



IEF Symposium on Carbon Capture and Storage

PEMEX Experience on CCS Projects

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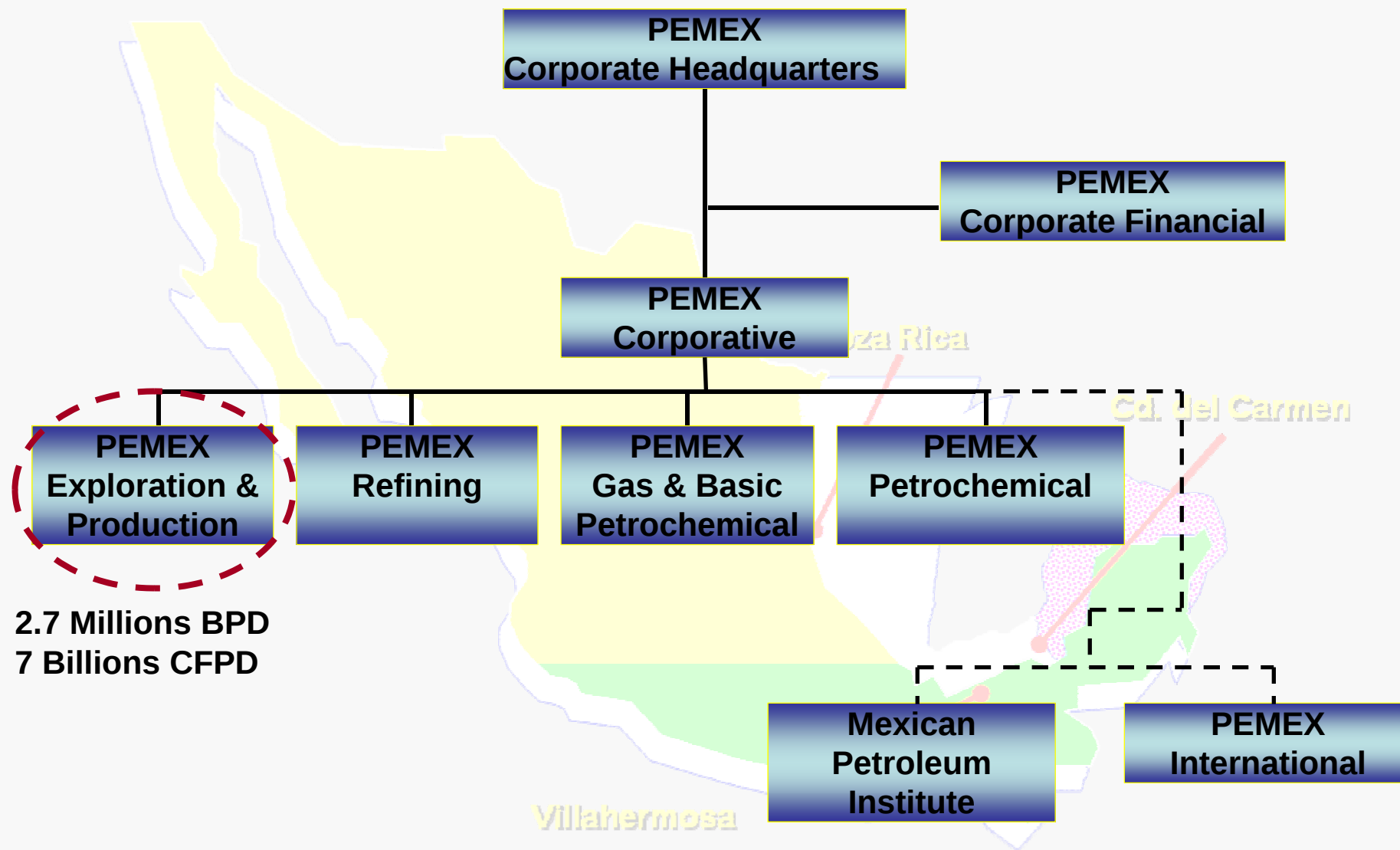
Among main PEMEX policies:



Safety, health, and environmental protection are values with the same priority as production, transport, sales, quality and costs

