



Session 4: APERC Research Activities

C. APEC Energy Overview 2012 and 2013

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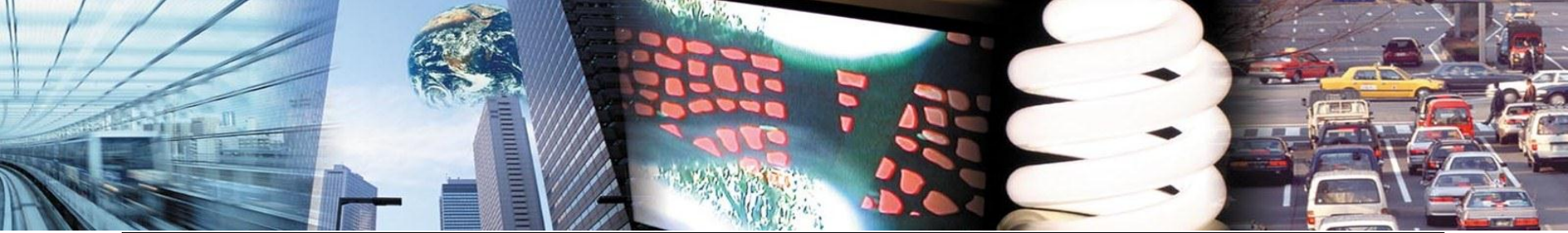
**The 25th Meeting of the Expert Group on Energy Data Analysis (EGEDA)
Bangkok, Thailand, 11-13 November, 2013**





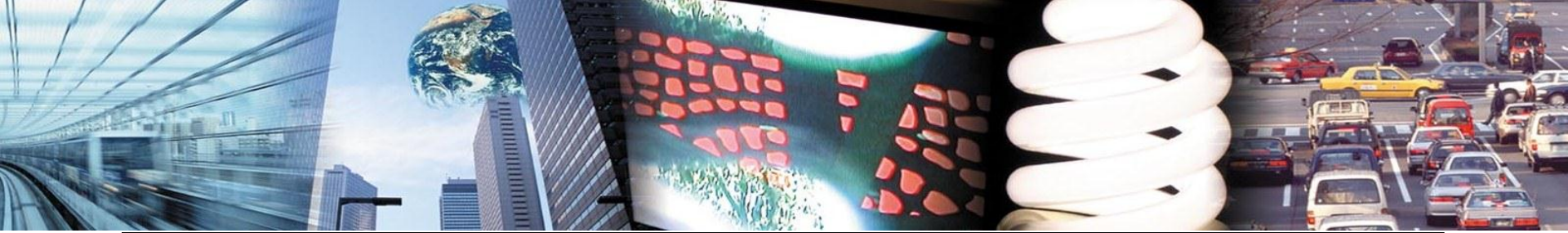
Outline

- Project context
- Contents of the 2012 Overview
- APEC economic profile
- APEC energy profile
- Notable energy developments
- Expected Timeframe for “Overview 2013”



Project Context

- The project was proposed at the 11th EGEDA Meeting and approved at the 19th EWG Meeting
- The 2012 edition is the 12th in the series
- It provides energy trend analysis, policy context and notable energy developments



Contents of the 2012 Overview

Introduction

- Key data and economic profile (2010); energy reserves

Energy Supply and Consumption for 2010

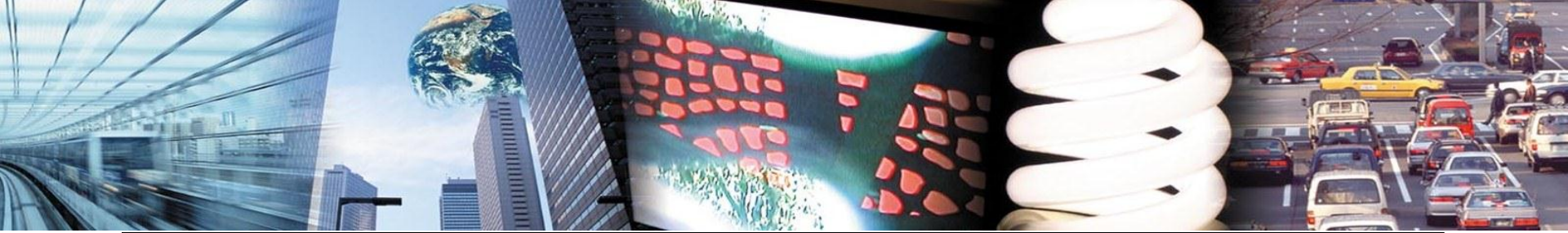
- Primary energy supply
- Final energy consumption

