

S I E W L I O N

SECURING OUR ENERGY FUTURE

TUESDAY 1 NOVEMBER



Nobuo Tanaka, former head of the International Energy Agency at SIEW 2011.
Credits: Tom White

Asia Faces Rocky Road in Securing Energy Needs

By FLORENCE TAN and FRANCIS KAN

GOVERNMENTS in emerging Asian economies will struggle to secure their rising energy needs as rapidly swelling demand in leading consumers China and India outpaces growth in supplies, which is likely to keep oil prices over \$100 a barrel.

High fuel costs for importers are threatening their economies as they grapple with rising subsidy bills and inflation.

The fuel burden, with oil imports costing around 5 percent of gross domestic product, is weighing on economic growth, said Richard Jones, deputy executive director of the International Energy Agency.

"It's particularly sensitive in emerging markets, India is a country that has got a particularly high oil burden, they import a lot," Jones said.

The rise in prices has been partly blamed on the growing energy

appetite of Asian nations. China, the world's second-biggest economy, has driven oil demand growth for a good part of the past decade. India is also competing to secure scarce energy resources for its billion-plus people.

The global economy needs to see lower prices, Nobuo Tanaka, former head of the International Energy Agency, said.

"If \$100 oil continues, it will be as bad as 2008," Tanaka told the

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Energy giant Royal Dutch Shell expects Asia to be a key growth region in the long term, accounting for a huge part of the company's oil and gas investments as it expands, Chief Executive Peter Voser said on Monday.

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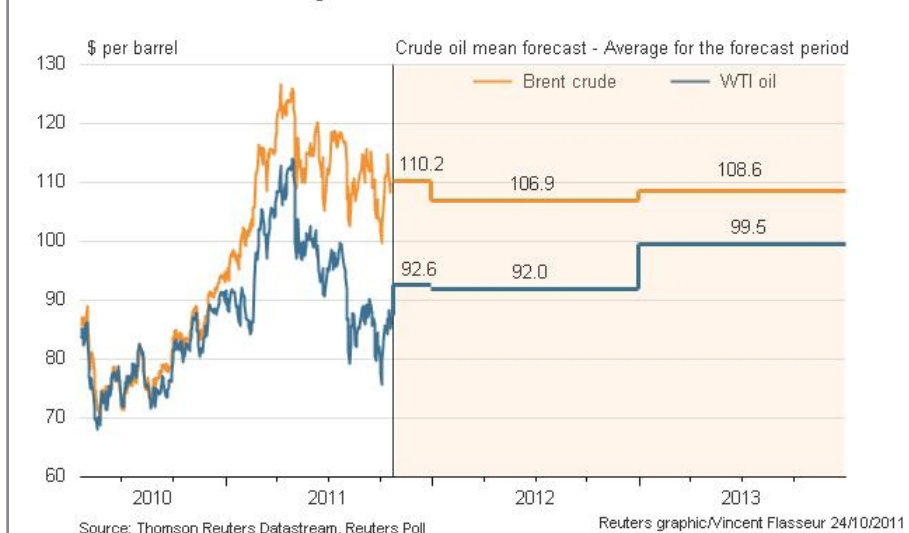
Singapore is prepared to expand the capacity of its upcoming liquefied natural gas (LNG) terminal for spot trading as power utilities seek to boost output by using the fuel to meet local demand, said S Iswaran, Second Minister for Trade and Industry.

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Petrobras to Have Stable Cash Flow: CEO | 5

Brazil's state-run Petrobras expects an increase in fuel sales revenue to cushion the impact of global oil price volatility once local prices are raised on Nov. 1, its CEO, Jose Sergio Gabrielli, said on Sunday.

Reuters oil poll - October 2011



Singapore International Energy Week (SIEW) conference.

Brent prices have averaged over \$111 a barrel so far this year, sharply up from an average of around \$80 in 2010. The front-month contract hit a high of \$147.50 in July 2008, just ahead of the global financial crisis of that year.

Brent at over \$100 would cut global oil demand by around 1 million barrels per day (bpd) from what fuel consumption would be at a price of \$70 to \$80 per barrel, Tanaka said. That would slice more than 1 percent from total world fuel consumption.

