



23 November 2015

Queensland Productivity Commission
PO Box 12112
George Street, QLD 4003

Submission via website

Dear Commissioners,

Solar Feed-in Pricing in Queensland – October 2015

AGL welcomes the opportunity to comment on QPC's *Issues Paper, Solar feed-in pricing in Queensland, October 2015 (Issues Paper)*.

AGL is one of Australia's leading integrated energy companies and is the largest ASX listed owner, operator and developer of renewable energy generation in the country. AGL is a significant energy retailers in Australia with over 3.7 million electricity and gas customers in Queensland, AGL has 387,000 electricity customers as at 30 June 2015.

AGL has established a New Energy Services division which is focused on the provision of distributed energy services and solutions to all end use customers, including AGL and non-AGL customers. Within New Energy Services, we are able to offer customers beyond the meter energy solutions. This includes digital metering, solar PV systems for both residential and business customers, and new technologies such as batteries and other energy storage solutions.

The energy industry is in transition with increasing renewable energy sources and connected digital devices. As such, a balanced policy on feed-in tariffs should ensure that solar energy is sustainable in the context of the broader energy market and that solar exports are paid a fair and reasonable price. Regulatory intervention should be considered only where retail competition is not effective. AGL does not propose any change to the current pricing and regulatory approach for feed-in tariffs in Queensland.

AGL's response to the questions raised in the Issues Paper is attached.

Should you have any questions in relation to this submission, please contact Meng Goh at mgoh@agl.com.au or (02) 9921 2221.

Yours sincerely,

Beth Griggs
Head of Regulatory Strategy

Response to Issues Paper

A framework for assessing solar export pricing

- 2.1 *Is there evidence of significant and enduring market failures in the solar export market in Queensland?*
- 2.2 *Where market failures are present, how are they best addressed?*
- 2.3 *Do solar PV exports produce positive environmental and social impacts that are currently not paid for through existing programs and rebates?*
- 2.4 *If so, is the investment in solar PV suboptimal (from a societal point of view)?*
- 2.5 *Would a regulated solar feed-in tariff be an effective and efficient tool to address environmental externalities?*
- 2.6 *What are the objectives of a solar export pricing policy?*
- 2.7 *Where objectives are in conflict, which objectives take priority and why?*
- 2.8 *What principles should be used to guide solar export pricing policy and any regulation of feed-in tariffs?*
- 2.9 *How should fairness be defined?*

In south east Queensland, there are multiple energy retailers offering solar feed-in tariffs. Solar feed-in tariffs are available as part of an offer for electricity supply to customers. Retail competition for electricity supply in this region is effective with a churn rate similar to that in New South Wales and South Australia. AGL supports the QCA's decision in 2013 to not regulate solar feed in tariffs in south east Queensland.

However, the lack of effective competition in regional Queensland and the role of Ergon Energy as the sole electricity retailer remains an issue. This situation has been the result of government policy, the Uniform Tariff Policy, which sets electricity retail prices at levels which are unprofitable for new entrants while providing the incumbent retailer, Ergon Energy, with a Community Service Obligation payment which compensates for the revenue shortfall. As such, until competition in the retail electricity market is allowed and incentivised to develop, we believe it is appropriate for the QCA to set the solar feed-in tariff in regional Queensland.

Currently, retailers pay solar PV customers who are not on the Solar Bonus Scheme (SBS) a feed-in tariff based on the financial benefit or avoided cost associated with solar exports. Additional benefits of solar energy, such as reduced greenhouse emissions and increasing the use of renewable energy, are already recognised through payments received at the time of installation under the Small-scale Renewable Energy Scheme (SRES).

A regulated solar feed-in tariff will not be an effective and efficient tool to address environmental externalities. Requiring retailers to pay more for the energy from solar exports than what they are able to acquire from the NEM could lead to negative impacts on retail competition, for example, if retailers were incentivised to avoid solar customers or to offer solar customers market contracts with lower discounts than those offered to non-solar customers.

AGL agrees that the objectives of a solar export pricing policy have not been well articulated. The Issues Paper has pointed out that the implied objectives include the intent to encourage solar PV investment, to create jobs in the solar industry, lower electricity prices and improve environmental outcomes. AGL considers that further objectives should include ensuring that all electricity consumers contribute equitably to the costs of shared network services, and that solar pricing schemes should not increase electricity prices for non-solar customers.

