Parliamentary Budget Office

Policy costing

Establish RenewAustralia Authority to transition towards 100 per cent renewables	
Party:	Australian Greens

Summary of proposal:

- Component 1 – Renew Australia Corporation
  - Element 1: Establish the Renew Australia Corporation (the Corporation) from 1 July 2019. The Corporation would be funded to deliver Components 3, 4, 5 and 6 of this proposal.
  - Element 2: Provide the Corporation $40 million in 2019-20, indexed by the consumer price index (CPI) to 2025-26 and then held constant at that level on an ongoing basis, to manage the transition to a clean energy system.
- Component 2 – Renewable energy zones
  - Element 1: Provide $40 million spread evenly from 2019-20 to 2021-22 to the Australian Energy Market Operator to support the implementation of a new regulatory process for establishing renewable energy zones.
  - Element 2: Provide a $6,000 million equity injection from the Commonwealth Government to a public non-financial corporation outside of the general government sector for a Grid Transformation Fund. The equity would be used to support transmission connections to renewable energy zones and be spread evenly over ten years from 2019-20 to 2028-29.

    Assets built through the Grid Transformation Fund would generate sufficient revenue to meet its operating and capital financing costs and, in the longer term, deliver a rate of return of at least the rate of inflation on the initial equity injection.
- Component 3 – Community renewables
  - Element 1: Provide $25 million over two years from 2019-20 to 2020-21 for regional and community hubs across the country.

    The departmental funding provided under Component 1 to administer this element would be in addition to this capped amount.
  - Element 2: Provide $100 million over four years from 2019-20 to 2022-23 for a 'solar gardens' scheme to assist renters and apartment dwellers to invest in solar panels in locations other than their dwelling.

    The departmental funding provided under Component 1 to administer this element would be in addition to this capped amount.
- Component 4 – Solar Households Scheme
  - Provide $1,200 million over five years from 2019-20 to 2023-24 for a Solar Households Scheme.

    The departmental funding provided under Component 1 to administer this element would be in addition to this capped amount.

- Component 5 – Clean technology
  - Element 1: Re-establish the Clean Technology Innovation Program, with $200 million spread over four years from 2019-20 to 2022-23.

    This capped amount includes departmental funding provided under Component 1.
  - Element 2: Provide $200 million over four years from 2019-20 to 2022-23 to establish a Clean Energy Small Business Fund. This capped amount includes departmental funding provided under Component 1.

    Small-to-medium-sized enterprises would be eligible to apply for up to $10,000 to cover the cost of investment in assets or capital works that reduce fossil fuel use or improve energy efficiency, or to switch from gas to clean energy. This fund will operate in conjunction with the instant asset tax write-off, as businesses who receive the instant asset write-off will also be able to receive money from the Clean Energy Small Business Fund.
  - Element 3: Provide $50 million spread evenly over two years from 2019-20 to 2020-21 for a community education campaign targeted at households, to encourage use of split-system air-conditioners instead of gas.

    This capped amount includes departmental funding provided under Component 1.
- Component 6 – Household Solar Storage Scheme
  - Element 1: Storage grants for households

    Provide $550 million each year from 2019-20 to 2022-23, with $137.5 million made available for storage grant funding each quarter.

    The departmental funding provided under Component 1 to administer this element would be in addition to this capped amount.

    The maximum grant per household would taper down annually, from up to $7,000 per household in 2019-20, to $5,950 per household in 2020-21, $5,355 per household in 2021-22, and $4,820 per household in 2022-23, for non-low-income households.

    Each year, $55 million would be set aside for low-income households, who would be eligible to receive double the grant specified above. The income threshold for low-income households would be determined prior to the commencement of the program.

    The Household Solar Storage Scheme would top up any state-based grants to households.

    To be eligible for the Scheme, households would need to use qualified system providers installing battery systems that meet a set of minimum technical requirements.

    The Scheme would commence on 1 July 2019 and conclude on 30 June 2023.
  - Element 2: Fund a review to be conducted half way through the operation of the Household Solar Storage Scheme to assess the size of the grant, taking into account trends in battery prices in each state, the resulting payback periods and the performance of the Scheme.
- Component 7 – Grid-scale storage
  - Provide $2,200 million in funding over four years from 1 January 2020 to establish a Large-Scale Energy Storage Scheme to build storage and infrastructure at the grid level. The Scheme would be managed by the Australian Energy Market Operator and the Clean Energy Regulator.

