



## Home Battery Incentives and Electrification Loans

Party:

Independent Member for Indi

Summary of proposal:

The proposal has 2 components that would commence 1 October 2022.

**Component 1** would amend the *Renewable Energy (Electricity) Act 2000* to add home batteries as an eligible technology to earn Small-scale Technology Certificates (STCs) through the Small-scale Renewable Energy Scheme. It would also extend the 'deeming rate' for home batteries to 15 years; then, from 2025, to the time between installation and when the scheme would end (2040).

**Component 2** would require the Clean Energy Finance Corporation (CEFC) to administer zero-interest loans of up to \$5,000 to households to purchase and install eligible zero-emission technologies. These technologies would include electric vehicles, heat pumps, household batteries, and electric cookers. The CEFC would administer the loans in collaboration with commercial partners.

- 200,000 loans with a term of 6 years would be administered across 4 years, with a maximum of 50,000 loans in each year. Any unallocated loans would be returned to the CEFC's budget at the end of the proposal.
- 25,000 loans in each financial year would be reserved for households in rural, regional, and remote Australia. Furthermore, only households with an annual income below \$90,000 for individuals and \$150,000 for couples would be eligible.

### Costing overview

The proposal would be expected to decrease the fiscal balance by around \$208 million, decrease the underlying cash balance by around \$101 million, and decrease the headline cash balance by around \$691 million over the 2022-23 Budget forward estimates period.

The proposal would have an impact beyond the 2022-23 Budget forward estimates period. A breakdown of the financial implications over the period to 2032-33 is provided at Attachment A.

Component 1 would not impact administered revenue or expenses because:

- liable entities under the Renewable Energy Target Scheme must surrender certificates to the Clean Energy Regulator, but the surrender of certificates is not a monetary transaction
- the number of certificates that liable entities must surrender would not be affected by the proposal, meaning that demand for certificates is expected to remain unchanged
- goods and services tax (GST) is levied on the price of eligible technologies before discounts are applied, so the proposal is not expected to affect the amount of GST collected on each unit.

Departmental expenses associated with Component 1 reflect the costs of implementing the proposal, enforcing compliance, and communicating changes to stakeholders.

The financial implications of Component 2 are sensitive to the rate at which households take up and default on the zero-interest loans. Take-up rates are likely to be affected by the prices of eligible technologies and the prices of other electricity sources, which in turn are likely to be affected by market conditions as well as electricity and climate policies. Furthermore, some states and territories administer similar schemes subsidising the cost of home battery storage, which could affect the take-up rate of the proposal. The Parliamentary Budget Office (PBO) has not made any assessment of whether the proposal would interact with other available subsidies and schemes.

Consistent with *PBO Guidance 02/2015*, public debt interest (PDI) expenses have been included in the financial implications in this response because the concessional loans provided under the proposal involve financial asset transactions.

The fiscal, underlying cash, and headline cash balance impacts differ in the treatment of interest and the flow of loan principal amounts. Specifically, only the fiscal balance reflects concessional loan discount expenses, associated unwinding income, and loan write-downs, and only the headline cash balance includes transactions related to loan principal amounts. The impact on net debt would be broadly consistent with movements in the headline cash balance. A note on the accounting treatment of concessional loans is included at Attachment B.

**Table 1: Financial implications (\$m)<sup>(a)</sup>**

	2022-23	2023-24	2024-25	2025-26	Total to 2025-26
Fiscal balance	-72.7	-50.9	-44.5	-39.4	-207.5
Underlying cash balance	-29.7	-20.0	-23.9	-27.0	-100.6
Headline cash balance	-238.7	-188.0	-150.9	-113.0	-690.6

(a) A positive number represents an increase in the relevant budget balance; a negative number represents a decrease.

### Key assumptions

The PBO has made the following assumptions in costing the proposal.

#### Component 1

- The proposal would not affect the amount of GST collected on home battery purchases.

#### Component 2

- Legislative amendments to allow the CEFC to make zero-interest loans would be passed before the proposal start date.
- The CEFC would be able to implement the proposal and still fulfil its current financing obligations.
- The full number of loans on offer would be taken up by eligible households in each financial year.
- Households would access the maximum amount of interest free-finance available.
- The average default rate would be 1.5 per cent, which is informed by the Reserve Bank of Australia’s observations of non-performing loans and default probabilities for various sectors.

