

COMMUNITY BATTERIES GETTING AHEAD OF THE CURVE

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Community batteries

Lighter Footprints Community meeting

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United Energy has deployed Australia's first Pole-Mounted Low Voltage Grid Battery

- Two pilot units were installed as part of the “*Bayside Battery Project*” and have been operational for 15 months and has completed >400 cycles (1 cycle = charge + discharge).
- The system performed well during summer – both units were operational on the peak demand days. The units were successful in reducing the demand by ~10% and ~20%, respectively.



Other examples of community batteries



Photo retrieved from Western Power

Meadow Springs, WA
(Western Power)



Photo retrieved from Renew Economy

Beacon Hill, NSW
(Ausgrid)



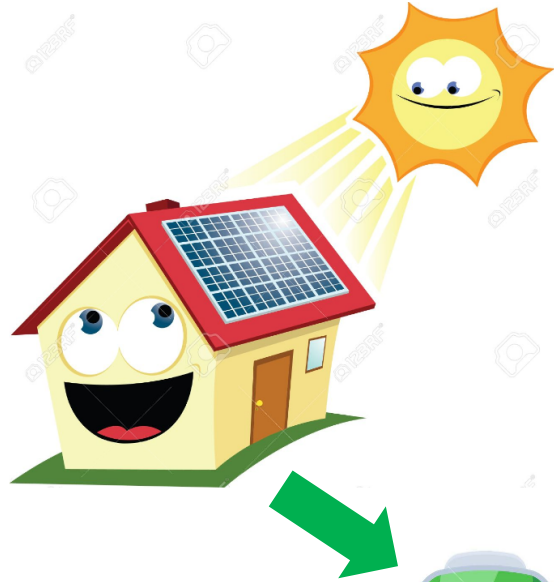
Photo retrieved from PowerTec

Highett, VIC
(United Energy)

Why community batteries?

Benefits for customers, the community and the network

Battery supplies electricity at peak times



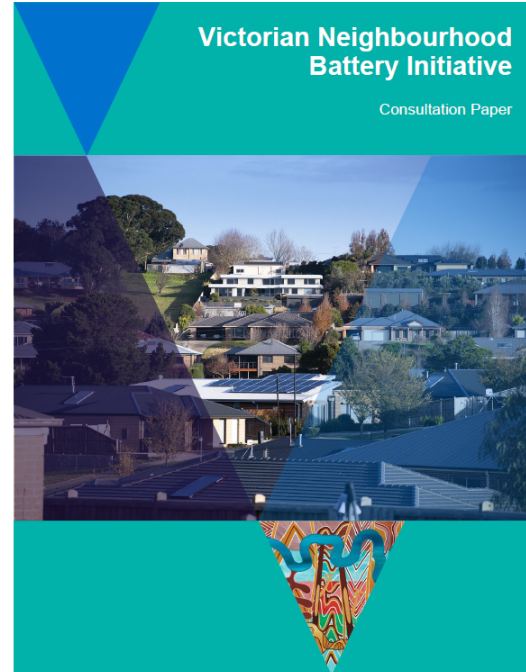
Battery charges from rooftop solar in the day



Our trials propose that customers pay for using the battery and the local network but avoid upstream network charges



- Prioritising community storage opportunities is a Victorian Government priority, to enable customer choice and support more renewable generation coming on to the grid
- The Victorian Government announced \$3M of funding in the Neighbourhood Battery Initiative to support the delivery of community battery trial projects in Victoria from feasibility through to implementation
- We have proposed “shovel ready” projects for funding and supported local energy groups with feasibility studies.



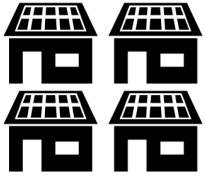
Our Yarra Energy Foundation partnership

- We are working closely with the Yarra Energy Foundation to build grid-scale batteries in CitiPower, to allow more customers to export more solar



Why low voltage connected energy storage?

