

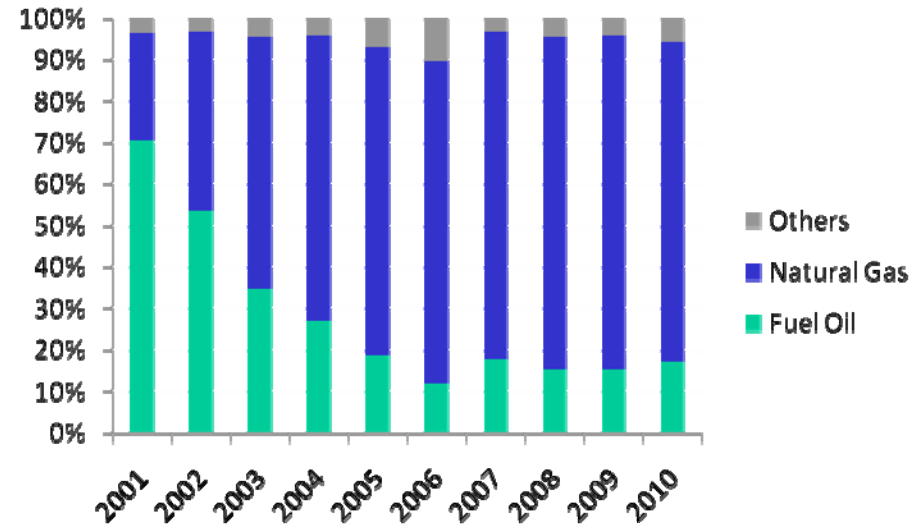
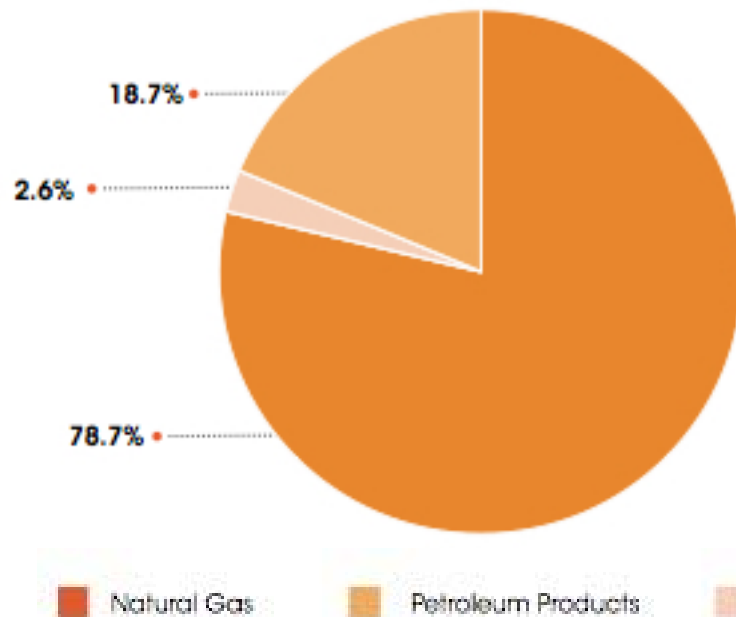


Singapore's energy initiatives

39th EGNRET, Shanghai

Singapore's energy mix

Singapore's fuel mix in 2010



- Singapore is an energy importer that is highly dependent on fossil fuels to power our economy
- Constraints with renewable energy deployment: no hydro or geothermal energy resources
- Low wind speed (2m/s) and limited scope for solar energy

Singapore's Energy Policy

Our Challenges

Resource & alternative energy disadvantaged

Energy importer and price taker

Small, urbanised environment poses constraints on fuel sources we can use

Our Approach

Economic competitiveness

Diversifying our energy sources

Enhancing infrastructure and systems

Increasing energy efficiency

Strengthening the green economy

Pricing energy right

Environmental sustainability

Energy security

LNG Terminal

LNG terminal is one plank of Singapore's energy security strategy to diversification of energy sources

Terminal allows Singapore to take advantage of global trends in the gas market and develop as a regional gas hub