Brent will average \$106.80 per barrel next year and \$108.60 in 2013, a recent Reuters poll of 35 analysts showed, as demand for fuel from China and other emerging economies keeps the global oil market tight.

The burden of high energy costs on growth contributed to the sharp slowdown in the global economy in the wake of the 2008 financial crisis. High prices led to such a sharp slowdown in fuel demand that oil producer group OPEC was forced to make record output cuts.

The oil minister for the United Arab Emirates did say producers can tolerate a further fall in oil prices to

\$80-\$100 a barrel, the first indication of a preferred price range from a Gulf Arab producer since OPEC talks collapsed in June.

High oil prices would help guarantee future supplies, UAE oil minister Mohammed bin Dhaen al-Hamli said, by encouraging more investment in crude production capacity, which would mean less volatile prices.

"We need a reasonable price to continue building capacity," Hamli told the conference.

"The higher the capacity, the less fluctuation in prices."

The UAE, one of three Gulf OPEC producers with spare capacity, is pumping at 2.5 million barrels per day (bpd) from capacity of 2.7 million bpd, Hamli said, having upped output to help meet a supply shortfall from Libya.

The Arab Spring and the disruption to Libya's oil output have added to the difficulty policy makers face as they search for secure oil supplies.

"The recent spate of unrest in the Middle East and North Africa has generated doubt over the reliability of energy supplies from the region," said S Iswaran, minister in the Singapore Prime Minister's office.

"These events have caused increased volatility in energy markets and prices, heightening the policy challenge of governments to secure reliable and affordable energy supplies to sustain growth."

(Additional reporting by Simon Webb, Jessica Jaganathan, Luke Pachymuthu, Randy Fabi; Writing by Manash Goswami; Editing by Michael Urquhart and Clarence Fernandez)



Mohammed bin Dhaen al-Hamli, UAE Oil Minister at SIEW 2011. Credits: Tom White

Shell says Asia to be Key Growth Area Long Term

By FLORENCE TAN and FRANCIS KAN

ENERGY giant Royal Dutch Shell expects Asia to be a key growth region in the long term, accounting for a huge part of the company's oil and gas investments as it expands, Chief Executive Peter Voser said on Monday.

"Asia Pacific for us is the key growth region in the portfolio of Shell. We see a lot of growth and hopefully enough growth that it can actually drive the worldwide economy," Voser told reporters at the Singapore International Energy Week.

"That's where huge parts of our investments actually go."

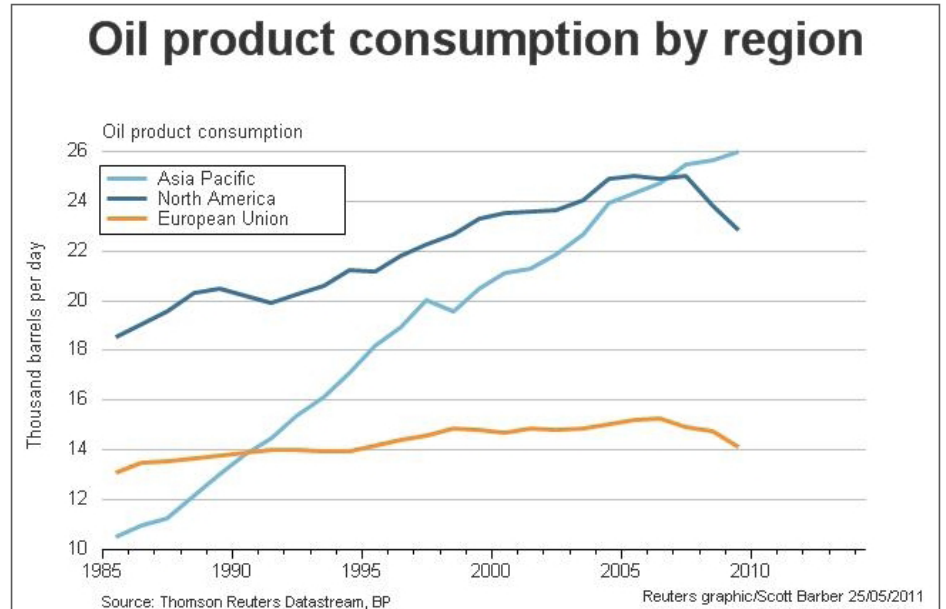
Shell is looking at a variety of projects in Asia, ranging from a liquefied natural gas (LNG) venture in Indonesia to upgrading its refinery in the Philippines to selling LNG to Southeast Asian countries, Voser said.

