



## Energy White Paper 2014 – Issues Paper submission template

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### Confidentiality

<input type="checkbox"/>	<b>Submissions may be published on the Department of Industry website. If you do not wish to have your submission made public, please tick the box.</b>
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Issues for comment are listed against each of the Chapter Headings. In making your submission, you are welcome to make comment against some or all of issues in the fields provided. A field for general comments is provided at the end of the template.

## 1. The Security of Energy Supplies

The Government seeks comment on:

- ways community expectations can be better understood and reflected in reliability standards;
- the value of developing fuel reserves to meet Australia's international oil security obligations, and augment domestic security;
- ways to increase new gas sources to meet demand and measures to enhance transparency in market conditions; and
- issues relating to the regulation of energy infrastructure.

**Please provide any comments on The Security of Energy Supplies below:**

**This submission does not provide specific comments on security of supply issues pertaining to oil or gas based fuels other than to note that the City envisions emissions reductions will be achieved through reduced dependence on fossil fuels.**

**Electricity Grid security of supply issues:**

**Security of supply in the electricity grid during peak demand periods can be improved by alleviating network dependence at times when distributed generation opportunities are high. Specifically, peak demand in commercial buildings coincides with periods of high solar output (ie. Daylight hours in summer months). Promoting uptake of rooftop solar in these contexts, particularly on low-rise large roof commercial and industrial sites, would deliver broader network benefits by alleviating overall network demand.**

**In addition to reducing the risk of blackouts or brownouts by reducing network demand, rooftop solar on commercial buildings would also enable businesses to operate during daylight hours in the event that blackouts or brownouts should occur.**

## 2. Regulatory Reform and Role of Government

The Government seeks comment on:

- priority issues, barriers or gaps within the COAG energy market reform agenda;
- possible approaches and impacts of review of tariff structures including fixed network costs, further time-of-use based electricity tariffs and the use of smart meters;
- possible measures to promote greater price transparency in gas markets; and
- areas where further privatisation of government-owned assets would contribute to more effective regulatory frameworks and better outcomes for consumers.

**Please provide any comments on Regulatory Reform and Role of Government below:**

**Network charges have contributed significantly to increases in electricity bills. These charges are spread across all consumers, irrespective of their contribution to increased demand on network infrastructure. Notably, increased uptake of air conditioners has contributed to network pressures while households without air conditioners contribute to network costs.**

**Capacity pricing can effectively and fairly apportion network charges based on network use and must be considered as part of a review into tariff structures. This should be considered alongside peak pricing, peak reduction initiatives, and consumer education as effective means of reducing peak network demand.**

**The review of the Renewable Energy Target should also take into account economic benefits, in addition to economic costs resulting from renewable energy targets.**

**This includes downward price pressures on wholesale electricity prices from increased renewable energy generation (with minimal marginal input costs) and the continued effect of renewable energy sources on wholesale electricity prices.**

**The RET review should also consider network benefits resulting from development of renewable generation, such as:**

- **benefits of diversity of generation sources in meeting electricity demand;**
- **energy supply security and resilience resulting from diversified generation sources;**
- **the potential for large scale storage (eg. compressed air, pumped hydro) to improve ability of grid to meet demand;**
- **test the assumption that renewable energy is unable to meet, or contribute to baseload demand.**

**Reforms to the role of distribution businesses also present opportunities to achieve greater energy productivity. There is greater scope for regulated network pricing reviews conducted by the AER to focus on network demand reduction initiatives. Demand management and energy efficiency measures are cost effective means of reducing electricity costs and network charges and efforts should be improved to engage network operators in these areas. To date, there have been few networks benefits delivered through demand management initiatives due to lack of effort on the part of network operators, and lack of productive partnerships with the energy efficiency sector, developers, the property sector and others that are able to deliver these initiatives.**

### **3. Growth and Investment**

The Government seeks comment on:

- commercial or market initiatives that could enhance growth and investment in the energy and resources sectors;
- areas where approvals processes could be further streamlined while maintaining proper environmental and social safeguards;
- further ways that regulatory burdens could be reduced while maintaining appropriate levels of disclosure and transparency in energy markets; and
- the impacts of variable land access policy and ways the community could be better informed and engaged on development in the energy sector.

**Please provide any comments on Growth and Investment below:**

#### **Rooftop Solar**

**Growth in the Australian Solar sector has been focused on residential rooftops where systems are owned by households. The rooftop solar sector has experienced repeated growth and decline – the so-called ‘solarcoaster’ resulting from policy uncertainty.**

**There is significant potential to shift the focus on the rooftop solar sector to commercial rooftop market (focusing on large low-rise roofs). Increased investment in solar assets by institutional and corporate entities will deliver even greater benefits than the residential solar market by reducing business operational expenditure, improving supply reliability during extreme heat, improving asset values, and better matching renewable generation to local demand.**

**Building the capabilities and capacity of the solar industry is critical to tapping into this commercial rooftop market. Specifically, improving business development, marketing and sales skills more targeted to commercial customers, and technical knowledge required to deliver installations on commercial roofs. Transparent and efficient approvals processes from network operators is also critical to unlocking this investment.**

#### **Large Scale renewables**

**The White Paper Issues paper lacks focus on the significant renewable energy potential present in Australia, notable sun, wind and wave. Overseas experience has demonstrated huge investment growth potential in these sectors. Large-scale renewable products are reliable long-term infrastructure assets that could attract international investment into the industry in Australia.**

**Input costs fall with increasing scale. Development costs in these sectors are still relatively high in Australia as there has not been the large-scale uptake of these technologies, compared with markets such as California. Continued Government support for the large-scale renewable energy sector will result in falling development and input costs, leading to further investment and potential for jobs growth.**

## **4. Trade and International Relations**

The Government seeks comment on:

- how to grow the export of value-added energy products and services;
- ways to remove unnecessary barriers to continued foreign investment in Australia’s energy sector;
- ways to strengthen support for access to export markets; and
- ways to support business to maximise export opportunities for Australia's energy commodities, products, technologies and services, including the value of Australia’s participation in the variety of international forums.

