

6 December 2013

The 30-year Electricity Strategy
Department of Energy and Water Supply
PO Box 15456
City East QLD 4002

Sent via email to: electricitystrategy@dews.qld.gov.au

Dear Sir/Madam,

Master Electricians Australia Ltd (MEA) is grateful for the opportunity to provide feedback on the Queensland Government's 30-year Electricity Strategy Discussion Paper.

Master Electricians Australia (MEA) is dynamic and modern trade association representing electrical contractors. Originating as the Electrical Contractors Association in 1937, we are the leading voice of the electrical and communications industry throughout Australia. The organisation's website is: <http://www.masterelectricians.com.au>

MEA is pleased at the rapid progress of Queensland's 30-year Electricity Strategy following the initial release of the Directions Paper for comment in January of this year. We also welcome the Queensland Government's ongoing commitment to ensuring industry has the opportunity to inform this critical strategy.

MEA will not be commenting on all of the issues raised in the discussion paper. We will instead restrict our input to the issues of most relevance to our membership and the electrical contracting industry as a whole.

Immediate Challenge 3: Improve customer engagement

What issues should the Queensland Government consider in developing a customer engagement strategy?

It is highly recommended that energy auditing be a component of any strategy to increase customer engagement in the electricity market. An energy auditor is ideally placed to explain in detail how the electricity tariff options available could work to provide savings in a household, arming consumers with the understanding required to accurately compare the rates being offered by retailers. While information provided online and in hard copy format is certainly useful as reference material, it can also be confusing when there is limited context for a consumer's living situation. An energy auditor can provide targeted information based on a thorough in-home assessment of the lifestyle needs of the particular household. Consumers are also more likely to trust the information and advice provided by qualified energy auditors as they are impartial, with no allegiance to particular retailers as well as being experts in their field. For more detail on the role that energy auditing can play in the 30 year plan please refer to our response to *Immediate Challenge 6* at page 3 of this submission.

Immediate Challenge 5: Reform tariffs to address costs and provide greater customer control

In updating tariff structures, what issues should be taken into account to send accurate price signals to customers in order to reduce cost pressures and provide greater customer control?

Controlled load off-peak tariffs

The Queensland Competition Authority in their Final Determination on Regulated Retail Electricity Prices 2013-14, expressed their concern that the current tariff structure does not necessarily provide an accurate signal to customers about the true underlying costs of their electricity consumption and that, “*many stakeholders have rightly questioned why both distributors provide such weak incentives to customers to shift their consumption to off-peak periods*”. Based on our industry knowledge and experience, MEA is of the view that controlled load off-peak tariffs can act as that price signal to prompt consumers to switch their power usage to non-peak periods and in turn take the heat out of the wider market.

As mentioned in our response to the 30-year Electricity Strategy Directions Paper, off-peak tariffs hold the most potential to 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 one odd day per year when power may be needed at the wrong 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. Such tariffs are well placed to be used in a variety of settings throughout a household and could include dishwashers, second televisions, free standing lights, outdoor pool lighting, power for tools and other portable appliances. We would therefore recommend that any analysis of tariff structures for the 30-year plan be broadened to include technology such as booster switches that could supplement the better use of alternative tariff options.

Controlled load off-peak tariffs can play a critical role in any off-peak pricing strategy and MEA would welcome greater consideration being given to this viable alternative to a Time-of-Use pricing structure.

Solar Power Battery Banks

MEA would also like to see consideration given to tariff structures being introduced to 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. 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.

Immediate Challenge 6: Develop a demand management and energy efficiency strategy

Education

Consumer education must be made a key component in any demand management and energy efficiency strategy developed by the Queensland government. MEA would see value in electricity distributors and government working together to educate the public on ways to alter their electricity consumption patterns. An example of the potential positive impact that such co-operation can have is evident in the water conservation efforts that occurred during the Queensland drought. The co-ordination undertaken between Urban Utilities and the Queensland Government succeeded in educating the public on the role they could play in combating water shortages. A similar approach by electricity distributors and the Queensland Government could reap rewards in encouraging the public to change their consumption patterns, specifically in relation to peak demand.

Another educational strategy that could reap genuine rewards is the release of consumption data from other states and territories as a comparative tool for Queensland consumers. For example, if a consumer in Queensland could see the daily electricity usage of an equivalent household in Victoria, they may be better placed to understand the potential for savings in their own home and the benefits that may be realised through the use of alternative tariff options.

Energy Auditing

As discussed above under Immediate Challenge 3, a proven and effective means to educate the public on energy efficiency and demand management is an in-home energy audit performed by a qualified energy auditor. It is in the best interests of consumers, government and industry for there to be a continued and strong focus on energy auditing as a strategy for achieving energy efficiency and reducing peak demand pressures.

If consumers can be given an understanding of the impact of their individual energy consumption on the environment as well as their electricity bills, they will be more inclined to implement changes. An energy auditor can accurately measure a consumer's energy usage and provide tailored solutions to enhance their energy efficiency. By utilising an energy auditor, property owners will have the chance to make educated decisions about energy options that

will offer the highest return on their money whilst also minimising environmental damage. 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.

