

Natural Gas Research Cost or Investment?

Given by Mary Jane McCartney
Senior VP, Con Edison of NY

WORLD GAS CONFERENCE
Amsterdam – June 8, 2006



Natural Gas Research: Cost or Investment?

- Who is Con Edison?
- Research needs
- Who's doing the research?
- Conclusions



Natural Gas Research: Cost or Investment?

- Who is Con Edison?

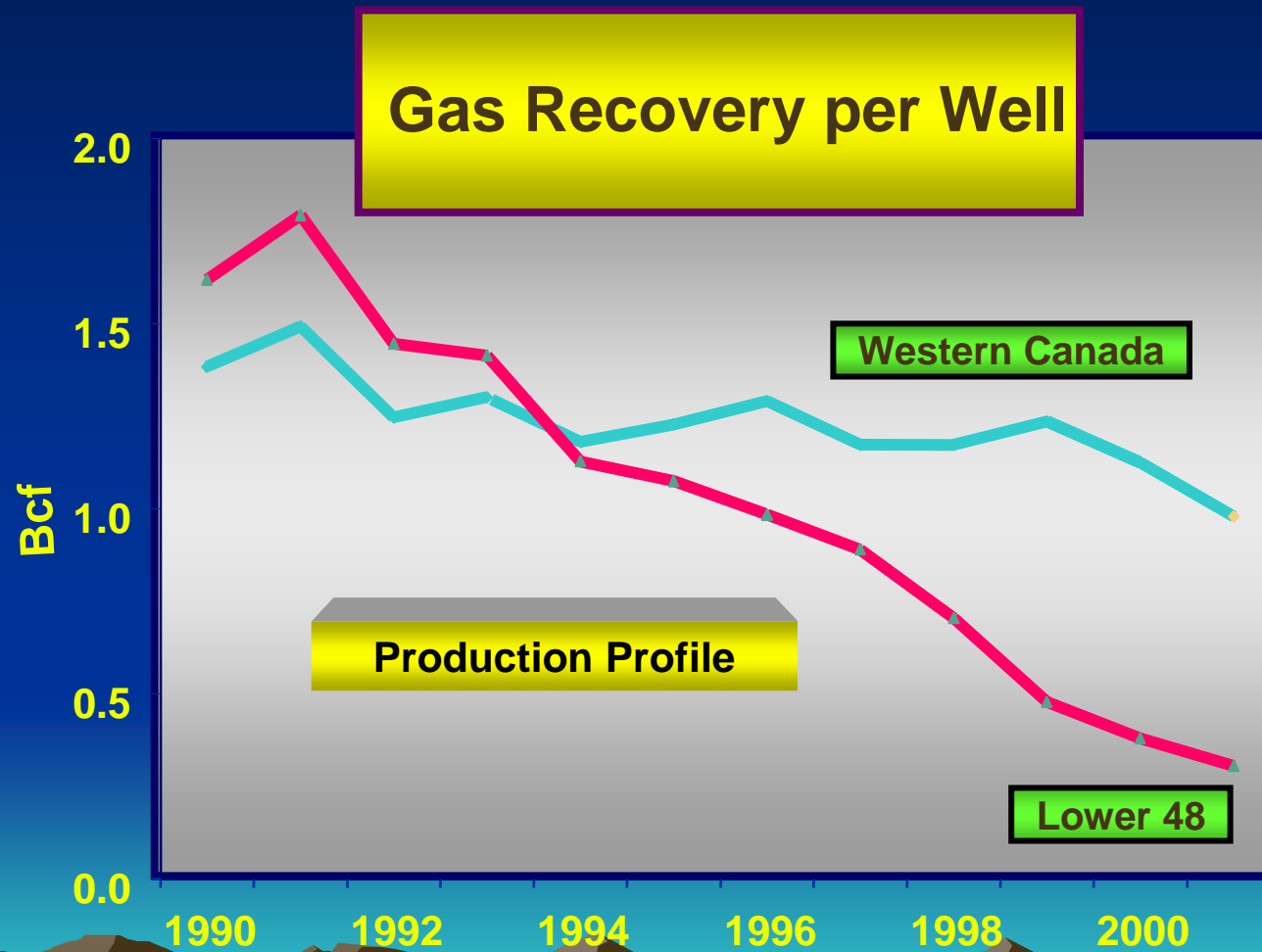


Natural Gas Research: Cost or Investment?