Costing overview

The proposal would be expected to decrease the fiscal balance by $6,680 million, the underlying cash balance by $6,670 million and the headline cash balance by $9,070 million over the 2019-20 Budget forward estimates period. On a fiscal balance basis this reflects an increase in administered expenses of $5,621 million, departmental expenses of $729 million and public debt interest expenses of $330 million.

Departmental expenses represent the cost of delivering the components in this proposal. This includes managing the transition to a clean energy system, implementing renewable energy zones, managing and delivering regional and community grants for solar and clean technology projects, and administering the Clean Energy Small Business Fund.

Consistent with Parliamentary Budget Office (PBO) Guidance 02/2015, public debt interest expense impacts have been included in this costing because the equity injection for the Grid Transformation Fund under this proposal involves transactions of financial assets.

Differences in the fiscal and underlying cash balances reflect the timing of when public debt interest impacts accrue and are expected to be paid.

As specified in the commitment, funding under the proposal for the Grid Transformation Fund would be provided as equity injections to a public non-financial corporation. This administered funding would have a direct impact on the headline cash balance, with the only impact on the fiscal and underlying cash balances being increased public debt interest expenses. There are no direct fiscal and underlying cash balance impacts as these investments would be treated as the Commonwealth Government exchanging one financial asset (cash) for another (equity in the public non-financial corporation).

The headline cash balance impact of the proposal shows the full amount of the equity injection into the public non-financial corporation, as well as the impact of the proposal on the Commonwealth Government borrowing requirement. The headline cash balance impact would be equivalent to the change in the net debt position.

Net revenue received from the transmission assets constructed through the Grid Transformation Fund does not appear in the fiscal balance nor the underlying cash balance as the public non-financial corporation is outside the general government sector. Commonwealth Government revenue from assets constructed through the Grid Transformation Fund would only arise if the public non-financial corporation were to pay a dividend.

The proposal would be expected to have an ongoing impact beyond the 2019-20 Budget forward estimates period. The financial impact from 2019-20 to 2029-30 is provided at Attachment A.

The financial implications of most parts of this proposal are subject to little uncertainty: the Australian Energy Market Operator, solar grants, clean technology projects and small business funding are capped amounts to be provided over specified periods. The associated departmental expenses are based on programs of a similar size and for a similar purpose. The PBO has not made an assessment on whether the specified funding would be sufficient to achieve the stated policy objectives.

There is, however, considerable uncertainty associated with the establishment of the Grid Transformation Fund. Although the equity injection is capped, the revenue required to offset operating and capital financing costs is sensitive to developments in the energy market. These developments include the number, nature and timing of renewable electricity generators connecting to the new transmission infrastructure, and to transmission prices, which can vary significantly over time and could vary on account of this proposal.

The financial implications of the storage grants and program review in Component 6 are sensitive to the assumed take-up rate for the grants, the threshold for low-income households and the scope of the program review. The price of eligible solar storage technologies and the price of alternative electricity provision, which may be affected by electricity sector, climate and other policies, may affect take-up of these grants and, therefore, the cost of this proposal.

Table 1: Financial implications ($m)[(a)(b)]

	2019–20	2020–21	2021–22	2022–23	**Total to 2022–23**
Fiscal balance	-1,449	-1,731	-1,736	-1,767	**-6,680**
Underlying cash balance	-1,448	-1,728	-1,733	-1,763	**-6,670**
Headline cash balance	-2,048	-2,328	-2,333	-2,363	**-9,070**

(a) A positive number represents an increase in the relevant budget balance; a negative number represents a decrease.
(b) Figures may not sum to totals due to rounding.

Key assumptions

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

- Any legislative changes required to implement the proposal would be passed ahead of the start date for the respective part of the proposal.