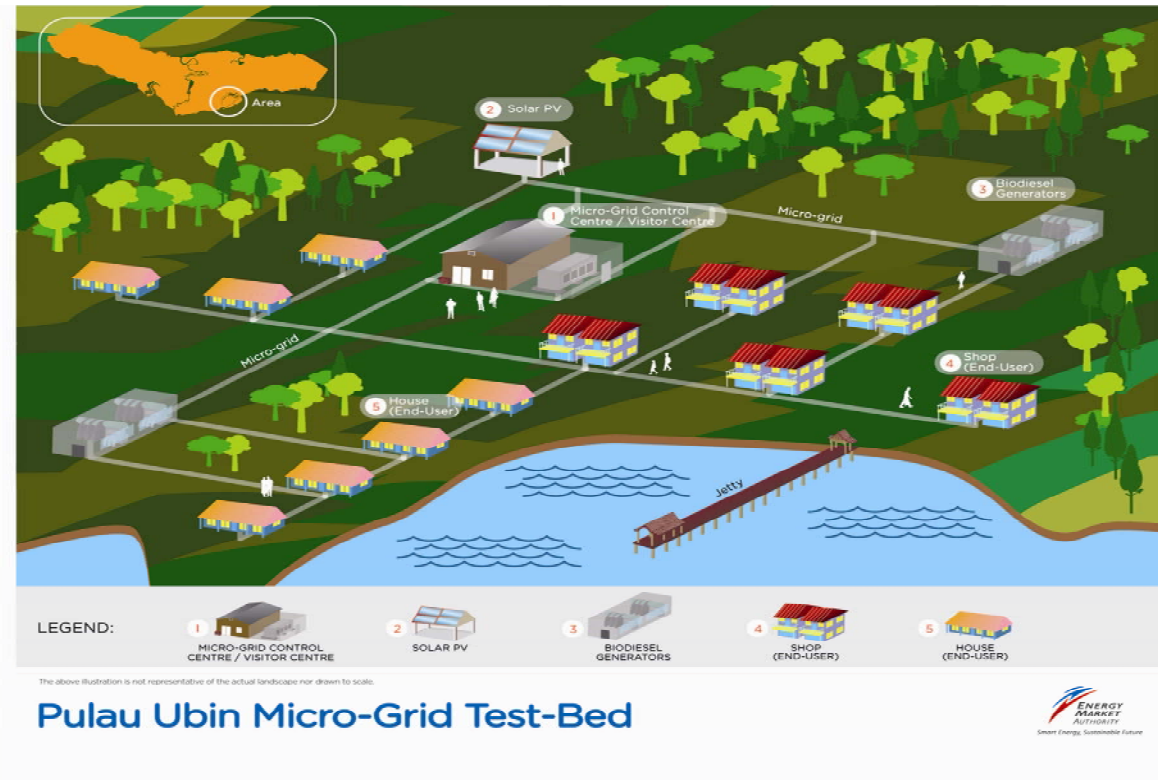


- ▶ Singapore's first LNG terminal is about 80% complete and on track to begin operations in the Q2 of 2013
- ▶ Will achieve up to 6 million tonnes per annum (Mtpa) of throughput capacity by end 2013
- ▶ As of Jul 2012, BG has sold 2.7 Mtpa of its 3 Mtpa franchise

Clean Energy Solutions

Pulau Ubin is a small island in the North-East of Singapore traditionally powered by diesel generators

A consortium comprising Daily Life Renewable Energy (DLRE) and OKH Holdings Pte Ltd will build, own and operate the micro-grid infrastructure