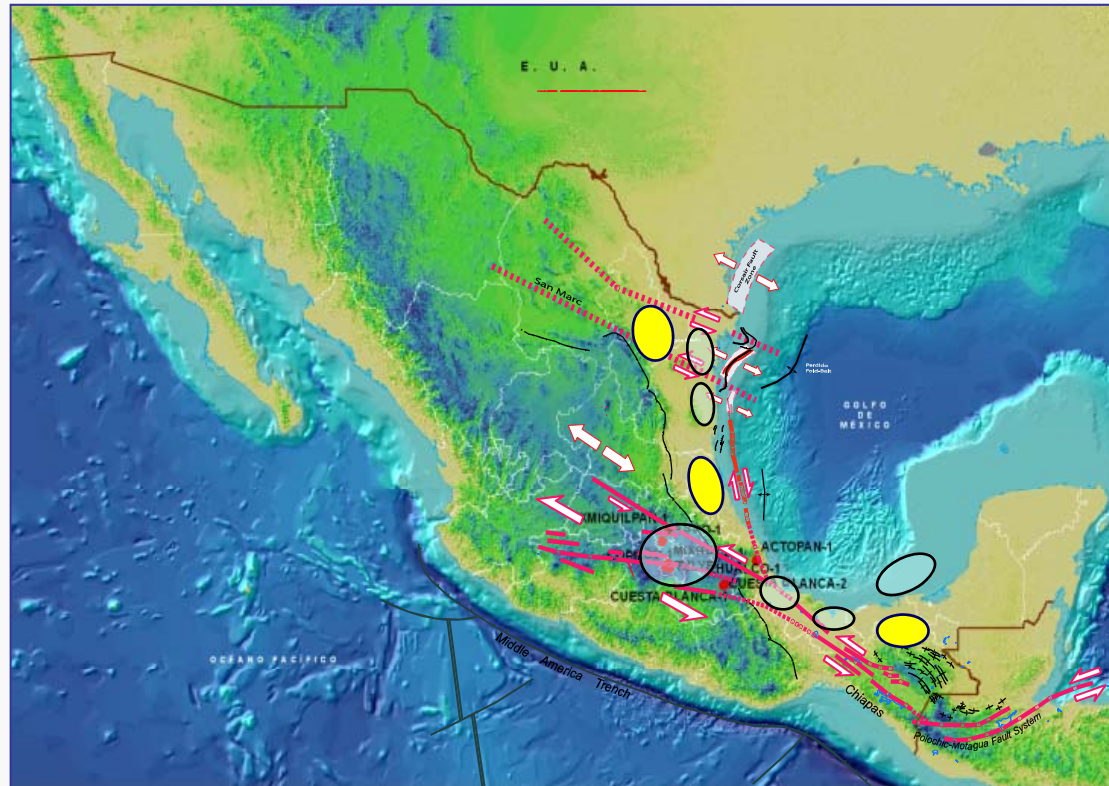


PEMEX General Structure



- ✓ **CO₂ for enhanced oil recovery**
- ✓ **CO₂ for hydraulic fracturing**
- ✓ **CO₂ storage in depleted oil fields**