AGL supports the decarbonisation and modernisation of Australia's electricity sector over the coming decades and consideration needs to be given to both the transitional nature of the challenge and the essential service nature of a reliable and affordable supply for electricity users. AGL is a strong supporter of renewable energy and has invested over \$3 billion in renewable generation capacity in the past decade. However, there continue to be challenges to investment in utility scale renewable projects owing to the significant

oversupply of generation capacity in wholesale energy markets. As a result, wholesale energy prices are well below the level required to incentivise new entrants (conventional or renewable). It remains unclear how new projects can be committed without complementary policy aimed at resolving wholesale market oversupply, and to facilitate the exit of older emissions-intensive power stations.

The SBS has been successful in encouraging the installation of rooftop solar in Queensland, and in some areas as many as one in four households have a solar system. Solar PV installation is now offered by many energy retailers as well as specialist solar businesses and other service providers. The solar PV market is evolving with new product innovations such as AGL's Solar Smart Plan, where eligible customers do not have to pay an upfront cost for system and installation and instead are able to receive a discounted energy offer over a fixed contract period for the energy generated by the solar PV installation.

New technologies such as electric vehicles and residential battery storage solutions will also allow customers to store energy from solar PV generation for their own use and will make feed-in tariffs less relevant. Other technologies such as digital meters can give customers more control over their energy use and access to real-time information.

Given the general acceptance of solar PV products and prevalence of retail solar competition, the objectives of a solar export pricing policy should focus on ensuring that the solar industry is sustainable in the context of the broader energy market and that solar exports are paid a fair and reasonable price. The regulatory and institutional frameworks need to be competitively neutral so that existing and emerging business models can compete and enable consumers to choose products and services that suit their circumstances and can be efficiently delivered.

Solar pricing policies should ensure that feed-in tariffs are subsidy free and do not impose additional costs on other energy users. AGL recognises that funding of the SBS through the distribution network service providers, has led to higher electricity prices particularly for energy users who are unwilling or unable to invest in solar PV installations. However, current non-SBS feed-in tariffs, which have set on basis of retailers' avoided costs, generally do not impose additional direct costs on other users.

Any regulation of solar feed-in tariffs will need to be clearly justified, noting that access to a feed-in tariff is not an essential service. Continued regulation in regional Queensland is justifiable on the basis that there is only one retailer who can offer a solar feed-in tariff.

What should be regulated and how

- 3.1 *What are the costs and benefits of exported solar electricity?*
- 3.2 *Who incurs the costs and accrues the benefits from exported solar electricity? How will future market developments impact on costs and benefits?*
- 3.3 *Where there is a case to regulate feed-in tariffs, is the existing approach to pricing solar exports appropriate? If not, what alternative approach would be the most effective and efficient way to price solar exports?*
- 3.4 *How should the price be structured and paid? Should feed-in tariffs account for variations in value due to location and time?*
- 3.5 *Would market, regulatory and policy changes be required to implement feed-in tariffs? If so, what changes would be required?*
- 3.6 *When should the feed-in tariff be reviewed or updated?*
- 3.7 *How should the feed-in tariff be reviewed or updated?*

Exported solar electricity provides a renewable source of energy supply to the grid, adding to the energy mix. Solar energy is generated at the time of day when electricity demand was historically higher. However, solar energy is non-firm and the national electricity

market was not designed initially to include embedded generation. The take up of solar PV has required network businesses to address and enable the two-way flow of energy.

Whilst solar energy has displaced some coal and gas powered generation resulting in positive environmental outcomes, this has also stranded generation and network capacity.

SBS customers receive premium feed-in tariffs which is funded through the distribution network service providers, leading to higher electricity prices for other energy users. This is further compounded by higher network prices for these customers resulting from lower overall energy usage under the revenue cap regulation.

Non-SBS customers in Queensland receive a value determined by either the regulator or retailers to be the avoided cost of energy. Retail electricity prices are generally substantially higher than the feed-in tariffs and the introduction of battery storage into the home market will enable solar customers to store solar energy during the day for later use to avoid the use of the higher priced grid energy.

