

AUSTRALIAN DISTRIBUTED ENERGY RESOURCE BACKED SECURITIES



The Opportunity: Australia has one of the highest carbon footprints per capita of any developed nation, much of it from power consumption by households and businesses of which >80% is produced by fossil fuels¹. It also has the highest average solar radiation per sqm. of any continent and abundant space. The energy grid is mainly centralized and requires transformation to support utility scale renewable sources. One solution is transforming homes and businesses into 'Distributed Energy Resources' (DERs), producing renewable power at the source, reducing reliance on fossil fuels. DERs act as self contained micro grids (PV / Wind / Storage) that support the stability of localized and regional grids². Incentives exist via government subsidies³ and the Clean Energy Finance Corporation (CEFC) that support lending for green income producing and energy saving assets⁴. However, government driven reform has been slow and energy transition in Australia requires supercharging with investment led from the public sector.

AusDERBS – Packaging green finance along the value chain

Our Asset Backed Securities (ABS) bundle income streams from finance and other cash flows related to PV and battery storage produced 'behind the meter' via energy efficient buildings and fixtures.

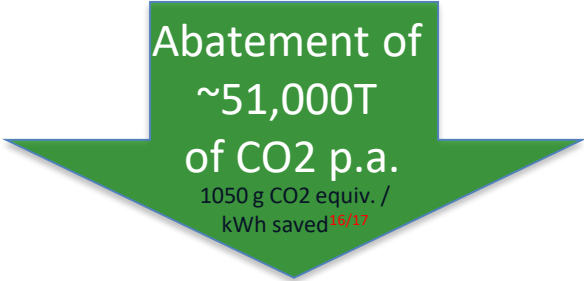
These include lease & power purchase agreements (PPAs) plus other related green rated assets:

- Residential and commercial mortgages & green loans
- Electric vehicles (EV)
- Energy efficient appliances

All of which are endorsed by the Australian government's CEFC, who would also ask a cornerstone investor, and have been previously certified by the Climate Bonds Initiative (CBI) in discrete securitizations of these assets⁵.

The bundling of these otherwise traditionally independent assets across different institutions, utilizing a 'systems' thinking approach, diversifies risk for the institutional investor and will change attitudes along the value chain about the impact of interrelated green finance. All whilst freeing up capital, supercharging returns and the energy transition.

Environmental & Social Impact

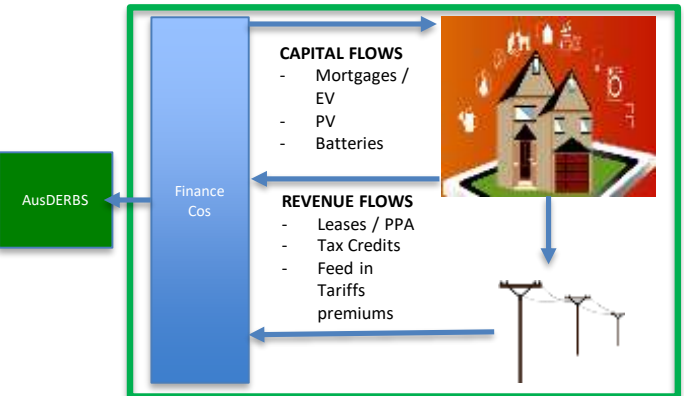


Environmental

- Each kWh generated from renewable assets can be measured in CO2 abated in the current grid fuel mix
- Increased grid stability via DERs allowing an increase in centralized utility scale renewable energy projects. These would be otherwise limited due removal of inertia from the grid. DERs also help eliminate traditional transmission losses

Social & Financial

- ESG investors will be able to contribute to smaller scale solutions on climate change and energy transformation
- Non-ESG investors will understand the importance of climate risk in underlying assets
- Banks and Financial Institutions improve their 'green' credentials and are incentivized to package 'green' finance for DERs (e.g. Mortgage, PV + Battery, EV) with mainstream/ subsidized rates
- Households and businesses are empowered through attractive bundled options from reliable financiers, allowing them to easily decrease their carbon footprint at reduced borrowing cost and complexity
- **Four UN Sustainable Development Goals addressed**



Target Geography: Australia

- Strong credit worthiness of banks, finance companies, households and businesses⁶
- Existing government owned green bank (CEFC)
- Strong regulatory framework and oversight of financiers with stable currency⁷
- Large institutional investor pool in \$3T compulsory superannuation (pension) scheme⁸

