

# Reliable Energy for the 21<sup>st</sup> Century

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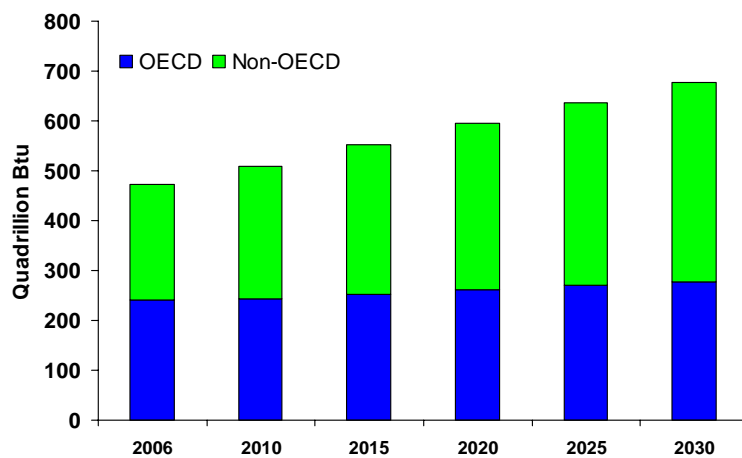
Strengthening Energy Security in the OSCE Area  
Bratislava Conference  
6 July 2009

## Challenge and Opportunity

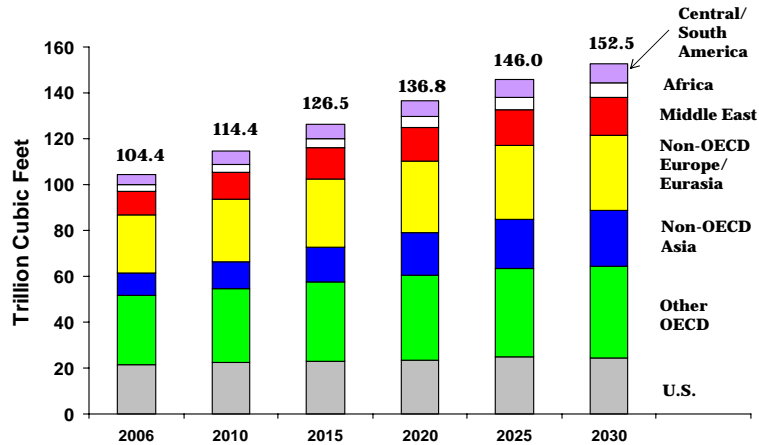
- How to ensure reliable, sufficient, and affordable energy to maintain economic growth and expand access to energy
- Dramatic changes in global market make the challenge much bigger now
- Opportunities are also greater
- Historically energy security has been focused on oil and gas

- For some OSCE participating States, unreliable energy supplies threaten sustainable economic growth and is therefore a key component of national security
- OSCE participating States are among the world's main energy consumers, producers and transit countries. There is a growing interdependence among OSCE participating States regarding energy as well as a common interest in reliability and stability in energy supply, transit and storage.
- While energy security is the theme of the conference we should also perhaps focus on "Energy AND Security" as the signature phrase underpinning the appropriate OSCE role.
- Oil and gas will remain critical and a top priority of effective energy security policies
- However, essential to shift from historical focus on supply side for traditional energy supplies
- Energy security needs to be seen as more than only new sources of oil and gas
- Just as scope of global energy market drivers has expanded, we have to expand our supply and demand side solutions commensurately
- Need to expand our definition of reliable energy and diversification