The company is working on expanding gas output at the Malampaya field offshore Philippines and is looking at investing in its 110,000 barrels-per-day refinery at Tabangao, Batangas near Manila, to meet new fuel standards, he added.

"We just would like the government to give us time to make those investments," he said.

In July, the Philippine government said it would move forward with a \$1.5 billion expansion of the Malampaya project with its partners Shell and Chevron.

Philippines Energy Undersecretary Jose Layug said the country plans to begin importing LNG in the next four to five years and is in talks with U.S., Canadian and Australian suppliers.



In Indonesia, Shell is waiting for government approval to buy a 30 percent stake in the Masela gas block in the Timor Sea from Inpex Corp, Voser said.

The company is also keen to work across the whole chain in Vietnam, from supplying LNG in the long term to entering the oil retail business, he said.

Outside Asia, the company aims to start exploration drilling in Alaska by the middle of next year, and is in discussions with the authorities to resume work on two exploration wells in Libya, he said.

CHINA SHALE GAS

Shell is also examining how it will tap the vast shale gas resources in North America and may apply the same technologies in China in the long run, Voser said.

Shale gas could be converted to chemicals or to transportation fuels for consumption by trucks in Canada

or for exports, Voser said.

Shell could also export LNG from Canada to top Asian consumers such as Korea, Japan and China, he said.

"That's the way we look at optimising shale gas principally in North America and potentially long term in China," Voser said.

Voser told Reuters in March that Shell aims spend \$1 billion a year over the next five years on shale gas in China if its explorations works under way prove a success.

The company is drilling 17 wells in China, including for tight gas and shale gas, in regions such as southwestern Sichuan, China's most prolific gas province.

Shell, Europe's largest oil company by market capitalisation, reported last week a big jump in third-quarter profit last week, driven mainly by higher oil and gas prices with help from increased production.

(Editing by Miral Fahmy)

Singapore LNG Terminal can be Expanded for Spot Trade

By FRANCIS KAN

SINGAPORE is prepared to expand the capacity of its upcoming liquefied natural gas (LNG) terminal for spot trading as power utilities seek to boost output by using the fuel to meet local demand, said S Iswaran, Second Minister for Trade and Industry.

Britain's BG Group has filled orders for almost 90 percent of its exclusive 3 million tonnes per year franchise to import LNG through the terminal, just over two years into its 20-year deal, Iswaran said.

"Demand has been strong so BG's 3 million tonnes per year will be fully subscribed to soon. We started with two tanks then we announced a third, and we have provisions to build additional tanks if we need to," Iswaran said in an interview with Reuters at the Singapore International Energy Week.

"The primary purpose (of the terminal) is to meet Singapore's energy needs, but we are prepared to leverage on this facility as a platform to facilitate trading."

The first two tanks of the terminal are expected to come online in early 2013, with the third tank to be ready a year later. The facility is designed to allow for up to six tanks.

Singapore is gaining prominence as a trading hub for LNG, with at least 12 global players setting up teams in the city-state in the past three years to tap the surge in demand in China and India.

The latest entrant is state-run gas utility GAIL India Ltd which plans to launch its trading desk in Singapore during SIEW.

Rising LNG exports from the United States will also help to ease tight supplies expected in the next few years and encourage spot trading, said Iswaran.

Last week, BG Group became the first company to seal a U.S. LNG export deal when it signed a 20-year agreement to source gas from Cheniere Energy's upcoming LNG export terminal at Sabine Pass in Louisiana.

OPEN TO ALL OPTIONS

Iswaran said that nuclear energy is still on the cards for Singapore but any decision on its use is far away. The city-state could also generate electricity from coal with the right technology in place to cap emissions.

"We don't want to rule any option out because Singapore doesn't really have the luxury of having too many options in the first place," he said.

The government is conducting a "pre-feasibility" study on nuclear power to better understand the industry, he added.

Around 80 percent of the city-state's electricity is generated by gas-powered plants as companies upgrade their facilities from less efficient oil-fired plants.

