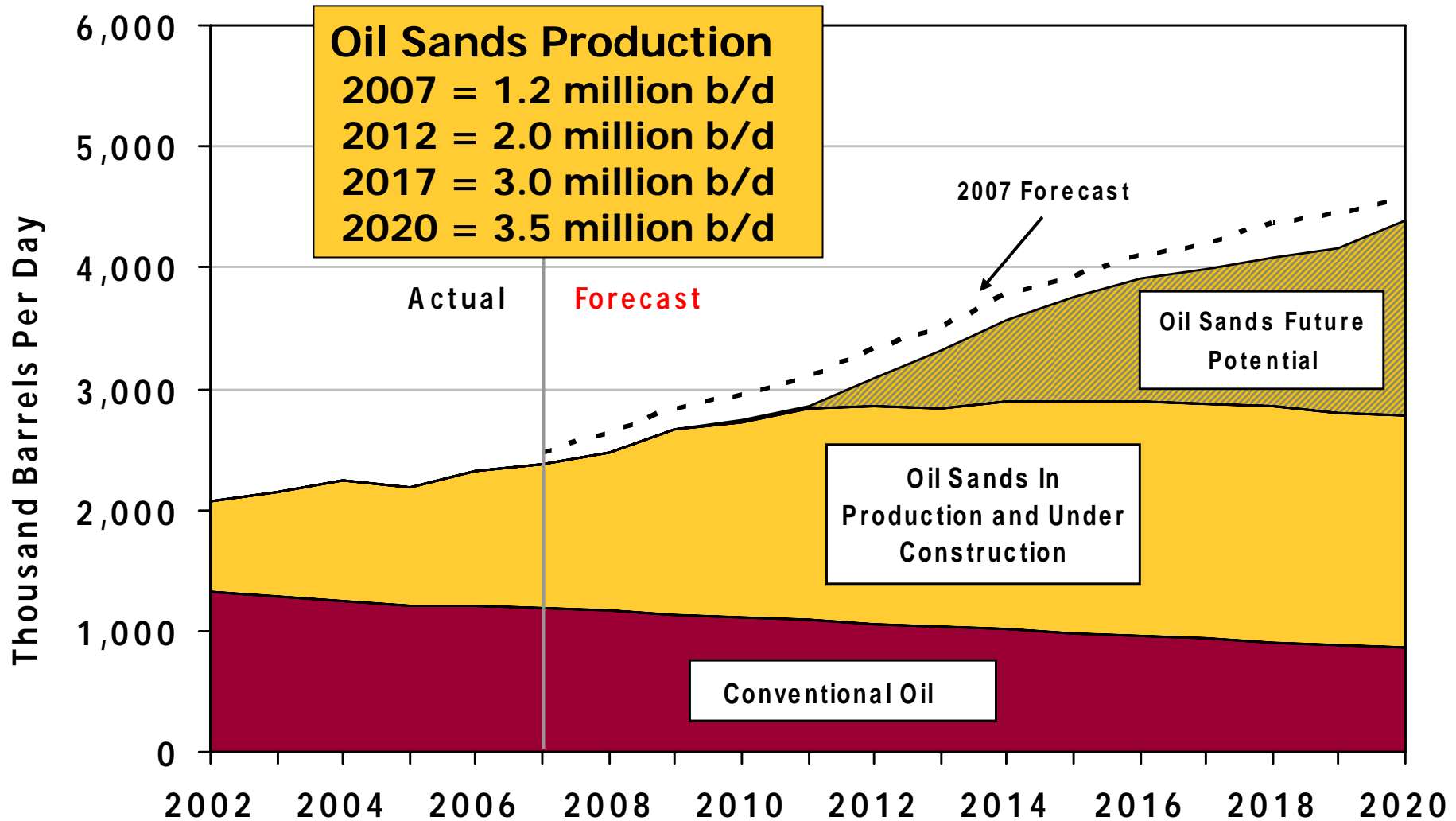


# Carbon Standards: What is the right choice for Canada and the US

*Woodrow Wilson Cross Border Energy Forum  