Policy Overview

- Energy policy goals, objectives and strategies

Notable Energy Developments

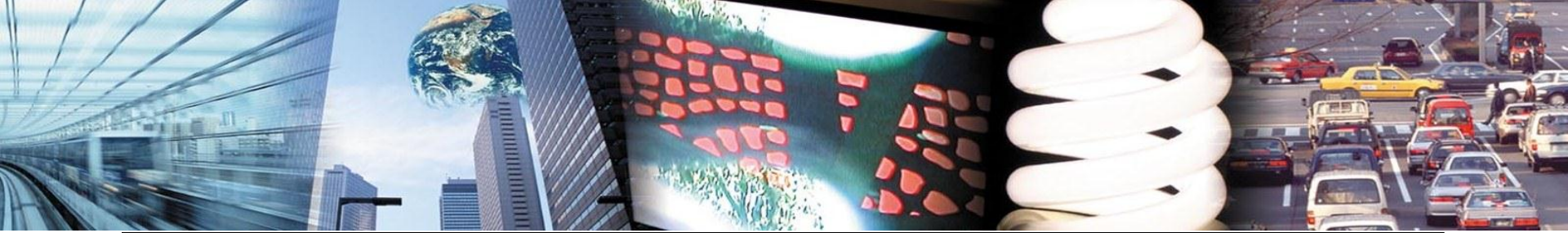
- Changes to policies, regulations and programs
- Energy projects and infrastructure development



The Need for Further Cooperation

Member economies are strongly encouraged to:

- Suggest ways to improve the Overview
- Submit information on notable energy developments to the EWG in time for the Overview
- Continue to provide updated information during the review process



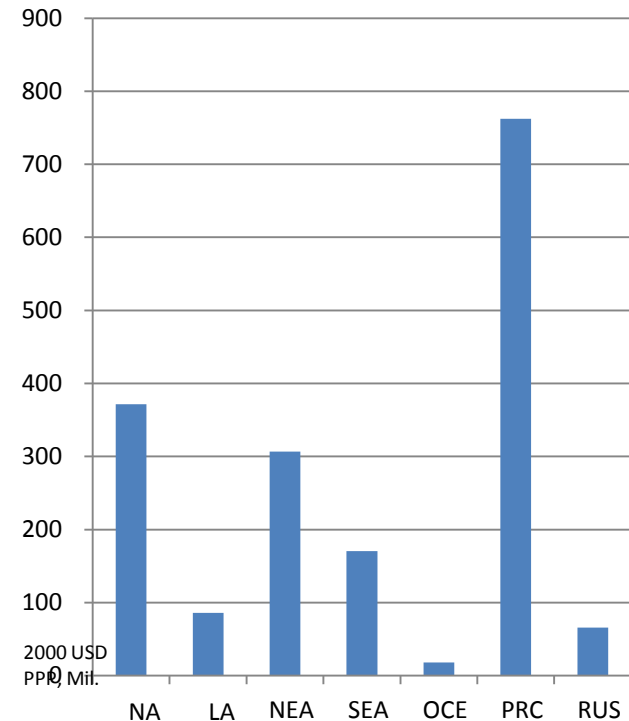
GDP growth recovered from the global recession

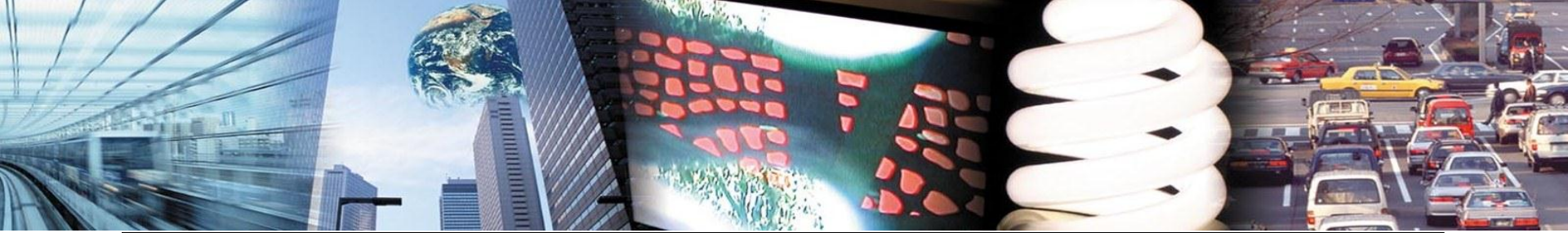
GDP by region

	2009	2010	growth
	2000 USD PPP, Million		%
North America	12,229	12,600	3.04
Latin America	1,417	1,503	6.07
Northeast Asia*	5,407	5,714	5.67
Southeast Asia	2,227	2,398	7.65
Oceania	782	799	2.30
China	7,330	8,083	10.40
Russia	1,533	1,599	4.30
APEC	30,925	31,906	3.17

* In this presentation, "Northeast Asia" encompasses Japan; South Korea; Hong Kong, China; and Chinese Taipei.