Singapore's electricity demand grew almost 9 percent last year to an all-time high, driven by strong economic growth, but moderated in the first quarter this year as the economy cooled.

Singapore is also studying possible ways for starting electricity imports, Iswaran said.

"The Energy Market Authority will



S Iswaran, Second Minister for Trade and Industry & Minister in Prime Minister's Office at SIEW 2011. Credits: Tom White

commence a public consultation exercise by the end of this year on the regulatory framework to govern electricity imports to Singapore," he said.

On the issue of energy co-operation in South East Asia, Iswaran said governments could accelerate progress on their plans for an ASEAN power grid and a trans-ASEAN gas pipeline in light of the region's surging demand for power.

"There seems to be a greater level of impetus in this space because of the growth in the need for energy, and my sense there will probably be greater momentum in this effort," he said.

"It is already happening on a bilateral level so an ASEAN grid will be a stitching together of these elements."

In June, Singapore-based PowerSeraya exported power to Malaysia's national power producer Tenaga Nasional in a first cross-border commercial sale of electricity.

(Editing by Himani Sarkar and Manash Goswami)

Petrobras to Have Stable Cash Flow After Price Hikes: CEO

By FLORENCE TAN

BRAZIL'S state-run Petrobras expects an increase in fuel sales revenue to cushion the impact of global oil price volatility once local prices are raised on Nov. 1, its CEO, Jose Sergio Gabrielli, said on Sunday.

"This gives a stable cash generation to the company regardless of international fluctuation in the price of oil," Gabrielli told Reuters on the sidelines of the Singapore International Energy Week conference.

Petrobras announced on Friday it was raising fuel prices for the first time since May 2008, a move welcomed by investors worried that government price controls to cool inflation will eat into the company's profit.

Brazil has a long-term pricing policy and does not pass on the daily fluctuations in oil prices to its market, Gabrielli said.

"However, we have to adjust the Brazilian price to the international price in the long run," he said.

Brazil's oil demand will grow at 8-9 percent this year, slightly slower than the "too strong" 10.5 percent growth posted in 2010, Gabrielli said.

The European crisis will not change the trend of a shift in geographical demand of the oil market from OECD countries to emerging countries, he said.

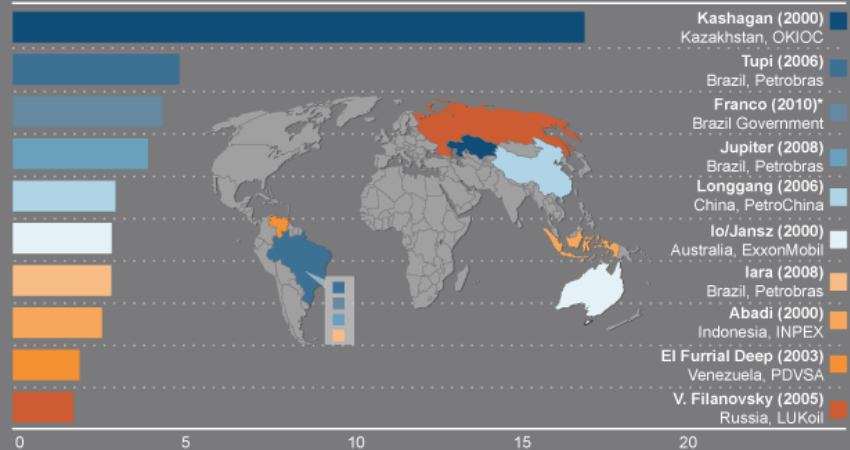
"Emerging countries are going to continue to grow unless we have a catastrophic recession in Europe which I don't think is going to happen," Gabrielli said.