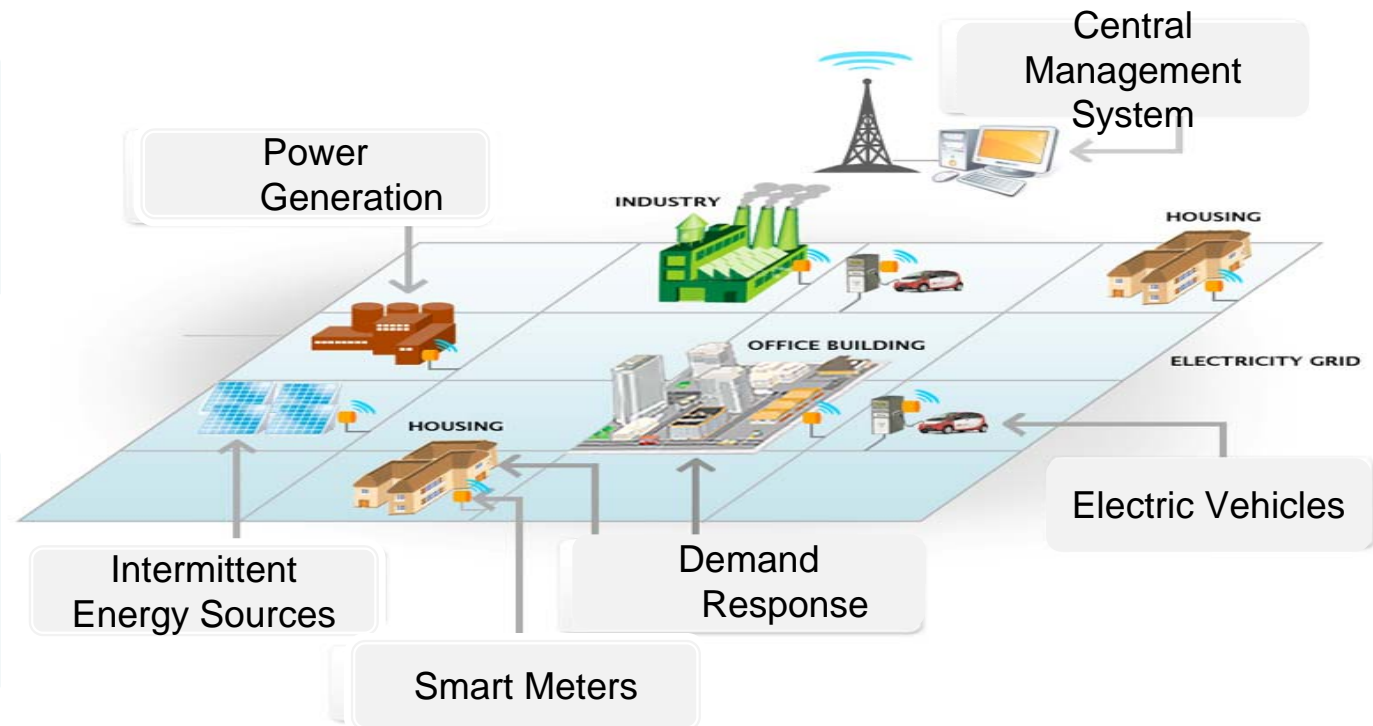


Test-bed assesses how clean & renewable energy can be deployed in an environmentally and economically sustainable manner to provide reliable electricity supply to off-grid communities

Intelligent Energy System

Launched in 2010
by the EMA in
partnership with
Singapore Power

Will provide
consumers with
more information,
choice and real-
time control



- The IES pilot project will be conducted in two phases:
- Phase 1 completed : Focused on the implementation of the IES enabling infrastructure
- Phase 2: Focuses on the use of smart grid applications to be tested with consumers for including demand response for commercial & industrial consumers, and improving energy efficiency through information from smart meters and in-home display units for households

Electric Vehicle (EV) Test-Bed

EMA and LTA co-lead the multi-agency EV Taskforce to test-bed EVs in Singapore. The test-bed was launched on 25 Jun 2011 and will end by Dec 2013.

The EV test-bed aims to evaluate the feasibility of using EVs in Singapore when the costs of EVs become commercially viable.



- Vehicular tax exemption under the enhanced Transport Technology Innovation and Development Scheme (TIDES-PLUS) is provided as an incentive for test-bed participants.
- Robert Bosch (South East Asia) Pte Ltd has been appointed as the Charging Service Provider to set up charging infrastructure for the test-bed.
- Today, 4 EV models are available for test-bed participants (Nissan Leaf, Renault Fluence Z.E., Mitsubishi i-MiEV and Daimler smart electric drive.)

Energy Conservation Act

Energy Efficiency-related legislation will be consolidated in an Energy Conservation Act that will be introduced in 2013

Helps Singapore achieve the target of a 35% improvement in energy intensity by 2030, from 2005 levels



Appointment of energy managers

Reporting of energy use

Energy efficiency improvement plans

- ▶ Improves the energy performance of companies and making them more competitive in the global economy
- ▶ Complement existing schemes and capability building programmes to support companies investing in energy efficiency
- ▶ Ensure a co-ordinated approach to standards setting for energy efficiency across all sectors

Singapore International Energy Week



IRENA
Director –
General Mr
Adnan Z.
Amin



IEA
Executive
Director Ms
Maria van
der Hoeven



- 2012 marks 5th anniversary of SIEW, which has developed into a key regional platform for global energy debate
- SIEW has grown in importance as focal point for high-level energy dialogue in the region, witnessing growth in ministerial and C-suite attendance (Citigroup and Royal Dutch Shell)
- SIEW programme has matured to encompass an end-to-end value chain ranging from oil & gas to renewable energy, smart grids and energy trading

Thank You