The current avoided cost approach has been considered and adopted by regulators in the New South Wales, South Australia, Victoria and Queensland (IPART, ESC, ESCOSA and QCA). The avoided cost approach comprises the wholesale electricity cost, energy losses and market charges. This approach is appropriate to ensure that retailers, and ultimately, electricity users, pay no more than required from the national electricity market.

Currently, feed-in tariffs are structured as a flat energy rate (c/kWh). When solar feed-in tariffs are set by regulators, a solar generation profile is used, taking into account when energy is produced and how much is generated. Complex pricing will require retailers to incur significant costs to implement systems and processes, and increase cost to serve. It is important that cost from one customer segment is not paid for by other customer segments. The current flat rate for solar feed-in tariff is consistent with the structure of the main residential tariff, Tariff 11, which is available state wide. Tariff 11 has a simple tariff structure with a fixed daily charge and a flat consumption rate quoted on a c/kWh basis. It may be appropriate to consider more complex feed-in tariff structures incorporating location and time only after cost reflective network and retail tariffs have been established in a similar manner in the first instance, or when consumer-facing technology can simplify this complexity for consumers.

Solar feed-in tariffs are currently offered by several energy retailers to customers in south east Queensland where there is no regulated feed-in tariffs. AGL does not propose any change to feed-in tariff policy in this region.

In regional Queensland, the Uniform Tariff Policy has prevented retail competition to develop for energy supply. This policy should be reviewed to encourage the development of retail competition in energy supply in regional Queensland so that when there is effective competition, regulation is no longer required for either energy supply or feed-in tariffs.

Reviews of the feed-in tariffs, where regulation is appropriate, should be conducted in a transparent and consistent manner and not create unnecessary costs. They should be conducted at intervals of no less than a year and should only be amended if there is a material change.

Barriers to a market for solar exports

- 4.1 *What are the main barriers to pricing solar exports? How significant are these barriers?*
- 4.2 *How may broader market changes (e.g. metering) impact barriers?*
- 4.3 *Can these barriers be overcome in an effective and efficient way?*
- 4.4 *Are there other barriers to a well-functioning solar export market?*
- 4.5 *Are there examples where efficient investments in solar did not proceed because of technical, market or regulatory barriers?*
- 4.6 *Are there cost-effective ways to remove or address those barriers?*

The solar PV market has become a mainstream product with the three leading retailers in the NEM offering solar products in addition to electricity and gas supply. The energy market is evolving and new products and offers are being developed to facilitate the adoption of solar energy. For instance, solar PV installation typically requires a large capital outlay which could be a barrier to entry for customers. However, new solar products and financial arrangements are being introduced into the Australian market to address this barrier, including innovative offers with no upfront payments.

There are consumers who have difficulty accessing solar power such as those who live in apartments or those who rent. Over time, new offerings are likely to emerge tailored to these customer segments such 'community solar'.

Small-scale solar if effectively targeted, could be used to greatly assist low-income and vulnerable households that may be struggling with high ongoing energy costs. Higher usage and associated costs can be driven by a range of factors. Demographic analysis has shown that a significant proportion of these customers reside in public housing or rental properties with limited opportunities to make material changes to the building fabric or to install solar. AGL supports the QLD government working in collaboration with industry and the community sector, developing a policy which facilitates the delivery of solar technologies to vulnerable customers.

However, there are some aspects of the energy industry which could be improved.

Network businesses currently have the authority to approve or reject the grid connection of distributed generation solutions sought by consumers, and at times this process lack transparency and create delays and barriers to uptake. Customers should have the choice of installing solar energy and other new technologies, subject to safety and technical safeguards.

Network and retail tariffs which are not cost reflective could hinder the functioning of this market. These tariffs should ensure that those with or without solar PV and other technologies (such as air conditioning) contribute equitably. Arbitrary barriers to the uptake of technology by consumers, such as annual surcharges for solar PV customers, should be avoided.

Network businesses wishing to compete for the provision of new products and services should be ring-fenced to ensure competitive neutrality between market participants in the energy market.

A nationally consistent, market-led and contestable rollout of digital meters will enable the development of a range of innovative products and services including solar energy. Contestability in digital meter installation will promote the investment in metering technology and provide a greater level of customer choice.

Different state based approaches to scheme eligibility have created issues on customer transfers for electricity retailers who operate nationally.