



Energy White Paper 2014 Green Paper submission form (including confidential)

This form can be sent by email to ewp@industry.gov.au or by mail to:

The Energy White Paper Taskforce
Department of Industry
GPO Box 9839
Canberra, ACT 2601

Details of person making the submission

First Name	
Surname	
Country (if not Australia)	
State	Australia wide
Company or Organisation (if relevant)	Master Electricians Australia
Position in Organisation (if relevant)	Chief Operating Officer
Type of Organisation. Please choose from the dropdown list right	Business / Industry Association
Sector. Please choose from the dropdown list right	Electricity, Gas, Water and Waste Services
Email. Please provide an email address if you would like to receive updates from the Energy White Paper Taskforce	

Confidentiality

<input type="checkbox"/>	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.
--------------------------	---

The Australian Government seeks comments on ways the Goals set out at the beginning of each chapter of the Energy Green Paper, could be achieved. A field for general comments is provided at the end of the template.

1. Attracting energy resources investment

Below is a brief summary of the actions the Australian Government is either currently pursuing, or which are proposed, to achieve the Goals in this chapter.

Streamline regulatory processes

The Australian Government is committed to ensuring environmental decisions are made as efficiently as possible.

The Australian Government has accredited the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) as the regulator for offshore petroleum activities under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). It is now working to extend this accreditation to coastal waters in states and territories that confer their regulatory powers to NOPSEMA. These activities will reduce duplication, complexity, cost and the time taken for environmental and other approvals.

The Australian Government supports new major projects through its Major Projects Facilitation Programme. It has also established a Major Projects Office in Tasmania to assist with Australian Government approvals. A national office to monitor and benchmark various approvals processes is also a possibility.

Improving labour productivity and skills

The Australian Government will improve labour productivity through the introduction of greenfields provisions in the *Fair Work Act 2009*. It will also undertake a more general Productivity Commission review of the Act, and re-establish the powers of the Australian Building and Construction Commissioner (ABCC).

The Australian Government is working with industry and the states and territories to reform the Vocational Education and Training (VET) system.

Foreign workers complement locally available skills. The Australian Government will improve Migration Agreement processing and review the integrity of the subclass 457 visas.

Create supply chain opportunities and Indigenous employment

The Australian Government has introduced the Entrepreneurs' Infrastructure Programme and Industry Skills Fund. The programmes will encourage investment and local business development.

The Australian Government will support local supply chains through the Entrepreneurs' Infrastructure Programme. It will also encourage Indigenous business engagement and employment, considering the findings of the Forrest Review.

Better geoscience to encourage investment and assess impacts

The Australian Government has a pre-competitive geoscience programme. It is also improving access to land and marine environmental information to speed up, and reduce the cost of, environmental impact assessments.

Identifying and addressing infrastructure constraints

The Australian Government is committing \$50 billion to transport infrastructure. It is encouraging states and territories to privatise their assets through the Asset Recycling Initiative, and recycle funds into new infrastructure projects. The Australian Government is also carrying out periodic reviews to identify infrastructure bottlenecks.

Promoting exports

The Australian Government is promoting energy exports and attracting investment in new technologies by appointing a Senior Investment Specialist in Austrade.

The Government seeks comments on ways the following Goals for this chapter could be achieved.

Goals

- Streamline environmental and other approvals
 - Outcome: More certain, timely and accessible approvals. Better regulation will lower costs to business, boost productivity and enhance Australia's international competitiveness.
- Better skills and workforce productivity, including access to skilled migration
 - Outcome: Industry has access to the skills it needs for timely and cost-effective projects, which will encourage future investment.
- Create supply chain opportunities and Indigenous employment
 - Outcome: Local small-to-medium enterprises (SMEs) more involved in supply chains, lowering project costs and growing local economies. More Indigenous Australians employed in the energy resources sector.
- Enhance pre-competitive geoscience and improve access to environmental data
 - Outcome: Lower costs and exploration risk. Reduced duplication and regulatory burden. Improved community engagement. Better-informed decision-making and environmental management.
- Help to identify and address infrastructure bottlenecks
 - Outcome: Industry has access certainty, reducing infrastructure duplication and cost.
- Promote Australia's energy products, technology and services exports
 - Outcome: Increase the export earnings of Australia's energy resources, products and skills.