CO₂ Prospection Studies



Objective

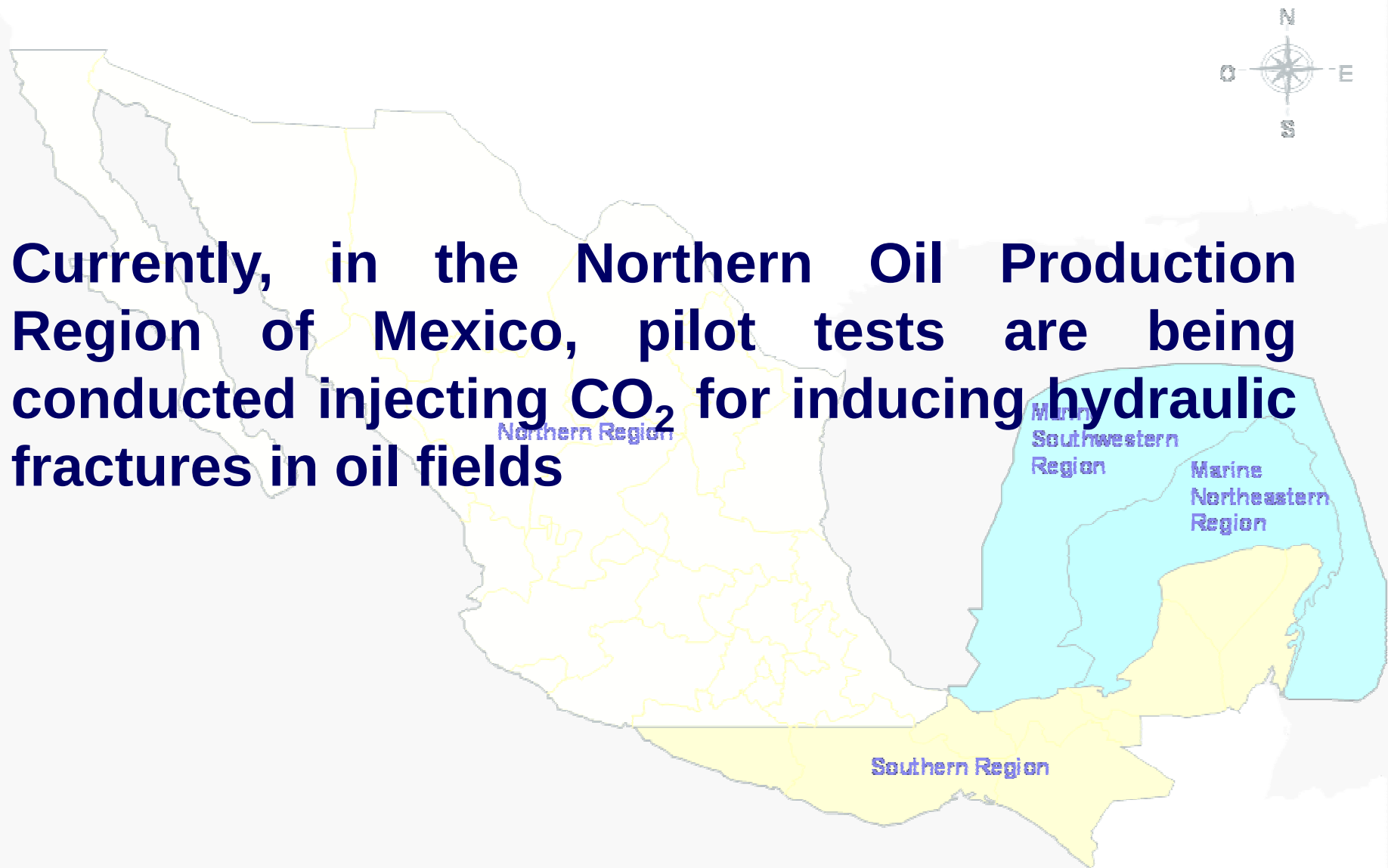
Identify, characterize, and assess CO₂ natural sources for enhanced oil recovery use

CO₂ injection for enhanced oil recovery

- ✓ In November 2000, in the Southern Oil Production Region of Mexico, CO₂ associated to gas production was injected into an oil field for enhanced oil recovery purposes
- ✓ In January 2005, in the same region, CO₂ associated to gas production was injected to another oil field
- ✓ Both projects were the first attempts of CCS for EOR in Mexico and they were successful: CO₂ emissions were mitigated and oil production was increased