Component 2: Renewable energy zones

- Renewable energy generators would connect to the new infrastructure in time for new transmission assets under the Grid Transformation Fund to earn revenue from 2020-21.
- Assets generated through the Grid Transformation Fund would be managed by a public non-financial corporation outside of the general government sector.
- Assets would be able to generate sufficient revenue to fund operating costs and capital financing costs for the Grid Transformation Fund, and this level of revenue would be permissible under regulatory arrangements related to network transmission charges. To the extent that this results in an operating surplus for the public non-financial corporation, it is assumed the corporation would retain that surplus but not pay a dividend to the Commonwealth Government over the costing horizon. At some point beyond the costing horizon, it is assumed that the corporation would operate in a manner that ensures it provides a rate of return to the Commonwealth Government.
- The value of assets generating revenue under the Grid Transformation Fund would be in line with historical data on the transmission network.

Component 6: Household Solar Storage Scheme

- The income thresholds for low-income households would be set at a level such that all grants for both household categories would be fully taken up.
  - While the financial attractiveness of solar and battery storage depends on alternative electricity and other climate policies, the financial incentives under this proposal would be expected to make them attractive to a sufficient number of families.

- Grants would be paid at the time of installation of the battery storage system.
- The review of the grant program would include preparatory and planning work from the time of program commencement to the scheduled time of the review, and post-review work to implement any changes to the program.

Component 7: Grid-scale storage

- Funding for grid-level storage would be provided as grant funding and the Commonwealth Government would not own or operate the assets.

Methodology

Component 1: Renew Australia Corporation

Expenses of the Corporation are the sum of departmental expenses for Components 3, 4, 5 and 6 estimated as described below, and specified funding of $40 million in 2019-20, grown by the CPI to 2025-26 then held constant. Estimated total expenses include initial costs for establishing the Corporation. Departmental funding for the Australian Energy Market Operator and Clean Energy Regulator is provided separately.

Component 2: Renewable energy zones

The financial implications of establishing renewable energy zones were derived by evenly spreading the specified $40 million in funding over three years from 2019-20. The financial implications of the Grid Transformation Fund were estimated based on the amount of electricity that would be transmitted through the infrastructure, funded from a $6,000 million equity injection specified by the requestor. The equity would be provided in equal tranches over ten years to a public non-financial corporation that would manage the assets. The proposal has a public debt interest impact as the Commonwealth Government would issue debt to make the equity injection to establish the Grid Transmission Fund. Departmental expenses were based on the size of investment funded through the equity injection and the amount specified for the Australian Energy Market Operator to establish new regulatory processes for renewable energy zones.

Components 3, 4, 5, 6 and 7: Community renewables, Solar Households Scheme, Clean technology, Household Solar Storage Scheme, Grid-scale storage

The financial implications of these components were based on the specified amount and period over which funding would be provided. Departmental expenses were estimated based on similar programs administered by the Department of the Environment and Energy.

All components

Figures are rounded to the nearest $1 million.

Data sources

Commonwealth of Australia, 2019. *2019 Pre-election Economic and Fiscal Outlook*, Canberra: Commonwealth of Australia.

Australian Energy Regulator, 2018. *Transmission Network Service Provider Network Charges*, Canberra: Australian Energy Regulator.

Department of Environment and Energy:

— 2018. *2018-19 Portfolio Additional Estimates Statements*, Commonwealth of Australia.

— 2018. *2018-19 Portfolio Budget Statements*, Commonwealth of Australia.

— 2016. *2016-17 Portfolio Budget Statements*, Commonwealth of Australia.

Department of Jobs and Small Business, 2018. *2018-19 Portfolio Budget Statements*, Commonwealth of Australia.

Jacobs, 2017. *Final Report: Modelling illustrative electricity sector emissions reduction policies*, Climate Change Authority.

