A Capital City Approach to Achieving 25% Renewables – City of Melbourne

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We’re boosting renewable energy to decarbonise Melbourne’s electricity supply.

**OUR 2018 TARGET:**

25% of Melbourne’s electricity from renewable energy.
Zero Net Emissions

We’re boosting renewable energy to decarbonise Melbourne’s electricity supply.

Our 2018 Target: 25% of Melbourne’s electricity from renewable energy.
How Much is That?

25% of 1,300,000 MWH equals 720 MW of solar PV.
It’s Achievable

34% of Google’s energy in 2013 was from renewable sources.

Google consumed more than 2 million MWh in 2010, roughly equivalent to ½ Melbourne’s usage.
The Approach

- Residential
  - Solar

- Commercial & Industrial - SME’s
  - Solar

- Large Scale Renewable Energy – Corporates
  - Wind, solar, biomass etc.

Offsetting with Greenpower – stop gap
Organisations don’t own their building in CoM. High split incentive

Organisations rated “reducing carbon emissions” as the most important outcome

“Reducing electricity bills”

Organisations not yet considered solar

Residents not yet considered solar
GIS – Rooftop Segmentation Map

Considerations:

– Rooftop potential
– Overshadowing
– Roof height
– Rooftop Sqm
– Obstructions

Legend:
- Constrained
- Highly constrained
- Low constraint
- Moderately constrained
- No constraint
Considerations:

- Area or per building
- kWh/m²
- Quick ID of suitable precincts
- In conjunction with other maps
Considerations:

- Yield group segments
- Highlights density
- Quick ID of suitable precincts
- In conjunction with other maps
Residential Solar – Bulk Buy

A great solar deal for Kensington

It’s never been easier to step into solar
Residential Solar

- Bulk-buy arrangement with Positive Charge
- Targeted campaign - owner / occupiers
- 300 leads generated
- 102.5kW installed
Commercial Solar

- VECCI now Program partner
- Commercial Solar Rebates
  - 132kW of systems installed
- Targeted campaigns using CoM insolation maps & rates database

83% Of businesses thought they would be more likely to proceed if they could pay off their system over time

44% Of businesses not familiar with Environmental Upgrade Agreements (EUAs)
Commercial Solar – Value Proposition

- **Improve** – reduce running costs and protect against rising electricity prices
- **Impact** – directly impact on your environmental footprint and reduce emissions
- **Differentiate** – stand out in a crowded market place as a business leader
- **Invest** – solar delivers an attractive Return on Investment (ROI)
- **PR and Marketing** – create opportunities… the City of Melbourne can help tell your solar story
- **Purpose and Vision** – take customers and staff on your energy efficiency journey.
Commercial Solar

+ Success Factors:
  - Peer to peer engagement
  - Case studies
  - Council providing credible, reliable information

✗ Barrier
  - Making commercial solar a priority

Q: How do you add “game changer value” to customers beyond standard business & “value” propositions?
31,000 Signature Pledge for Solar

- 30th September 2015
- Climate Council gathered 31,000 signatures in support of City of Melbourne’s climate action
- Pledges in support of Council’s Commercial Solar Rebates campaign, which provided businesses with rebates ranging between $2000 and $4000 to install solar panels.
Program Partners

- Direct Finance
- Environmental Upgrade Agreements
- Business assessments for solar opportunity
  - *Business Proposition*
- Request for Quotes (RFQ) using Clean Energy Council Code of Conduct retailers
- Comparison of quotes to final 3
101 Collins St – Case Study

- 60kW
- Installed at level 56
- Highest install in Southern Hemisphere?
- Estimated 38% loss due to vertical

- Self funded with CoM solar rebate
- 180 x 330W BENQ – mono panels
- 2 x SMA STP25000 Tripower
- 4 star Nabers rated building
FMSA Architecture – Case Study

- 30kW
- 120 x 250W Yingli – poly panels
- Fronius Symo inverters
- Payback 3.8 years

- Driver = environmental responsibility
- Expected 45% decrease in energy costs
- Self funded with CoM solar rebate
- 5 star Nabers rated building
Melbourne Renewable Energy Project

AGGREGATE MELBOURNE'S DEMAND FOR ELECTRICITY

DRIVE NEW INVESTMENT IN LARGE SCALE RENEWABLE ENERGY PROJECTS
Melbourne Renewable Energy Project

- Large Scale – Corporates & Institutions
- 1st of it’s kind in Australia
- Replicable project
- More tangible than Greenpower

- 100GWh’s of demand
- RFI process proved concept can work
  - Open to shovel ready projects
- Tender expected this fin. year
Partners

Private sector

Community icons

Leading Councils

NextDC

City of Yarra

Fed Square

THEFIFTHESTATE

Bank Australia

Moreland City Council

CITYWIDE

CITY OF MELBOURNE

Mirvac

Melbourne councils and businesses take charge in huge renewables program

Partners launching the project at Melbourne Town Hall. (L-R) Grace Grant, City of Malvern, Sam Gaylard, City of Yarra, Cathy Shue, City of Melbourne, Arvon Wood, City of Melbourne, Lord Mayor Robert Doyle, Sharon Poliart, Fed Square, Peter Taylor, Bank of Melbourne, Mirvac, and Simon Cooper. NEXDC. Photo: Andrew Bott.

Cameron Jewell | 19 November 2014
Renewable Energy Target - 2018

Current Renewable Position: 10%

Melbourne Renewable Energy Project: 14%

Delta: 14% - 10% = 4%

Target: 25%
How will we achieve our target?
Summary

- Renewable Energy Target of 25% by 2018
  - Delta of 15%
- Solar programs: Residential, Commercial and Utility Scale
- Solar potential mapping tools
- Ground breaking and unique projects
- A lot of work to do yet. Collaboration is key
Thank You

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