LOCAL ELECTRICITY TRADING FOR A COMMUNITY SOLAR GARDEN

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A COMMUNITY SOLAR GARDEN - WHAT IS IT?

Time of use basis
WHY A SOLAR GARDEN?

Increases access to renewable energy

Renters

Households/ businesses without suitable roofs

Unlocks potential for new sites

Behind the meter better economics – but sites limited

Many communities and Councils would copy the project

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HOW DOES THE MONEY WORK?

1. Households/ businesses invest in farm

2. Electricity “netted off” according to share of farm

3. If share of solar farm generation greater than house/ business consumption, electricity “exported” and gets FIT

4. Appears as credit on electricity bill

Under current market rules, network charges will be paid just as they are now – it is just the ENERGY portion netted off
THE RETURN ON EACH KWH SOLAR

BEHIND THE METER
- $ network volume charges
- $ retail
- $ energy costs

LOCAL ELECTRICITY TRADING
- $ retail
- $ energy costs

LET WITH REDUCED NETWORK CHARGES
- $ network volume charges
- $ retail
- $ energy costs

The USA Solar Garden model
- $ network volume charges
- $ energy costs

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Community owned stand alone solar farm “Solar Garden” + Electricity “netted off” at member/owner’s homes according to their ownership share

Does it stack up at all???
How does it stack up for different types of customer?
With a Local Network Credit?

KEY FACTS
- 100kW – 200 kW PV
- Retailer: AGL
- Network: Powercor
- Customer types:
  - residential (out weekdays, residential (out weekdays)
  - different sizes of commercial
ANNUAL ENERGY COST - OUTCOMES BY INVESTOR TYPE

- **Simple payback**:
  - 12 yrs
  - 10 yrs
  - 8 yrs
  - 9 yrs
  - 8 yrs
  - 5 yrs

- **Annual energy cost pre investment**
- **Annual energy cost with LET**
- **Annual energy cost with LET and LNC**
- **Annual energy cost (solar on own roof)**

- **Res - out weekdays, 1.5kW**
- **Business, 5d week**

- **IRR**:
  - 5.9%
  - 12 yrs
  - 12 yrs
  - 10.8%
  - 9 yrs
  - 12.9%
  - 8 yrs

- **Simple payback**:
  - 21%
  - 5 yrs
  - 13.3%
  - 8 yrs

- **isf.uts.edu.au**
KEY INFLUENCES ON INVESTOR OUTCOMES

- Generator cost
- What you pay for your energy without solar
- Behind the meter has better return
- Not suitable for large business because energy volume charge is low
- The more LET electricity you consume on site -> better payback
- Challenging while no reduction in network charges