

The current reality of peer-to-peer energy trading for sharing surplus solar energy

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With falling prices for solar panels and with experience gained on previous solar PV projects, many of our clients are thinking about increasing the size of their current solar installation where space allows.

By increasing the size of their system, many clients would be exporting some of their solar electricity, especially on weekends. Naturally, the question arises how to maximise the financial benefits from that surplus electricity.

It is not uncommon for the value of exported solar energy generation to be forgone, whether through lack of management or an unwillingness by a retailer to offer or negotiate a feed-in rate. In this scenario, you would lose any financial opportunity from exported solar.

What people tend to think happens in a P2P energy trading transaction

It seems such a straightforward concept. You have excess electricity from your solar installation on Building A, you assign this to Building B across the road, which can't have solar (e.g. is overshadowed). Building A benefits by increasing the size of its solar PV array leading to higher bill savings, and being able to assign or sell the exported electricity to Building B. Building B would benefit by potentially having a lower electricity bill, and a renewable energy supply.



100% RE – Expectations for P2P energy trading for exported solar electricity

The reality of current P2P energy sharing for your surplus solar

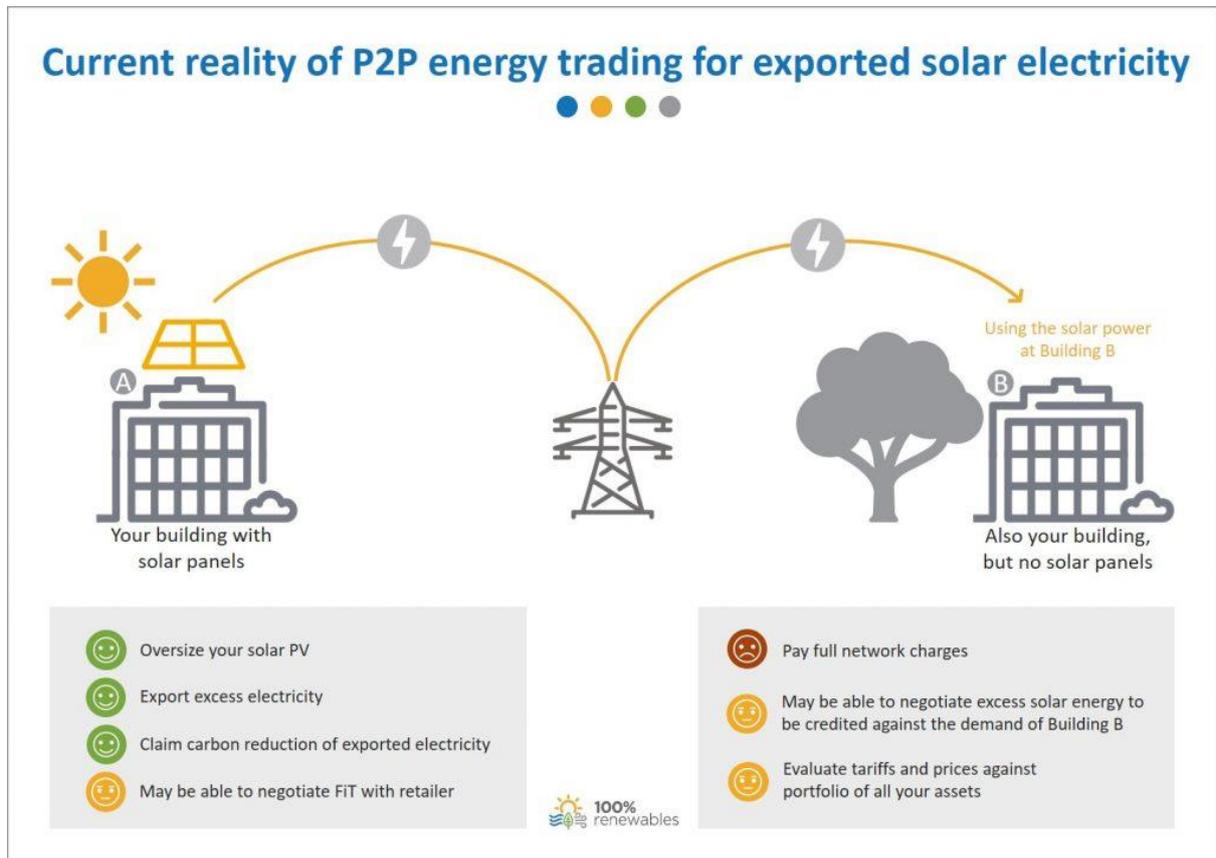
Unfortunately, the reality is different. When you produce electricity from solar panels that isn't used on site, you usually export it to the grid. You can't get the electricity from Building A to Building B without using the network.

And here is the problem: while your buildings might be close to one another, you will incur the full network charges ([which for some organisations can be up to 50% of their overall bill](#)). Network charges are made up of transmission and distribution charges. When you share energy locally, theoretically you shouldn't have to pay the transmission charges, but in reality, you do.

In 2016, the City of Sydney, the Total Environment Centre and the Property Council Australia argued for the introduction of Local Generation Network Credits (LGNCs) with the Australian Energy Market Commission (AEMC). Unfortunately, the AEMC did not go ahead with this proposed rule change.

This means that currently, there is reduced incentive to oversize your PV system and export solar electricity, unless you have a great feed-in-tariff, or have an agreement with your

retailer to net off the electricity consumption of your buildings with the surplus energy generation from another building (more on this in the next blog post).



Current reality of P2P energy trading for exported solar electricity

Recommended approach

At this time the recommended approach is to seek a feed-in rate for surplus solar energy generation with your electricity retailer – either immediately or included in your next contract negotiation. You may also be able to negotiate for the excess solar energy to be credited against the demand of your other building. If you are running an embedded network and you don't own all the buildings in the embedded network, you can trial blockchain solutions like Power Ledger. We will have more information on these options in the next blog post.

In any case, you should evaluate the tariffs and prices against the portfolio of all your assets and evaluate demand flexibility options to achieve the overall best outcome. And as always, it is important to keep a watching brief on any new developments, as this space is evolving rapidly.

This content is reprinted from 100% Renewables Pty Ltd's blog.

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