

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



Russell French
Business Development – Senior Sustainability Officer

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.**



Zero Net Emissions

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

OUR 2018 TARGET:

10%

25%

**OF MELBOURNE'S
ELECTRICITY FROM
RENEWABLE ENERGY.**



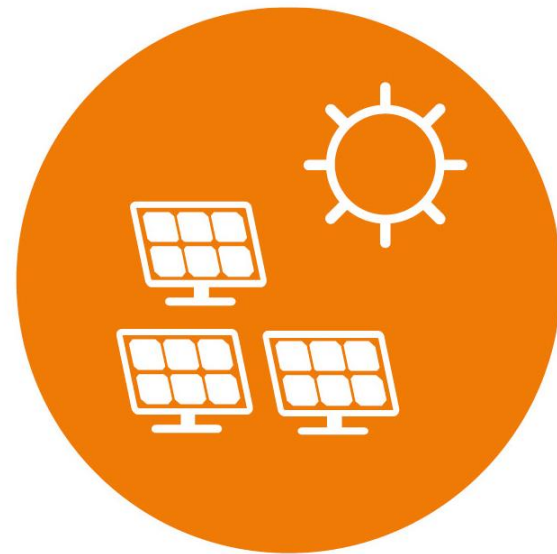
How Much is That?

25%



1,300,000 MWH

=



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 $\frac{1}{2}$ Melbourne's usage.



CITY OF MELBOURNE

The Approach



Residential
• Solar



Commercial & Industrial - SME's
• Solar



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



Offsetting with Greenpower – stop gap



Research Findings – 2015 CoM Report



Organisations don't own their building in CoM. High split incentive



Organisations not yet considered solar



Residents not yet considered solar

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



“Reducing electricity bills”



GIS – Rooftop Segmentation Map

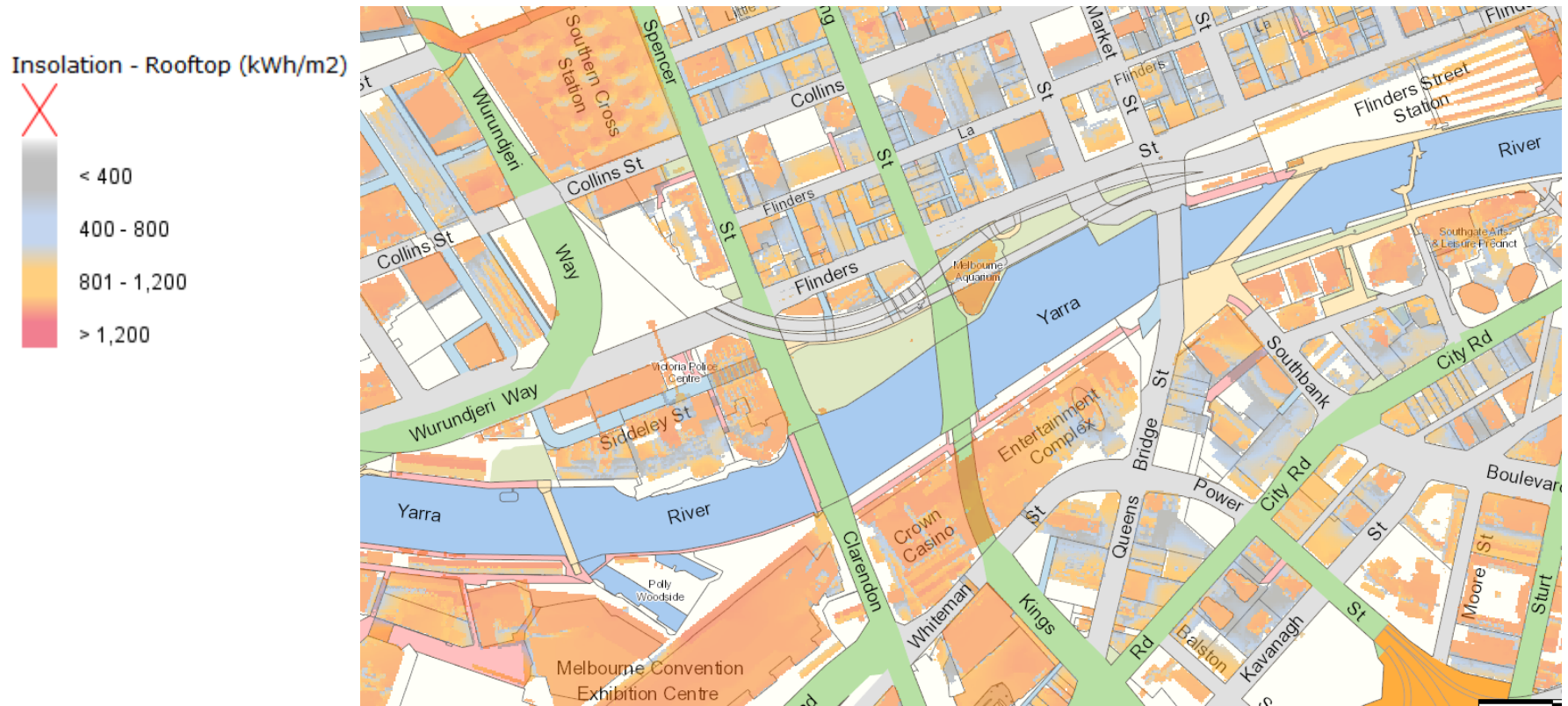
- Constrained
- Highly constrained
- Low constraint
- Moderately constrained
- No constraint



