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Solar feed in tariff Submission March 2021

Solar feed-in tariff benchmarks 2021-22 to 2023-24

Thank you for your invitation to make a submission on the issues paper for solar feed in tariffs.

The issues associated with the energy and services for housing are topics constantly being discussed within the community.

Solar energy is a dynamic subject with technology and application constantly changing. In early stages solar systems were almost exclusively located on owner occupied dwellings however due to many factors solar systems are now on all types of residential housing as well as commercial buildings.

The uptake of solar systems continues at a rapid rate on homes, businesses and community buildings with systems continuing to get larger. Some older systems have reached the end of their useful life and are being replaced with larger and more efficient installations

According to Energy Matters we now have in NSW about one in six homes with some form of solar energy. Systems vary from very simple to highly complex. Some systems cover groups of homes, multi dwelling buildings, mixed use buildings and even multi occupancy shopping centres.

The cost price, operating cost and maintenance costs are highly variable and the production of power is certainly not uniform. The relationship of the premises occupier to the owner of the solar system is also highly variable.

Generally there are four categories of relationships:-

1. Owner occupiers.

2. Non owner occupiers that includes tenants, boarders, lodgers, granny flat residents etc. This group would normally draw power from the building supply. These power consumers may or may not have to have an electrical supply customer contract.

3. Non owner occupiers of large sites and or buildings. This group includes transportable home facilities, caravan parks, retirement villages, apartment blocks and similar. The site may have one or more solar power installations with the power commonly being used for a multitude of purposes. Normal practice is for the power fee to be included in the rent, site fee, occupation charge etc. The charge is normally set by the property owner and is usually included as part of a combined site charge.

4. Mini grid, pooled and share systems are becoming relatively common.

Ownership is by shares or similar structured agreements. As the expansion of solar systems continues the ownership arrangements become more complex,

It is time for IPART to not only determine the feed in tariff rate but to also determine to whom the feed in tariff is paid.

There is no set standard for metering solar power generation and or distribution however electricity authorities are capable of normally metering feed in power to the grid and the grid supply quantities to the consumer. They are not normally of capable of metering multi end users drawing from one solar system.

Gross metering does give a very clear reading of the power produced and the power fed into the grid

It would seem the best solution is for the feed in tariff to be paid to the legal owner of the solar system because they are the ones that funded the installation.

This solution would be simple, low cost and would minimise disputes.

Where the solar system owner and occupant mutually agree to share the benefits and or costs then these arrangements can be documented within the lease, site agreement or other applicable terms and conditions to be matched to the desires of the parties involved. This would not be a cost to the grid power supplier.

Recommendation to IPART.

That IPART recommends that the feed in tariff payment be paid to the Solar System owner.

Responses to IPART Questions

We are seeking feedback on the following, as well as any other relevant issues:-

1 Is there enough information for customers to make the best financial decisions (given how much electricity they use and when they use it) on: –

whether to invest in solar systems?

the size of the system most suitable for them?

the retail offer they should choose?

There is generally plenty of information available via purchaser's research or from equipment suppliers or from the energy suppliers

The biggest issue is knowing what the feed in tariff will be over the life of the installation and who will be paid for the power supplied to the grid.

2 Are retailers providing new types of offers to households that can help them optimise the times that their energy is used, exported, or stored, for the benefit of these households, and other customers? Are customers interested in getting different prices for solar at different times across the day, depending on how much it is worth at the time? Solar feed-in tariff benchmarks IPART iv

New technologies are constantly coming on line to assist the solar system user and this is likely to continue.

It needs to be remembered that it is the household that operates the power switch. To get the best from any solar system the household members need to operate the system in a manner that delivers the highest benefit.

This often requires education and at times challenges traditional practices.

3 Are there any barriers to customers installing batteries? What options are available to customers?

There are four major problems:-

1. The regulatory aspects that specify the location of the battery
2. The cost of the battery
3. The lack of knowledge about the feed in tariff that makes it difficult to justify the expenditure
4. Who is responsible for the maintenance, upgrading and replacement of the battery if the system is not fully in the hands of the system owner,

4 ***Are consumers facing any problems getting paid for their solar exports? For example, are smart meter installations timely? Are consumers able to export all the solar electricity that they wish to export? Is there adequate notice about solar feed-in rates changing?***

There certainly are issues because the consumer may not be the owner of the solar system. Eg the property owner may install the solar system and the tenant may be the user / consumer. This may be compounded by the policies of the electricity retailer who requires the consumer to be the account holder

There is little opportunity for a tenant to install a fixed solar system and major issues if a landlord installs and tenant uses,

The rules and procedures must be changed to allow a landlord to install a solar system on a property and retain the ownership and feed in revenue.