Please provide any comments on Attracting energy resources investment below:

BETTER SKILLS AND WORKFORCE PRODUCTIVITY

1. Skilled Migration

Given the skills shortages evident in the electrotechnology industry it is imperative that electrotechnology occupations remain on the Department of Immigration's Skilled Occupations List (SOL). There are only seven hundred 457 visa holders in the Electrical occupations out of a possible 170,000 electrical workers. This equates to a little over 0.4% of the electrical workforce. Whilst our preference is to train local talent we do not believe that increasing the percentage of electrical 457 visa holders to address medium term shortfalls would threaten the quality of safety of the electrical industry in Australia provided the existing safeguards around skills/ competency requirements are maintained.

2. Reform of Apprenticeship system

Apprentice commencements in the electrotechnology industry have in recent months suffered the effects of increased cost to businesses. This has lead to a decrease in commencements not seen since the global financial crisis which, for the first time, does not reflect the general pattern of commencements linking to economic indicators. The steadily dropping completion and attrition rates for apprentices are another concern for industry. The most recent figures indicate the completion rate for electrotechnology apprentices was below 55% with attrition rates averaging 45%. These figures are particularly problematic given the growing demand for these skills within the economy. Of particular

concern is Registered Training Organisation reluctance to commit to upholding the competency standards required in the training packages in a holistic sense.

MEA considers that it is time for the Federal Government to re-assess the apprenticeship system with alternative strategies to be considered to boost training, apprentice numbers and retention issues in order to address skills shortages. Greater flexibility and innovation is needed to ensure quality outcomes for apprentices, the employers who indenture them and the broader energy sector. Specific issues to be addressed are discussed below.

- **Apprentice Remuneration Decision**

The recent substantial increase to apprentice wages that followed the Fair Work Commission's Apprentice Wage Decision is having the effect of deterring many MEA members from employing new apprentices, particularly employers running small businesses. The main reason for this is the reluctance of electrical contractor customers to pay the costs of trainees when they are not as productive. With the current downturn in construction activity, this wage increase could not have come at a worse time. The eventual consequence being that, while the demand for electricians remains strong, the capacity for industry to match this demand with qualified electricians will be low. We urge both Federal and State Governments to work with industry and develop strategies to minimise the impact of these wage increases.

- **Competency Based Progression**

The national training qualifications are based on competency standards. Unfortunately in too many jurisdictions across Australia, there remain impediments to effective implementation of competency based apprentice progression. Greater emphasis in relation to competency progression would encourage more apprentices into the electrotechnology industry to progress at a pace that suits them. This would allow some apprentices to complete earlier and as such be available for employment. It would also enable apprentices to increase their productivity for employers and thus lessen the negative financial impact on businesses as they become competent. This would have flow on benefits to the business, the electrical industry and also the broader economy by helping to overcome skills gaps in the electrotechnology sector. There are also impediments in this area where the training and vocational system meets the workplace relations area. It is obvious that some industry participants actively resist competency wage progression and raise safety concerns regarding the quality of training. MEA does believe that this opposition can be overcome, however industry as a whole needs to be kept informed and participate in any changes and actively seek to resolve concerns rather than relying on a historical stance that the current system is the only way to train in this industry.

MEA would urge the Federal Government to consider how best to further promote competency based, as opposed to time based, apprentice progression as a priority.

3. Long-term training and skills development needs

- **Energy efficiency**

Despite the new Federal Government's repeal of the carbon tax, escalating electricity prices remain a reality for the Australian public.

