# Policy Note



# Strengthening energy markets

"Emerging economies have become major players and the balance of energy trade has shifted towards the Asia Pacific region. As this year's President of the G20 we want global energy institutions to reflect this reality, and want to make energy markets more transparent, resilient and efficient."

#### Australian Prime Minister Tony Abbott, Houston, Texas, June 2014

## Energy underpins economic growth and resilience

Energy powers transport and industry and drives economic growth and employment. Countries that use energy efficiently are able to enhance their economic productivity and improve their competitiveness.

Each year until 2030, at least 150 million people globally will be entering the middle class. This will bring almost 60 per cent of the world's population into a middle income bracket. Over the same period energy demand is projected to increase by 40 per cent.

The International Energy Agency (IEA) estimates that by 2035, more than \$48 trillion in cumulative global investment will be required to meet the world's growing need for energy.

#### A CHANGING GLOBAL ENERGY LANDSCAPE

The way energy is produced, traded and consumed is changing rapidly.

Commercial opportunities are expanding, especially in North America, for globally abundant oil and gas resources, which are not produced or extracted using traditional techniques. Shale gas, trapped in impermeable rock is one example.

Low-carbon and renewable forms of energy are also assuming a greater share of the global energy mix. Europe in particular has seen a significant expansion of wind and solar power generation. Countries are also seeking to consume energy more efficiently, adopting measures to improve industrial competitiveness and energy security, cut household energy bills and reduce pollution. In 2012, the amount of energy used for every dollar of economic output declined by 1.5 per cent worldwide, compared with an average annual decline of just 0.4 per cent between 2000 and 2010.



### THE CHANGING GLOBAL ENERGY LANDSCAPE

Against this backdrop, international trade in energy is undergoing significant transformation. The centre of global energy demand is moving from the OECD countries to the emerging economies, particularly China and India. Major energy importers are becoming net exporters. Regional markets are now more interdependent and complex. And a global market for gas is starting to evolve as new supplies of liquefied natural gas are shipped across borders at an increasing rate.

Countries recognise that an affordable and reliable supply of energy is of vital importance to their economic development. Yet over 1.3 billion people are without access to electricity and 2.6 billion people are without clean cooking facilities. The vast majority of these people are in sub-Saharan Africa and Asia, with 84 per cent living in rural areas.

Stronger international collaboration is required to improve the operation of energy markets. Efficient markets can help maintain a stable supply of energy to the global economy. At the same time, greater international uptake of policies to improve energy efficiency will improve energy security, reduce energy costs and help combat climate change.

#### SUPPORTING STRONGER ENERGY MARKETS

The G20 includes both the major energy producers and consumers and is well placed to support stronger energy markets and to reconcile economic and energy objectives at the global level.



#### **EFFICIENCY CRITICAL TO ENERGY SUPPLY**

Growth in electricity demand outpaces all other final energy carriers, creating



potential to transform both energy supply and end use. Since the 1970s, electricity's overall share of total energy demand has risen from 9% to over 17%.

Today, the world's 14 billion online electronic devices – such as set-top boxes, printers



ch as set-top boxes, printers and game consoles – waste around USD 80 billion dollars each year because of inefficient technology.

## In 2014 the G20 is supporting international efforts to improve the

operation of global energy markets and enhance cooperation between emerging and advanced economies. G20 members are discussing how they can contribute to efforts to ensure that international energy institutions keep up with rapidly changing energy market realities. Non-OECD countries are predicted to account for more than 90 per cent of growth in energy consumption by 2030.

#### **HOW IT HAPPENS**

This year, the G20's Energy Sustainability Working Group (ESWG), co-chaired by Australia and India, is reporting to sherpas on the international energy architecture, gas markets and energy efficiency, and to Finance Ministers and Central Bank Governors on market transparency and inefficient fossil fuel subsidies.

The ESWG will hold three meetings during Australia's G20 presidency. International Energy Institutions participate in these meetings.

This year, G20 members are working with business to strengthen international dialogue between suppliers and consumers of natural gas in order to drive investment and enhance market resilience. Over the past few decades, improvements in energy efficiency have reduced global



energy intensity (total final energy consumption/Gross Domestic Product [GDP]) by 38% between 1970 and 2010.

A significant share of the potential to improve energy efficiency – four-fifths of



the potential in the buildings sector and more than half in industry – still remains untapped.

G20 members are discussing how they can best work together to help improve access to modern energy services, including for people in emerging and developing countries.

#### REDUCING ENERGY CONSUMPTION

G20 countries agree on the importance of energy efficiency and are finding ways to reduce energy consumption within their respective economies. The task this year is to turn these efforts into practical actions that make a difference to economic and environmental outcomes. Energy efficiency measures can lower costs for businesses and consumers and help create new market opportunities.

The G20 is phasing out inefficient fossil fuel subsidies that encourage wasteful consumption. The G20's work on energy efficiency and inefficient fossil fuel subsidies complement international efforts on climate change.

- prepared by the Australian Presidency

## **Further information**

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