Attachment A – Establish RenewAustralia Authority to transition towards 100 per cent renewables – financial implications

Table A1: Establish RenewAustralia Authority to transition towards 100 per cent renewables – Fiscal balance ($m)[(a)(b)]

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	**Total to 2022–23**	**Total to 2029–30**
Expenses													
Administered													
Component 1: Renew Australia Corporation	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 2: Renewable energy zones	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 3: Community renewables	*-38*	*-38*	*-25*	*-25*	-	-	-	-	-	-	-	***-125***	***-125***
Component 4: Solar Households Scheme	*-240*	*-240*	*-240*	*-240*	*-240*	-	-	-	-	-	-	***-960***	***-1,200***
Component 5: Clean technology	*-101*	*-122*	*-96*	*-92*	-	-	-	-	-	-	-	***-411***	***-411***
Component 6: Household Solar Storage Scheme	*-550*	*-550*	*-550*	*-550*	-	-	-	-	-	-	-	***-2,200***	***-2,200***
Component 7: Grid-scale storage	*-275*	*-550*	*-550*	*-550*	*-275*	-	-	-	-	-	-	***-1,925***	***-2,200***
Total – administered	***-1,204***	***-1,500***	***-1,461***	***-1,457***	***-515***	**-**	**-**	**-**	**-**	**-**	**-**	***-5,621***	***-6,136***
Departmental													
Component 1: Renew Australia Corporation	*-199*	*-130*	*-130*	*-134*	*-95*	*-60*	*-61*	*-61*	*-61*	*-61*	*-46*	***-593***	***-1,038***
Component 2: Renewable energy zones[(c)]	*-13*	*-13*	*-13*	-	-	-	-	-	-	-	-	***-40***	***-40***
Component 3: Community renewables	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 4: Solar Households Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 5: Clean technology	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 6: Household Solar Storage Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 7: Grid-scale storage[(d)]	*-14*	*-28*	*-28*	*-28*	*-28*	-	-	-	-	-	-	***-96***	***-124***
Total – departmental	***-226***	***-171***	***-171***	***-162***	***-123***	***-60***	***-61***	***-61***	***-61***	***-61***	***-46***	***-729***	***-1,202***
Total – expenses	**-1,430**	**-1,671**	**-1,632**	**-1,619**	**-638**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-6,350**	**-7,338**
Total (excluding PDI)	**-1,430**	**-1,671**	**-1,632**	**-1,619**	**-638**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-6,350**	**-7,338**
PDI impacts	**-19**	**-60**	**-104**	**-148**	**-189**	**-222**	**-253**	**-289**	**-329**	**-372**	**-460**	**-330**	**-2,444**
Total (including PDI)	**-1,449**	**-1,731**	**-1,736**	**-1,767**	**-827**	**-282**	**-314**	**-350**	**-390**	**-433**	**-506**	**-6,680**	**-9,782**

(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.

(b) Figures may not sum to totals due to rounding.

(c) Funding provided to the Australian Energy Market Operator.

(d) Funding provided to the Australian Energy Market Operator and the Clean Energy Regulator.

\- Indicates nil.

Table A2: Establish RenewAustralia Authority to transition towards 100 per cent renewables – Underlying cash balance ($m)[a][b]

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	**Total to 2022–23**	**Total to 2029–30**
Payments													
Administered													
Component 1: Renew Australia Corporation	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 2: Renewable energy zones	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 3: Community renewables	-38	-38	-25	-25	-	-	-	-	-	-	-	**-125**	**-125**
Component 4: Solar Households Scheme	-240	-240	-240	-240	-240	-	-	-	-	-	-	**-960**	**-1,200**
Component 5: Clean technology	-101	-122	-96	-92	-	-	-	-	-	-	-	**-411**	**-411**
Component 6: Household Solar Storage Scheme	-550	-550	-550	-550	-	-	-	-	-	-	-	**-2,200**	**-2,200**
Component 7: Grid-scale storage	-275	-550	-550	-550	-275	-	-	-	-	-	-	**-1,925**	**-2,200**
Total – administered	**-1,204**	**-1,500**	**-1,461**	**-1,457**	**-515**	**-**	**-**	**-**	**-**	**-**	**-**	**-5,621**	**-6,136**
Departmental													
Component 1: Renew Australia Corporation	-199	-130	-130	-134	-95	-60	-61	-61	-61	-61	-46	**-593**	**-1,038**
Component 2: Renewable energy zones[c]	-13	-13	-13	-	-	-	-	-	-	-	-	**-40**	**-40**
Component 3: Community renewables	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 4: Solar Households Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 5: Clean technology	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 6: Household Solar Storage Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 7: Grid-scale storage[d]	-14	-28	-28	-28	-28	-	-	-	-	-	-	**-96**	**-124**
Total – departmental	**-226**	**-171**	**-171**	**-162**	**-123**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-729**	**-1,202**
Total – payments	**-1,430**	**-1,671**	**-1,632**	**-1,619**	**-638**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-6,350**	**-7,338**
Total (excluding PDI)	**-1,430**	**-1,671**	**-1,632**	**-1,619**	**-638**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-6,350**	**-7,338**
PDI impacts	**-18**	**-57**	**-101**	**-144**	**-186**	**-220**	**-251**	**-286**	**-326**	**-369**	**-453**	**-320**	**-2,412**
Total (including PDI)	**-1,448**	**-1,728**	**-1,733**	**-1,763**	**-824**	**-280**	**-312**	**-347**	**-387**	**-430**	**-499**	**-6,670**	**-9,750**