Considerations:

- Rooftop potential
- Overshadowing
- Roof height
- Rooftop Sqm
- Obstructions

GIS – Rooftop Insolation Map

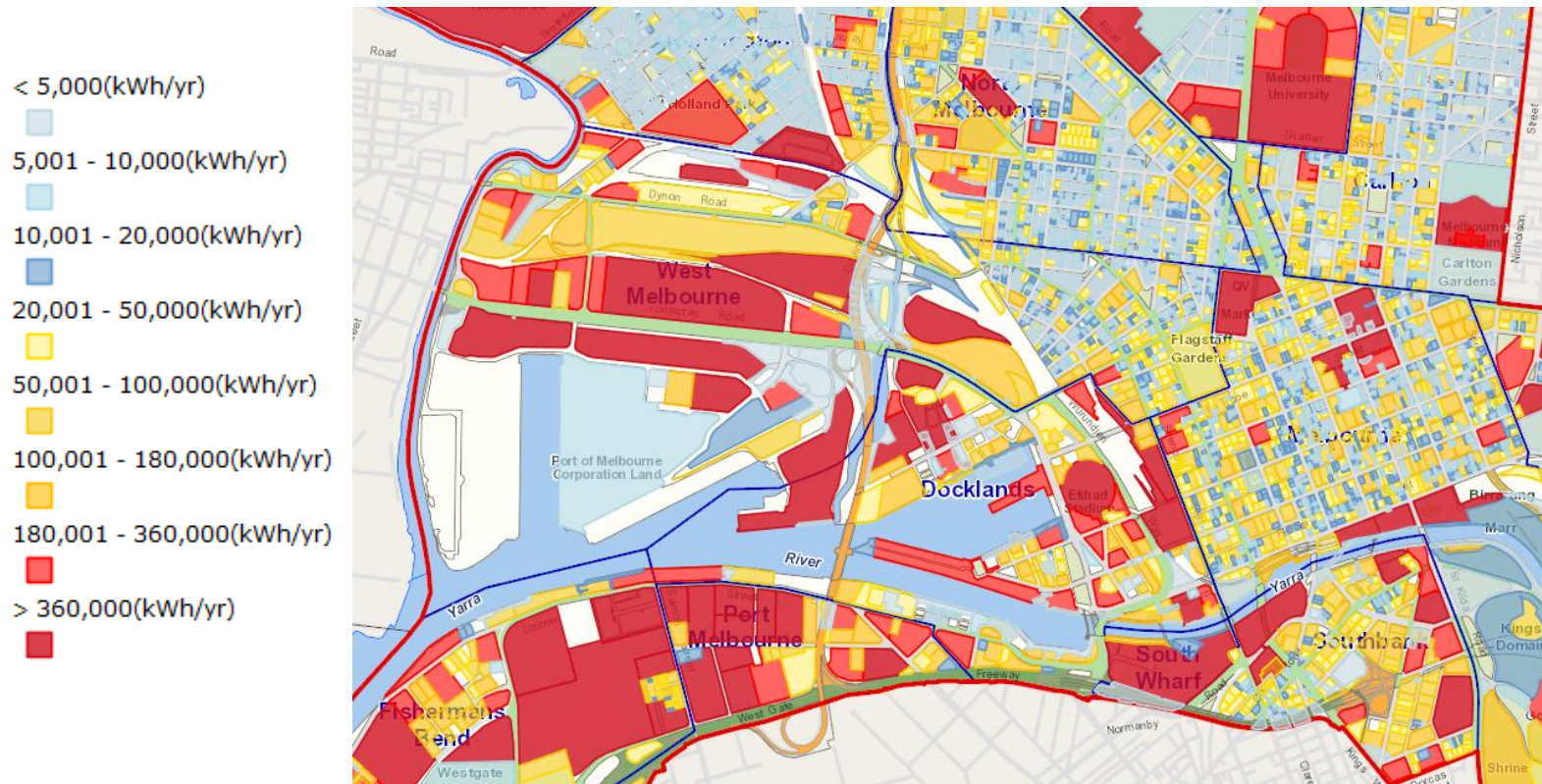


Considerations:

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



GIS – Rooftop Energy Yield Map



Considerations:

- Yield group segments
- Quick ID of suitable precincts
- Highlights density
- In conjunction with other maps



Residential Solar – Bulk Buy



Supported by



**CITY OF
MELBOURNE**

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

Direct
Mail

Door
Knock

Call

Web



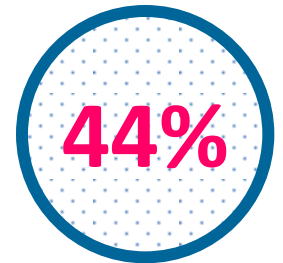
Commercial Solar

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



Of businesses not familiar with Environmental Upgrade Agreements (EUAs)

44%



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

83%



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



**SUSTAINABLE
MELBOURNE
FUND**

- Direct Finance
- Environmental Upgrade Agreements



vecci

- 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

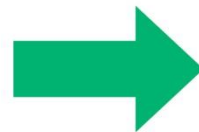
- 30kW
- 120 x 250W Yingli – poly panels
- Fronius Symo inverters
- Payback 3.8 years



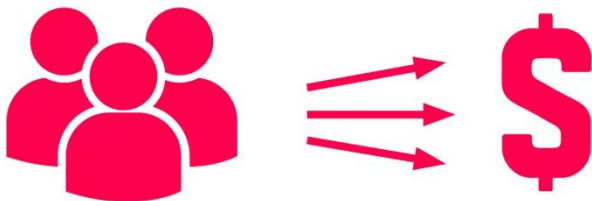
- Driver = environmental responsibility
- Expected 45% decrease in energy costs
- Self funded with CoM solar rebate
- 5 star Nabers rated building

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



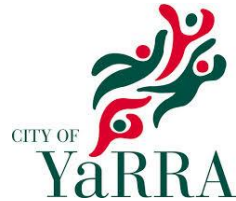
- 100GWh's of demand
- RFI process proved concept can work
 - Open to shovel ready projects
- Tender expected this fin. year

Partners

Private sector



Leading Councils



Moreland City Council



Community icons



▼ Sections Jobs Business Property Sectors Politics Design & Tech Habitat eBooks WI

