



# Clean Energy Options for Apartments

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The Australian Energy Foundation is leading the way to an equitable zero carbon society.

**Our role** is to accelerate the energy transition by empowering communities to take action.



# Why Apartments?

- 1.4 Million apartments housing 10% of the population – traditionally excluded from the benefits of the energy transition
- 1 in 3 of all new dwellings are apartments
- Owners corporations manage the **common areas**
  - Energy used by common property can account for up to 60% of a building's total energy consumption, and 25% of Administration Fund levies.







# Barriers to clean energy

- Upfront cost of renewables
- Available roof space
- Common area power is not the whole story
- Exclusion from Solar Victoria rebate scheme
- Strata industry
- Legislative and regulatory framework
- Decision making process and the owners corporation.



Ordinary resolution

Special resolution s52

Special resolution s53

### Repair & Maintain

### Significant alteration

### Upgrade to common property

Change Fluro to LED

Change water fittings to more efficient fittings

Install new rain water tanks

Install new solar panels

Install louvre windows to increase passive ventilation

Upgrade basement carpark to include EV charging

Tip: special resolution not needed if your maintenance plan



# LED Lighting

**Before you do anything else!**

Example: 100+ Units in Brunswick

<b>Energy Efficiency Savings - Anstey Square</b>				
	<b>CURRENT</b>	<b>POST IMPLEMENTATION</b>	<b>SAVINGS</b>	<b>% SAVINGS</b>
Annual Energy Consumption (kWh)	226,300	90,319	135,981	60%
Annual Lighting Consumption (kWh)	173,312	37,331	135,981	78%
Annual Site Energy Costs (\$)	\$47,523	\$18,967	\$28,556	60%
Annual Lighting Costs (\$)	\$36,396	\$7,839	\$28,556	78%
Annual Maintenance Savings		\$6,812	\$6,812	
<b>TOTAL ANNUAL SAVINGS</b>			<b>\$35,368.00</b>	
<b>Annual Return on Investment</b>			<b>65%</b>	
<b>Monthly Savings</b>			<b>\$2,947.00</b>	
<b>Estimated Savings Over 10 Years</b>			<b>\$405,200.00</b>	
<b>Annual Emissions Savings</b>			<b>176,776 kg CO2</b>	

<b>Starting Investment</b>	<b>\$54,452.94</b> ex GST
Rebate Applied	\$24,405.11
Rental Period	5 years
Monthly Rental	<b>\$1,075.53</b> ex GST
<b>Ahead by \$1,872 per month after rental payments</b>	



