

12 reasons why the proposed “Solar Bonus Scheme” using an import-export Feed in Tariff (FiT) is not the best outcome for Queensland nor the climate.

Definitions

Gross generation metering FiT - You are paid 44c for every KWh your PV system generates.

Import-export metering FiT - You are paid 44c for every KWh your PV system generates over and above what your house consumes at any point in time

The 12 reasons

1. An import-export FiT raises equity issues as it disadvantages stay at home parents, people who work from home (who are reducing travel related carbon emissions) and also retirees, who are unable to financially benefit from their PV system contribution to climate change. These people are disadvantaged as they will be using a larger portion (if not all) of the electricity they generate, compared to those households where everyone leaves their home for work during the day.
2. Businesses, particularly small businesses, community groups and schools who happen to use most of their electricity during daylight hours, will not benefit from an import-export FiT as they will be using all the energy they generate, and therefore are much less likely to invest in PV systems to help reduce their carbon footprint and mitigate the effects of climate change.
3. Gross (generation-consumption) metering i.e. getting paid the FiT rate for every kWh generated as implemented in Germany, would encourage PV adoption at a greater rate, maximising the benefit to the environment in combating climate change, and growing the renewable energy industry more quickly.
4. A gross generation FiT gives people who invest in a PV system certainty in the period they will pay for their systems with the electricity they generate. An import-export FiT makes it impossible to calculate how long the payback will be because it depends on how much electricity is being used in the household during the day when the PV system is generating.
5. Import-export metering does not measure how much renewable energy is being generated, nor how much of it is being consumed in the household. This makes it useless when trying to account for the benefits of PV generation in greenhouse gas abatement and also measuring the effects of energy efficiency initiatives in the household.
6. There is great value to the grid not only in what is exported from PV, but also what is used in the household at peak times from the PV system. This enables grid providers to avoid infrastructure upgrade costs and retailers to avoid high peak demand electricity market costs.

7. In Queensland, Energex already use a default metering scheme of gross generation and consumption for PV systems (unlike South Australia which had import-export metering for historical reasons). Why follow the leader and end up with a less than optimal metering system? (The ACT government is also considering implementing a gross metering FiT)
8. The vast majority of the existing 647 grid connected PV systems in Queensland (& also the 140 soon to be installed for members of a community based PV buying group) will need to have their metering scheme changed to comply with an import-export FiT. These are the early adopters of PV and will be disappointed with the government forcing them to pay an additional \$300 for new meters and/or rewiring of their metering to participate, when their metering arrangements were already superior in measuring the more useful information of generation and consumption.
9. Import-export FiT metering delivers much smaller financial benefits to the PV owners than gross FiT metering. Assuming 30%¹ of the renewable energy generated from PV system is exported to the grid, a 44c import-export FiT is the same as a 24c gross generation FiT. Businesses and other investors won't invest in renewable energy if the returns are not there to drive that investment.
10. The recently announced 1000 1kW homes in the pilot "Solar Homes Program" are unlikely to benefit from the import-export FiT. A UNSW CEEM study of 30 homes in Newington with 1kW PV systems found just 4% of the electricity was exported to the grid.² If this figure applies to the participants of the "Solar Homes Program", they will save just a miniscule \$17/year compared to not having a FiT and it will take them over 17 years just to pay for their \$300 meter.
11. The cost of a gross metering FiT, even at the time when the FiT will be reviewed when it is expected 8000 1kW systems will be installed, is very small at around **46c per quarterly bill**³ for each electricity customer. It will be even less for low electricity users if the cost is spread based on usage. This is minor expenditure in comparison to investments in other energy programs.
12. Instead of encouraging people to become more energy efficient, an import-export FiT will encourage people to simply move their electricity use to when their PV system is not generating, most likely into the early evening residential peak time, which is bad for the grid.

Source: **Local Power** – <http://localpower.net.au>

¹ South Australian data where 1100 MWh is exported from 2510kW of PV systems (which would generate approximately 3848MWh in a year) from p16 of

http://www.greenhouse.sa.gov.au/PDFs/Feed-in_Discussion_Paper_submissions_closed.pdf

² "For the Newington case study, just over 4% of the PV output was exported"

p9 of http://www.ceem.unsw.edu.au/content/userDocs/SAFiTFinal_Muriel.pdf

³ 46c per quarter = (\$0.44 – \$0.155)/kWh x 8000kW x 4.2kWh/day x 365days/year / 1.92M Queensland electricity customers / 4