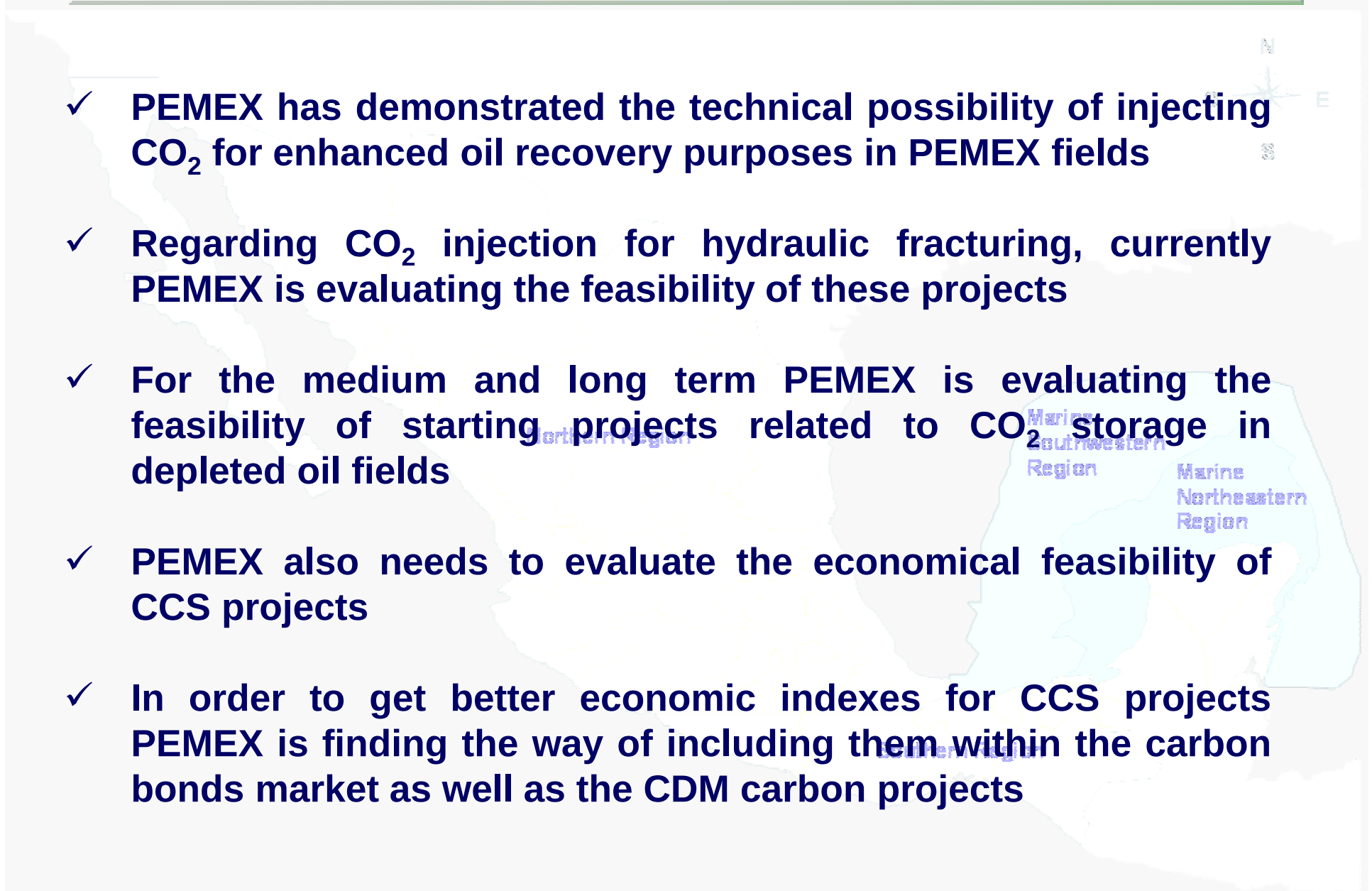
CO₂ injection for hydraulic fracturing

Currently, in the Northern Oil Production Region of Mexico, pilot tests are being conducted injecting CO₂ for inducing hydraulic fractures in oil fields



CO₂ storage in depleted oil fields

- ✓ **PEMEX is currently participating in a project for elaborating the first Mexico's CO₂ Atlas**
- ✓ **Mexican Ministry of Energy, Federal Company of Electricity, National Autonomous University of Mexico, and the Mexican Petroleum Institute collaborate in the Atlas project, led by the Electrical Research Institute**
- ✓ **Atlas information will be used in projects aimed to storage CO₂ into depleted oil fields**

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- ✓ **PEMEX has demonstrated the technical possibility of injecting CO₂ for enhanced oil recovery purposes in PEMEX fields**
 - ✓ **Regarding CO₂ injection for hydraulic fracturing, currently PEMEX is evaluating the feasibility of these projects**
 - ✓ **For the medium and long term PEMEX is evaluating the feasibility of starting projects related to CO₂ storage in depleted oil fields**
 - ✓ **PEMEX also needs to evaluate the economical feasibility of CCS projects**
 - ✓ **In order to get better economic indexes for CCS projects PEMEX is finding the way of including them within the carbon bonds market as well as the CDM carbon projects**



END

Thank you