### Non-OECD countries account for 82% of the increase in global energy use

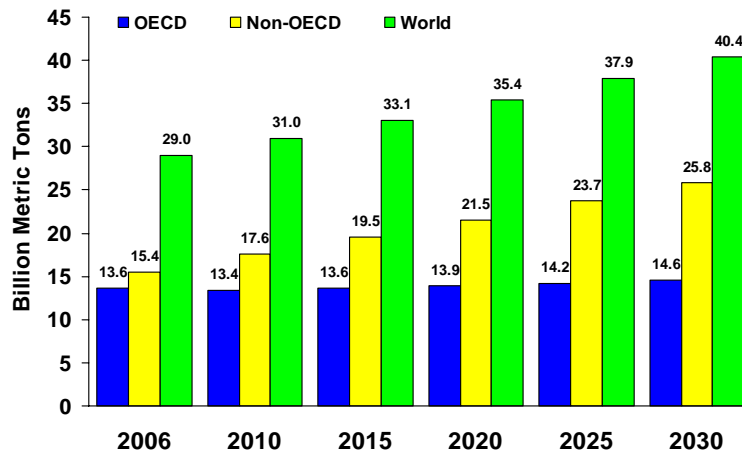


Non-OECD Asia accounts for 31% of the total increase in natural gas use



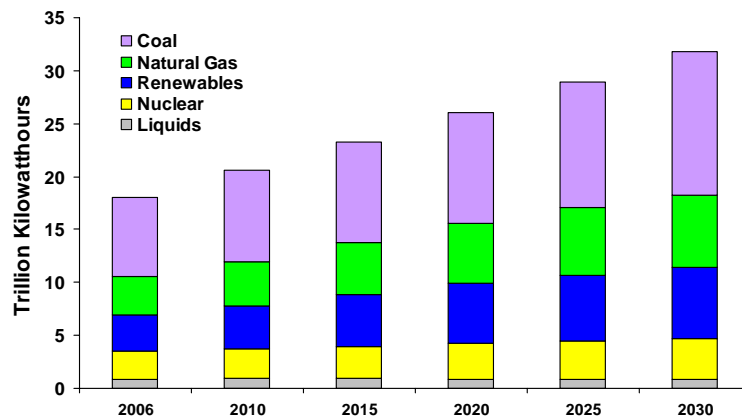
Source: EIA International Energy Outlook 2009 Presentation – 27 May 2009

Without policy changes, energy-related carbon dioxide emissions grow by 39% between 2006 and 2030 in the reference case



Source: EIA International Energy Outlook 2009 Presentation – 27 May 2009

Renewables are fastest growing electricity generation source, but coal and natural gas still fuel nearly two-thirds of world electric generation in 2030



Source: EIA International Energy Outlook 2009 Presentation – 27 May 2009

- These global realities demand action and new approaches
- Changing the way we view the Energy Security Challenge is as important as increasing the range of our solutions
- Challenge is global, but solutions are bottom up
- Energy Security begins at home
- External/global developments matter, but internal/regional energy policies matter more