**Please provide any comments on Trade and International Relations below:**

**No comments in relation to this section.**

## 5. Workforce Productivity

The Government seeks comment on:

- the nature of any current skills shortages being experienced and how these could be addressed by and with industry;
- the capacity of industry and education sector-led programs to meet long-term training and skills development needs of the energy and resources sectors; and
- specific long-term training and skills development needs for alternative transport fuel, renewable energy, energy management and other clean energy industries.

**Please provide any comments on Workforce Productivity below:**

**Recent growth of solar uptake in the residential sector can be replicated in the commercial sector (focusing on low rise large roofed buildings) with improved skills and industry capabilities suited to these markets. Specifically, the solar installation sector requires business development, marketing and sales skills and complex project management adapted to the more sophisticated commercial sector in order to take advantage for this potential for growth.**

**Development costs for large scale renewable energy programs in Australia are high relative to other markets (such as California and Europe) due to a relative lack of experience in developing these projects in the local context. Some of these costs will come down as more projects are developed. Improved training and skills development would also benefit these sectors and reduce project development costs.**

## 6. Driving Energy Productivity

The Government seeks comment on:

- the current suite of energy efficiency measures, ways these could be enhanced to provide greater energy efficiency or possible new measures that would enhance energy productivity;
- the use of demand-side participation measures to encourage energy productivity and reduce peak energy use; and
- measures to increase energy use efficiency in the transport sector.

**Please provide any comments on Driving Energy Productivity below:**

**Energy Efficiency programs and demand side management are both cost effective ways of alleviating pressure on the electricity grid, reducing electricity bills, wholesale electricity prices and avoiding increases to network costs. Reforms to the role of distribution businesses also present opportunities to achieve greater energy productivity.**

**There have been numerous successful energy efficiency programs which have driven reductions in electricity demand over the last few years. (These programs have included energy efficiency certificate programs such as the Victorian Energy Efficiency Target – VEET), Commercial Building Disclosure program, and local government programs such as the City of Melbourne’s 1200 Buildings program and the City of Sydney’s Better Buildings Partnership. These programs should continue. In order to achieve reduced network costs and reduction in pressure on network infrastructure, energy efficiency programs should be complemented by demand management initiatives.**

**There exists an opportunity for efficiencies in network operations and improvement in energy performance though reconceiving the role of distribution networks in local grid management beyond**

**traditional infrastructure (poles and wires). This would involve requiring distribution networks to achieve network efficiencies through adopting smart technologies and pursuing demand management, energy efficiency, local storage, and other innovations. Reformed models would also enable network operators to derive revenue and realise the cost savings delivered to consumers from these initiatives.**

**Better use of smart metering technology can inform demand management practices and consumer behaviour. Deployment of smart technology, such as smart fridges and smart air conditioning to synchronise appliances to reduce peak network demand should also be developed and deployed.**

**Time of use pricing and capacity pricing can play a key role in alleviating pressure on network constraints and network charges, and should be considered in the future tariffs review. These changes should then be combined with consumer education and incentives to reduce network pressures.**

## 7. Alternative and Emerging Energy Sources and Technology

The Government seeks comment on:

- ways to encourage a lower emissions energy supply that avoids market distortion or causes increased energy prices;
- the need to review existing network tariff structures in the face of rapidly growing deployment of grid-backed-up distributed energy systems, to ensure proper distribution of costs;
- additional cost-effective means, beyond current mandatory targets and grants, to encourage further development of renewable and other alternative energy sources and their effective integration within the wider energy market;
- how the uptake of high efficiency low emissions intensity electricity generation can be progressed;
- any barriers to increased uptake of LPG in private and commercial vehicles and CNG and LNG in the heavy vehicle fleet; and
- any barriers to the increased uptake of electric vehicles and advanced biofuels.

Please provide any comments on Alternative and Emerging Energy Sources and Technology below:

### Rooftop Solar

To date, development of rooftop solar projects in Australia has been largely focused on the owner-occupied residential market. There has been criticism that peak generation in this sector does not match peak demand and that these renewable installations must be 'backed-up' by the grid. There is significant opportunity for growth and investment in the commercial rooftop solar market where the demand profile more closely follows generation by solar PV and there is less need for grid back-up. Development of solar in these markets can alleviate peak demand pressures on networks, having flow-on economic benefits.

In order for this sector to develop, the solar installation industry requires skills and capability development to engage with more sophisticated commercial customers. This includes business development, project management marketing and sales skills. Incentives for rooftop solar on large commercial roofs (with large energy demand) would also benefit growth in this sector.

Efforts to identify network benefits and improve network connection approvals processes would also significantly benefit development of a commercial rooftop solar industry.

### Large Scale Renewables

Overseas experience has demonstrated that development costs of large renewable energy projects (above 10MW – 50MW) are reduced with scale. Initial projects have higher costs which fall as the local industry gains experience and skills. While there has been considerable growth in the wind sector, particularly in Southern Australia, there is potential to reduce development costs for large scale solar projects through large scale pilot projects. Noting that many proposed large scale solar projects have had false starts, continued support for emerging technologies is essential to ensure growth in this sector.

## General Comments

Any further comments?

