

# China Stockpiling Program - A Public Perspective -

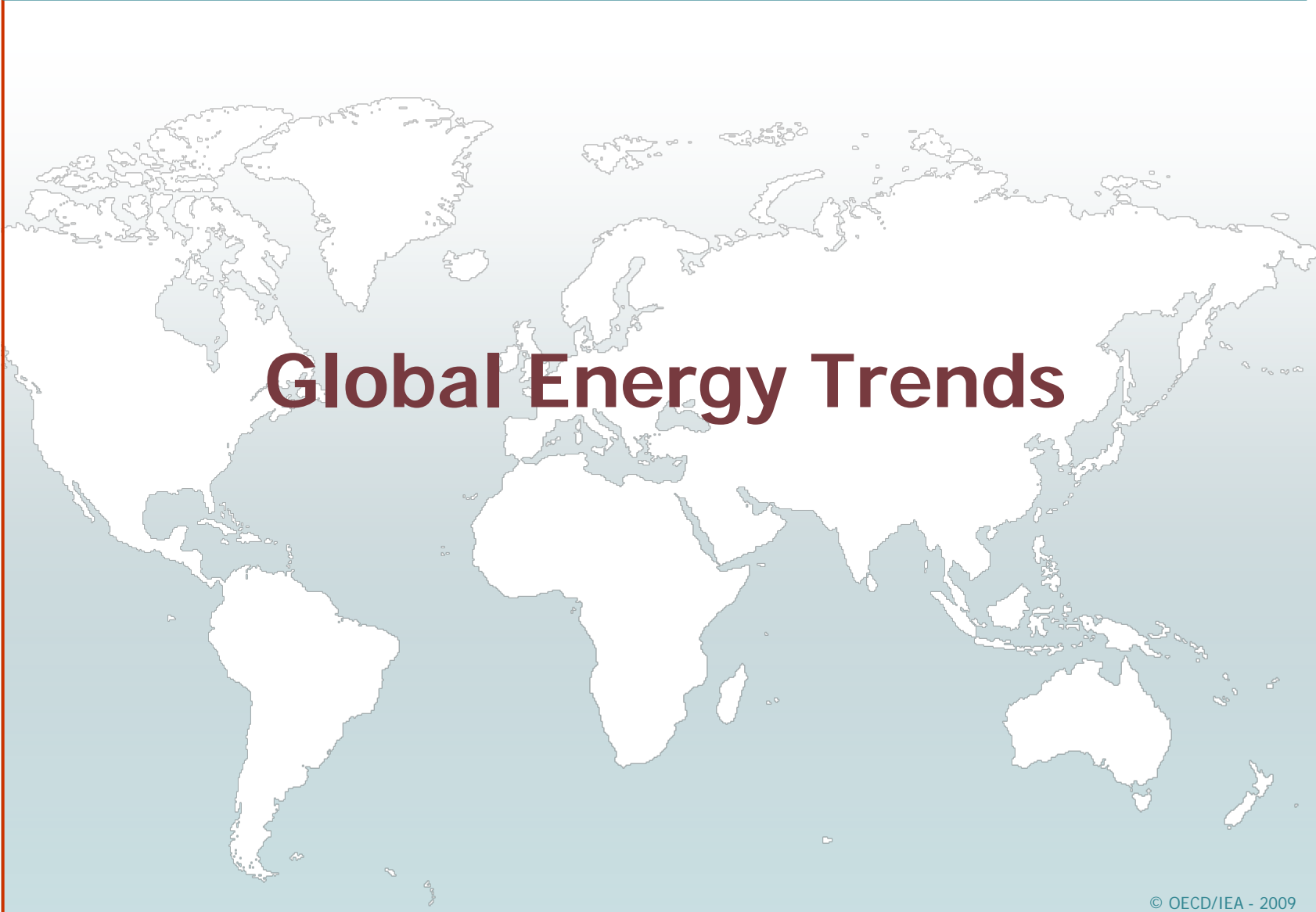
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Petrostocks 2009:  
Stockpiling in New Market Realities  
February 9-11, 2009