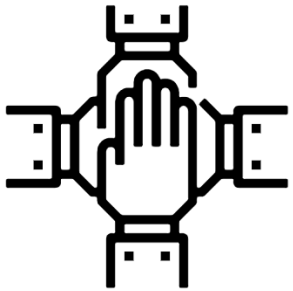
Distributors can enable grid-scale energy storage for the benefit of the network and customers



We are excited to be facilitating the development of community energy projects and supporting local community renewable energy aspirations



We are trialling community batteries to demonstrate how they can create local benefits, system benefits, allow more customers to export more of their own solar and provide benefits to all customers (including local customers without their own storage).



We are actively looking to partner with retailers and community energy groups to ensure the greatest benefits from the use of the battery

**We are proud to be
working on community
batteries to support local
renewable energy
aspirations**



Chris Wallin

Community Battery Project Manager
Yarra Energy Foundation



YARRA ENERGY FOUNDATION



Community Batteries: *Getting Ahead of the Curve*

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What is a community battery?

- **A large battery unit connected to the local power lines**
- **Stores 100% renewable energy from local solar rooftops**
- **Supplies battery subscribers in the evenings**
- **Offers support services to the network**
- **Trades on the electricity market**



Examples



**Meadow Springs, WA
(Western Power)**



**Beacon Hill, NSW
(Ausgrid)**

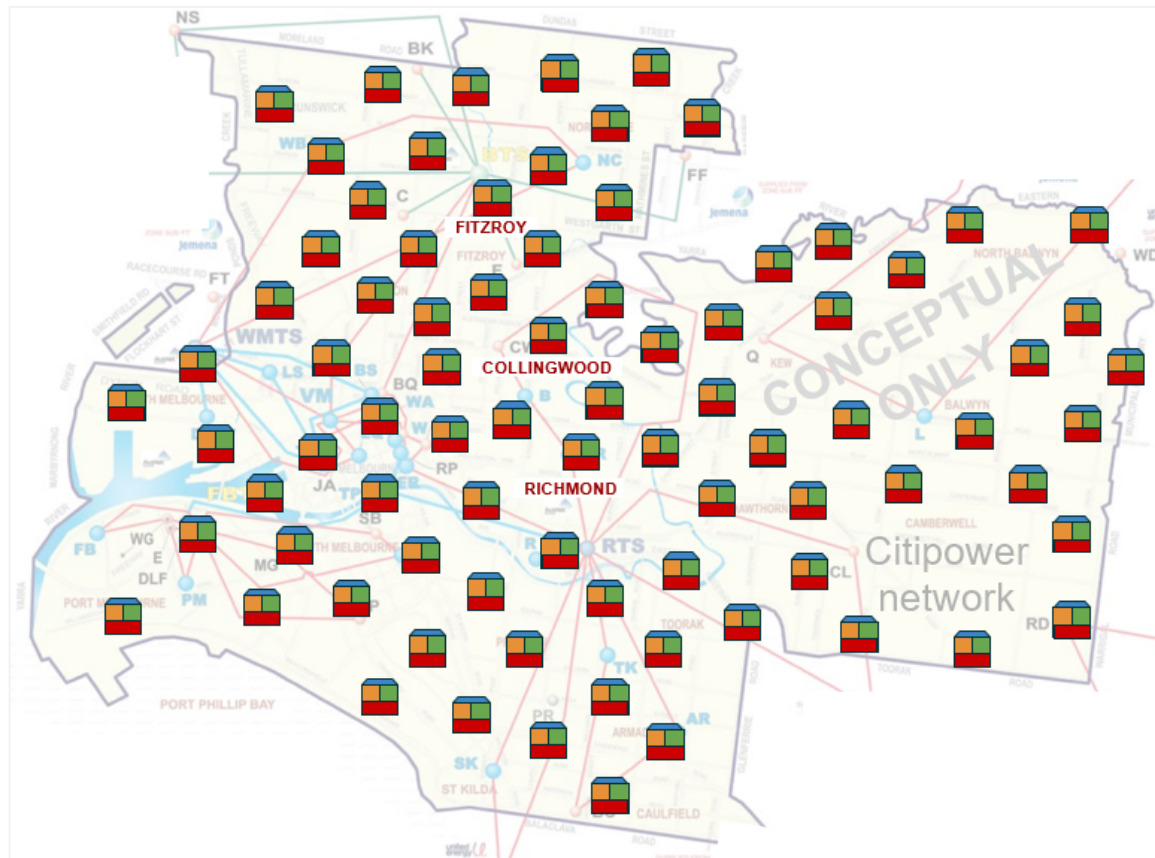


**Highett, VIC
(United Energy)**

Ownership Options

- 1. Community group**
- 2. Community retailer**
- 3. Standard retailer**
- 4. Electricity distributor**
- 5. Independent third party**