# GreenPower and Energy Retailing

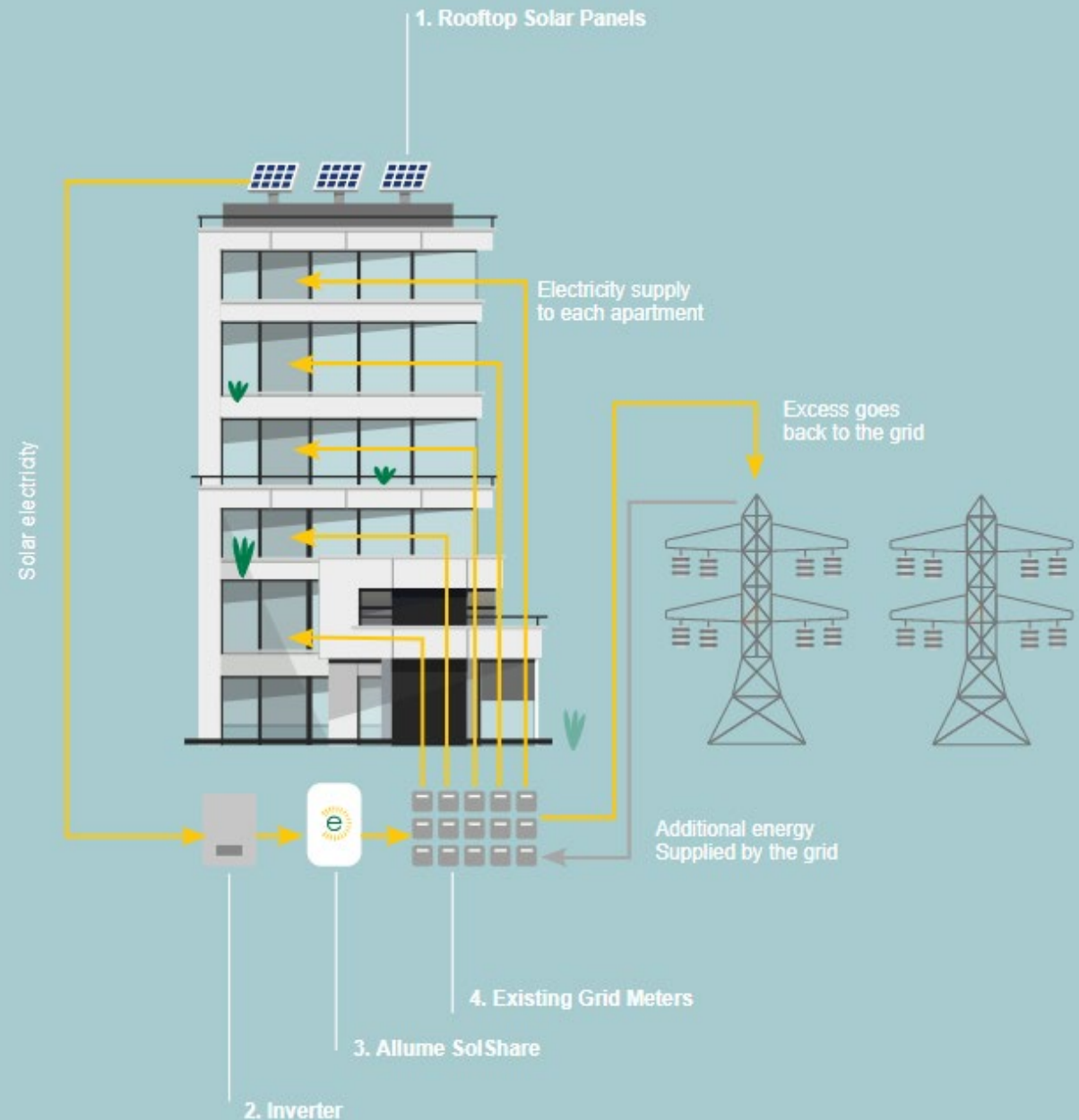
- GreenPower is government certified renewable energy
- Paying extra for GreenPower means your retailer sources renewable energy to be added to the grid on your behalf
- Options to purchase 25%, 50%, 100% green power.
- Other considerations beyond GreenPower:
- Some retailers are more involved in and supportive of local energy trading, demand response and community energy than others
- Powershop, Momentum energy, Energy Locals
- More and more retailers (slowly) coming to the table.





# Energy Sharing: Allume Solshare

- Well Suited for building of 5-100 units
- 35-55% higher on-site consumption when compared to individual systems
- Just 1-1.5kW per apartment to gain up to 40% reduction in energy bills
- Full system monitoring via an online portal
- Full billing capability for PPA installs
- Keep your existing retailer
- The system can be sold outright or delivered under a PPA agreement.
- Can be cash flow positive from day one



