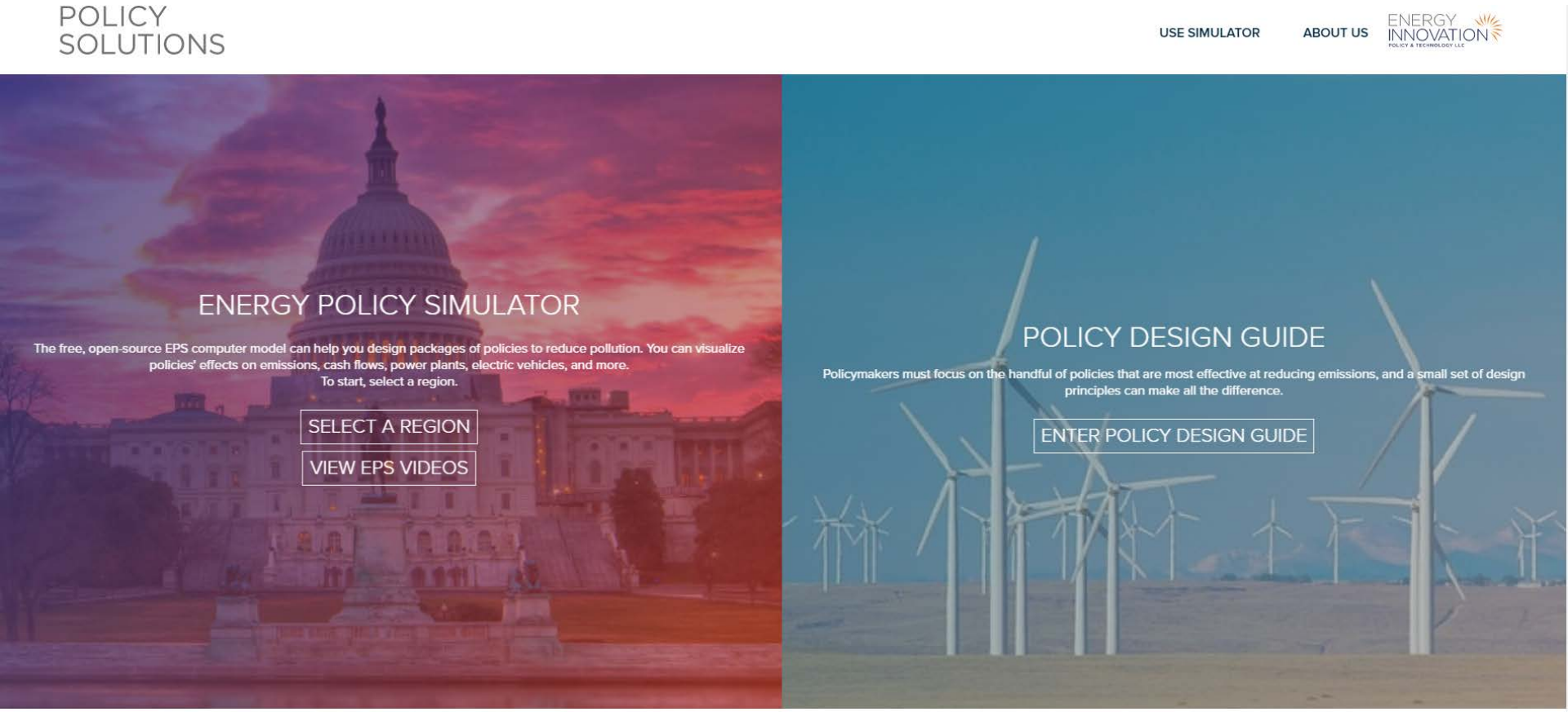
Conditional NDC Scenario-Marginal abatement cost curves through 2030



Climate policies promote gains to the economy (*benefits of at least $105 billion*) and social benefits (more than 25,000 lives saved by 2030)

Source: WRI, Energy Policy Simulator México v.1.4.1

EPS WEB INTERPHASE



https://www.energypolicy.solutions/

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Thank you

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