This creates a strong incentive for consumers to actively consider their energy consumption decisions and look for more energy efficient alternatives. Renewable energy options are likely to continue to be in high demand from large businesses to individual householders. This demand can already be seen with the growing popularity of solar photovoltaic (PV) panels and solar hot water systems. This creates a corresponding demand for electrotechnology workers with the necessary skills in energy efficiency. It is imperative that tradespeople begin to undertake the necessary training now in order to provide these specialised services for the public over the long-term.

- **Energy auditing training**

Energy auditing and consequent advice to save costs and emissions are further skills development needs that will be essential for the energy sector now and in the years to come. However, if an energy audit is to effect meaningful change, it is essential that the auditor providing the advice has the requisite knowledge and qualifications to make the assessment.

Recognising the growing demand for energy efficiency expertise, industry developed a nationally accredited qualification to support the skills needed to be a competent energy auditor - the Certificate IV in Energy Efficiency and Assessment. Master Electricians Australia has now trained a large number of electricians in the new qualification - UEE43111 Certificate IV in Energy Efficiency and Assessment.

The Certificate IV stands out from other energy auditing qualifications requiring a current electrical licence as pre-requisite. This ensures that only technicians with a high level of skill and experience will receive the qualification, resulting in more comprehensive, practical and effective energy audits and advice for consumers. The Certificate IV qualification should be entrenched as the minimum level any person completing an electrical energy audit should complete.

Unfortunately, the failed 2009 Climate Smart Program did some damage to the reputation of the energy auditing industry by endorsing underqualified and inexperienced energy auditors to perform energy assessments in Australian homes. A government endorsed energy auditing qualification would restore consumer confidence in the energy auditing industry and would be welcomed by Master Electricians Australia.

4. Streamlined licensing regime

Mobility of labour is a key factor in ensuring skills needs across the country are met. Unfortunately, the current occupational licensing regime restricts those working in the electrotechnology industry from being able to work across state lines. A national licensing system was being developed to address this issue, however, the deregulated model proposed by the National Occupational Licensing Authority (NOLA) was opposed by industry and as a result national occupational licensing has now been put on hold.

As national occupational licensing is no longer being pursued by government, an alternative approach needs to be developed to address the licensing obstacles that still exist for electrotechnology workers and contractors working across state lines. In the absence of a high quality national occupational licensing regime, MEA proposes the adoption of external equivalence arrangements.

Under Schedule 1 of the Queensland Electrical Safety Regulation 2002 external Australian and New Zealand licences are taken to be equivalent to particular Queensland electrical work licences. A person performing electrical work within the authority of one of these current external licences is taken to hold an electrical work licence and is not legislatively required to apply for the equivalent Queensland licence.

Such a system allows for greater mobility of labour for electrical licensees working across state lines who would only be required to register with the state where they reside.

In order to realise the full benefits of such an arrangement it is proposed that external equivalence be adopted by other states throughout Australia and that the range of occupations currently covered be gradually expanded once confidence in the system is established.

The introduction of an external equivalence scheme was in fact an Electrical Regulatory Authorities Council directive 20 years ago that has never been fully implemented.

2. Electricity prices

Below is a brief summary of the actions the Australian Government is either currently pursuing, or which are proposed, to achieve the Goals in this chapter.

Increase the range of tariff choices

The Australian Government is working with states and territories on electricity pricing so users pay the real cost of electricity based on the time at which they use it, as well as their fair share of the costs of the poles and wires. Consumers (or their chosen third party representatives) need easy access to their energy use data through improved metering capability (smart meters) to enable time-of-use pricing. The Australian Government is waiting for the Australian Energy Market Commission's (AEMC) rule change on the distribution of costs of electricity networks.

Reliability standards should reflect consumer expectations

The Australian Government is working with states and territories to establish a framework for setting reliability standards that take into account the value consumers place on reliable electricity supply. However, individual energy consumers have limited opportunity to engage in electricity market policy and planning. Therefore, the Council of Australian Governments (COAG) Energy Council is setting up Energy Consumers Australia to provide for effective consumer advocacy.

Improve the efficiency of electricity use

See Chapter 4

Rationalise emissions reductions schemes

Government interventions in energy markets have proven to be an expensive means of achieving environmental outcomes. The Australian Government could seek COAG agreement to a set of principles for interventions to ensure they are cost-effective.