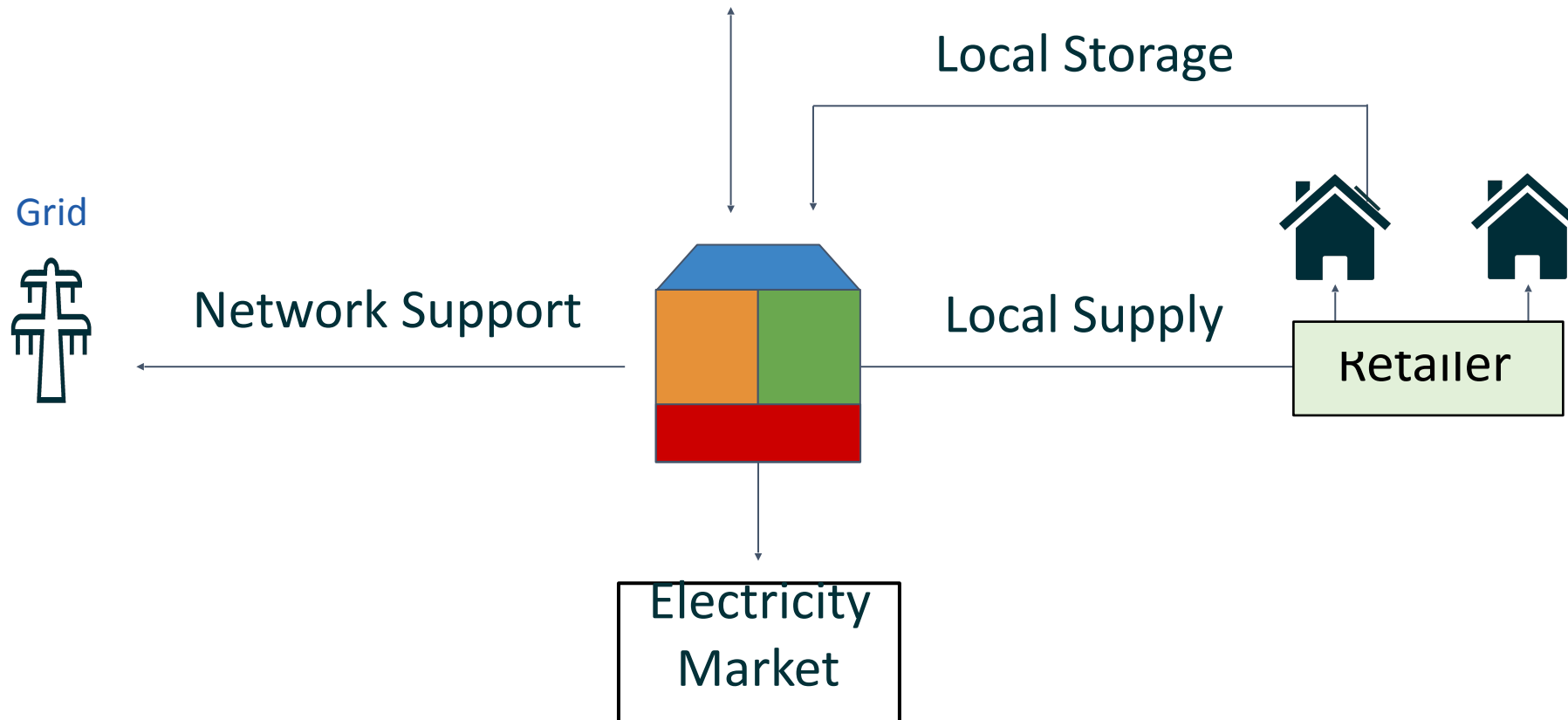
Yarra Energy Storage Systems



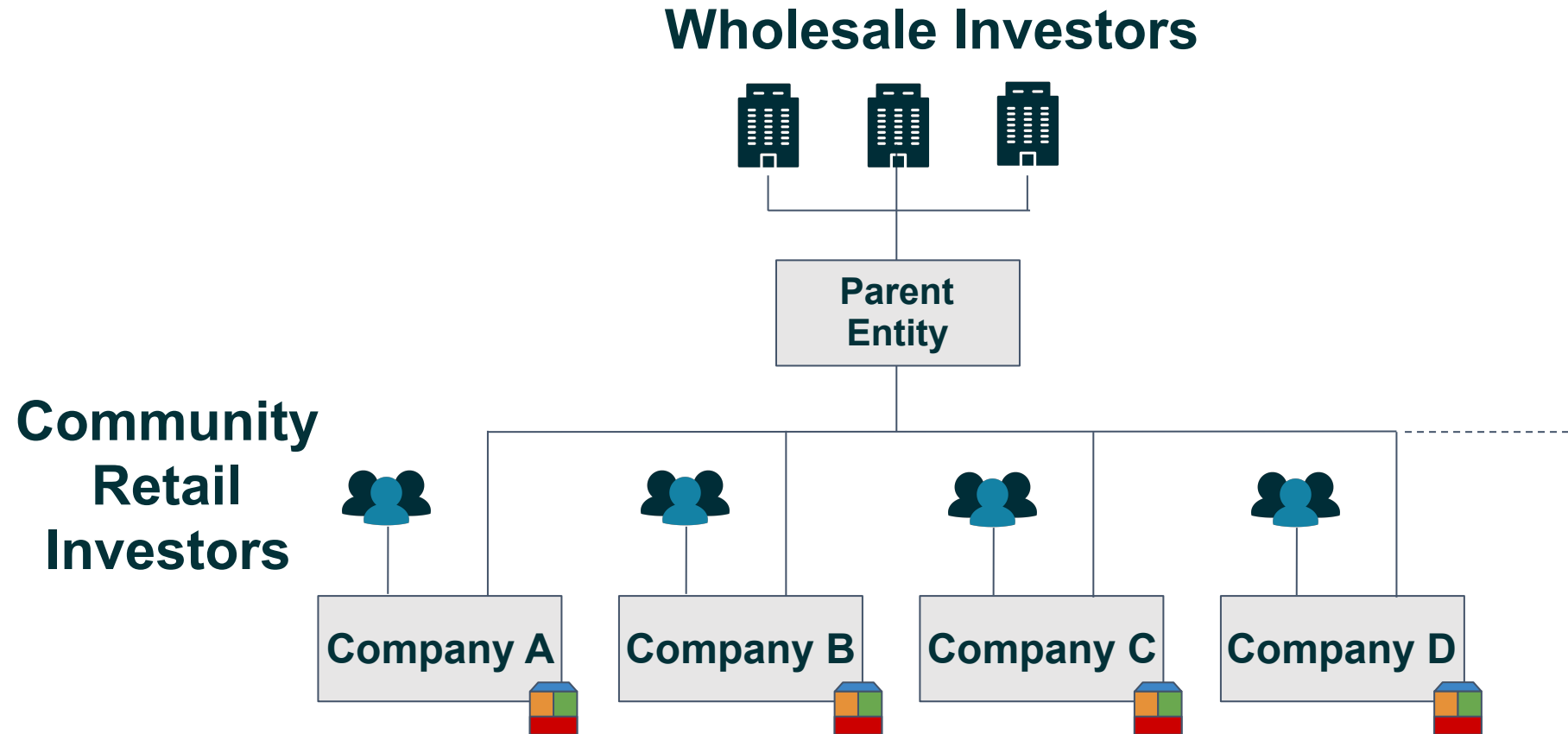
- A network of community batteries
- Citipower network-wide deployment
- Third party ownership
 - Wholesale and retail investors
- Storage & supply for subscribers
- Citipower network support
- Electricity market trading