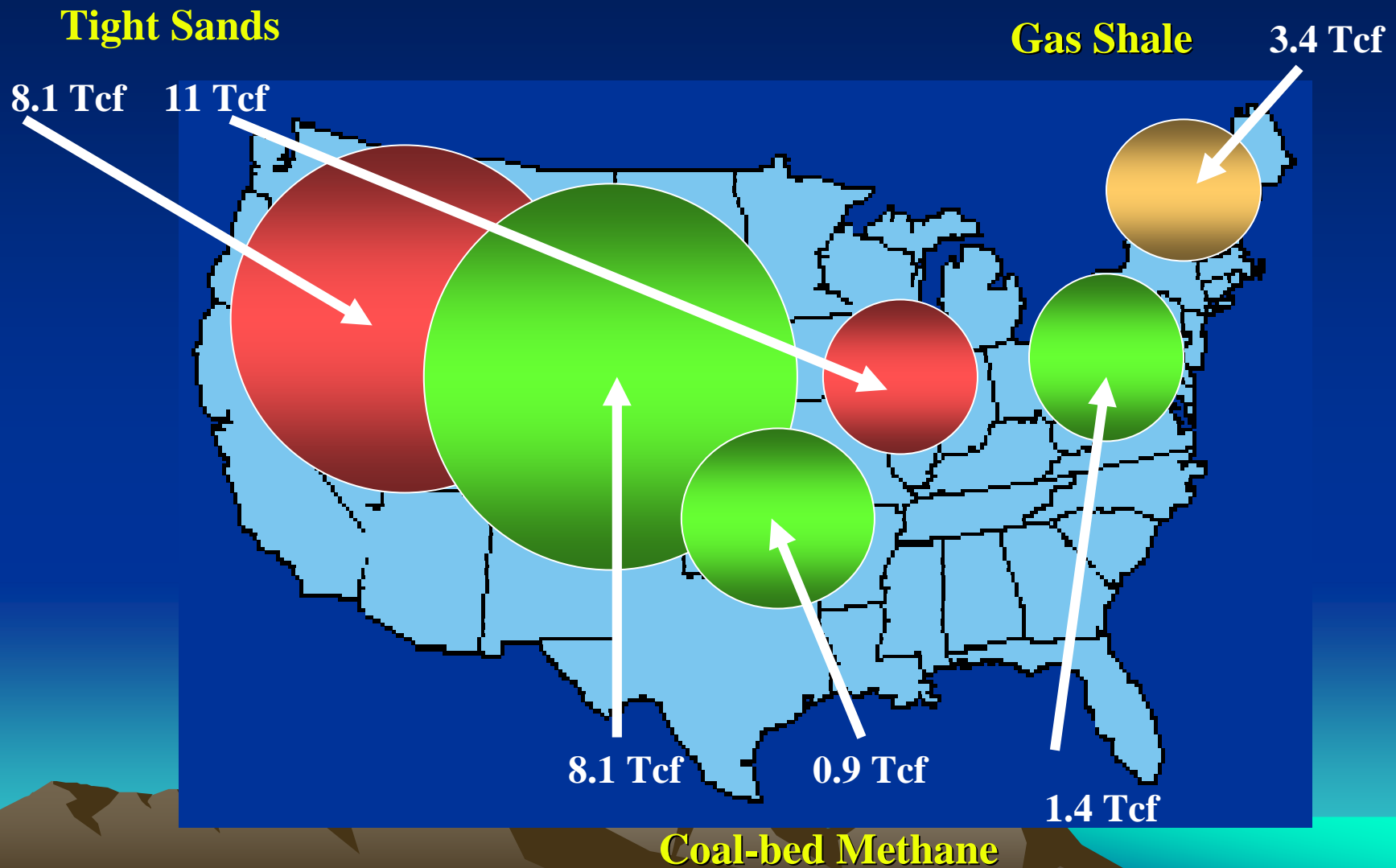
- Research needs
 - Energy supply
 - Pipeline safety
 - Damage prevention
 - Environmental remediation
 - Efficient energy utilization



