NSW SOLAR SAVINGS

How rooftop solar benefits the whole community

The results are in: rooftop solar saves everyone in NSW billions of dollars.

In the year from 1 May 2016 to 30 April 2017, the wholesale electricity price in NSW would be a whopping 33–50% higher if households and businesses with rooftop solar PV systems (up to 100kW) were not generating clean sun power. This has saved energy consumers between $2.2 and $3.3 billion! Rooftop solar produces a mere 2% of power in the state — imagine the savings if more families, households, schools, shops and public buildings had access to cheap, clean solar power.

Analysis by Energy Synapse demonstrates that when rooftop solar is pumping out power, there is less need for retailers to buy power on the wholesale market because demand for electricity is lower across the board. This reduced demand brings down the wholesale price of power because of the way that the National Electricity Market works. This means that NSW consumers, whether they have solar or not, have saved between $2.2 and $3.3 billion over the 12 month period studied.*

* Household electricity bills are made up of costs from different parts of the electricity supply system. The consumption charge includes the cost of generating power, transmitting and distributing it through poles and wires, regulation and retailing. A reduction in the wholesale price of power brings down your electricity bill by reducing the average generation cost.

THE ANALYSIS FOUND:

- **Rooftop solar PV decreased the average price of wholesale electricity** from $132/MWh to $88/MWh over the one year study period;

- **The biggest monthly cost reduction** was in February 2017, of at least $740 million; and

- **Downward pressure on wholesale electricity prices** was greatest between 1.30pm and 4.30pm

It's clear that solar benefits everyone when we need it most.

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Rooftop solar is a win-win for everyone — it's good for the hip pocket, great for our environment and a boon for our electricity system.

The analysis found that rooftop solar on homes and businesses halves the length of 'peak demand,' times when everyone uses electricity at the same time, such as on hot days when many of us switch on the aircon.

HOW WAS THIS FIGURED OUT?

Energy Synapse looked at what would have happened in the NSW energy market if the power supplied by rooftop solar wasn't there. First, they took solar output data in five minute intervals. This was then mapped against the actual bids that the big generators put into the wholesale electricity market, which set out how much power they can provide and at what price. Finally, a calculation was made on how much additional power would have been needed if there was no rooftop solar in the market and the impact that would have on cost. They compared the cost of power in that scenario to what actually happened over the 12 month period. Apart from high demand periods, they assumed those bids from the generators would have remained the same if the power from rooftop solar wasn't in the market.

Thanks to **the 360,000 plus** households and businesses with solar on their roof,

EVERYONE IN NSW IS SAVING MONEY, EVERY YEAR.

SOLAR CITIZENS RECOMMENDATIONS:

- **Recognise the benefits** that rooftop solar provides to all consumers by setting a fair price for solar power fed into the grid.

- **Ensure every rooftop** that can have solar is able to get it.

- **Enable low income households** to access rooftop solar.

- **Remove the roadblocks** for renters, apartments, businesses and communities who want to go solar.

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