Change in GDP



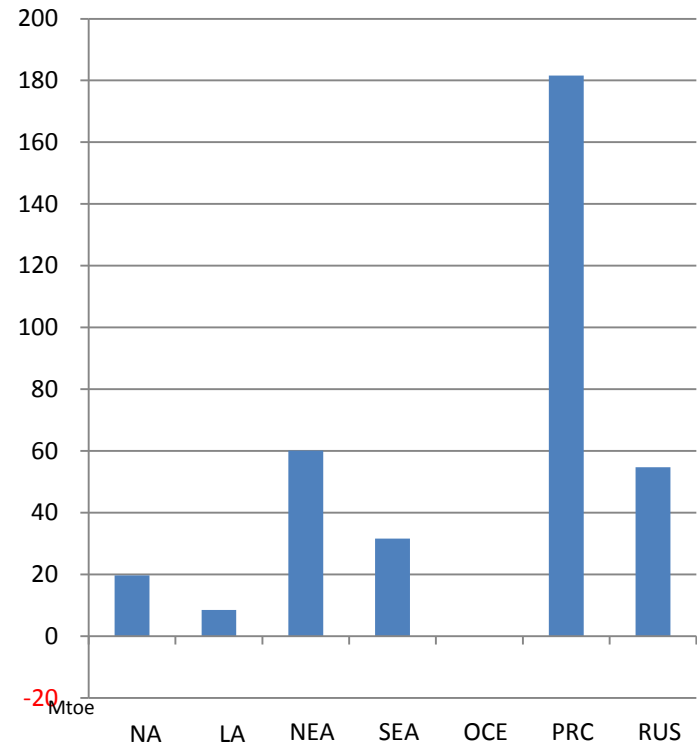


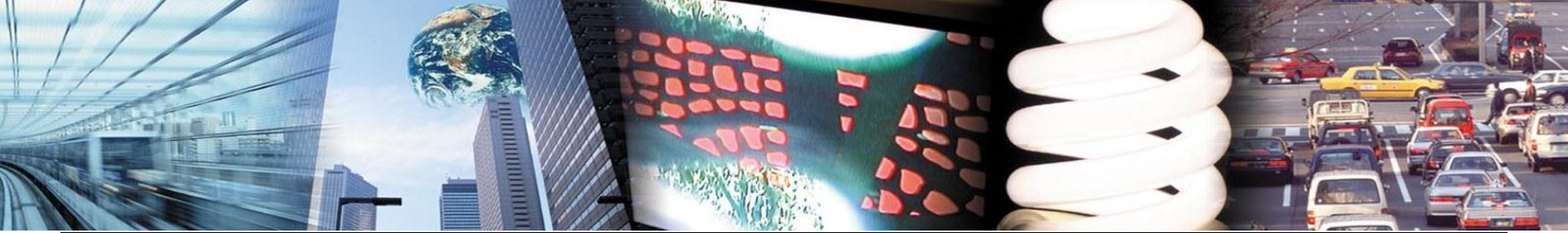
Growth in TPES varied across APEC

TPES by region

	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
North America	2,125	2,420	2,439	0.81
Latin America	144	218	226	3.90
Northeast Asia	584	813	873	7.39
Southeast Asia	148	424	456	7.45
Oceania	102	147	147	-0.17
China	654	2,118	2,299	8.57
Russia	878	647	702	8.47
APEC	4,634	6,787	7,143	5.24