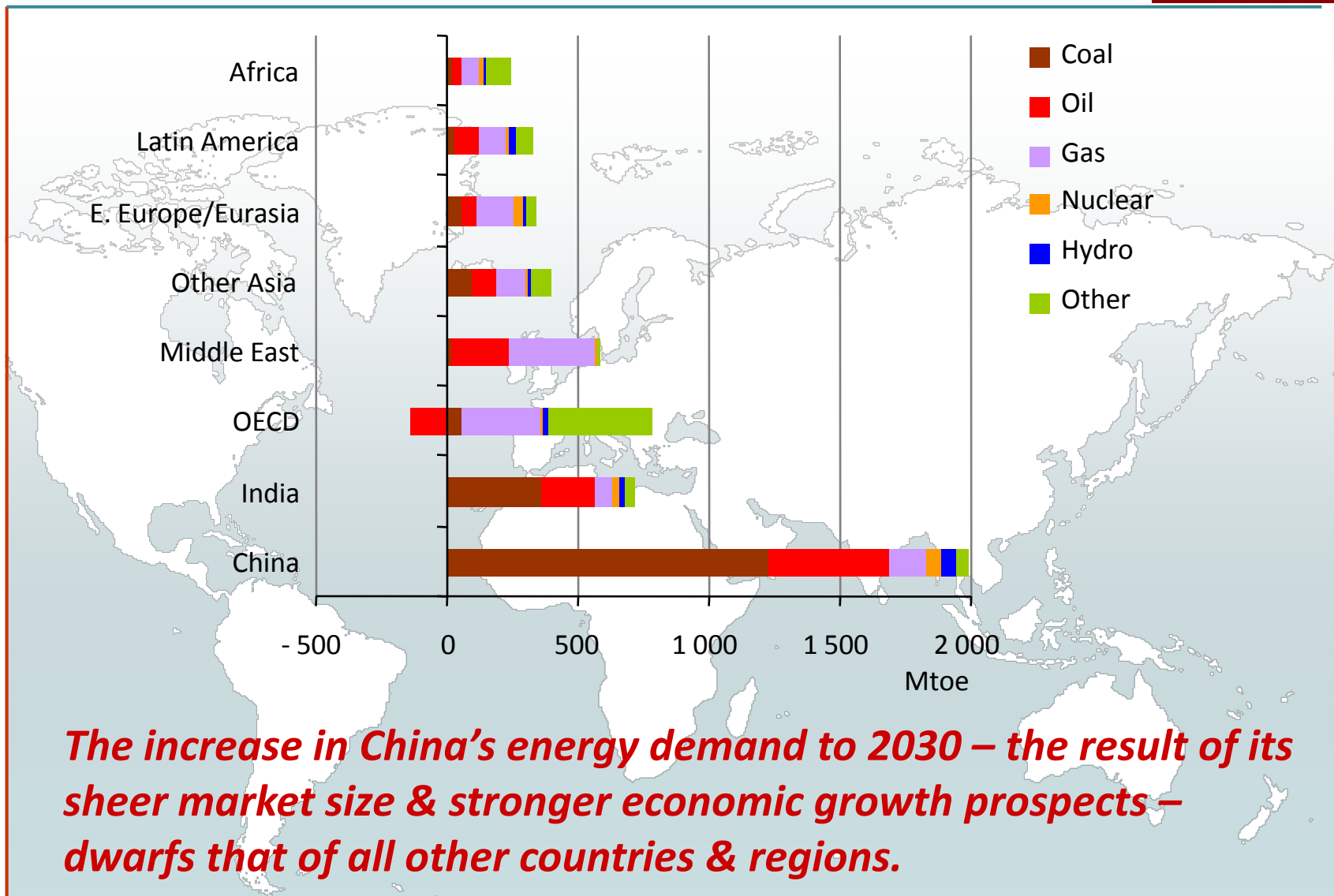
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