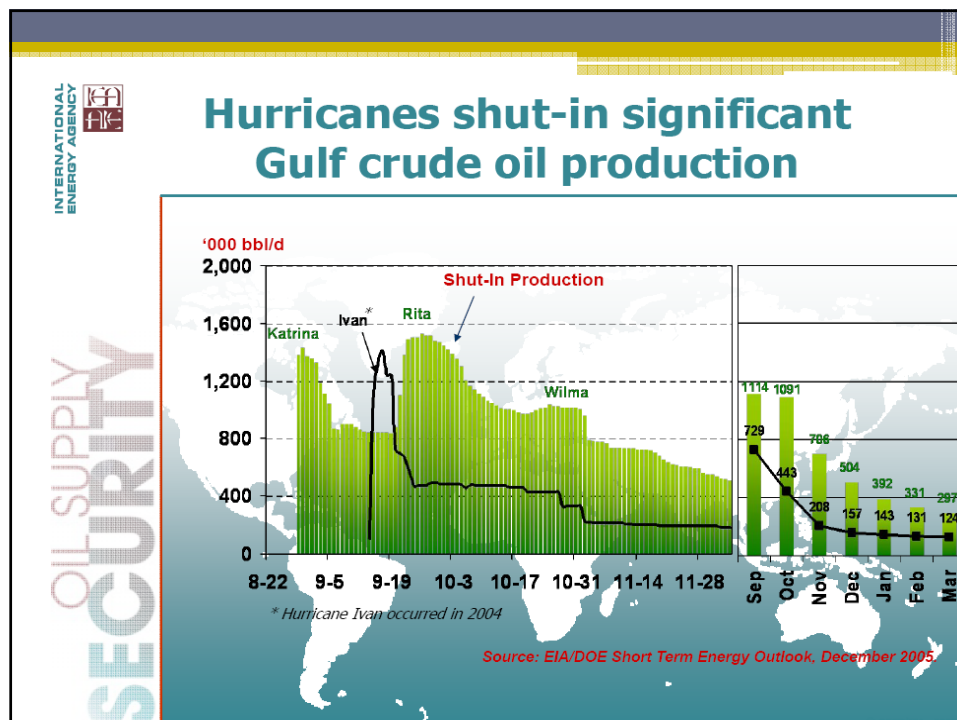
- Factors Vital to Energy Security

- Energy efficiency
- Policies to reduce barriers to cross-border energy flows
- Domestic energy mix
- Policies to promote a low carbon economy
- Reliance on market forces
- Openness to investment and trade
- Predictability
- Domestic production potential and policies
  - Especially for new, renewable, and unconventional supplies
- Transparency
- Robust programs to eliminate or prevent corruption
- Smart grids
- Diversification for both importers and exporters

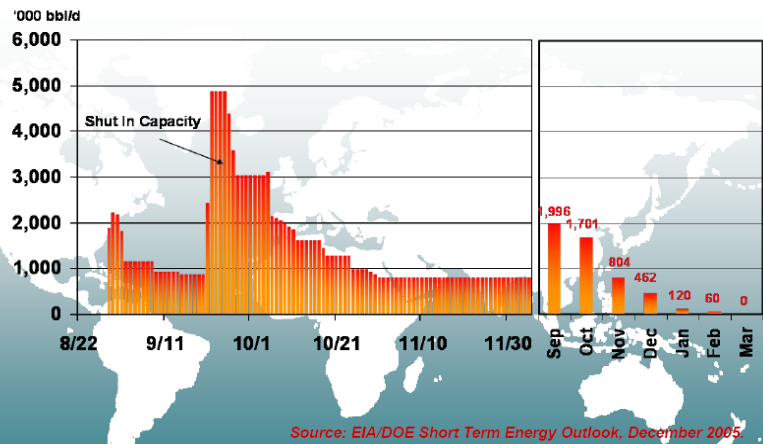
- Country/regional performance measured against these factors are a better indication of energy security than specific new supply projects
- Decisive for ability to handle disruptions
- Stress on Energy Efficiency (EE); EE should be viewed as our first fuel of choice

## Supply Disruptions/U.S. Experience

- A key element of energy security policy is coping with the effects of supply disruptions.
- Over past decade our largest disruptions have been caused by natural disasters.
- In August/September 2005, Hurricane Rita and Katrina led to a major disruption of energy to the U.S. and world.

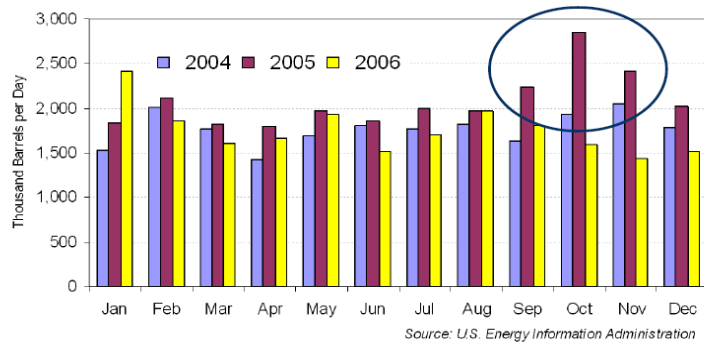


## Hurricanes initially shut down most Gulf refinery capacity



## Katrina action: visibly effective...

### U.S. Finished Petroleum Products Imports (Thousand Barrels per Day)



## U.S. Experience (cont.)

- In addition to the much graver human tragedy involved in that natural disaster, there were substantial energy and economic impacts
- This event had a major negative energy impact nationally and globally, but the regional impacts were the most severe
- However, the impacts would have been much worse, if we did not have a flexible, integrated energy sector to help mitigate the impacts