Change in TPES



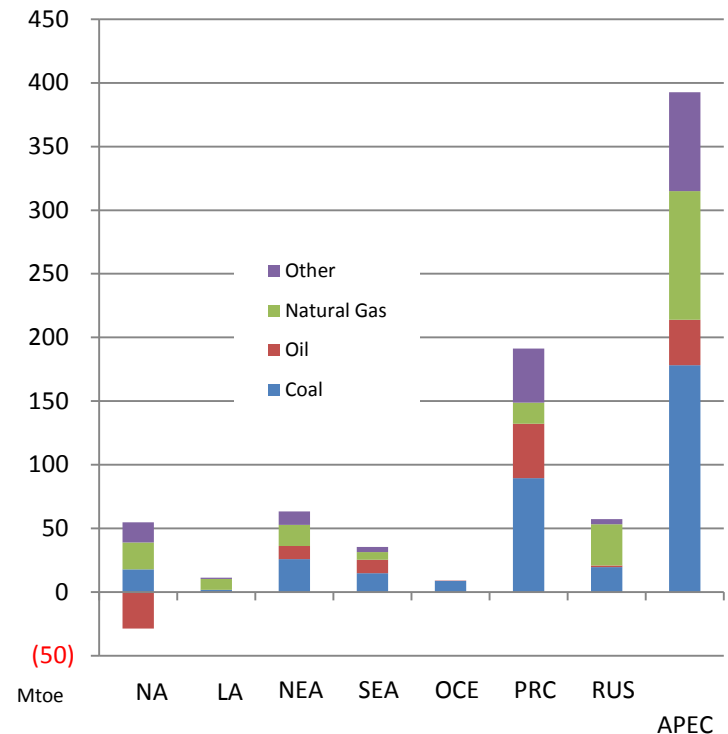


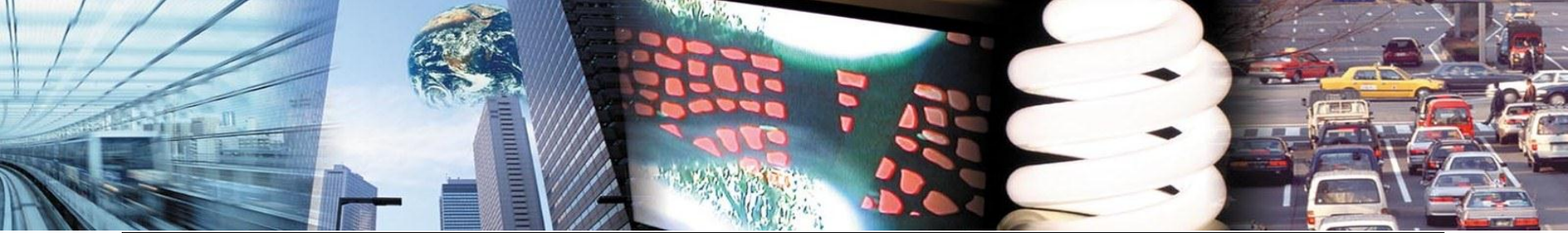
Coal remains important to the region, but the role of gas is increasing

TPES by energy source

	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
Coal	1,360	2,519	2,697	7.08
Oil	1,770	2,114	2,149	1.69
Natural Gas	998	1,382	1,483	7.31
Other	599	1,081	1,158	7.17