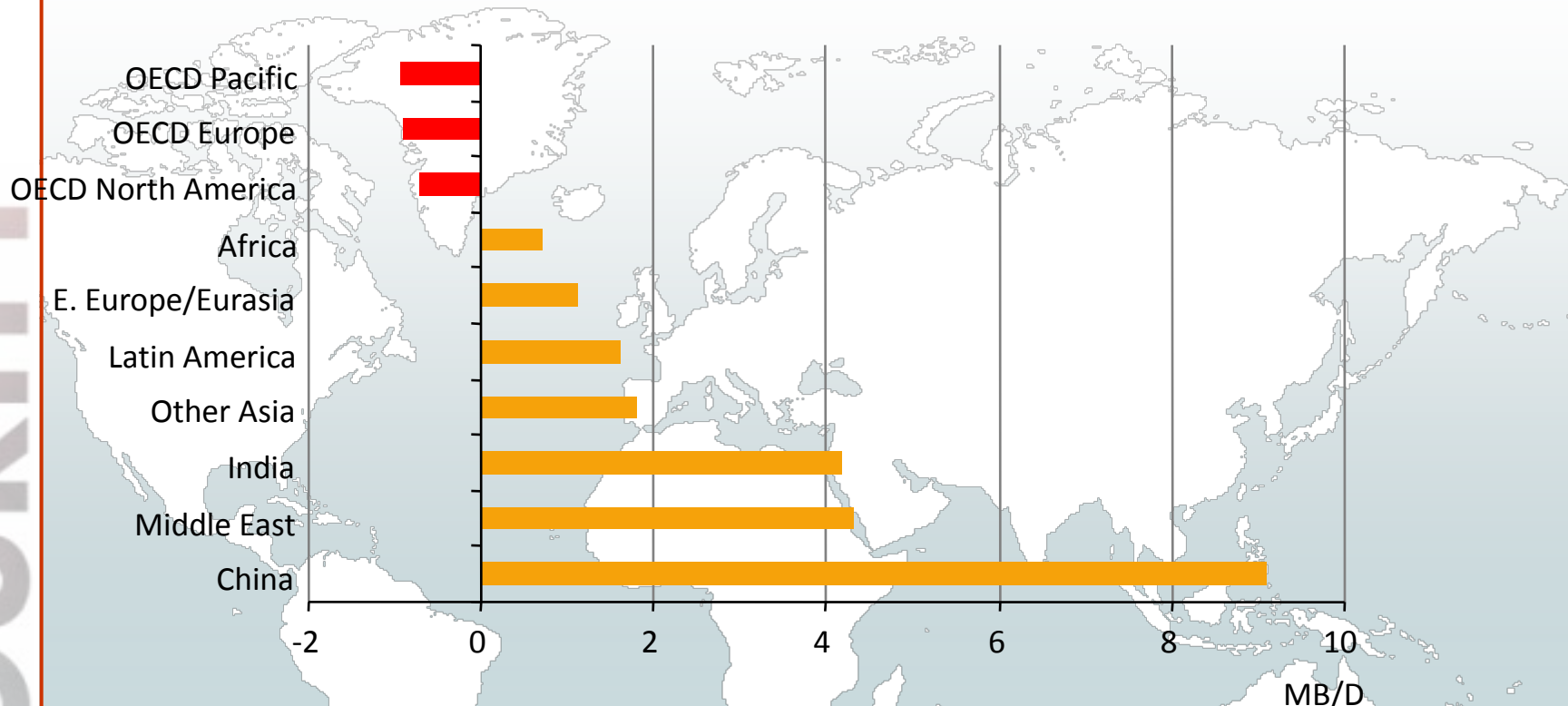
# Global Energy Trends