Unfortunately, the Climate Smart Program which was introduced in 2009 significantly damaged the emerging market and reputation of energy auditing. This subsidised program was generally delivered by underqualified and inexperienced auditors; was limited and inadequately considered energy savings measures (principally advising on light bulbs); and had a poor record of customer service and for providing inadequate advice. However, despite the failure of this specific program there is no doubting the potential for energy auditing performed by qualified technicians to facilitate real change in consumer behaviour. It is for this reason that 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*.

The Certificate IV sets a new benchmark in energy auditing training. Those awarded the qualification will have the knowledge to develop efficient strategies to reduce usages in a range of energy services and be qualified to conduct energy audits on residential and office dwellings as well as small to medium enterprises. The training addresses the environmental and legislative framework covering fundamental energy audit methodology, providing initiatives and solutions of sustainability and financial viability.

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 and effective energy audits for consumers.

MEA acknowledges that householders may be reluctant to make the initial financial outlay for an accredited auditor to perform a full audit on their home. The funds required to apply the changes, which could include the purchase of new appliances or engaging an electrical contractor, may also deter consumers from implementing an auditor's recommendations. These costs act as a significant barrier to the success of energy auditing.

In order to overcome these obstacles, we propose that the Government adopt a policy whereby a consumer who pays for an energy audit performed by an accredited energy auditor will be able to reclaim the full audit fee against the costs incurred in implementing the changes. An additional incentive for a consumer would be the offer of a low interest loan to ease the initial financial burden of making their home more energy efficient. These policies would not only encourage more households to engage an energy auditor, but would also provide the incentive for consumers to invest in actual changes.

Immediate Challenge 7: Enable improvements in metering services

MEA would not support a broad scale roll out of advanced metering infrastructure and are pleased to see that this is not being considered as part of the 30 year strategy. While smart meters can provide savings to some consumers who are in the position to alter their electricity usage patterns, 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 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 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.

We would also urge government to perform a cost/benefit analysis regarding tariff and metering reform and in doing so consider alternative metering solutions apart from smart meters. Second generation electronic interval meters are one example of the options available. These new generation interval meters collect data at hourly intervals or even in some cases on 15-minute increments, providing a much more fine-grained picture of energy use than was available in the past. Some of the benefits of advanced meters include more detailed information on energy use (in some cases, provided in real time) and the opportunity for new pricing plans that provide incentives to reduce a consumer's demand for electricity during peak times. Regardless of which option is adopted it must be at the consumer's discretion to make the change.

The Victorian smart meter disaster also demonstrates the need for more extensive community consultation and education about a smart meter system. If the public are fully informed about advanced metering they may be more willing to make the choice and embrace the new technology, fully aware of the costs and benefits of the change. If smart metering is to become a reality for Australian households, we strongly urge government to allow for comprehensive customer consultation prior to implementation.

Future Challenge 3: Supporting structural change to the linear supply system

Electric cars

In MEA's submission to the Directions Paper, we had urged government to give further focus to the impact that the inevitable increase in the prevalence of electric vehicles will have on the economy. We do anticipate that the 30 year strategy itself will provide a much more comprehensive analysis on this issue. As stated in our previous response, electric cars are likely to drastically increase the current \$5.8 billion contribution made by the electricity industry to Queensland's gross state product. Any industry forecasting a doubling of their turnover requires significant investment to support that increased revenue and this needs to be canvassed in a 30-year Electricity Strategy. Electric cars need to be a more dominant part of the strategy. To support this, a significant study needs to be undertaken on what new infrastructure will be required to support the electric vehicle energy demand.

We anticipate that the Electricity Outlook Expert Panel and the electricity and water forum in 2014 will give the appropriate consideration to the impact of electric vehicles.

Goals and targets

As mentioned in MEA's response to the Directions Paper, MEA would also recommend that quantifiable goals and targets be made part of the 30-year Electricity Strategy. This will allow for greater accountability and enable a measure of the state's progress over the course of 30 years.

An example of a long-term energy plan with set goals, comprehensive planning and definitive action can be seen overseas in the [Californian Integrated Energy Policy Report 2011](#)¹.

Funded research

MEA would also recommend that the 30 year Electricity Strategy include provision for funded research into the tools and technologies available to maximise Queensland's energy future. This research would enable a full cost/benefit analysis of the options on offer to allow fully informed decisions to be made by government.

Consultation

As a representative of the electrical industry MEA would be eager to participate in any consultations that may occur to further aid in the development of the 30-year plan. MEA is in constant communication with members across the country who provide a unique "on the ground" industry and consumer perspective to the issues which would be invaluable to the formulation of the 30 year strategy.

Yours sincerely,



Malcolm Richards
CEO

¹ <http://www.energy.ca.gov/2011publications/CEC-100-2011-001/CEC-100-2011-001-CMF.pdf>