## Methodology

### Component 1

Departmental expenses were estimated based on similar measures costed by the PBO, informed by the estimates in the explanatory memorandum to the Renewable Energy (Electricity) Bill 2000.

### Component 2

Administered items were estimated with the PBO's concessional loan model, based on the specifications of the proposal and the assumptions detailed above.

Departmental expenses were estimated based on similar programs administered by the Department of Industry, Science, Energy and Resources.

Financial implications were rounded consistent with the PBO's rounding rules as outlined on the PBO Costings and budget information webpage.<sup>1</sup>

## Data sources

The Department of Industry, Science, Energy and Resources provided information on the Clean Energy Finance Corporation's funding commitments, equity investments, concessional loans, and operational expenses over the 2022-23 Budget forward estimates.

Reserve Bank of Australia, 2022. [Personal Lending Rates](#), accessed 12 June 2022.

Reserve Bank of Australia, 2021. [Financial Stability Review – April 2021](#), accessed 12 June 2022.

Reserve Bank of Australia, 2021. [Financial Stability Review – October 2021](#), accessed 12 June 2022.

Clean Energy Regulator, 2020. [Scheme participants and industry](#), accessed 12 June 2022.

Clean Energy Regulator, 2018. [Small-scale technology certificates](#), accessed 12 June 2022

Clean Energy Regulator, 2018. [Liable entities](#), accessed 12 June 2022.

Clean Energy Regulator, 2017. [Buying and selling small-scale technology certificates](#), accessed 12 June 2022

Parliament of Australia, 2000. [Renewable Energy \(Electricity\) Bill 2000](#), accessed 12 June 2022.

---

<sup>1</sup> [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Budget\\_Office/Costings\\_and\\_budget\\_information](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Costings_and_budget_information)

## Attachment A – Home Battery Incentives and Electrification Loans – financial implications

**Table A1: Home Battery Incentives and Electrification Loans – Fiscal balance (\$m)<sup>(a)</sup>**

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	Total to 2025-26	Total to 2032-33
<b>Revenue</b>													
<i>Administered non-tax</i>													
<i>Income from unwinding of discounts</i>	14.3	26.7	36.9	44.9	36.0	26.5	16.3	8.3	2.8	-	-	122.8	212.7
<b>Total – revenue</b>	<b>14.3</b>	<b>26.7</b>	<b>36.9</b>	<b>44.9</b>	<b>36.0</b>	<b>26.5</b>	<b>16.3</b>	<b>8.3</b>	<b>2.8</b>	-	-	<b>122.8</b>	<b>212.7</b>
<b>Expenses</b>													
<i>Administered</i>													
<i>Concessional loan discount expense</i>	-53.2	-53.2	-53.2	-53.2	-	-	-	-	-	-	-	-212.8	-212.8
<i>Write downs</i>	-3.8	-3.8	-3.8	-3.8	-	-	-	-	-	-	-	-15.2	-15.2
<i>Commercial partner delivery costs</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – administered</b>	<b>-69.5</b>	<b>-63.3</b>	<b>-63.3</b>	<b>-63.3</b>	-	-	-	-	-	-	-	<b>-259.4</b>	<b>-259.4</b>
<i>Departmental</i>													
<i>Clean Energy Regulator</i>	-2.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-3.8	-7.3
<i>Clean Energy Finance Corporation</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – departmental</b>	<b>-14.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-35.2</b>	<b>-38.7</b>
<b>Total – expenses</b>	<b>-84.3</b>	<b>-70.1</b>	<b>-70.1</b>	<b>-70.1</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-294.6</b>	<b>-298.1</b>
<b>Total (excluding PDI)</b>	<b>-70.0</b>	<b>-43.4</b>	<b>-33.2</b>	<b>-25.2</b>	<b>35.5</b>	<b>26.0</b>	<b>15.8</b>	<b>7.8</b>	<b>2.3</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-171.8</b>	<b>-85.4</b>
<i>PDI impacts</i>	-2.7	-7.5	-11.3	-14.2	-13.7	-9.9	-6.2	-3.4	-1.6	-1.0	-2.7	-35.7	-74.2
<b>Total (including PDI)</b>	<b>-72.7</b>	<b>-50.9</b>	<b>-44.5</b>	<b>-39.4</b>	<b>21.8</b>	<b>16.1</b>	<b>9.6</b>	<b>4.4</b>	<b>0.7</b>	<b>-1.5</b>	<b>-3.2</b>	<b>-207.5</b>	<b>-159.6</b>

(a) A positive number for the fiscal balance indicates an increase in revenue or a decrease in expenses or net capital investment in accrual terms. A negative number for the fiscal balance indicates a decrease in revenue or an increase in expenses or net capital investment in accrual terms.