October 2, 2008*

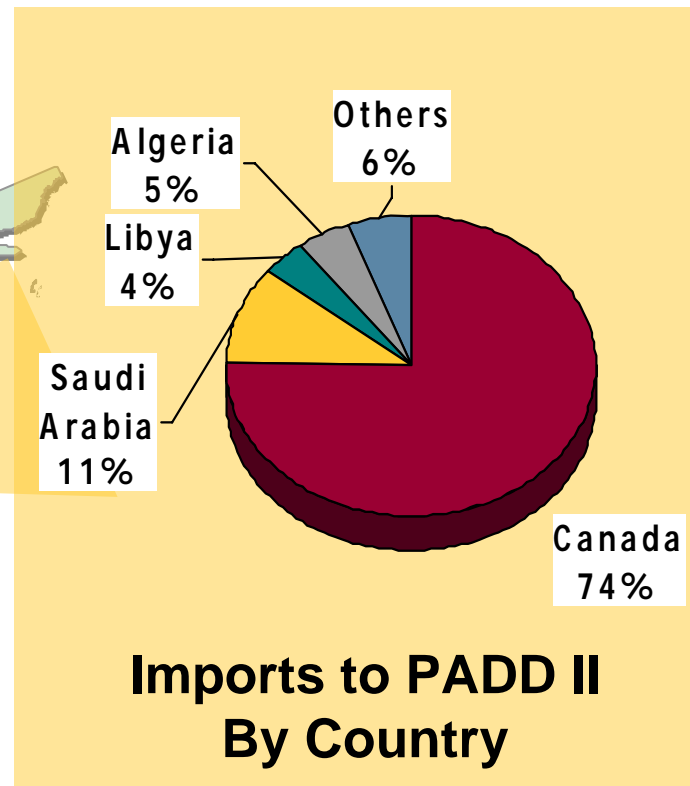
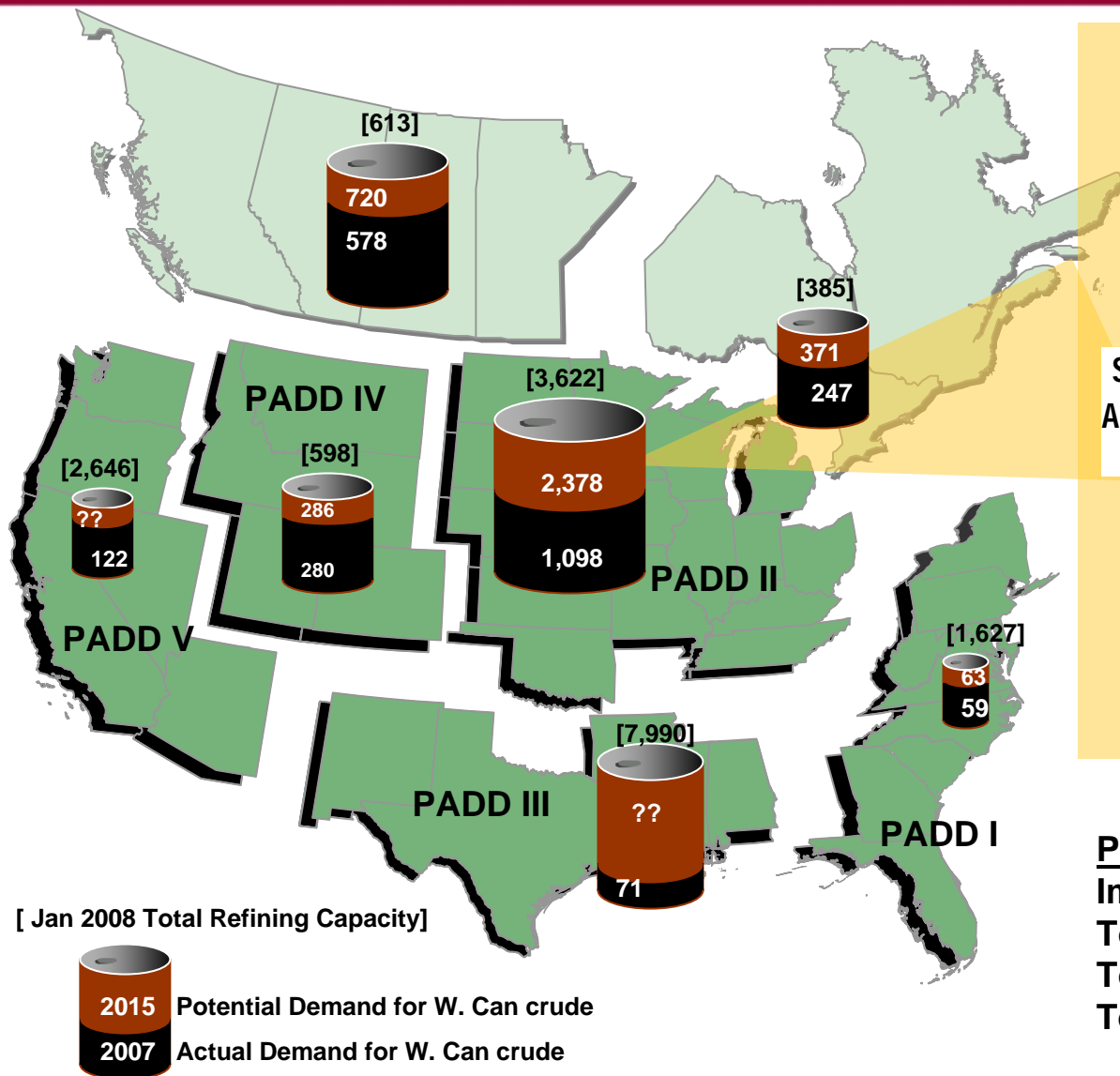
# Oil Sands & WCSB Conventional Oil Production

