

Queensland Productivity Commission

Public Inquiry into a Fair Price for Solar Exports

Terms of Reference

Objective

The aim of the inquiry is to determine a fair price (or fair prices) for solar power that is produced at the home or business premises of a 'small customer' and exported into the electricity grid (both National Energy Market (NEM) connected and isolated grids). A fair price for exported solar energy:

- is to be determined based on an assessment of public and consumer benefits from solar generated electricity; and
- must not have an unreasonable impact on network costs for non-solar users.

Context

Solar power installations on small customers' premises can at certain times generate more electricity than is required by the customer resulting in the surplus electricity being exported into the local electricity grid. Payments to the customers for their exported solar energy are known as Feed-in tariffs (FiTs).

FiTs are currently available in different forms for small electricity customers (those consuming less than 100 megawatt-hours (MWhs) of electricity per year) across Queensland. In south-east Queensland (SEQ), FiTs are offered by participants in the competitive retail market, with no minimum amount mandated. There are currently six retailers in SEQ offering FiTs which range from 6 – 12 cents per kilowatt-hour (c/kWh).

The *Electricity Act 1994* mandates a FiT for regional Queensland customers as there are no market FiTs available. The mandated FiT is determined annually by the Queensland Competition Authority, and is paid by Ergon Energy's retail business, and by Origin Energy in the case of Queensland customers connected to the New South Wales electricity network operated by Essential Energy (around the Goondiwindi/Inglewood region).

The regional FiT is based on the financial value to the electricity retailers from their receipt of exported solar energy. The FiT is calculated by summing the avoided generation costs, avoided NEM and ancillary service fees, and avoided costs of network losses. The regional FiT in 2015-16 is 6.3486 c/kWh.

In addition, a large number of existing customers are in receipt of the now-closed 44c/kWh FiT under the Solar Bonus Scheme, for which the electricity distributors are responsible. Under the National Electricity Rules the distributors can recover the costs of paying the 44 c/kWh FiT from all distribution network customers through the distributors' network tariffs.

The Queensland Government is also considering opportunities to grow the renewable energy sector in particular, the uptake of solar PV installation for both households and businesses. The Government has set a target for one million rooftops or 3000MW of solar panels by 2020.

In addition, new emerging technologies such as battery storage at the household level, may over time, increase distributed energy generation. Battery storage together with smart metering also has the potential to reduce peak demand. A fair price for solar may also encourage households to use and see value in the network.

Scope

The Queensland Productivity Commission is to investigate and report to Government on:

1. A methodology for determining a fair price for solar energy generated by a 'small customer' and exported to a Queensland electricity grid that:
 - a. is based on the public and consumer benefits of exported solar energy;
 - b. does not impose unreasonable network costs on electricity customers; particularly vulnerable customers and
 - c. can be realised in the current electricity system.
2. The price(s) for solar energy determined under the methodology.
3. Any barriers or constraints (technical, market, regulatory or otherwise) to monetising the value of exported solar energy in Queensland in the current electricity system, and options to address those barriers.
4. How the fair price (or fair prices) may be designed and paid (structure, unit measure, gross or net payment, payment mechanism).
5. The mechanisms by which a fair price could be implemented in Queensland (mandatory or other).
6. Appropriate review mechanisms and timeframes.

The scope does not include consideration of the 44 c/kWh FIT rate under the Solar Bonus Scheme. This matter will be considered by the Commission's broad public inquiry into electricity prices.

In its investigations, the Commission should have regard to the following factors:

- The public and consumer benefits from exported solar PV generation, including social, economic and environmental benefits.
- Whether households and business are already fairly compensated for public and consumer benefits (such as through existing government renewable energy programs and rebates and market contracts).
- The existing tariff structures and the impact these are having on the market.
- The value / avoided costs and any cost imposed or benefits across the electricity supply chain due to the exported solar PV energy, taking into account temporal and geographical / locational factors. One example may be the value being recovered from consumers for use of the transmission network when exported energy is on-sold, where distributed solar energy does not utilise the transmission network.
- Whether the fair value for exported solar PV energy is sufficiently different between local areas or regions to justify the administrative costs to government or market participants of administering separate values for those areas/regions. This should include how different values could be implemented in conjunction with the Government's commitment to the Uniform Tariff Policy.
- Any additional cost that may be incurred by electricity customers from implementation of the fair prices/s recommended by the Commission.
- The perception of electricity customers about whether any cost to them resulting from the fair value is 'unreasonable'.
- Wherever possible that the entity receiving the benefit of exported solar energy should be the entity to pay for that benefit.

- Impacts on competition in the retail electricity market.
- Existing mechanisms in the electricity system which may prevent the true value of exported solar energy being realised/monetised (e.g. metering constraints preventing the premium value of daytime generation from solar PV being realised by retailers; the use of Net System Load Profile in NEM market settlement processes, etc.).
- The Government's 1 million rooftops target by 2020, noting that the Government is not intending to return to a premium tariff, and any FiT will be at significant discount to the retail cost of electricity.
- Any other matters the Commission considers relevant.

Resourcing

It is expected that the Commission will engage expert advice from external sources where necessary, including the support and expertise of the Queensland Competition Authority.

Timeframes

Issues Paper

The Commission must publish an issues paper outlining the issues associated with its investigation.

Draft Report

The Commission must publish a draft report on its investigation into a fair price for solar.

The Commission must publish a written notice inviting submissions about the draft report. The notice must state a period (the consultation period) during which anyone can make written submissions to the Commission about issues relevant to the draft report. The Commission must consider any submissions received within the consultation period and make them available to the public, subject to normal confidentiality considerations.

Final Report

The Commission must publish a final report on its investigation into a fair price for solar within 10 months of the start of the work.

Stakeholder engagement

The Commission should consult with stakeholders, and consider submissions, within the specified timeframes.