- Indicates nil.

**Table A2: Home Battery Incentives and Electrification Loans – Underlying cash balance (\$m)<sup>(a)</sup>**

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	Total to 2025-26	Total to 2032-33
<b>Payments</b>													
<b>Administered</b>													
<i>Commercial partner delivery costs</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – administered</b>	<b>-12.5</b>	<b>-6.3</b>	<b>-6.3</b>	<b>-6.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-31.4</b>	<b>-31.4</b>
<b>Departmental</b>													
<i>Clean Energy Regulator</i>	-2.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-3.8	-7.3
<i>Clean Energy Finance Corporation</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – departmental</b>	<b>-14.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-35.2</b>	<b>-38.7</b>
<b>Total – payments</b>	<b>-27.3</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-66.6</b>	<b>-70.1</b>
<b>Total (excluding PDI)</b>	<b>-27.3</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-66.6</b>	<b>-70.1</b>
<b>PDI impacts</b>	<b>-2.4</b>	<b>-6.9</b>	<b>-10.8</b>	<b>-13.9</b>	<b>-13.8</b>	<b>-10.3</b>	<b>-6.7</b>	<b>-3.8</b>	<b>-1.8</b>	<b>-1.1</b>	<b>-2.5</b>	<b>-34.0</b>	<b>-74.0</b>
<b>Total (including PDI)</b>	<b>-29.7</b>	<b>-20.0</b>	<b>-23.9</b>	<b>-27.0</b>	<b>-14.3</b>	<b>-10.8</b>	<b>-7.2</b>	<b>-4.3</b>	<b>-2.3</b>	<b>-1.6</b>	<b>-3.0</b>	<b>-100.6</b>	<b>-144.1</b>

(a) A positive number for the underlying cash balance indicates an increase in receipts or a decrease in payments or net capital investment in cash terms. A negative number for the underlying cash balance indicates a decrease in receipts or an increase in payments or net capital investment in cash terms.

- Indicates nil.

**Table A3: Home Battery Incentives and Electrification Loans – Headline cash balance (\$m)<sup>(a)</sup>**

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	Total to 2025-26	Total to 2032-33
<b>Receipts</b>													
<b>Administered non-tax</b>													
<i>Loan repayments</i>	41.0	82.0	123.0	164.0	164.0	164.0	123.0	82.0	41.0	-	-	410.0	984.0
<b>Total – receipts</b>	<b>41.0</b>	<b>82.0</b>	<b>123.0</b>	<b>164.0</b>	<b>164.0</b>	<b>164.0</b>	<b>123.0</b>	<b>82.0</b>	<b>41.0</b>	-	-	<b>410.0</b>	<b>984.0</b>
<b>Payments</b>													
<b>Administered</b>													
<i>Loans made</i>	-250.0	-250.0	-250.0	-250.0	-	-	-	-	-	-	-	-1,000.0	-1,000.0
<i>Commercial partner delivery costs</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – administered</b>	<b>-262.5</b>	<b>-256.3</b>	<b>-256.3</b>	<b>-256.3</b>	-	-	-	-	-	-	-	<b>-1,031.4</b>	<b>-1,031.4</b>
<b>Departmental</b>													
<i>Clean Energy Regulator</i>	-2.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-3.8	-7.3
<i>Clean Energy Finance Corporation</i>	-12.5	-6.3	-6.3	-6.3	-	-	-	-	-	-	-	-31.4	-31.4
<b>Total – departmental</b>	<b>-14.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-6.8</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-35.2</b>	<b>-38.7</b>
<b>Total – payments</b>	<b>-277.3</b>	<b>-263.1</b>	<b>-263.1</b>	<b>-263.1</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-1,066.6</b>	<b>-1,070.1</b>
<b>Total (excluding PDI)</b>	<b>-236.3</b>	<b>-181.1</b>	<b>-140.1</b>	<b>-99.1</b>	<b>163.5</b>	<b>163.5</b>	<b>122.5</b>	<b>81.5</b>	<b>40.5</b>	<b>-0.5</b>	<b>-0.5</b>	<b>-656.6</b>	<b>-86.1</b>
<b>PDI impacts</b>	<b>-2.4</b>	<b>-6.9</b>	<b>-10.8</b>	<b>-13.9</b>	<b>-13.8</b>	<b>-10.3</b>	<b>-6.7</b>	<b>-3.8</b>	<b>-1.8</b>	<b>-1.1</b>	<b>-2.5</b>	<b>-34.0</b>	<b>-74.0</b>
<b>Total (including PDI)</b>	<b>-238.7</b>	<b>-188.0</b>	<b>-150.9</b>	<b>-113.0</b>	<b>149.7</b>	<b>153.2</b>	<b>115.8</b>	<b>77.7</b>	<b>38.7</b>	<b>-1.6</b>	<b>-3.0</b>	<b>-690.6</b>	<b>-160.1</b>