Change in TPES



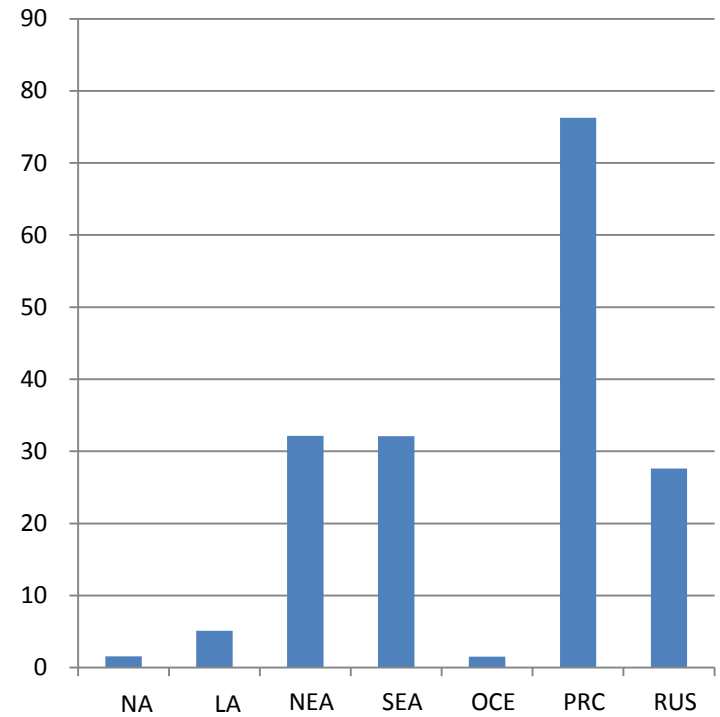


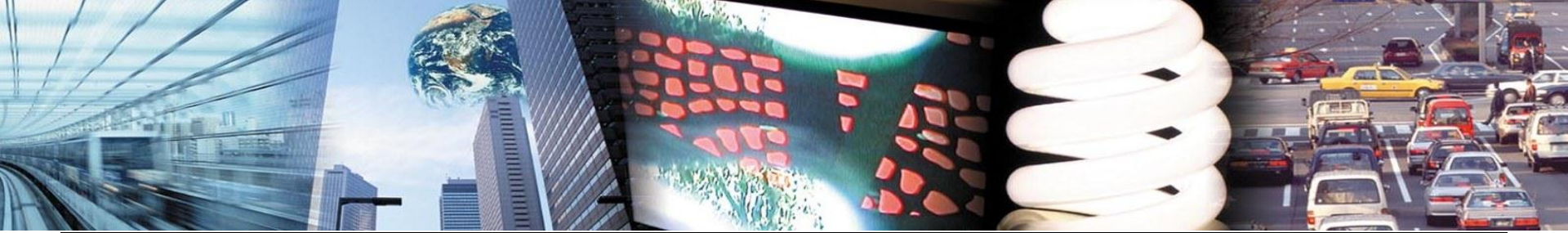
Growth in TFEC varied across APEC

TFEC by region

	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
North America	1,451	1,664	1,665	0.10
Latin America	102	145	149	3.54
Northeast Asia	406	528	561	6.08
Southeast Asia	97	262	294	12.26
Oceania	66	88	89	1.74
China	490	1,279	1,356	5.96
Russia	625	418	446	6.60
APEC	3,233	4,385	4,562	4.02

Change in TFEC

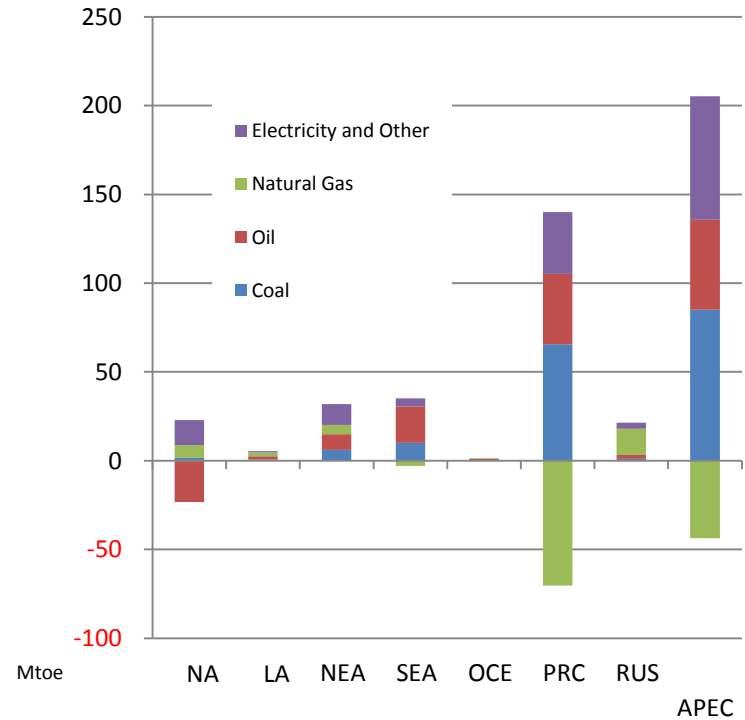




Final energy demand for coal steadily increased

TFEC by energy source				
	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
Coal	518	599	685	14.19
Oil	1,385	1,877	1,927	2.70
Natural Gas	551	736	692	-5.94
Electricity and Other	502	904	973	7.69

Change in TFEC





Strong energy production growth in China and Russia

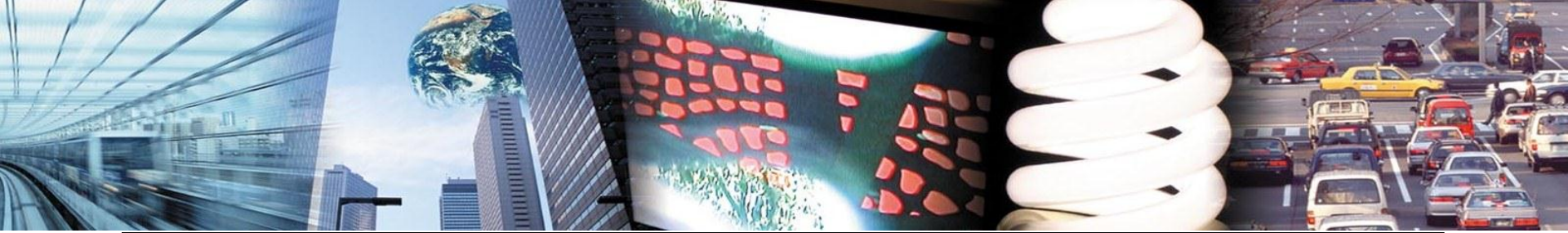
Indigenous Energy Production

	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
North America	1,928	1,944	1,984	2.08
Latin America	210	243	253	4.06
Northeast Asia	109	153	159	4.39
Southeast Asia	216	517	535	3.54
Oceania	175	316	330	4.41
China	706	1,897	2,087	10.00
Russia	1,293	1,186	1,293	8.99
APEC	4,637	6,256	6,642	6.17

