

















# Scaling up solar on council facilities

**Project Summary** 



### Deliverables

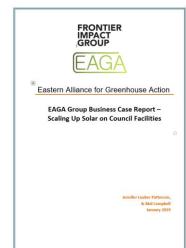
1. Site assessments + tools

2. Procurement resources

3. 'Buy Options' report



- Boroondara
- > Knox
- Maroondah
- Monash
- Whitehorse



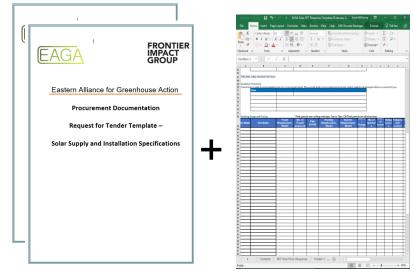


### Deliverables

1. Solar site assessments

2. Procurement resources

3. 'Buy Options' report



> Tender specifications

Tender guidelines

Response templates



### Deliverables

1. Solar site assessments

2. Procurement resources

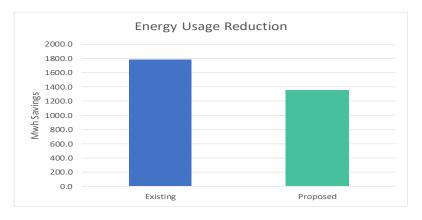
3. 'Buy Options' report

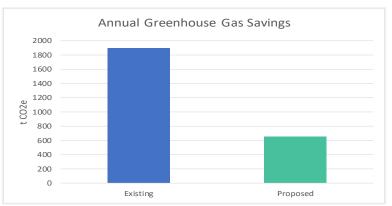




## Key findings

- > 935kW of solar could be installed across 53 sites of five councils
- > capital investment of \$1.7M, average savings ~ \$170,000 per year (ROI in 10 years)
- > reducing emissions by 1,400 tonnes per annum







## Opportunities by council

| Council    | # sites | Capacity<br>(kW) | Capital<br>Investment<br>(\$'000) | Annual<br>Savings<br>(\$'000) | Average<br>Simple<br>payback<br>(Years) | GHG<br>Savings<br>(tCO2e)<br>p.a. |
|------------|---------|------------------|-----------------------------------|-------------------------------|---|-----------------------------------|
| Boroondara | 13      | 170              | 315                               | 23.6                          | 10                                      | 236                               |
| Knox       | 11      | 160              | 294                               | 28.4                          | 9                                       | 236                               |
| Maroondah  | 9       | 108              | 185                               | 20.4                          | 9                                       | 138                               |
| Monash     | 9       | 200              | 334                               | 39.9                          | 8                                       | 277                               |
| Whitehorse | 11      | 297              | 618                               | 55.8                          | 9                                       | 431                               |
| Overall    | 53      | 935              | 1,746                             | 168.1                         | 10                                      | 1318                              |



#### **Batteries**

Councils should prioritise investment in additional solar before pursuing storage opportunities at these facilities and other sites with similar energy usage profiles

| Council    | # sites | Capacity<br>(kW/kWh) | Capital<br>Investment | Annual<br>Savings | Simple<br>payback<br>(Years) |
|------------|---------|----------------------|-----------------------|-------------------|------------------------------|
| Boroondara | 2       | 35kW/10kWh           | \$10,000              | \$654             | 15+                          |
| Knox       | 2       | 22kW/10kWh           | \$10,000              | \$338             | 15+                          |
| Maroondah  | 2       | 26kW/10kWh           | \$10,000              | \$675             | 15                           |
| Monash     | 2       | 50kW/10kWh           | \$10,000              | \$647             | 15+                          |
| Whitehorse | 2       | 26kW/10kWh           | \$10,000              | \$752             | 14                           |
| Overall    | 10      | 170kW/50kWh          | \$50,000              | \$3,066           | 15+                          |



### On site leasing + behind the meter PPA options

- Leasing is feasible on 18 sites and may avoid nearly \$500,000 in capital costs
- > Behind the meter PPA is feasible on 7 sites options may avoid \$177,000 in capital
- Possible solutions for cash constrained councils
- > Possible solution for tenanted sites (particularly sporting clubs facing energy stress)



### Collaborative opportunities

#### Bulk purchase

Portfolio approach (1yr implementation)

Joint procurement / centralised delivery

- > 10-20% reduction on capital costs
- Potential to leverage additional 120kW

- > High return site cross subsidise the lower
- > 25% more energy and GHG savings
- Avoids duplication
- > 30% time efficiency for council staff