

## PAKISTAN STRATEGIC ENERGY SITUATION

- THREATS
  - Imported oil constitutes over 31% of energy consumption 2002/2003 at a cost of \$ 3,096 billion.
  - The depletion/decline of Pakistan's natural gas reserves/production will increase dependence on imports.
  - Energy prices are expected to increase over the next few years.
  - The tipping point in global supply and demand will occur within the next decade if not earlier.
  - To reduce poverty and increase prosperity – the energy consumption in Pakistan has to increase.
  - The price and availability of natural gas and oil can potentially have grave impacts to Pakistan's welfare and national security.

- **OPPORTUNITIES**

- India's appetite for energy is escalating – natural gas pipelines from either Iran or Central Asia will have to pass through Pakistan. LNG for India is an option but at a much higher price.
- China also has also signed 20 year natural gas agreement with Iran – though for LNG. As China develops its Western regions it may find a pipeline option more attractive not only for economic but also for security reasons.
- Since Pakistan's situation is more acute than most developed and developing countries it can be a lead player and model in the Changing Global Scenario – Proactive as opposed to traditional economic reactive after the event.

## ○ WHAT

- Decrease dependence on energy imports – displace imported fuel with local energy and hydrogen.
- Reduce Poverty
- Increase prosperity
- Increase energy consumption to sustain growth in GDP
- Mitigate risk to national security
- Increase usage of Hydrogen as a fuel - Eventually achieve congruence between energy and environment.
- Increase efficiency of energy usage.
- Move to decentralized and distributed energy generation and sustaining scenario.
- Globally recognized as an Alternate Energy and Power Generation Technology Nation.
- Global exporter of alternate energy and power generation solutions.

## ○ HOW

- Deletion policies should be expanded to include fuels, energy and power generation.
- Close coordination between energy and environment policies.
- Leverage private sector for implementation.
- Policies to generate establish and foster alternate energy and power industry and research – the markets potential should be clearly visible to MNCs and International investors.
- Establish Alternate Energy and Power Research, Development and Testing facilities – similar to Argonne and NREL in USA.
- Develop global state of manpower and human resources to support cradle to death expertise in the sector.
- Develop Global alliances to secure and dependable supply chain relationships.
- Organization and mechanisms developed to ensure timely implementation at national, provincial and local levels.
- Initiate Pilot programs to benchmark new and emerging technologies – provide forums for private sector awareness of innovative opportunities and solutions.
- Foster niche markets for early commercialization of new technologies.