

Energy White Paper 2012: Australia's Energy Transformation

November 2012

On 8 November 2012 the Minister for Resources and Energy the Hon. Martin Ferguson released the 2012 Energy White Paper, entitled "Australia's Energy Transformation." The White Paper outlines the Government's policy framework for developing Australia's energy future over the period to 2035, and builds on existing energy policy reform efforts, including the Clean Energy Future Plan.

Minister Ferguson's press release is available [here](#). The Energy White Paper is available in full [here](#).

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Transformation of Australia's Energy Sector

The key theme of the White Paper is that Australia's energy sector is in a period of unprecedented transformation. The White Paper asserts that over the next two decades, Australia's energy future will be influenced by three factors:

- the need to deliver secure, reliable and competitively priced energy for a growing population and economy;
- the further expansion of Australia's energy exports to Asia and other growth markets; and
- the need to become more energy efficient across the economy and to dramatically reduce carbon emissions and transform to a clean energy economy.

The White Paper addresses the anticipated challenges that will face Australia's energy sector in the next 20 years. Among the challenges are: continued pressure on energy prices; managing peak demand; and the need to secure a regulatory framework required to attract capital investment in the sector. The Government estimates that the investment in the order of \$240 billion will be required in Australia's electricity and gas generation, transmission and distribution sectors over the next two decades.

Priority Areas

The White Paper identifies four policy priority areas, which will form the basis of the Government's energy policy agenda:



1. Delivering better energy market outcomes for consumers
2. Accelerating Australia's clean energy future
3. Developing Australia's critical energy resources, particularly gas resources
4. Strengthening the resilience of Australia's energy policy framework.

Clean Energy Future

The Government's Clean Energy Future Plan, the centerpiece of which was the price on carbon that came into effect on 1 July 2012, is an important feature of the strategy outlined in the White Paper. Coal currently accounts for 75% and gas around 15% of Australia's electricity generation. While coal and gas are expected to continue to underpin Australia energy security for many years, this balance is projected to change significantly in the coming decades.

Under the plan, renewable energy will account for at least 20% of Australia's electricity generation by 2020, and this may rise further to around 40% by 2035. By 2050, most of Australia's conventional fossil fuel power generation is likely to have been replaced with clean energy technologies in the form of wind power; utility-scale and distributed solar power; geothermal energy; and coal- and gas-based carbon capture and storage systems. In 2050, greenhouse gas emissions from the electricity sector are expected to be 76% below what they would have been without a carbon price.

The White Paper estimates that to meet these targets, around \$200 billion in investment in clean energy may be required by 2050 to assist in meeting Australia's national greenhouse gas reduction goals.

More information about the Clean Energy Future Plan is available in Hawker Britton's Occasional Paper, [here](#).

Attracting Investment

The White Paper estimates that by 2030, the overall investment requirement in Australia's domestic energy sector may be as much as \$240 billion, which is expected to come from a mix of foreign and domestic debt and equity markets. The key challenges that will arise in attracting the necessary capital are identified as:

- increasingly competitive and less predictable energy markets with rising business costs;
- more risk-averse financial markets;
- lack of bipartisan support for key policy settings; and
- ongoing price regulation and government participation in competitive elements of energy markets.

The White Paper highlights that the role of Government in attracting investment is to provide sound, predictable and stable policy and investment-friendly economic and regulatory frameworks that offer investors commercially attractive returns. Governments must take decisive steps to define and implement a program of reform that provides clear direction to markets during a period of heightened public debate about Australia's energy future.

The White Paper outlines that the Australian Government has acted to provide long-term certainty to the market by implementing carbon pricing and other critical clean energy measures. However, it states

that the lack of bipartisanship on key climate policies continues to generate uncertainty and risks for investors in electricity generation, downstream energy users and emissions-intensive industries. Providing practical certainty about future policy is particularly important in what are highly competitive financial markets.

In the specific case of investment in new energy technologies, the White Paper's position is that while it is appropriate that the private sector, which is best equipped to manage business risk, remains the principal driver of technology development and deployment, there is also an important role for targeted public sector support to stimulate the creation of markets, to address market failures and, in certain circumstances, to share development and commercialisation risks.

Structure

The White Paper is structured in three parts, each with multiple chapters:

Part I: *Australia's energy in context* sets out the Australian Government's high-level energy policy framework (Chapter 1), gives a snapshot view of the energy sector (Chapter 2), and outlines a vision for the future along with the key challenges for energy policy over the next decade (Chapter 3).

Part II: *Core elements of Australia's energy policy* examines the government's energy frameworks, key policy challenges and priorities for energy security (Chapter 4); energy resource development (Chapter 5); the clean energy transformation (Chapter 6); our liquid fuel, gas and electricity markets (chapters 7 to 10); and improving energy productivity (Chapter 11).

Part III: *Supporting energy policy outcomes* describes key supporting policy frameworks that contribute to the achievement of energy policy objectives, including sustainability, skills and workforce development, and promoting Indigenous outcomes (Chapter 12); Australia's international engagement on energy (Chapter 13); and improving our energy information (Chapter 14).

Background

The Australian Government last released an Energy White Paper in 2004, entitled "Securing Australia's Energy Future." Since 2004, there has been unprecedented change in the Australian energy sector, including;

- the rise in Australia's energy exports from \$24 billion per annum on 2004-05 to \$69 billion per annum in 2010-11;
- the trebling of global oil prices; an unprecedented scale of investment in the Australian export energy sector;
- growth in the LNG sector;
- Australia's role as the world's largest coal exporter and a top three uranium producer; and,
- the introduction of a price on carbon through the Government's Clean Energy legislation, which is driving investment in lower emissions technologies.

The 2004 Energy White Paper is available [here](#).



On 13 December 2011, the Government released the Draft Energy White Paper. The Draft was released as the basis for stakeholder engagement, and following its release a consultation process was held. Written public submissions were invited until 16 March 2012, and a series of public consultations were held throughout the development of the final White Paper.

The Draft Energy White Paper is available [here](#).