YESS Commercial Model

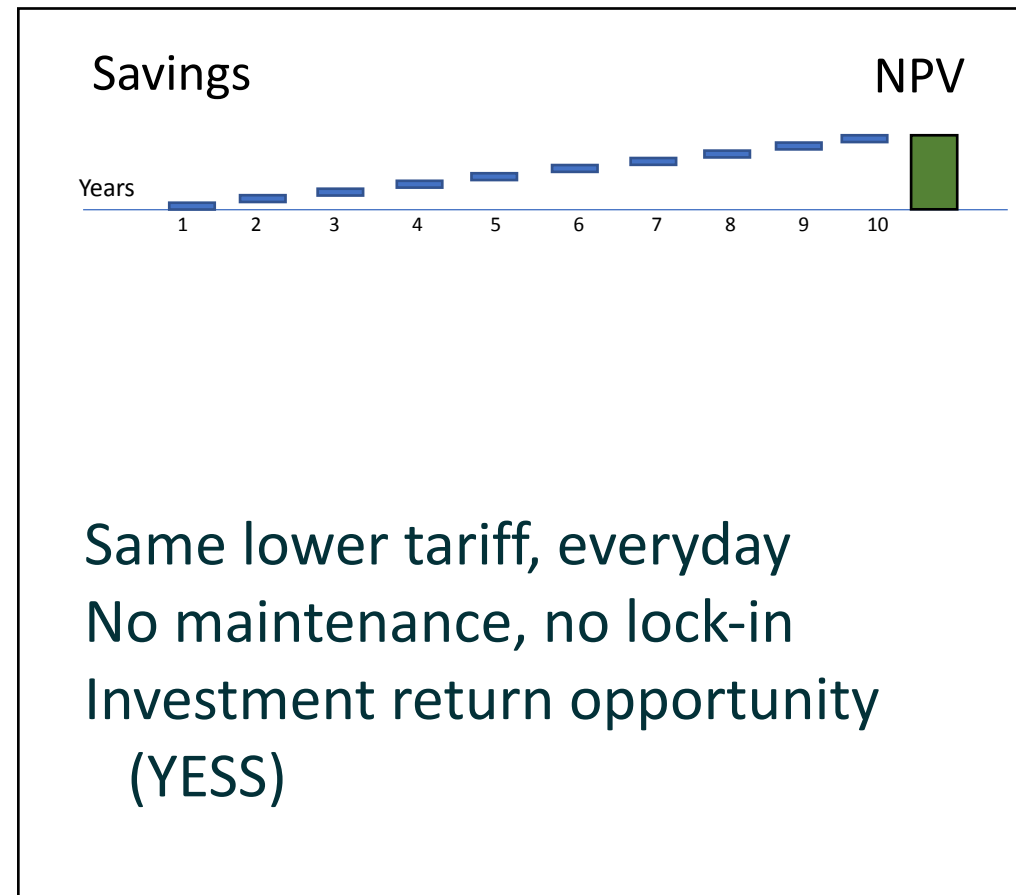
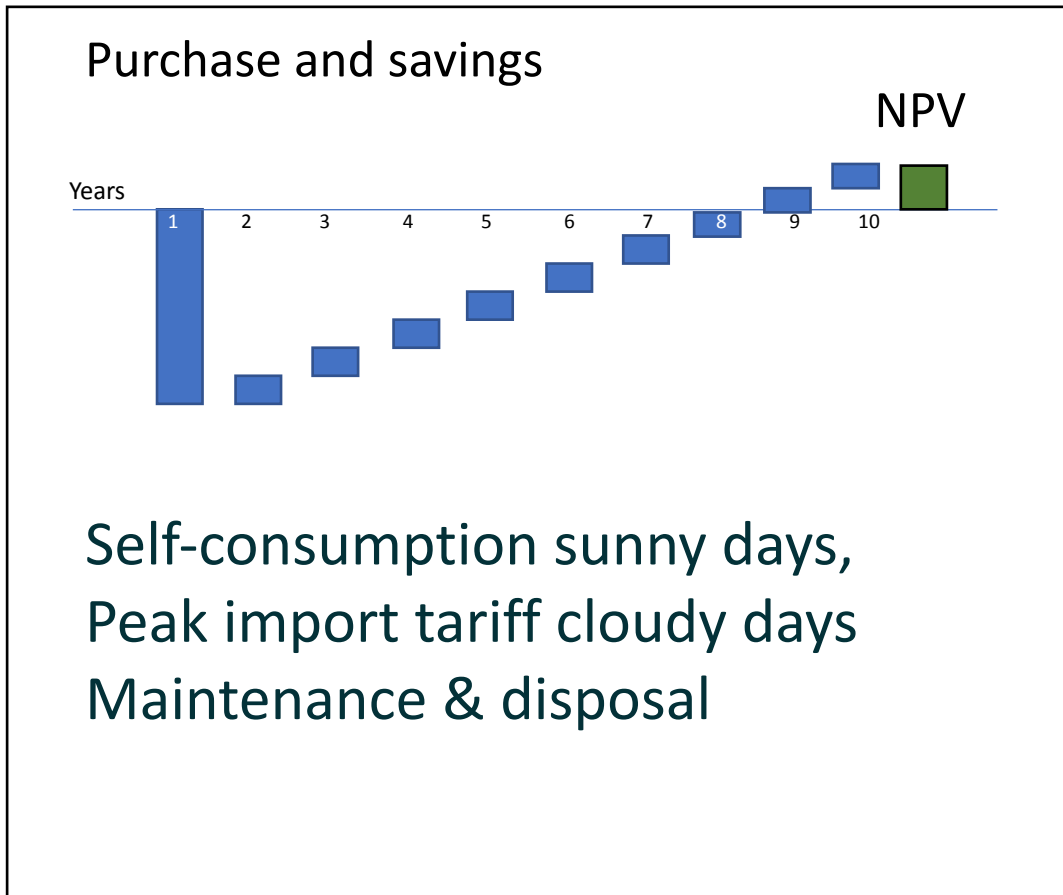
Financial Return