Sustainable impact will be management and measurement through the IRIS taxonomy

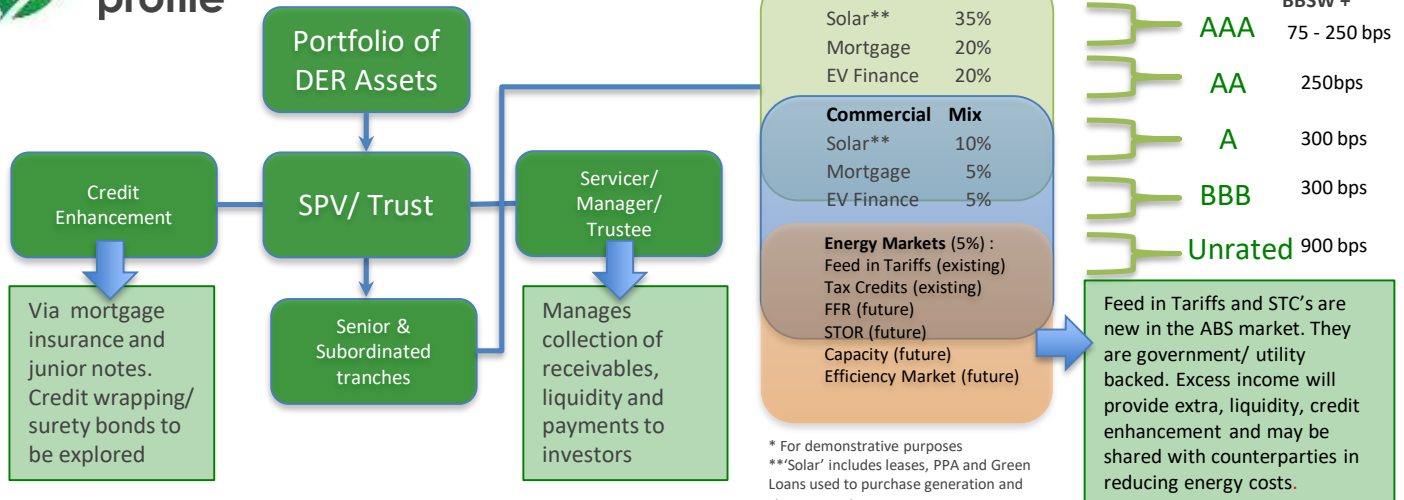


Addressable Market





AusDERBS I structure and returns profile



Size/ Tenor	AU\$250m / 7 – 20 years (tranching in line with term)
Investment Criteria	Green finance assets and income streams delivered by accredited banks and finance companies per CEFC guidelines (appendix)
Target Returns	Australian Bank Bill Swap Rate (BBSW) + 2% - 6%p.a. (depending on rating of tranche)
Cashflows	Standard cashflow 'waterfall' repayment according to seniority of tranches via rating (see appendix)
Minimum Investment	AU\$5m
Fees	Guarantee fees of 0.20% - 0.40% depending on risk weighting
Asset Class	Special Purpose Vehicle, Amortizing ABS
Target Investors	CEFC, impact investment firms, pension & sovereign wealth funds, family offices

Scalability

- Regulation has potential to position DERBS as 'prime' in the ABS market as underlying assets will address climate risk (e.g. phasing out of petrol and diesel vehicles over next two decades)¹²
- Applicable in developed markets where ABS issuance in 2019 was estimated to be US\$1T and many regulatory and development bank measures are already in place¹³
- Future application in developing markets where DERs and associated finance have become more common due to existing grid infrastructure and power supply to homes and businesses being poor e.g. Bangladesh¹⁴ & Sub-Saharan Africa¹⁵
- Growing list of assets for inclusion: Wind, Hydrogen, Domestic hydro, anaerobic digestion, micro combined heat and power, vehicle to grid (V2G), as well as 'other' income streams noted in structure (top right)

Due Diligence – Risk Assessment

Risk	Action/ Mitigation
Credit Risk of Households, Businesses and broader systemic risk in Financial System	All forms of finance are currently offered in the market at terms compliant with regulators. Credit Enhancement is available and can be diversified between assets
Prepayment Risk	Overcollateralization. Interest rate environment in Australia (low/ stable)
Lower than expected social & environmental impact of assets	To be accredited by CEFC under current programs. Certification via CBI. Impact measurement and management through IRIS metric

Assumptions: *Securities can be rated in line with returns
 * CO2 in energy mix remains constant * Income streams from DERs can be securitized *Future energy markets will operate

Resources: 1. [The Economist](#) 2. [US National Institute of Building Sciences](#) 3. [Aus Dept. of Energy](#) 4. [CEFC](#) 5. [National Australia Bank](#) 6. [theaifinance.com](#) 7. [IMF](#) 8. [Association of Superannuation Funds of Australia](#) 9. [Macquarie Research](#) 10. [Australian Bureau of Statistics](#) 11. [Parliament of Australia](#) 12. [World Economic Forum](#) 13. [S&P Global](#) 14. [Microgrid Media](#) 15. [PV Magazine](#) 16. [Solar Choice](#) 17. [Australian Power Generation](#)