# Case Study: Brunswick East



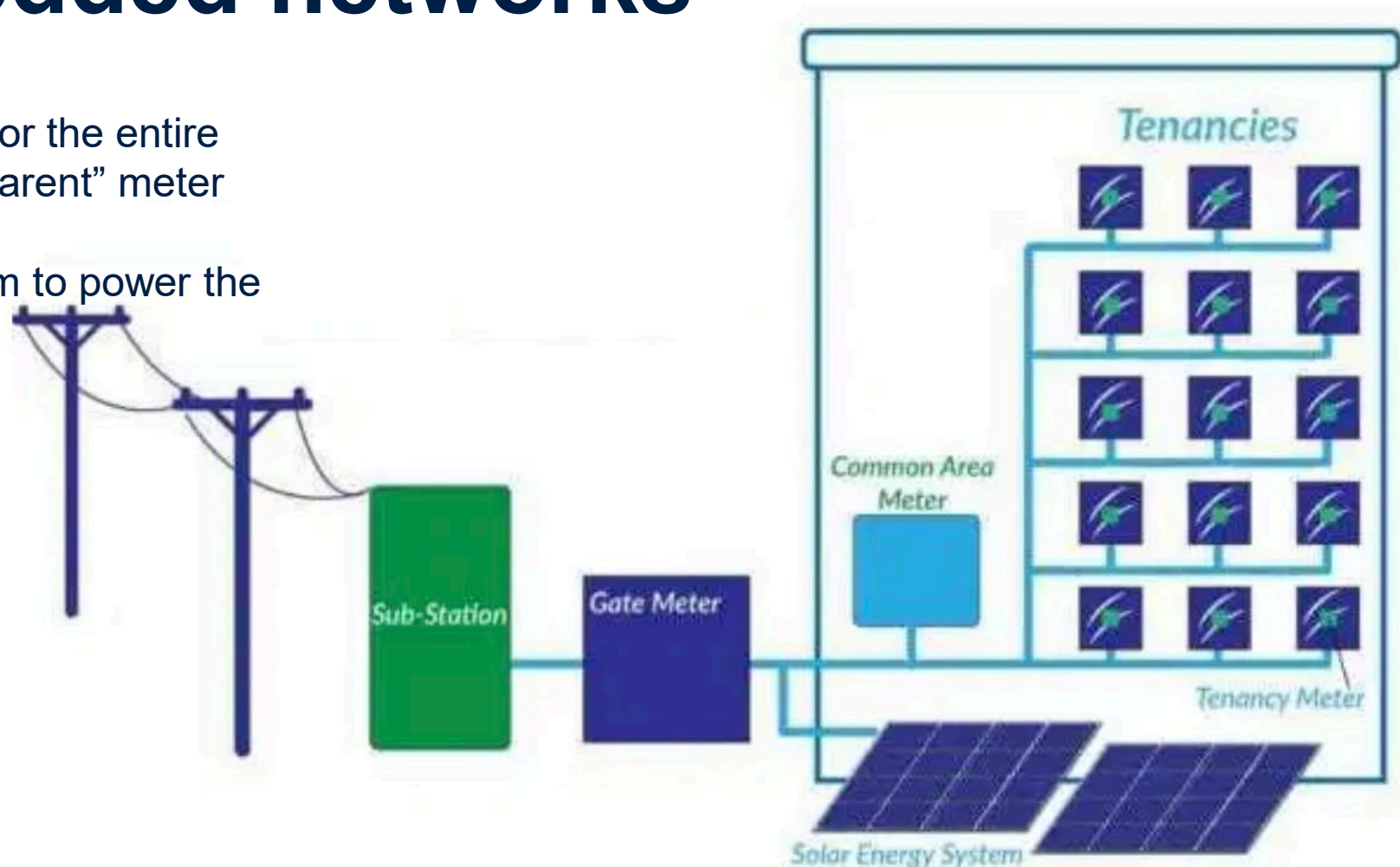
- 12.6kW solar system
- All 8 units and 2 shops and common areas are connected
- Payback within 5 years
- Offset 40% total usage
- Annual carbon savings: 20 tonnes
- 20 year savings: over \$60,000

[Video](#)



# Energy Sharing: Existing embedded networks

- Electrical sub metered system for the entire building behind one “gate” or “parent” meter
- Opportunity for one solar system to power the whole building
- Existing Embedded Network Operator (ENO) may be willing to invest in a solar system and on sell the energy to residents
- You may need to switch ENOs.