(a) A positive number for the headline cash balance indicates an increase in receipts or a decrease in payments or net capital investment in headline cash terms. A negative number for the headline cash balance indicates a decrease in receipts or an increase in payments or net capital investment in headline cash terms.

- Indicates nil.

## Attachment B – Accounting treatment of concessional loans

A concessional loan is a loan provided on more favourable terms than the borrower could obtain in the financial market. The most common concession is a below-market interest rate, but concessions can also include favourable repayment conditions. The income contingent loans available through the Higher Education Loan Program are an example of concessional loans offered by the Commonwealth.

### Budget impact<sup>2</sup>

The accounting treatment of concessional loans differs across each budget aggregate. The underlying cash balance only captures actual flows of interest related to the loans. The headline cash balance captures actual flows of principal as well as interest. The fiscal balance captures accrued interest, the value of the concession and any write-offs related to the loans. The interest cost of financing these loans is captured in all budget aggregates and is separately identified by the PBO.<sup>3</sup> Table B1 provides information about the detail provided in a costing. The provision of concessional loans decreases the Commonwealth Government's net worth if the liabilities issued (the value of Commonwealth Government Securities issued to finance the loans) are greater than the assets created (measured at their 'fair value' or price at which the loans could be sold).

### Treatment of debt not expected to be repaid

All budget aggregates consider estimates of the share of loans not expected to be repaid when calculating interest flows and estimating the value of the concession that is being provided. None of the measures capture the direct impact on net worth of the loans not expected to be repaid. If a portion of loans are not expected to be repaid, estimates of the 'fair value' of the loans outstanding will be reduced. Such reductions, both when loans are issued and if loans are subsequently re-valued, are recorded in the budget under 'other economic flows' which are reflected in net worth but not in the budget aggregates.

**Table B1: Components of concessional loan financial impacts in costing proposals**

Budget item	Appears in	Comments
Interest accrued or received	All budget aggregates	Captures the interest accrued or expected to be received on the fair value of the debt. (The budget cannot include interest income on a debt that is not expected to be repaid.)
Concessional loan discount expense and unwinding revenue	Fiscal balance	The net present value of the concession (based on the difference between the market and concessional interest rates) is captured as an expense in the fiscal balance. As loans are repaid, the remaining value of the concession reduces, so this expense is 'unwound' with a positive impact on the fiscal balance. The concessional discount and its unwinding are not recognised in cash balances as there is no cash inflow or outflow.
Write-offs	Fiscal balance	Debt forgiveness, also known as mutually agreed write-downs (for example in the case of the death of the borrower of a HELP loan) are expensed when they occur, reducing the fiscal balance. These transactions do not affect the cash balances as no cash flows occur.
Initial loan; principal repayments	Headline cash balance	Higher estimates of loans not expected to be repaid lowers principal repayments. These transactions are not included in the fiscal balance or underlying cash balance as they involve the exchange of one financial asset (loan) for another (cash).
Public debt interest (PDI)	All budget aggregates	The PDI impact is the cost of the change in the government's borrowing requirements to fund the loans. The net headline cash balance impact excluding PDI is used to estimate the proposal's impact on PDI payments.

<sup>2</sup> The PBO's treatment of these loans is consistent with the Department of Finance costing guidelines.

<sup>3</sup> This is in accordance with *PBO Guidance 02/2015* and the Charter of Budget Honesty Policy Costing Guidelines which specify that costings of proposals that 'involve transactions of financial assets' need to take into account the impact on PDI payments.