Remove unnecessary regulation and encourage privatisation

The Australian Government has established the Asset Recycling Initiative, which will introduce new incentive payments for states and territories that make progress on privatisation by selling their assets and redirecting the funds into productive infrastructure. The Australian Government is also undertaking a comprehensive review of competition laws and policy.

The Australian Government could investigate whether there are any unnecessary regulatory barriers preventing exit of surplus generation capacity.

The Government seeks comments on ways the following Goals for this chapter could be achieved.

Goals

- Pursue tariff reform and improved consumer access (including controlled third party) to energy use data, including electricity network tariff reform to limit cross-subsidies
 - Outcome: Consumers are better informed, have tariff choice and know how to manage energy use and cost. Energy users pay their fair share of the costs of the poles and wires that supply electricity.
- Ensure reliability standards do not encourage unnecessary investment in electricity networks
 - Outcome: Consumers do not receive higher reliability standards than they would be willing to pay for if they understood the impact on electricity prices.
- Improve the efficiency of electricity use
 - Outcome: Electricity cost savings for consumers.
- Rationalise emissions reductions actions to reduce unnecessary costs
 - Outcome: Consumers do not pay more due to market distortion.
- Remove unnecessary regulatory barriers and market interventions, and encourage further privatisation
 - Outcome: Better prices and services for consumers through more competition, efficiency and innovation

Please provide any comments on Electricity prices below:

ELECTRICITY TARIFF REFORM

MEA supports tariff reform and is of the firm view that controlled load off-peak tariffs should play a key role in any network tariff reform measures designed to reduce peak demand. These kind of tariffs can provide genuine cost savings but are underutilised due to a number of issues such as the current requirement to hard wire appliances and the absence of back- up for the few days per year when power may be needed at peak demand time. These weaknesses could be overcome through smarter technology, such as the installation of a “booster switch” which could allow the consumer to manually boost their supply under times of extreme need (and still under the discretion of the supplier) and the possible application of the tariffs to socket outlets. There is very clear potential for controlled load off-peak tariffs to be utilised beyond their current application, should the government/ distributors remove the requirement for off-peak appliances to be hard-wired into a home’s electrics. Such tariffs are well placed to be used in a variety of settings throughout a household and could include dishwashers, air conditioning compressors, pool filtration systems, free standing lights, outdoor pool lighting, power for tools and other appliances.

Time-of-use tariffs have been mooted as the preferred option in previous reviews of tariff structures. MEA would caution against relying on such tariffs as, in practice, time-of-use based tariffs tend to provide an excessive peak period with virtually no discount on the shoulder. With limited opportunity for the average household to actually take advantage of lower prices, consumers end up paying more and those who do save money are those who already use power at odd times of day, such as shift workers.

TARIFF STRUCTURES AND SOLAR PV

In reviewing existing network tariff structures, MEA recommends that greater consideration be given to tariff structures that would accommodate battery storage systems for grid-connected solar power.

As solar power subsidies are progressively discontinued, there is now an opportunity to invest more resources into ways to make solar technology more attractive to consumers. One of the main objections to the broad-scale uptake of renewable energy technologies such as solar PV is the issue of intermittency, i.e. solar technologies only produce power when the sun is shining. A solution to this problem could lie in the use of energy storage systems or “battery banks” for solar PV systems. These battery banks would allow excess solar power to be collected in batteries for later use as required. However, currently the cost of storage technology can be prohibitively high making it quite unattractive for those who have the option to simply buy relatively cheap electricity from the grid. If more resources can be directed to refining this storage technology in order to make it more affordable, there is a likely to be a stronger uptake of solar power as an energy alternative with reduced grid costs.