(Editing by Ron Popeski)

World's largest recent oil discoveries

Brazil is home to four of the ten biggest finds in the last ten years

Reserves – billions of barrels of oil equivalent



* Based on preliminary data provided by Brazil's government
Source: Wood Mackenzie Exploration Service, Brazil's ANP Energy Regulator, Thomson Reuters

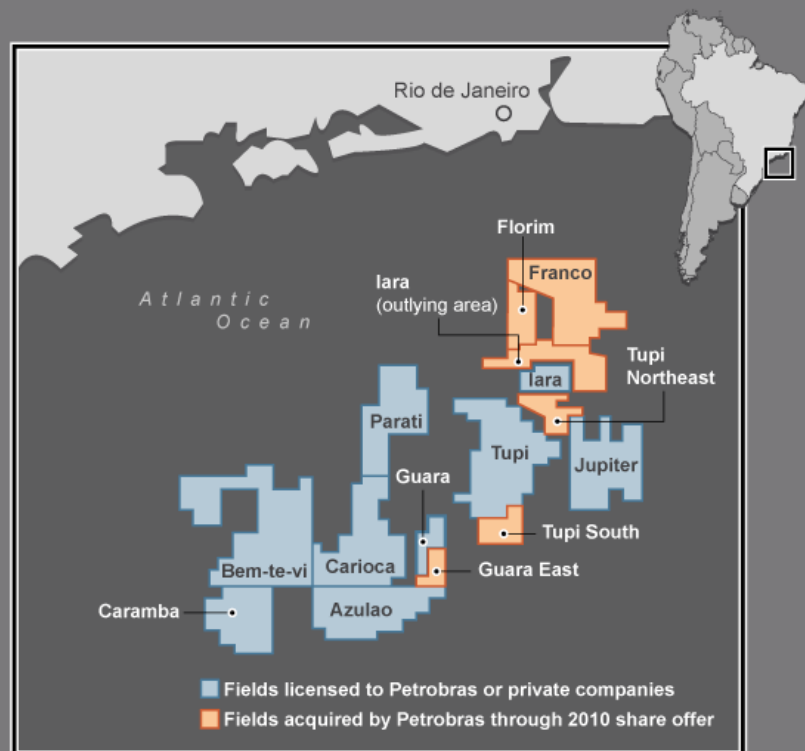
Reuters graphic/Stephen Culp, Chloe Joy

29/06/10



Major oil discoveries in Brazil's Santos Basin

Petrobras bought 5 billion barrels of crude in deep-water fields via 2010 stock offer.



Source: Thomson Reuters

Reuters graphic/Stephen Culp



18/06/11

IEA Sees No Need for OPEC to Cut Output at Dec Meet



Richard Jones, Deputy Executive Director of the International Energy Agency at a function in Geneva. REUTERS/Denis Balibouse

THE IEA does not want OPEC to cut output at a meeting in December as demand for the producer group's oil will be half a million barrels per day (bpd) more in 2012 than it pumped last month, a top IEA official said on Monday.

Gulf Arab oil producers raised oil supply this year to compensate for the loss of output from Libya, where civil war shut down production. Libya's output is recovering, but the International Energy Agency saw no need for producers to cut back, the agency's Deputy Executive Director Richard Jones said.

"Our projection for the call on OPEC for the whole of 2012 is about 500,000 barrels per day above what they were producing in September. So we don't want them to cut back for sure," Jones told Reuters on the sidelines of Singapore International Energy Week.

Libya's output has risen since September, plugging some of the shortfall forecast by the IEA, which advises 28 industrialised countries on energy policy. Libyan exports would rise to around 350,000 bpd in November, sources at the National Oil Company (NOC) told Reuters in an interview on Sunday.

That was up from the 80,000 bpd the IEA said Libya produced in September.

FUEL COSTS SLOW ECONOMY

Fuel costs have been high enough to drag on the global economy all year, Jones said.

Net oil imports for oil importing countries stood at around 5 percent of their GDP, Jones said. Global recession has typically followed such high oil costs in the past, he added.

"Whenever we see the so-called

oil burden getting over 5 percent of GDP we're pretty nervous," he said. "That's the level we're at now. It's happened 3-4 times in the last 30-40 years and we pretty much always get a recession. Emerging markets are particularly sensitive — India has a high oil burden."

Jones declined to name a price that would prevent fuel costs dragging on economic growth.

Former IEA chief Nobua Tanaka said earlier on Monday that a price of \$70 to \$80 was good for both producers and consumers, while a sustained Brent crude price above \$100 was damaging to the global economy.

Brent crude has averaged over \$111 this year, and traded over \$109 a barrel on Monday.