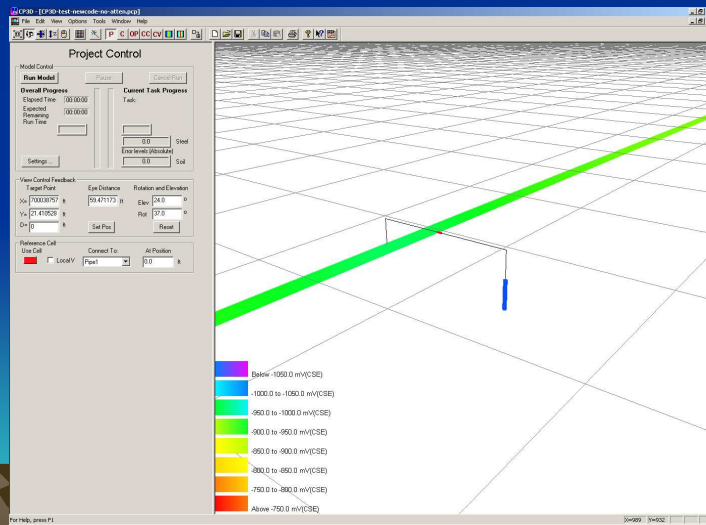
Natural Gas Research: Cost or Investment? Energy Supply



Unconventional Gas: Proved Reserves

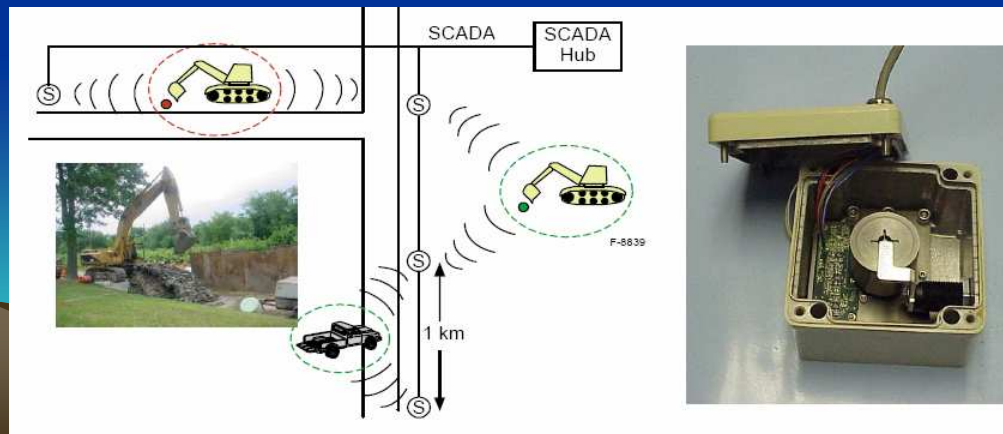


Pipeline Safety Direct Assessment

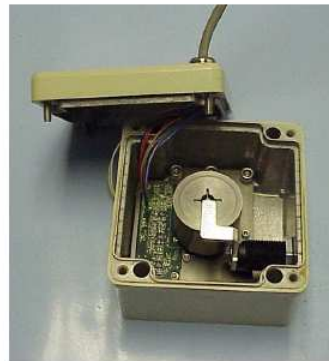


Natural Gas Research: Cost or Investment?

- Damage Prevention
 - Trenchless construction
- Early warning



CISBOT



PIGPEN

MGP Site Remediation



Natural Gas Research: Cost or Investment?

End-Use

- Efficient energy utilization
 - Boiler technology
 - Fuel cells
 - Gasification
 - Gas interchangeability