# Energy Sharing: New embedded networks

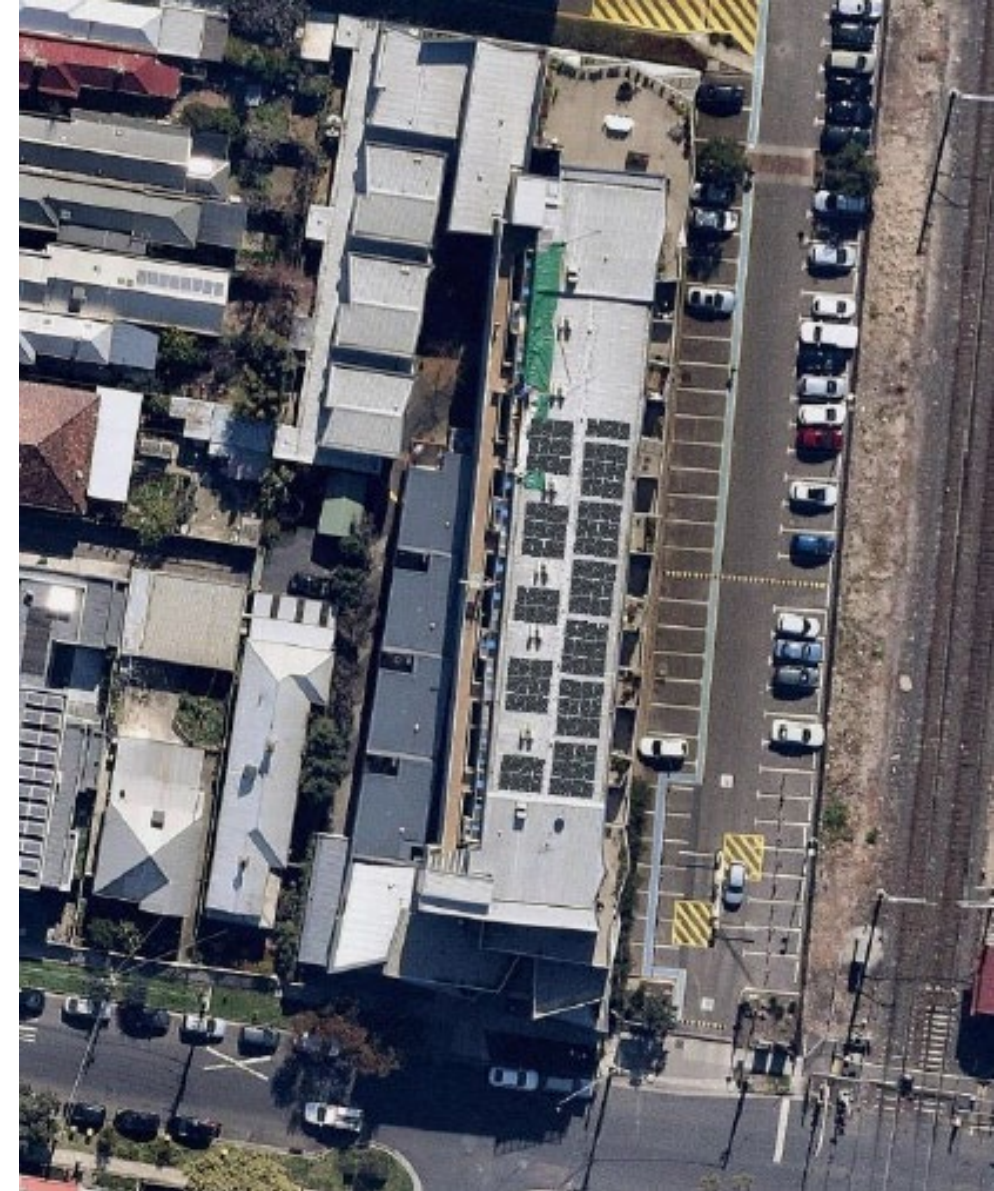
- One supply charge, one discount bulk contract for the building can mean significant savings
- Can bulk purchase GreenPower for the whole building while still getting a competitive tariff
- Cost of the embedded network and solar system can be negotiated as a power purchase agreement (PPA) or simple lease/loan arrangement with the operator
- Can be cash flow positive from day one
- Metropolis Metering, Green Guys Group, Enervest.
- The decision making processes for the owners corporation (OC) is more complex...



# Case Study: Brunswick

## New embedded network

- 39kW Solar system
- 50 Units
- Payback within 4 years
- Offset 25% total usage
- Annual carbon savings: 60 tonnes
- 20 year savings from solar: over \$200,000
- Ongoing revenue stream for OC
- 19c/kWh electricity for residents
  
- However...



# Off site and collective energy

- Very much an emerging space
- Ovoid residential offsite solar contracts with 'the big 3' retailers
- Growing number of retailers and digital platforms that allow for offsite and onsite energy generation, sharing and trading. often called Virtual Power Plants (VPPs)
- Powerledger, Solar Cloud, Enosi, Enova, Momentum energy, LO3 energy, wepower
- Usually require all involved to be with a single retailer although more retail and solar partners coming on board
- Opportunity to set up an energy community within or between a number of apartment buildings in Port Phillip and/or Stonnington
- Investing in a community energy project





# Links

[Australian Energy Foundation](#)

[Allume Energy - Solshare](#)

[Metropolis metering](#) – Embedded networks

[Green Guys Group](#) – Allume Solshare, embedded networks, PPAs

[Enervest](#) – Offsite Solar, embedded networks, PPAs, VPPs

[Community Solar Portal](#) – Community solar investment

[Melbourne Renewable Energy Project \(MREP\)](#) - Port Phillip Power Purchasing Agreement



# Q & A



# Thank you

For more information please  
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