There are plenty of opportunities for tenants to provide smaller portable solar systems. These would be similar to systems used by motorhomes and caravanners.

5 How should we estimate the inputs to the forecast value of solar electricity, including: The wholesale value of electricity – Should we be forecasting the wholesale spot price? – If so, should we continue to use ASX futures contract prices as the main source of data, and is a 5% contract premium still appropriate? – What period of data should we use? – Are there other available forecasts published by Australian regulators that could be suitable for our purposes? The solar multiplier – Which calculate

on method provides the most appropriate balance of precision, transparency, and use of taxpayer resources? – What historical time period provides the best indication of the future relationship between prices at the times solar is exporting to the grid and the average price of electricity over a day? If multiple years are used, how should the data be weighted across years? – How should we use different solar export profiles from each network to calculate a solar multiplier?

It seems to me that IPART is greatly over complicating the price of solar electricity.

Whilst IPART may understand its formulas and the supply authorities are delighted to source very cheap power the vast majority of owners of solar installations are totally confused and very poorly rewarded for the energy they produce and the major gains to the environment.

The “feed in” tariff should be equal to the “feed out” currently paid by the consumer.

The feed in price should not be calculated in isolation to the price used to bill consumers. IPART should only make one price determination that should cover both the “feed in” and “feed out” tariffs.

IPART needs to remember that much of the solar energy is being used to supply power direct to its end user. This is power that is not drawn from the grid but in reality has a similar value to the grid supply.

IPART also needs to remember that the consumer / producer has a significant investment in the purchase, installation, maintenance, upgrade and replacement of the solar power generating equipment.

6 How should we form a range around our values of solar electricity? If we continue to set a range based on forecasting uncertainty around the average wholesale value of electricity, what should this range be?

The values of solar electricity are vast and diverse. The value of solar certainly goes well beyond the dollar and cents value. Solar is a very new form of energy. It is constantly emerging as new technology refines new ways and refinements.

Values must include environmental, efficiency, safety, ease of distribution, the need for support infrastructure, an the employment created in the economy, failure of old forms of supply to keep up with demand and the list goes on.

New technology such as LED lighting is rapidly changing the way electricity is used. Eg LED street signs with solar panels attached

Setting a feed in tariff without a strong relationship to the grid price is rather like trying to compare hot water with cold water.

IPART should not set a price for Solar Power sold to battery storage facilities or used in the production of power by other renewable means. The pumps for pumped hydro.

IPART should not set a price for power produced by industry or commercial operations for their own corporate use.

IPART should not set a price for solar power used to supply EV's or Hybrids.

7 How should the day be divided to set different solar feed-in tariff benchmarks for different times across the day? Are there barriers to retailers offering customers more cost-reflective time dependent offers?

The grid price of electricity is time and volume based. This is now totally outdated. Factories and businesses have changed their operation and activity due to becoming far more attuned to seeking efficiencies and cost savings. Likewise residential properties have changed, For example off peak hot water tanks are now rare and commonly replaced by solar powered systems. Likewise heat banks no longer exist.

Battery installations are filling the gaps in sunshine and in power demand. This trend will continue to escalate. And must be encouraged.

Service stations do not sell fuel based energy on a time basis so there is no longer a valid reason why electricity supplies should have time based charging.

I am unaware of a feed in tariff that applies to wind energy, pumped hydro, or battery storage transfer etc into the grid. Surely it is not reasonable to discriminate against solar.

The current feed in tariff is not time based.

Alternate energy delivered to the grid should not have a lower price than energy produced by obsolete technology.

IPART should not encourage time based feed in tariffs AND should work to eliminate time based “feed out” charges.

It is of critical importance to be actively encouraging the rapid adoption of all forms of renewable energy and in this instant we are discussing solar.

8 Have there been any changes to the market design that affect the value of solar exports, and the inputs that should be included in our calculation?

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The electricity market is continuing to absorb renewable energy and is strongly rejecting fossil fuel energy. The existing coal fired power stations are facing extinction and it is highly likely no further coal fired power stations will be built.

Gas fired generators are also unlikely however hydrogen may be an energy source.

Conclusion

It is of major importance for IPART to send very strong signals to the energy industry to encourage the use of wind and solar rather than prop up the collapsing fossil fuel energy generation.

The strongest signal IPART can send is to set the “feed in” tariff equal to or greater than the “feed out” tariff.