## U.S. Experience (cont.)

- Price signals reduced consumption and allowed shifts of supplies
- Coordinated drawdown of strategic oil stocks also help temper initial price spikes
- While far from perfect, a key lesson learned was the importance of regional cooperation and limited barriers to expanding options for energy flows, especially, in a crisis
- However, response mechanisms for disruptions cannot substitute for policies promoting a resilient domestic energy sector



## U.S. Experience (cont.)

- The U.S. is now moving urgently and vigorously to implement policies that would reduce our vulnerability to potential future disruption of supply.
  - Increasing Fuel Economy Standards
  - Stressing importance of prompt Congressional actions on legislation to spur low-carbon sources of energy and reduce energy costs by improving efficiency
  - Expanding Regional Cooperation
  - In April, at the Summit of Americas in Trinidad, President Obama announced a proposal for an Energy and Climate Partnership of the Americas, and projects are already underway under this initiative

## Executive Branch: Increasing Fuel Economy Standards

### **Corporate Average Fuel Economy (CAFE)**

*Policy will increase CAFE Standards in vehicle model years 2012-2016 with the objective of:*

- Increasing fuel economy on average 5% per year, to 35.5 mpg in 2016
- Saving 1.8 billion barrels of oil over lifetime of vehicles
- One Uniform National Standard in cooperation with California and other states



## U.S. Congress & Climate Change

House Energy and Commerce Committee:  
American Clean Energy and Security Act 2009

### **Develop Clean Energy**

- Renewable Energy
  - Requires all retail utilities to generate certain percentage of load from renewable sources
- Carbon Capture and Sequestration
  - Provides for early demonstration programs and incentives for wide-scale commercial deployment
- Clean Fuels and Vehicles
  - Promotes biofuels with new low-carbon fuel standard and authorizes financial support for commercial demonstrations of electric vehicles
- Smart Grids and Electricity Transmission

## U.S. Congress & Climate Change

House Energy and Commerce Committee:  
American Clean Energy and Security Act 2009

### **Increase Energy Efficiency**

- Energy Efficiency in Building's
  - Provides training and funding to states that adopt efficiency codes
  - Requires the EPA to develop a process for rating building efficiency
- Appliance Energy Efficiency
  - Codifies agreements on lighting and other appliance standards
  - Creates financial incentives for retailers to sell more efficient appliances
- Utility Energy Efficiency
  - Establishes standards for electricity and natural gas distributors
  - By 2020: 15% cumulative electricity savings and 10% natural gas savings relative to BAU projections

## Energy and Climate Partnership of the Americas

*"We must come together to find new ways to produce and use energy...So today, I'm proposing the creation of a new Energy and Climate Partnership of the Americas that can forge progress to a more secure and sustainable future."*  
- U.S. President Barack Obama

- Energy Efficiency
- Renewable Energy
- Cleaner Fossil Fuels
- Infrastructure
- Energy Poverty



## Conclusions

- Access to affordable and reliable energy and an efficient energy sector is a necessary condition for the economic growth and sustainable development of all countries of the OSCE region.
- Energy is therefore highly relevant to the Organization's signature concept of comprehensive security.
- Positive actions by a country or region benefits other countries
- Different energy endowments and history but generally convergent interests
- Energy policies,
  - Win/Win or Lose/Lose
  - No Win/Lose option in long-run
- Think global, act local