Melbourne councils and businesses take charge in huge renewables program

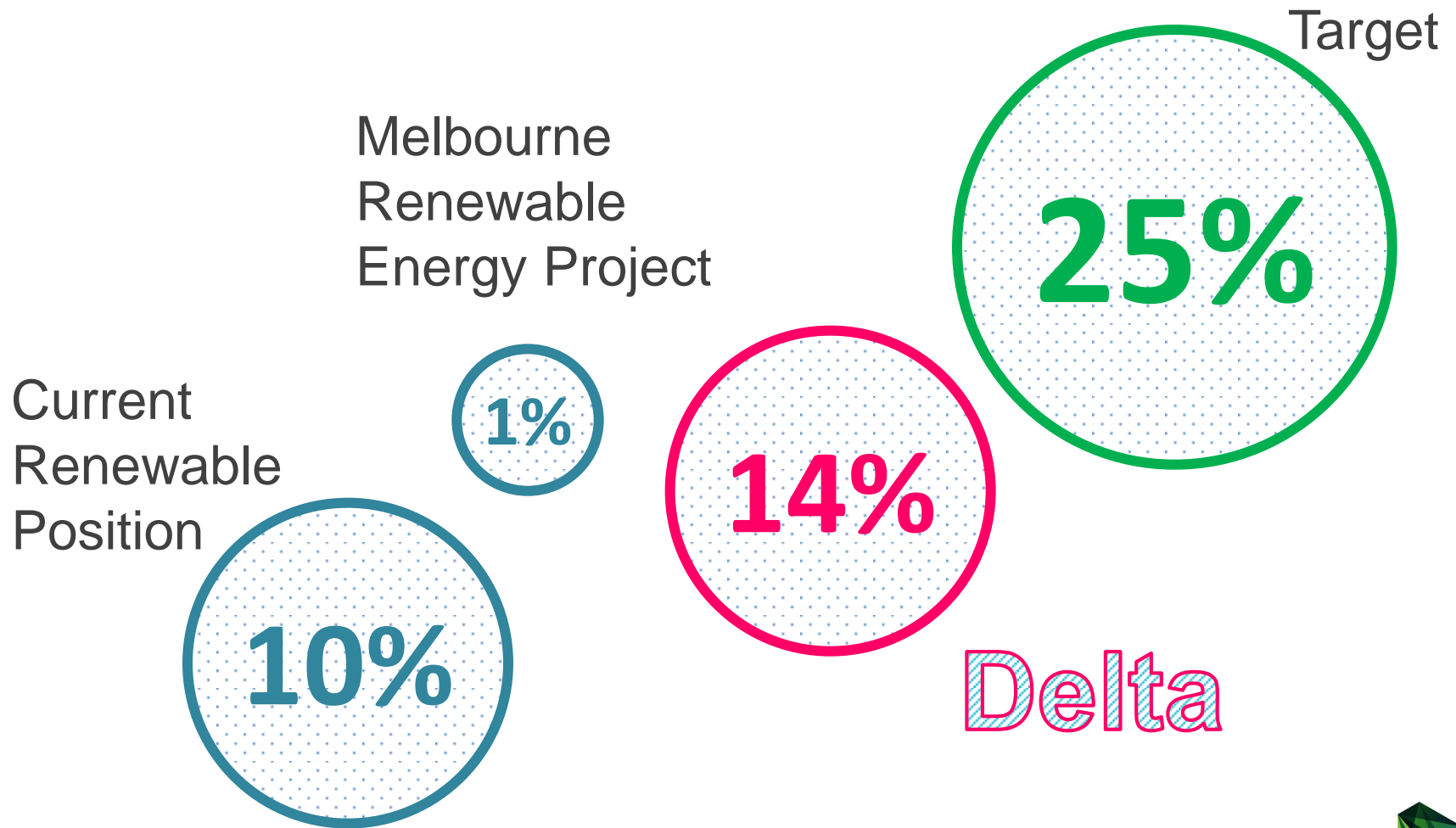
Share 0 Tweet 4 +1 0 Print



Partners launching the project at Melbourne Town Hall. (L-R) Grace Girardi, City of Manbyrnong; Sam Gaylard, City of Yarra; Cathy Oke, City of Melbourne; Arron Wood, City of Melbourne; Lord Mayor Robert Doyle; Sharon Pollard, Fed Square; Peter Taylor, bankmecu; Ben Hindmarsh, Mirvac; and Simon Cooper, NEXDC. Photo: Andrew Bott.

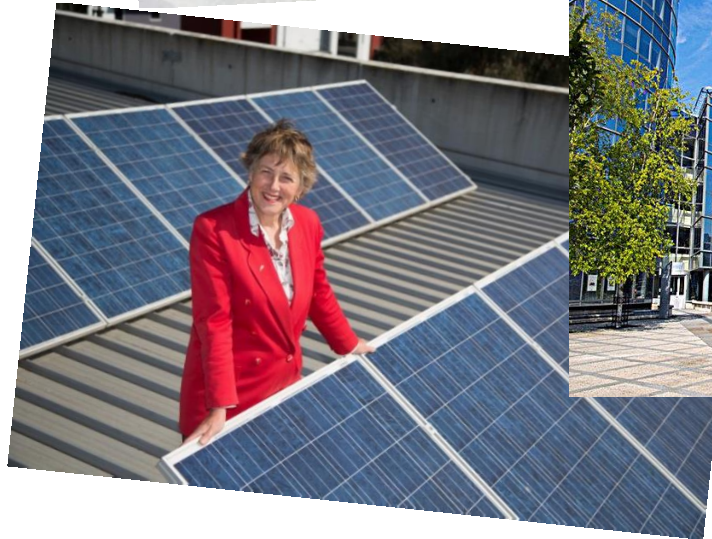
Cameron Jewell | 19 November 2014

Renewable Energy Target - 2018



25% Renewable Energy Target - 2018

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

Contact us:

Russell French - solar@melbourne.vic.gov.au

9658 7317

Use **#SolarMelb** on Facebook or Twitter to share

Twitter @Ecocityforum 

Facebook @Ecocityforum 

www.melbourne.vic.gov.au/solar