# Incremental primary energy demand in the Reference Scenario, 2006-2030



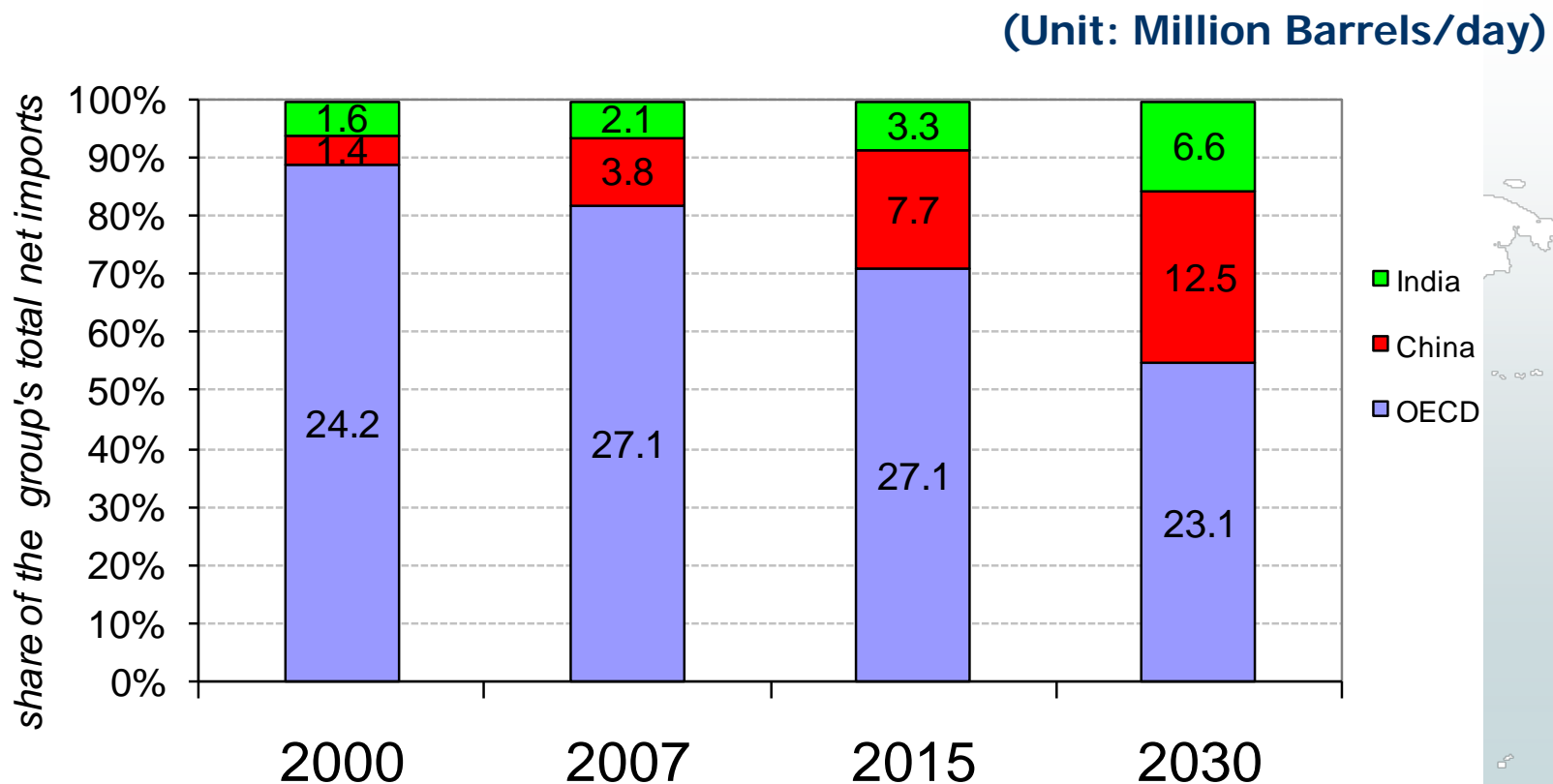
# Change in oil demand by region in the Reference Scenario, 2007-2030

World Energy Outlook 2008



**All of the growth in oil demand comes from non-OECD, with China contributing 43%, the Middle East & India each about 20% & other emerging Asian economies most of the rest.**