Net Energy Imports

	1990	2009	2010	growth
	Mtoe			2009 - 2010 %
North America	283	412	384	-6.97
Latin America	-63	-19	-24	26.35
Northeast Asia	492	698	762	9.21
Southeast Asia	-51	-52	-42	-19.50
Oceania	-66	-159	-182	13.95
China	-30	282	334	18.30
Russia	-413	-533	-579	8.55
APEC	150	628	652	3.89

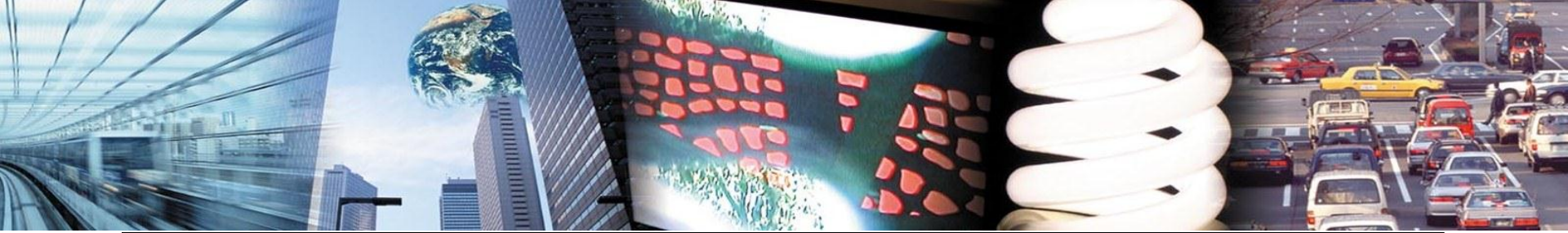
Figures in red indicate growth in net exports



Notable Policy Trends and Developments

The sustainable development and use of energy resources is at the forefront of energy policy in APEC:

- Energy Strategy and Policy
- Energy Efficiency and Conservation
- Environment
- Renewable Energy



Energy Strategy and Policy

Australia

The Energy White Paper 2012 was released to build a secure, resilient and efficient energy system.

Brunei Darussalam

The 10th National Energy Development Plan (RKN 2012-2017) is in force. This is the 2nd five-year plan under the long-term development plan. Vision Brunei 2035.

Chile

In early 2012, the National Energy Strategy 2012-2030 was released to guide the energy sector and set its policy and objectives in the long term. Six priorities were established to accomplish this goal.

Peru

Energy Policy of Peru 2010-2040 aims to meet its energy demand in a safe, sustainable, reliable and efficient way with nine objectives.

The Philippines

The 2012-2030 Philippine Energy Plan was launched to realise the energy sector's vision of achieving energy independence.

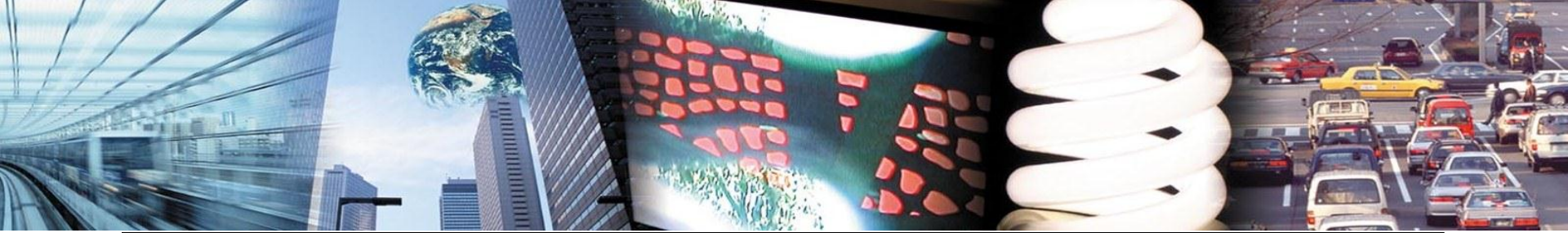
Singapore

Five key strategies: diversify energy supplies, enhance infrastructure and systems, improve energy efficiency, strengthen the green economy and pricing energy right.