Oil producers could tolerate a further fall in oil prices to \$80-\$100 a barrel, the oil minister for the United Arab Emirates said on Monday, the first indication of a preferred price range from a Gulf Arab producer since OPEC talks collapsed in June.

The IEA was not concerned about a slowdown in China as the country's economy continues to grow quickly, Jones said. The health of industrialised economies were much more of a concern as China continues to grow quite quickly, he added.

(Reporting by Simon Webb; Editing by Michael Urquhart)

Singapore Plans Micro-Grid for Cleaner, Reliable Electricity



CLEANER and more reliable electricity will come Singapore's way with the setting up of a micro-grid test-bed on Pulau Ubin, a boomerang-shaped island to the city state's northwest.

The Energy Market Authority (EMA) has appointed a Singapore-based consortium, comprising Daily Life Renewable Energy Pte Ltd (DLRE) and OKH Holdings Pte Ltd (OKH), to design, build, own and operate a micro-grid test-bed incorporating clean and renewable energy resources at the jetty area on Pulau Ubin.

"The micro-grid test-bed is a useful project for Singapore to pilot a solution that will benefit residents and businesses on Pulau Ubin," said Chee Hong Tat, chief executive of the Energy Market Authority.

"It will also enable us to better understand the impact of using intermittent renewable sources on our power system. If this project is successful, it will help to open up opportunities for Singapore companies to spearhead the adoption of such technologies in the region."

At present, residents and businesses on the 1020-hectare island rely on diesel generators, which are expensive to operate and inconvenient to users when they break down, besides being noisy and polluting.

The test-bed will establish a micro-grid to provide access to cleaner and more reliable electricity. It will be set up in two phases. The first phase will establish the micro-grid infrastructure by the first half of 2012, with electricity supply to users by the end of the year. The second phase will involve the integration of additional innovative clean and renewable energy solutions to the micro-grid.

File photograph of Chee Hong Tat, chief executive officer of the Energy Market Authority, Singapore. REUTERS/Handout/EMA Singapore

SECURING OUR ENERGY FUTURE

IEA to Launch World Energy Outlook in Singapore in Dec



International Energy Agency Chief Economist Fatih Birol speaks during the Reuters Global Energy and Climate Summit in London. REUTERS/Benjamin Beavan

THE World Energy Outlook 2011, the flagship publication of the International Energy Agency (IEA), which is widely recognised as the most authoritative energy source for global energy projections and analysis, is to be launched in Singapore on December 14.

IEA Chief Economist Fatih Birol will hold a two-hour session, to be moderated by Dr Tilak K. Doshi, Principal Fellow and Head of the Energy Economics Division of the Energy Studies Institute (ESI).

The report will provide energy

demand and supply projections for different future scenarios by country, fuel and sector. It will have a special focus on:

- Russia's energy prospects and its implications for the global markets
- The role of coal in driving economic growth in an emissions-constrained world
- The implications of a possible delay in the oil and gas sector investment in the Middle East and North Africa
- How high-carbon infrastructure "lock-in" will make the 2 degrees

Celsius climate change goal even more challenging and expensive to meet

- The scale of fossil fuel subsidies and support for renewable energy and their impact on energy, economic and environmental trends
- A "low nuclear case" to investigate what a rapid slowdown in the use of nuclear power would mean for the global energy landscape
- The scale and type of investment needed to provide modern energy to the billions of poor worldwide who do not have it

Singapore's Three-Pronged Energy Strategy



S Iswaran, Second Minister for Trade and Industry & Minister in Prime Minister's Office at SIEW 2011. Credits: Tom White

THERE are three prongs in Singapore's strategy to address its energy challenge of securing reliable energy supplies to sustain growth, said S. Iswaran, Minister in the Prime Minister's Office.

The first and most important thrust is diversification, for which the Liquefied Natural Gas (LNG) terminal was developed, Iswaran said at the opening of the Singapore International Energy Week (SIEW) 2011 on Monday.

With the LNG terminal due to commence operations by the second quarter of 2013, more options are also being explored for the medium term to enhance Singapore's energy security and fuel mix, said Mr Iswaran, who is also Second Minister for Home Affairs

and Trade & Industry.

SIEW, now in its fourth year, is the leading platform for senior policymakers, industry leaders and academics to deliberate and exchange perspectives, strategies and solutions to major issues impacting the global energy agenda.