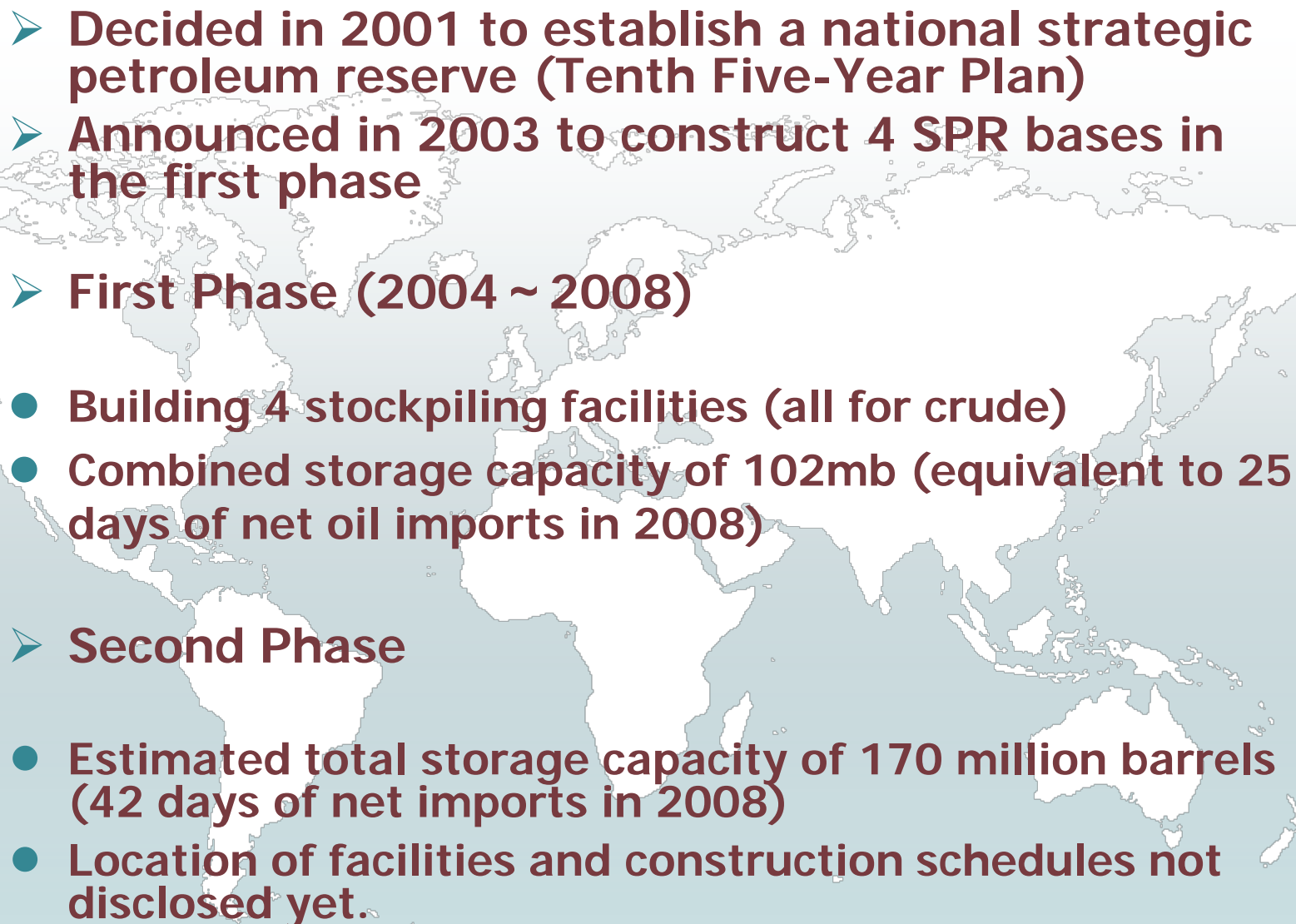
# Total Oil Net Imports





# Stockpiling in China

# Strategic Petroleum Reserves Plan

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- Decided in 2001 to establish a national strategic petroleum reserve (Tenth Five-Year Plan)
  - Announced in 2003 to construct 4 SPR bases in the first phase
  - **First Phase (2004 ~ 2008)**
    - Building 4 stockpiling facilities (all for crude)
    - Combined storage capacity of 102mb (equivalent to 25 days of net oil imports in 2008)
  - **Second Phase**
    - Estimated total storage capacity of 170 million barrels (42 days of net imports in 2008)
    - Location of facilities and construction schedules not disclosed yet.

# First Phase of China's SPR

SPR Site	Location (Province)	Capacity		Facilities	Oil Filling	Refinery
		Million Cubic Meters	Million Barrels			
Zhenhai	Zhejiang	5.2	33	Completed in 2007	Full (Dec. 2007 NDRC)	Sinopec
Aoshan	Zhejiang	5	31	Completed in 2007	Started in 2007	Sinochem
Huangdo	Shandong	3	19		Started in Dec. 2008 (7.3MB)	Sinopec
Dalian	Liaoning	3	19			PetroChina/CNPC
<b>Total</b>		<b>16.2</b>	<b>102</b>		<b>?</b>	