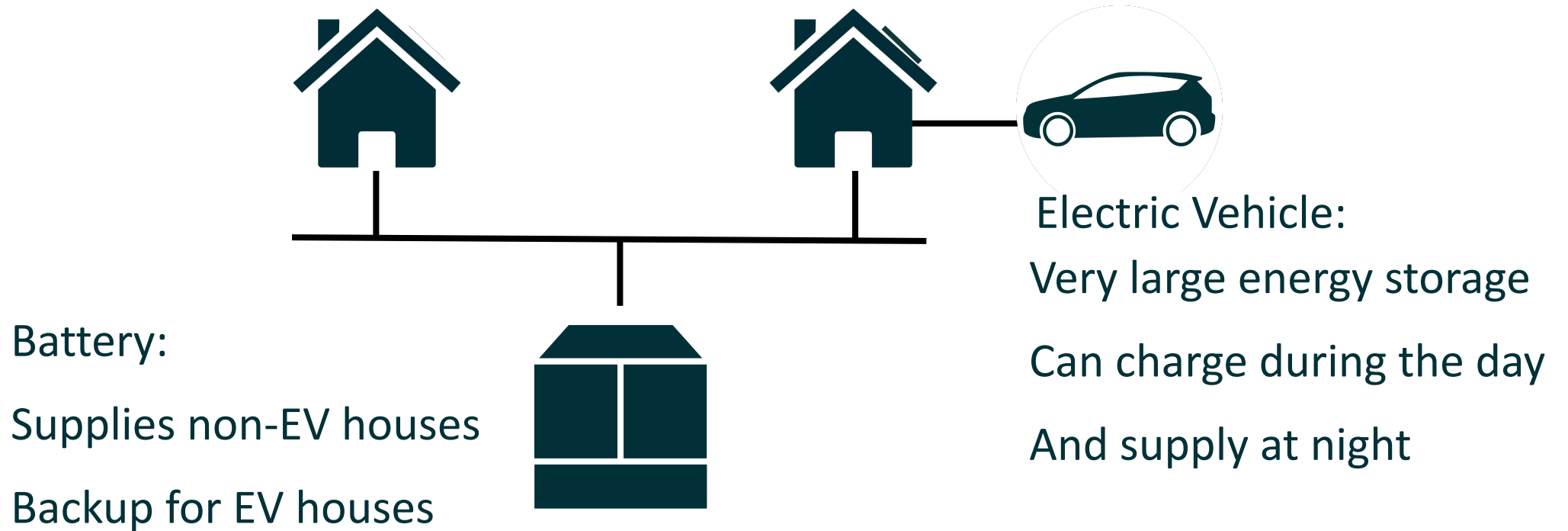
YESS Ownership Model



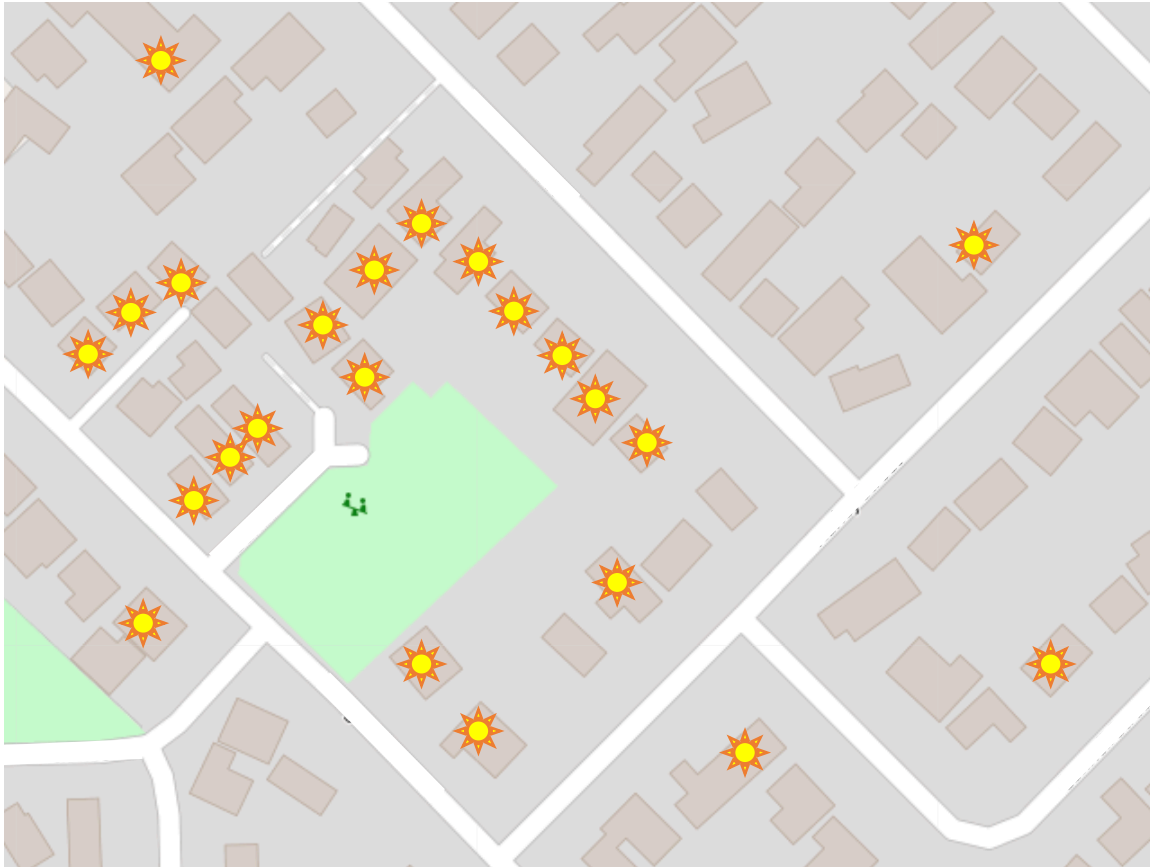
Home Batteries vs. Community Batteries



Electric Vehicles and Community Batteries



Ideal Conditions for a Community Battery



1. A solar cluster along a power line
2. Constrained network in that area
3. Nearby park or other communal area
4. Keen community interest
5. Strong council support on climate action

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Audience Questions

COMMUNITY BATTERIES - WHERE TO FROM HERE?

- **Best approach for Boroondara?**
- **What do we need to do to get a battery over the line?**
- **Where would we best place the batteries?**
- **What would motivate you to participate?**
- **Would you participate on a community benefit only basis?**

**Low fuss, no
up-front cost,
here soon**

**Community
Batteries info**

www.lighterfootprints.org/community-battery-info/