(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.

(b) Figures may not sum to totals due to rounding.

(c) Funding provided to the Australian Energy Market Operator.

(d) Funding provided to the Australian Energy Market Operator and the Clean Energy Regulator.

\- Indicates nil.

Table A3: Establish RenewAustralia Authority to transition towards 100 per cent renewables – Headline cash balance ($m)[a][b]

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29	2029–30	**Total to 2022–23**	**Total to 2029–30**
Payments													
Administered													
Component 1: Renew Australia Corporation	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 2: Renewable energy zones	-600	-600	-600	-600	-600	-600	-600	-600	-600	-600	-	**-2,400**	**-6,000**
Component 3: Community renewables	-38	-38	-25	-25	-	-	-	-	-	-	-	**-125**	**-125**
Component 4: Solar Households Scheme	-240	-240	-240	-240	-240	-	-	-	-	-	-	**-960**	**-1,200**
Component 5: Clean technology	-101	-122	-96	-92	-	-	-	-	-	-	-	**-411**	**-411**
Component 6: Household Solar Storage Scheme	-550	-550	-550	-550	-	-	-	-	-	-	-	**-2,200**	**-2,200**
Component 7: Grid-scale storage	-275	-550	-550	-550	-275	-	-	-	-	-	-	**-1,925**	**-2,200**
Total – administered	**-1,804**	**-2,100**	**-2,061**	**-2,057**	**-1,115**	**-600**	**-600**	**-600**	**-600**	**-600**	**-**	**-8,021**	**-12,136**
Departmental													
Component 1: Renew Australia Corporation	-199	-130	-130	-134	-95	-60	-61	-61	-61	-61	-46	**-593**	**-1,038**
Component 2: Renewable energy zones[c]	-13	-13	-13	-	-	-	-	-	-	-	-	**-40**	**-40**
Component 3: Community renewables	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 4: Solar Households Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 5: Clean technology	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 6: Household Solar Storage Scheme	-	-	-	-	-	-	-	-	-	-	-	**-**	**-**
Component 7: Grid-scale storage[d]	-14	-28	-28	-28	-28	-	-	-	-	-	-	**-96**	**-124**
Total – departmental	**-226**	**-171**	**-171**	**-162**	**-123**	**-60**	**-61**	**-61**	**-61**	**-61**	**-46**	**-729**	**-1,202**
Total – payments	**-2,030**	**-2,271**	**-2,232**	**-2,219**	**-1,238**	**-660**	**-661**	**-661**	**-661**	**-661**	**-46**	**-8,750**	**-13,338**
Total (excluding PDI)	**-2,030**	**-2,271**	**-2,232**	**-2,219**	**-1,238**	**-660**	**-661**	**-661**	**-661**	**-661**	**-46**	**-8,750**	**-13,338**
PDI impacts	**-18**	**-57**	**-101**	**-144**	**-186**	**-220**	**-251**	**-286**	**-326**	**-369**	**-453**	**-320**	**-2,412**
Total (including PDI)	**-2,048**	**-2,328**	**-2,333**	**-2,363**	**-1,424**	**-880**	**-912**	**-947**	**-987**	**-1,030**	**-499**	**-9,070**	**-15,750**

(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.

(b) Figures may not sum to totals due to rounding.

(c) Funding provided to the Australian Energy Market Operator.

(d) Funding provided to the Australian Energy Market Operator and the Clean Energy Regulator.

- Indicates nil.