2008 Moderate Growth Case



# CAPP Refiner Survey and Market Outlook

Thousand Barrels per Day



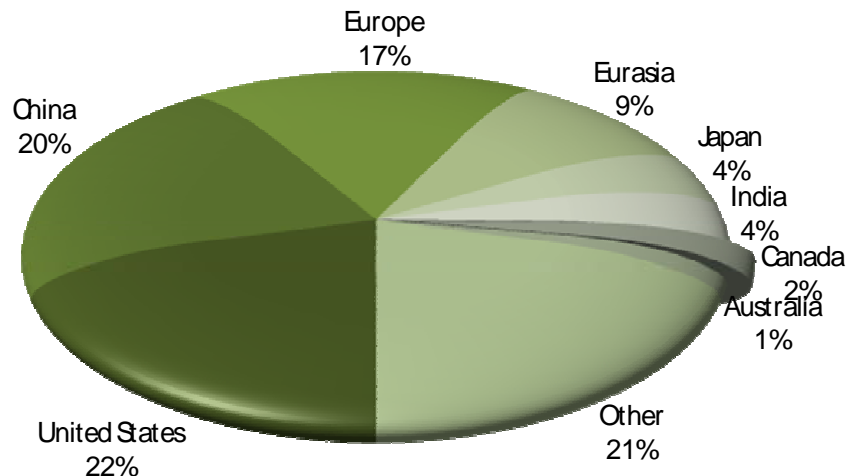
**PADD II:**  
 Imports from Canada – 1.1 mmb/d  
 Total Imports - 1.5 mmb/d  
 Total Refinery Capacity = 3.6 mmb/d  
 Total Consumption - 5.1 mmb/d

# Environmental Stewardship - Air

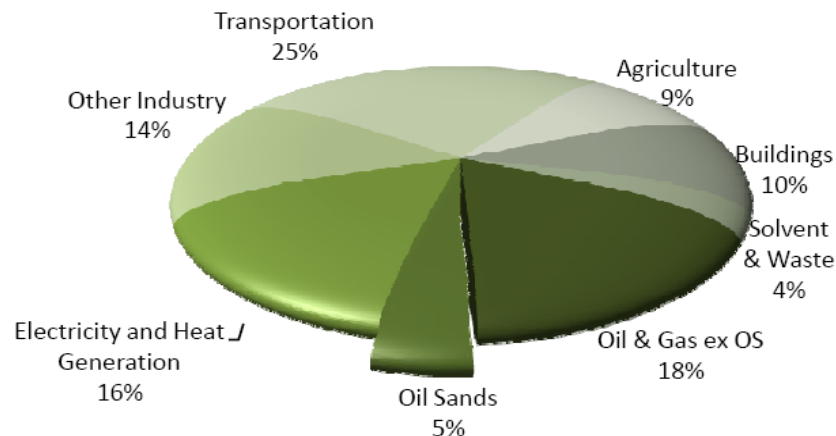


- **All of Canada accounts for 2% of global energy related GHG emissions**
- **Oil Sands is continuing to reduce GHG emissions**
  - GHG intensity reduced by 27% since 1990
  - Increasing energy efficiency
  - Starting CO2 capture, sequestration and EOR
- **Oil Sands accounts for:**
  - 5% of GHG emissions in Canada
  - 0.1% of global energy related GHG

**Global Energy Related Emissions By Country**



**Canada's GHG Emissions By Sector**



# Canada's Greenhouse Gas Policies

## Provincial and Federal



- **Alberta Government**

- Legislation passed
- Effective July 1, 2007
- Requires immediate 12% reduction in emission intensity for large emitters
- Compliance:
  - Physical Reductions
  - \$15/tonne CO<sub>2</sub> levy into Technology Fund
  - Offsets
- \$4 Billion investment (July 2008)
  - \$2 Billion to Carbon Capture
  - \$2 Billion to Public Transit

