



# POWERING UP BATTERY STORAGE FOR HOUSEHOLDS AND BUSINESS

Powering the new economy with clean energy

Battery storage will revolutionise our energy system, enabling consumers to lower costs, use more of their own renewable energy and tackle global warming. We will accelerate the take up of clean energy by redirecting money from fossil fuel tax breaks into support for battery storage in homes and businesses.

The Greens want to support Australians to power their homes and businesses with clean energy. Battery storage will revolutionise our energy system, enabling consumers to lower costs and use more of their own renewable energy. Battery storage has many other benefits including the enabling off-grid communities and facilities, utility scale storage to assist in grid management and the use of electric vehicles as storage.

Battery storage is taking off in Australia, with many households and businesses already attaching storage to their clean energy systems. Now is the time to grow the industry, encourage the take up of storage and help make Australia a renewable energy leader. With public interest high now is the time for a targeted, 5-year support package to drive down costs and put battery storage in reach of every household and business.

## > POWERING UP BATTERY STORAGE

To encourage the take up of battery storage by households, the Greens will introduce a 50 per cent refundable tax credit for individuals to assist with the cost of household solar energy storage systems. A grant scheme is also available for those on low incomes. Up to 1.2 million homes could be supported over the five years of the program.

Business investment in battery storage will be supported by shortening the length of time in which battery storage assets can be depreciated for tax purposes. Up to 30,000 businesses could be supported over the next four years.

Both programs will be funded by savings from the reform of accelerated depreciation concessions for fossil fuels intensive industries.

With the costs of battery storage predicted to decrease rapidly over the next decade we envisage the policy will only be necessary for five years.<sup>i</sup> The Australian Renewable Energy Agency (ARENA) will conduct a review of the policy in 2020.

## > EMPOWERING HOUSEHOLDS

The policy will:

- Introduce a 50 per cent refundable tax credit for individuals to assist with the cost of household solar energy storage systems. The credit would apply regardless of income and would be capped at \$5,000 in the 2016-17 financial year, declining to \$1,500 from 1 July 2020. A separate mechanism would be available so that those who do not lodge a tax return could claim the tax credit.
- Introduce a Low Income Solar Storage (LISS) grant to be administered by the Australian Renewable Energy Agency (ARENA). The LISS grant would be available in addition to the refundable tax credit for households with adjusted taxable income of less than \$80,000 per year. The LISS grant would be capped at \$5,000 in the 2016-17 financial year or half of the total cost of the system, whichever is lower. This would gradually decline to be \$1,000 from 1 July 2020. The number of LISS grants would also be capped at 20,000 per year.
- Fund ARENA to review the operation of the tax credit and LISS grant scheme and advise Parliament as to whether the scheme should continue in some form beyond 2020.

The household policy is estimated by the Parliamentary Budget Office to cost \$2,850 million over the 2015-16 Budget forward estimates period supporting an estimated 1.2 million homes with an average storage capacity of 10 KWh. The following table provides the proposed maximum refundable tax credit and LISS grant amounts in each year under the policy:

	2016-17	2017-18	2018-19	2019-20	2020-21
<b>Tax credit</b>	\$5,000	\$4,000	\$3,000	\$2,200	\$1,500
<b>LISS grant</b>	\$5,000	\$4,000	\$3,000	\$2,000	\$1,000

## > EMPOWERING BUSINESS

Currently battery storage is treated as a business asset that for tax purposes is depreciated over 15 years. By allowing battery storage installations to be depreciated over three years the policy will drive the take up of storage by business. The Parliamentary Budget Office has estimated up to 30,000 units could be installed by business and costed the policy at \$38 million over the 2015-16 Budget forward estimates period.

## > REMOVAL OF ACCELERATED DEPRECIATION FOR FOSSIL FUEL INTENSIVE INDUSTRY

Implementing our longstanding policy to remove accelerated asset depreciation for aircraft and the oil and gas industry would raise about the same amount of revenue as the cost of the scheme. The PBO estimated the removal of accelerated depreciation would save \$2,750 million over the over the forward estimates.

## > THE BENEFITS OF BATTERY STORAGE

Battery storage reduces electricity imports from the grid, giving consumers more energy autonomy and independence, while enabling them to utilize more of the power they generate. Battery storage also enables consumers to significantly reduce their electricity bills, particularly if they are on time-of-use or demand tariffs.

Increased take up of battery storage will help drive down pollution and support the Greens goal of shifting Australia to 90% renewables by 2030.

## > EXISTING SUPPORT FOR BATTERY STORAGE

There is significant government support for battery storage around the world. California has a comprehensive battery storage policy with energy storage targets for the state's 3 largest investor owned utilities, requiring 1.3GW of battery storage to be installed by 2020. California has also introduced rebates for consumers who install energy storage systems. New York and Japan also have generous rebate schemes, with Japan covering two-thirds of the cost of a system. Germany also provides financing for 30% of the initial investment in battery storage at low or fixed interest rates.

Here in Australia Adelaide City Council offer a \$5000 rebate per storage system to residents and the ACT has recently announced a \$25 million program to support the roll out of storage to 5000 homes.

## > NETWORK STORAGE

Battery storage can reduce network peaks and troughs by storing electricity during off-peak times and discharging it during the peak. Household imports from the grid may increase during the night and reduce during the peak when this electricity is used. It also reduces the amount of electricity that is exported to the grid from rooftop solar during the middle of the day. This has the capacity to significantly reduce variability. This reduction in variability may drive down electricity prices because ramp rates will be better regulated.

Batteries also have the capacity to assist network ancillary services and act as a source of back-up power for the grid.

## > OFF THE GRID

For many small and regional communities that rely on generators the benefits of battery storage are significant as solar is already competitive with the costs of diesel or gas.

<sup>i</sup> AEMO, EMERGING TECHNOLOGIES INFORMATION PAPER, NATIONAL ELECTRICITY FORECASTING REPORT, June 2016