Among the options being explored is the possibility of importing electricity from elsewhere in the region. The government will commence a public consultation on the regulatory framework and will be looking into possible ways of introducing electricity imports to ensure benefits to consumers in Singapore, without compromising the reliability of the country's power system.

Managing energy demand is the second prong of the effort. Iswaran said Singapore does this by pricing energy right to reflect its true cost, without subsidies that can lead to the inefficient use of a scarce and precious resource.

The city state's third thrust is to be a "Living Lab" for innovative energy solutions through the test-bedding of technology that could help Singapore overcome energy constraints in future. Referring to the electric vehicle pilot project which started in June this year, Iswaran said that Renault-Nissan would be coming onboard as well with two new electric vehicles, the Renault Fluence Z.E. and the Nissan Leaf.

Changing Power Trends in ASEAN



A PT Perusahaan Gas Negara Tbk (PGN) employee checks pipes at a gas receiving-and-transmitting station in Bojonegara, Banten province, Indonesia. REUTERS/Supri

THREE ASEAN ministers were involved in a dialogue session over energy security concerns and new trends in the power industry that will help satisfy the region's increasing demand for energy.

The summit session on "Power trends in South-east Asia" was part of the opening day of the Singapore International Energy Week (SIEW) 2011 on Monday.

SIEW is the leading platform for senior policymakers, industry leaders and academics to deliberate and exchange perspectives, strategies and solutions to major issues affecting the global energy agenda.

Speakers included Singapore's S. Iswaran, minister in the prime minister's office and second minister for trade and industry, Malaysia's Idris Jala, minister in the prime minister's office and Philippine Energy Secretary Jose Rene Almendras.

The officials discussed the major drivers that will shape the energy mixes of members of the Association of South East Asian Nations going forward and the impact of Japan's Fukushima crisis on the nuclear renaissance in Southeast Asia.

The discussions also touched on the steps needed to enhance prospects for greater regional energy cooperation

and connectivity and the case for greater cross-border electricity imports to meet future electricity demands.

ASEAN groups Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

The region, encompassing 600 million people and a combined \$2 trillion economy, is aiming for a free trade bloc by 2015 that would spur movement of goods, people and services. It posted average growth of 7.5 percent last year as its export-dependent economies rebounded following the global financial crisis.

ENERGY TRADING

Smart Energy Communities



European Union Energy Commissioner Günther Oettinger attends a news conference in Algiers. REUTERS/Zohra Bensemra

SMART communities of the future will be the next big global trend as cities and communities integrate sustainable solutions that offer clean, secure and affordable energy.

A cleverer use of resources and more innovation in urban planning will not only help cut energy consumption but provide an ideal testing ground for new energy technologies and solutions.

That was the conclusion of a seven-member panel on the opening day of Singapore International Energy Week (SIEW) 2011 on Monday. The panel comprised individuals from the public, private and non-profit sectors who assessed the factors behind the establishment of smart communities, focusing on key technologies used in developing model green cities and exploring the possibility of expanding smart communities in developing countries.

Among the speakers were:

- Hiroshi Asahi, Director-General for Energy & Environmental Policy at Japan's Ministry of Economy, Trade and Industry
- Dick Benschop, President-Director of Shell Netherlands & Vice-President for Gas Market Development at Shell
- Girish Tanti, an independent director at Suzlon Energy
- Glenn Schmidt, Head of Steering Governmental Affairs, BMW,
- Dr Bartosz Wojszczyk, Global Director, Smart Grid Solutions, GE Energy,
- Michael Liebreich, CEO, Bloomberg New Energy Finance, and
- Günther Oettinger, European Commissioner for Energy, who spoke via pre-recorded video.

ANNOUNCEMENTS

November 1

PV ASIA PACIFIC

- Official launch of APVIA
- Welcome speech by Lee Yi Shyan, Minister of State
- Corporate announcement by Trina Solar

CLEAN ENERGY EXPO ASIA

- Event launch announcement
- Welcome remarks by Vivian Balakrishnan, Minister for the Environment and Water Resources

A*STAR

- Official opening of the Experimental Power Grid Centre

DOWNSTREAM ASIA

- Event launch announcement