Chinese Taipei

In April 2012, the Energy Industry Technology White Paper was released to set up a roadmap for the development of the energy industry.

In September 2012, the Key Strategy for Energy Development was released to re-address issues of security, efficiency and clean policies for the future energy supply and demand.



Energy Efficiency and Conservation

Chile

Aims to achieve energy efficiency goal of a 12% reduction in the energy demand forecasted for 2030.

China

The Top-1000 Energy-Consuming Enterprise Programme focuses on improving energy efficiency in China's largest 1000 companies, responsible for one third of China's total energy use.

The Programme of Plant Closures aims at closing down the smallest, dirtiest and least efficient factories in a number of heavy industry sectors.

The Development Plan for Energy Saving and New Energy automobile Industry (2012-2020) was released to introduce more environmentally-friendly vehicles in to the domestic market.

Japan

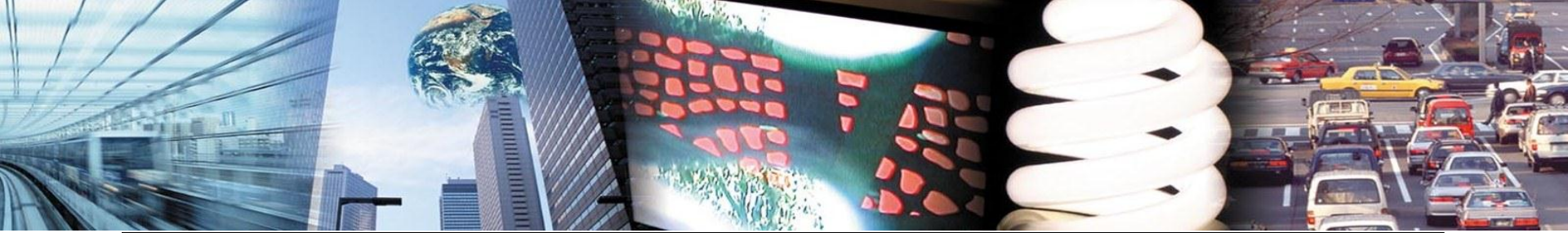
In 2012, the Government called for saving electricity during summer and winter period in anticipation of a possible shortage of electricity supplies due to stoppage of almost all the Japan's nuclear power plants.

The Philippines

The National Energy Efficiency and Conservation Programme (NEECP) aims at rationalising the Philippines's demand for petroleum products and lessening the impact of escalating prices on the economy. NEECP covers 6 sectors and consists of nine programme components.

Thailand

The draft Energy Conservation Program Phase 4 (2012-2016) addresses future crises caused by oil price volatility, climate change.



Environment

Australia

The Clean Energy Act 2011 establishes the structure of and process for introducing economy-wide carbon price on 1 July 2012 and the transition to an emission trading mechanism on 1 July 2015.

Chile

Since 2012, Mitigation Actions Plans Scenarios are going on to estimate mitigation scenarios and their economic impacts for 2020, 2030 and 2050.

Japan

The Tax for Promotion of Global Warming Countermeasures took effect on 1 October 2012. The tax is levied on crude oil and oil products, gas, and coal.

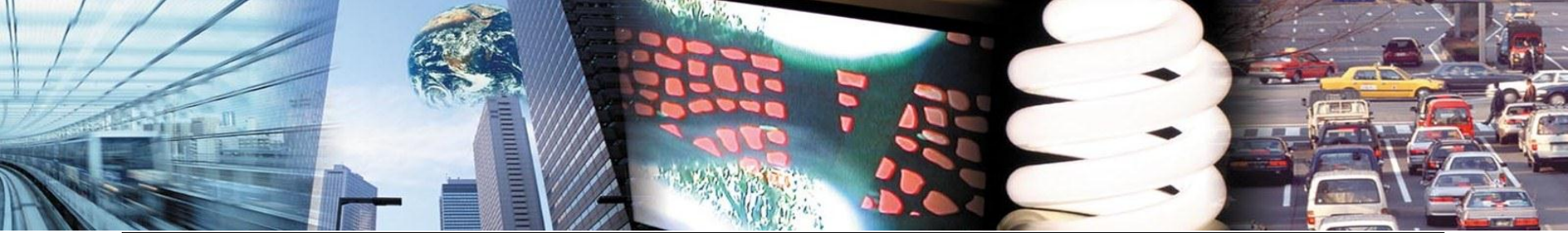
New Zealand

In November 2009, the Government approved a number of amendments to the emissions trading scheme, including amendments to the timeframe (from 1 July 2010 to 31 December 2012) for entry into the scheme.

