

Getting the most out of your solar system



Part of Energy Queensland

In this factsheet, we explain how to get the most out of your solar power system.

When the sun is shining, your solar system generates electricity, and this is used by appliances running at the time in your home. If your appliances are using more electricity than your solar system is generating, you'll consume some electricity from the electricity grid. And if your solar system is generating more electricity than you are consuming in your home, the excess solar power will be exported into the grid. Depending on the arrangements with your electricity retailer, you can earn a credit on your bill for the electricity you feed into the grid (this is known as a feed-in tariff).

There are three main options available to you when it comes to getting the most out of your solar system. Maximising the use of the solar power generated in your home is usually the best option. Exporting excess solar power can earn a credit on your power bill, but unless you are on a high feed-in tariff, this is typically the second-best option. Storing excess power generated in a battery energy storage system (BESS) for use later, is another option.

To use or to export?

As a general principle, you should use as much of your electricity generated by your solar system during the day as you can. Using your appliances when your solar is generating is sometimes referred to as "solar soaking". Using solar-generated electricity is always better than exporting it to the grid and earning a feed-in credit, because the rate at which you will get paid for exported electricity is usually a lot less than the rate you pay for electricity used from the grid (unless you are on the Solar Bonus Scheme 44c feed-in tariff*). Even if you are doing your best to use your appliances when your solar system is generating, in most cases you will still export some of that electricity to the grid which will help to reduce your bill.

* Solar Bonus Scheme is closed to new customers.



Free things you can do right now to "solar soak"

- If you're home during the day, try to use appliances like dishwashers, washing machines, clothes dryers, irons, vacuums, stove-tops and ovens when your solar system is generating power. For high energy consuming appliances like corded vacuums, irons, stove-tops and ovens, try to stagger their use during the day to avoid using more power than your solar system is generating and having to purchase electricity from the grid. Where practical, charge laptops, iPads, power tools and other items during the day as well.
- Love a good soup, curry or stew? Preparing your evening meal in a slow cooker turned on in the morning not only means your meal is 'solar powered'- but your dinner will be ready to go when you get home!
- Not at home during the day? No worries – try using timers that are built into some appliances. Many dishwashers, pool pumps and washing machines have built in timers that let you control when they come on. You can use these functions to stagger when these appliances operate during the day. For example, you might program your dishwasher to come on at 9am, and your washing machine at 11am. Even if you are at home, using an appliance timer can help ensure you don't forget to take advantage of your solar system's output. If your appliances don't have timers, think about buying appliances that come with built in timers next time.

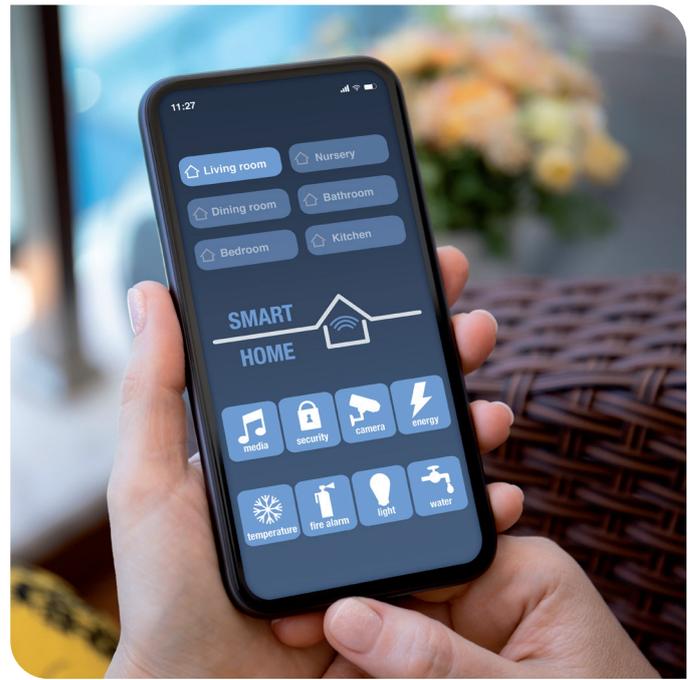
- If you arrive home after 5pm on hot summer days and your air conditioner has a timer or can be turned on remotely, consider switching it on in the afternoon so your solar power can power your air conditioner and pre-cool your home for your return.

Important things to note regarding tariffs

- The electricity generated by your solar system offsets the electricity used on your main or primary tariff. This means that if you have large equipment like hot water systems and pool pumps connected to a secondary tariff (sometimes referred to as Tariff 31, Tariff 33, Load Control 1 or Load Control 2) your solar system will not directly offset the electricity used by these appliances or the cost of running those appliances.
- It is important to note, that if you have large appliances connected to your main tariff for use against your solar system, make sure you use a quality timer, home energy management system (HEMS) or other device to ensure these appliances are operating mostly when your solar system is producing electricity. If this is the case, you'll also need to make sure appliances like hot water systems run long enough so you don't run out of hot water.
- Speak to your solar installer about hardware to manage your electricity usage; your electricity Retailer can provide advice on tariff options.

Higher cost things you could do to save

- **Do you have gas hot water?** When your current gas system needs replacing, a good option is to switch to an electric hot water system and do most of your water heating during the day, on a timer. Your water heater would then be mostly solar powered.
- **Store your own solar power.** If you're exporting a lot of solar power to the grid, even after solar soaking as much as you can, consider purchasing a battery energy storage system (BESS) to store that energy. Then you can use your stored solar power during the evening or overnight and reduce the amount of power that you buy from the electricity grid. A BESS can also be configured to provide you with electricity on essential circuits during power outages, especially after storms or other natural disasters.
- **In the market for a new car?** You may want to consider an electric vehicle that you could charge during the day with your solar generation, noting that electric vehicle chargers generally use a lot more electricity than the average residential rooftop solar system generates.



Monitoring and controlling your home energy generation and use

- Most modern solar systems come with a smart phone App that can display information like your solar system's output, your total energy consumption, how much electricity you use from the grid, and how much you export to the grid. This is usually presented in an easy to understand view to allow you to see how effective your solar system is for your household, and helps you identify if your solar system has any faults. Talk to your installer to find out what information is available from your solar system.
- Another option to consider is installing a HEMS, which in addition to monitoring electricity use and generation, can also control your appliances through "set and forget" schedules, or manual switching on/off through an App. A HEMS can even offer home automation. Imagine coming home from work and your HEMS turns on some lights, sets your air temperature and opens your garage door once you are 50m from your front door!

Need more information?

Your solar installer or electrician should be able to provide you advice tailored to your household on how to get the best out of your solar system. You can also find more information by searching for 'solar soak' on the Ergon Energy Network and Energex websites.

For more information visit
ergon.com.au | energex.com.au



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