- **BC Government**

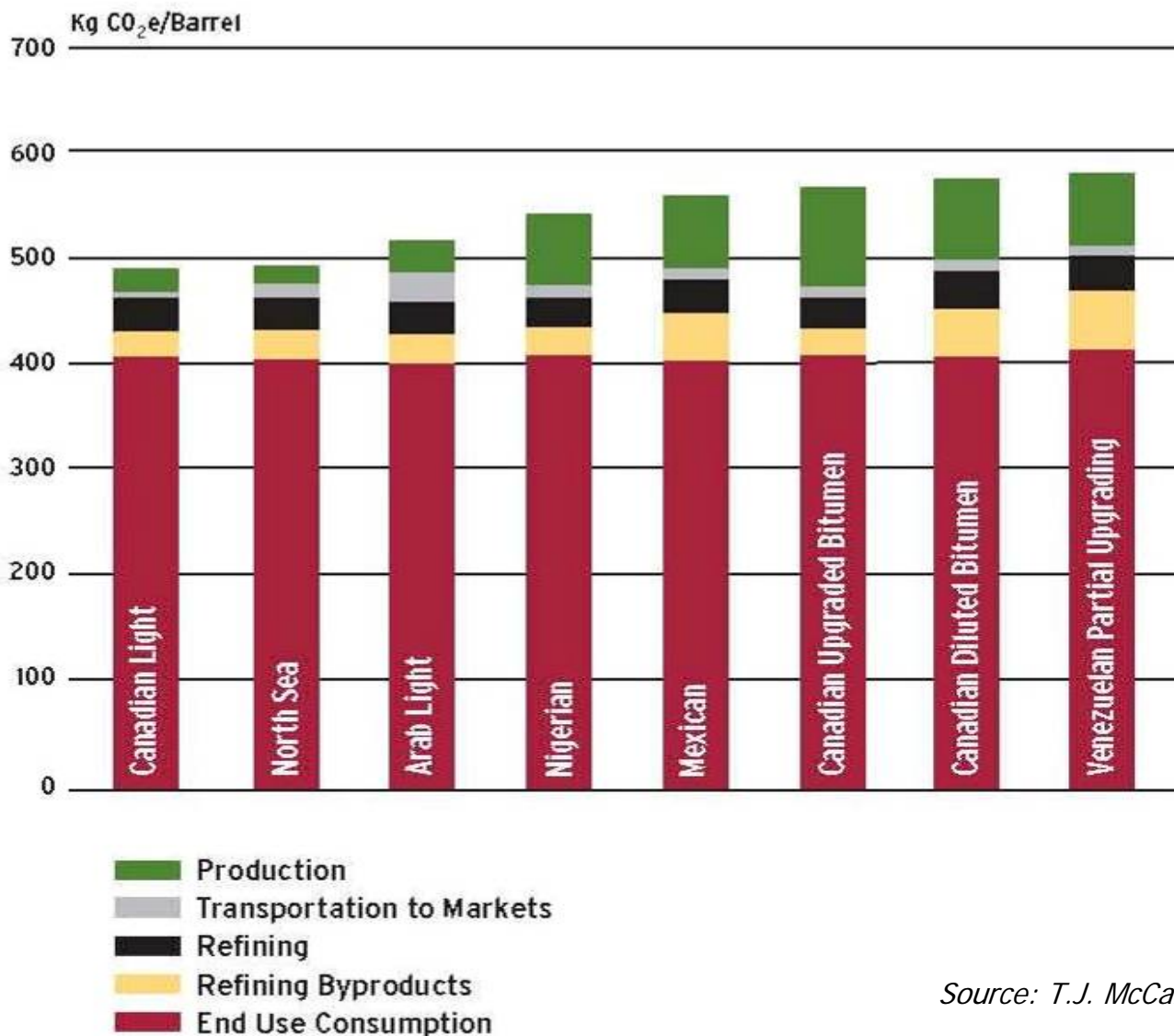
- Carbon tax on end use consumption

- **Federal Government**

- Takes effect in 2010
- Reductions of 18% in emission intensity and 2%/yr thereafter
- Coal power and oil sands have higher targets
  - Natural gas equivalent (2011)
  - Carbon capture equivalent (2012-2018)



# Full Cycle GHG Emissions by Crude Type



Source: T.J. McCann & Associates

- **Government policies that are clear and realistic**
  - Predictable cost to permit business planning
- **Non-discriminatory treatment across industries**
- **Maintains international competitiveness**
  - Including cross-border recognition of domestic actions
- **Recognizes the central role of technology in managing and reducing emissions**
  - Enabling new technologies