Previously all sectors of economy were expected to be included from 2015 at latest. However, in 2012 the Government excluded the agricultural sector until there are economically viable and practical technologies.

Thailand

Enforce the schedule for EURO4 standards from 1 January 2012.



Renewable Energy

Australia

In Jan. 2011, the enhanced Renewable Energy Target (RET) includes the Small-scale Renewable Energy Scheme (SRES) and the Large-scale Renewable Energy Target (LRET).

Japan

The Feed-in Tariff was introduced on 1 July 2012. This obliges electric utilities to purchase electricity generated from renewable energy sources (solar photovoltaic, wind power, small and medium-sized hydro-power, geothermal and biomass) based on fixed period contracts with fixed prices.

Korea

The Renewable Portfolio Standard was introduced in 2012 to support the construction of 1 million 'green homes' by 2020 and to provide incentives for the wider use of renewable energy sources in new and newly-innovated buildings.

Malaysia

In Dec. 2011, the Feed-in Tariff for power generated from renewable energy resources was introduced.

New Zealand

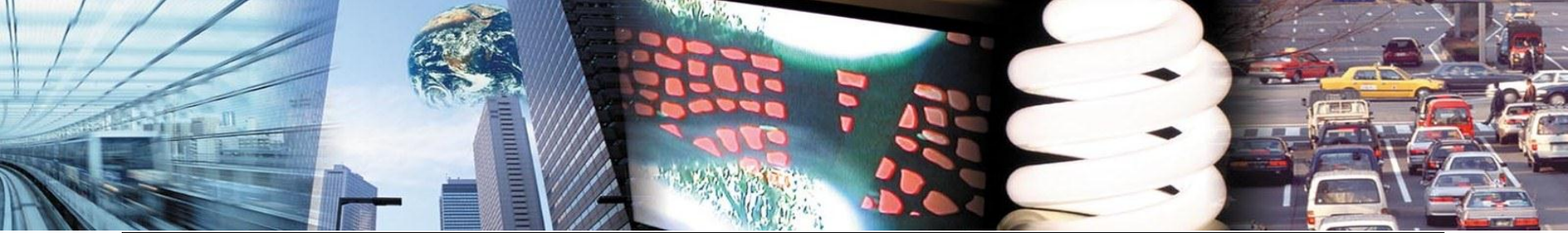
Retains the target of 90% of electricity to be generated from renewable sources by 2025.

Chinese Taipei

The target: Electricity from renewable resources will account for 8% of total electricity generation by 2025. Photovoltaic (PV), wind power and bio-energy have been promoted.

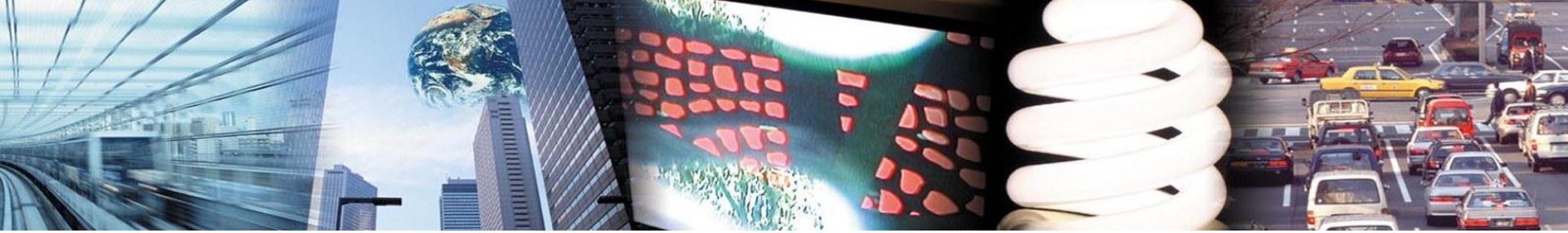
Thailand

The Renewable and Alternative Energy Development Plan (2012-2021) sets a framework to increase the share of renewable and alternative energy to 25% of total energy consumption by 2021.



Expected Timeframe for “Overview 2013”

- First drafts to be completed by mid November 2013
- Drafts to come back from editors in late November 2013
- First circulation to member economies in early December 2013
- Comments from member economies to be received by mid December 2013
- Second round of editing if necessary in early January 2014
- Receive the final comments (if any) from member economies by mid January 2014
- Publish PDF-version of “Overview 2013” will be available on APERC’s website in late January 2014



Thank You

**APEREC looks forward to cooperating with
you in the future**

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