A tariff structure that would reward users of battery banks for solar PV may act as the added incentive needed for consumers to embrace solar power options. This targeted tariff structure could be similar to a maximum demand tariff, providing genuine savings to those utilising solar PV and in turn reducing the peak demand pressure on the grid. However, in encouraging the use of solar technology, it is important to remember the lessons learned from the Government’s solar incentive scheme. The scheme, which has now been phased out, provided a generous multiplier mechanism for consumers who installed solar PV systems in their homes. While achieving the objective of increasing the uptake of solar PV technology, the excessive rebate resulted in higher electricity bills for consumers not in the financial position to install solar PV systems. Those utilising the technology already enjoyed lower bills simply by virtue of being able to access solar power. We would urge government to consider the alternative strategies available that would encourage the uptake of solar PV technology to ensure the costs of grid backed-up distributed energy systems are equitably distributed.

SMART METERS

While smart meters have the potential to provide savings for consumers, MEA would be opposed to a mandatory broad scale roll out of advanced metering infrastructure. Consumers who are in the position to alter their electricity usage patterns could certainly benefit, however, many consumers do not have this luxury. In fact, mandatory smart meters would likely have a detrimental impact on many households, particularly families with young children and the elderly. To these more vulnerable consumers who have no choice but to use electricity during peak times, smart meters and time-of-use tariffs will more than likely lead to higher energy bills. We do acknowledge that smart meters can be beneficial to some households and businesses and should be made available to those consumers who make the decision to change to advanced metering. For these consumers, smart meters will provide incentive to change their energy usage behaviour and reduce their electricity bills. However, it is the more vulnerable members of society that will lose out with a mandatory smart meter roll-out.

If these new generation meters are to have the desired effect of minimising greenhouse gas emissions and reducing consumer power bills, the responsibility must lie with retailers to install new meters as required by their customers. It is not the government’s place to make this decision on behalf of each consumer, particularly when each household’s living situation, energy usage and capacity for change can vary so significantly. Smart metering should be a choice, not a mandatory imposition.

ENERGY AUDITING

As acknowledged above, devices such as smart meters can play an important role in consumers being able to manage their energy usage. However, for the data to have a meaningful impact consumers need to understand the information and have the tools to reduce their energy consumption.

A qualified energy auditor providing guidance for consumers is in the ideal position to educate consumers on the changes they can make to improve their energy efficiency (further discussion on the industry developed Certificate IV in Energy Efficiency and Assessment qualification is included at chacomment). An energy auditor can identify realistic and affordable changes that can save households and businesses thousands of dollars in electricity bills and dramatically reduce greenhouse gas emissions. MEA has many examples where an average residence reduced their energy consumption by over 65%, saving approximately \$1,500 on their annual energy bill.

It is in the best interests of consumers, government and the industry for there to be a continued and strong focus on energy auditing performed by accredited technicians as a strategy for improving the efficiency of electricity use.



3. Building gas supply and improving market operation

Below is a brief summary of the actions the Australian Government is either currently pursuing, or which are proposed, to achieve the Goals in this chapter.

Addressing near-term east coast gas supply

More gas supply needs to be supplied quickly to avoid potential near-term east coast shortages. Social licence and landholder concerns have led state governments to introduce regulatory barriers.

Sustaining national gas supply

Environmental and social concerns about new onshore gas projects have led to restrictive regulation and community disruption of projects. The Australian Government can apply the capabilities of national science institutions to improve the independent evidence base for assessing the impact of proposed projects. It will also work with states and territories to remove unnecessary barriers to new projects.

Gas prices are not transparent

There is limited reporting of gas production potential, and limited trading information on the extent of competition in gas markets. There are also some exemptions from competition laws to allow joint marketing. Many of the underlying sources of competition are therefore difficult to assess. The Australian Government is considering either an Australian Consumer and Competition Commission (ACCC) Price Inquiry or Productivity Commission Review into these competition issues to help identify any barriers to competition as the market responds to current high gas price signals.

Improving gas market function

The nature of gas market bilateral trading means there is limited supply and price information available for consumers to understand market conditions. The Australian Government will implement further reporting through the Bureau of Resources and Energy Economics (BREE) and Australian Energy Market Operator (AEMO) to provide greater transparency.