**"Largely Completed"** (Zhang Guobao, head of the National Energy Administration; end Dec.2008)

# Location of SPR Sites



# China's Net Oil Imports and SPR

Year	2007	2015	2030
<b>Oil Demand (MB/D)</b>	<b>7.5</b>	<b>11.3</b>	<b>16.6</b>
<b>Net Oil Imports (MB/D)</b>	<b>3.8</b>	<b>7.7</b>	<b>12.5</b>
<b>Storage Capacity for 90-day of Net Imports (MB)</b>	<b>342</b>	<b>693</b>	<b>1,125</b>

**90 days of net imports is a moving target in volume**

# Emergency Response System of China

## ● Decision-making structure

- *Policy:* National Energy Administration (NEA) of NDRC is responsible for the SPR
- *Operational:* National Oil Reserve Center (NORC) (established Dec. 2007) is responsible for building the SPR

## ● Legislation

- NDRC is drafting an energy law and regulations for management of the national oil reserves

## ● Stockholding structure

- The oil companies (Sinopec, Sinochem, CNPC) are responsible for the day-to-day management of the storage sites

# Industry Stockpiling in China

- **No stockholding obligations on industry**
  - But, NDRC is drafting legislation on emergency stock requirements for industry
- **Industry stock level**
  - Unclear
  - China's three oil majors (PetroChina, Sinopec and CNOOC) reportedly to have stocks of around 20-21 days of consumption early 2007
- **Industry storage capacity**
  - Unclear
  - PetroChina (CNPC) and Sinopec are expanding storage capacities

# Major Industry Storage Facilities

## ● Constructed

Site	Province	Storage Capacity (MB)	Crude or Products	Operator
Shanshan	Xinjiang	6.3	Crude	CNPC
Tieling	Liaoning	5.03	Crude	CNPC
Lanzhou	Gansu	2.3	Crude	CNPC
Ningbo	Zhejiang	24.0	Crude	Sinopec
Nanjiang	Tianjin	3.8	Crude	Sinopec
Shanghai	Shanghai	2.1	Products	Sinopec

## ● Under Construction

Site	Province	Storage Capacity (MB)	Crude or Products	Operator
Daqing	Heilongjiang	7.5	Crude	CNPC
Lanzhou	Gansu	12.6	Crude	CNPC
Jinzhou	Liaoning	3.8	Crude	CNPC
Shaoguan	Guangdong	0.25	Products	CNOOC

# Recent Developments

- **Lower oil prices facilitate build up of Strategic Reserves**

- **China's crude oil imports rose by 130 KB/D in Dec. 2008 from the previous month**

	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>
<b>Crude Imports (MB/D)</b>	<b>3.81</b>	<b>3.26</b>	<b>3.39</b>
<b>Change from previous month</b>		<b>-0.56</b>	<b>+0.13</b>

- **Momentum for construction of the second phase of state strategic oil reserves**
- **Filling of tanks also reported for some industry storage facilities**



# Cooperation with the IEA

# IEA Outreach for China

- **Chinese participation in IEA Meetings**
  - Governing Board at Ministerial Level (May 05, Oct 09)
  - SOM/SEQ (Nov. 2006)
  - GB (Dec. 2006)
  - CERT (July 2007, March 2009)
  - Committee Week (Dec. 2007)
- **Workshops on oil security**
  - Apr. 2001 (Paris), Dec. 2002 and Oct. 2006 (Beijing)
  - Oil market workshop planned in mid 2009 (Beijing)
- **Emergency Response Exercise (ERE)**
  - Chinese participation in ERE2 (2002) and ERE3 (2004)
- **Statistics training workshops**
  - Oct. 2006 (Paris), Nov. 2008 (Beijing)
- **World Energy Outlook 2007**
  - Focus on China and India



# Conclusions

# Summing Up

- **China steadily establishing Strategic Petroleum Reserves**
  - First phase almost completed
  - Construction of the second phase ready to start
  - Long way ahead to reach IEA's 90-day stock level (moving target, legislation, etc.)
- **Lack of data transparency**
  - Filling rate and filling level in SPR sites
  - Industry storage capacity and industry stock levels
- **Boosting oil stockpiling amid low oil prices**
  - Filling into storage facilities of SPR and CNPC in progress
- **IEA remains committed to further cooperation and engagement with China**