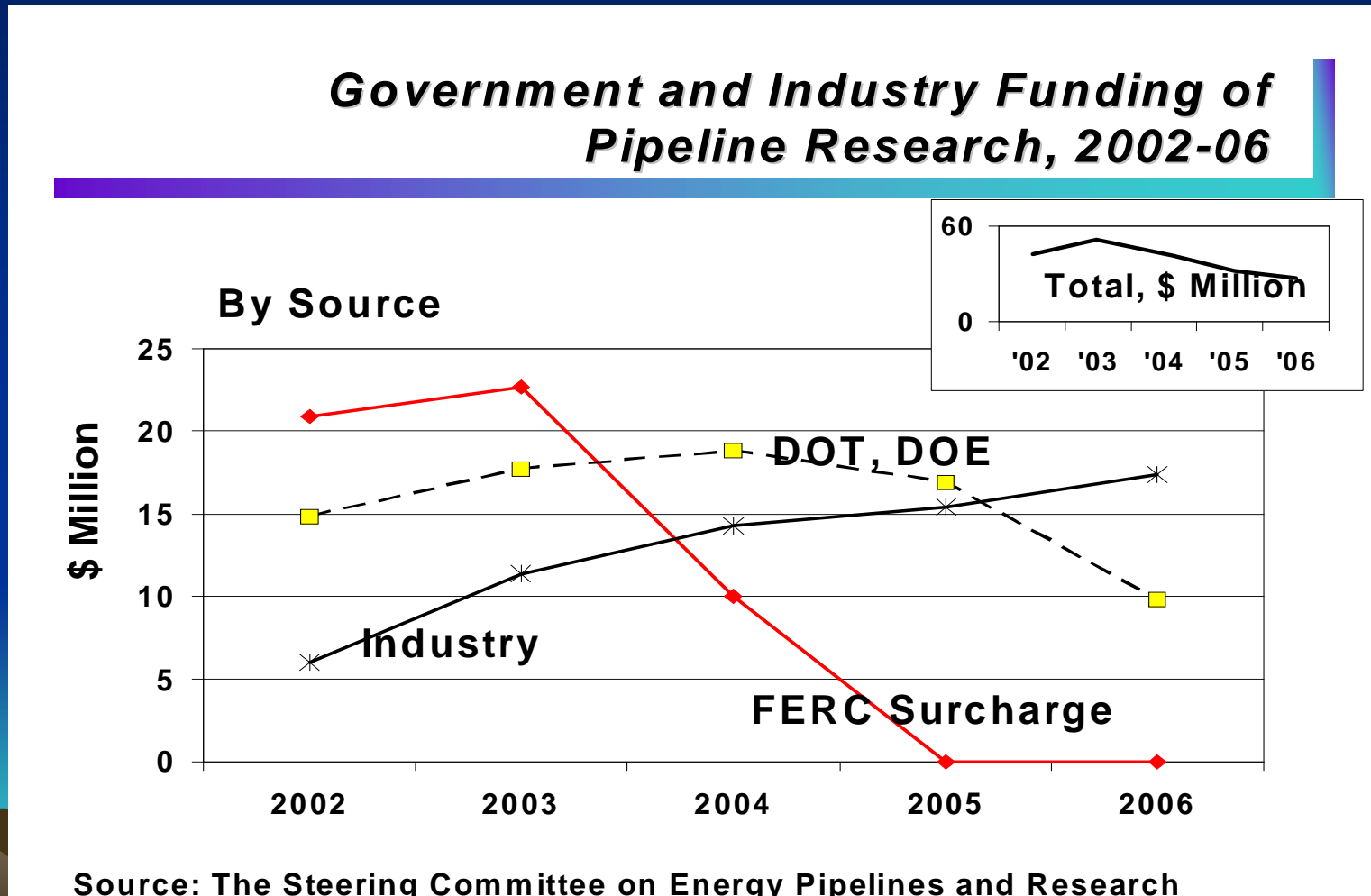
Natural Gas Research: Cost or Investment?

- Who's doing the research?
 - Federal government
 - Supply -- RPSEA
 - DOD – fuel cells
 - DOE – gasification, hydrogen
 - Distribution company collaboration



Natural Gas Research: Cost or Investment?

- Federal Government



Natural Gas Research: Cost or Investment?

Who's doing the research?

- Federal Government: Energy Supply
 - Research Partnership to Secure Energy for America
 - Ten-year, \$50 million per year DOE program
 - New technologies to produce abundant, affordable domestic energy supplies.



LDC Focused Collaborative Programs are Growing



18 Members, \$7.4 Million Annual Dues
56 Projects since 2003



8 Members, over \$2 Million Annual Dues
24 Projects since 2004



18 Members, over \$1 Million Annual Dues
38 Projects since 2003, 47 Projects since 2000



Keyhole
Collaboration

26 Members, \$450k Annual Dues
since 2002

Natural Gas Research: Cost or Investment?

- Conclusions
 - Supply R&D greatest need
 - High energy prices = opportunity
 - States have supplanted FERC
 - Collaborative R&D is working



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