Domestic gas market function would be enhanced by a comprehensive development strategy for the unconventional gas industry. Improved trading mechanisms could include further trading hubs and pipeline capacity trading.

The Government seeks comments on ways the following Goals for this chapter could be achieved.

Goals

- Bring on new gas supply as quickly as possible
 - Outcome: Avoid potential supply shortages so that domestic gas users do not pay higher prices than necessary.

- Improve availability and quality of market information to improve market transparency and competition
 - Outcome: Gas sellers and buyers have more certainty about the availability of supply and pricing, and the market is more transparent and competitive.

- Implement other gas market development priorities to expedite gas market reform
 - Outcome: A development strategy for the unconventional gas industry. More flexible and transparent market arrangements.

Please provide any comments on Building gas supply and improving market operation below:

No comment



4. Security, innovation and energy productivity

Below is a brief summary of the actions the Australian Government is either currently pursuing, or which are proposed, to achieve the Goals in this chapter.

Secure and reliable energy supplies

The Australian Government will keep the standards and measurement capability needed for efficient markets. To continue reliable access to energy, the Australian Government monitors and identifies emerging issues through the periodic National Energy Security Assessment (NESA). Response mechanisms are available to industry and government to deal with unanticipated supply disruptions.

Improving energy productivity

The productive use of energy has environmental and economic benefits. A national approach to energy productivity, covering energy production and use for both stationary and transport energy, could deliver enhanced security of supply, respond to rising electricity and gas prices, and deliver emissions reductions.

Develop a better outlook capacity

The Australian Government currently assesses energy supply and use issues through the Australian Energy Resources Assessment (AERA), the Australian Energy Technology Assessments (AETA) and NESA. Better coordination of this reporting and consolidation of findings will give a more coordinated forward-looking view of threats and opportunities to security of supply.

Keep future energy technologies open

The Australian Government is actively identifying and removing unnecessary regulation. Regulation should be forward-looking so as not to slow the adoption of new technologies.

The Australian Government is supporting the demonstration and deployment of low emissions technologies. This includes investing over \$1 billion in renewable energy and over \$300 million in low emissions fossil fuel technology.

The Australian Government is investing \$476 million in the Industry Skills Fund to help Australian industry access and develop innovative training solutions so Australia will have the highly skilled workforce it needs.

Technology collaboration

The Australian Government has a focus on encouraging new technologies or adapting technologies to Australian conditions, improving collaboration between businesses and researchers, and promoting workforce innovation. The Australian Government supports energy-related research and development. It proposes to better target this work through setting national research priorities and reviewing the level of international technology collaboration engagement.

The Government seeks comments on ways the following goals for this chapter could be achieved.

Goals

- Maintain secure, competitively-priced and reliable energy supplies
 - Outcome: Consumers have access to adequate and reliable energy.

- Improve energy productivity
 - Outcome: Cost savings to Australian households and businesses, improved domestic security and reduced greenhouse gas emissions intensity.

- Develop a better 'outlook' capacity
 - Outcome: Government better prepared to respond to supply issues, to global market opportunities, and to invest strategically in research. Industry will have access to better information, giving more certainty and encouraging investment.

- Keep the range of energy options technology neutral by tackling regulatory barriers and making best use of research investments
 - Outcome: Australia is able to choose from the broadest possible range of energy options. This will strengthen Australia's energy security.

- Look for relevant international technology engagement
 - Outcome: Australian industries benefit from international experience.

Please provide any comments on Security, innovation and energy productivity below:

INTERNATIONAL TECHNOLOGY ENGAGEMENT

As has been canvassed in the Green Paper there are a number of barriers to the uptake of electric vehicles, including the high upfront cost to purchase these vehicles and the significant expense involved with the inevitable replacement of a battery.

In order to overcome these barriers, MEA recommends that a study be undertaken to investigate the new infra-structure that would be required to support the electric vehicle energy demand. It is important that such a study incorporate an assessment of the measures that have proven to be successful internationally in realising the benefits of electric vehicle technology.