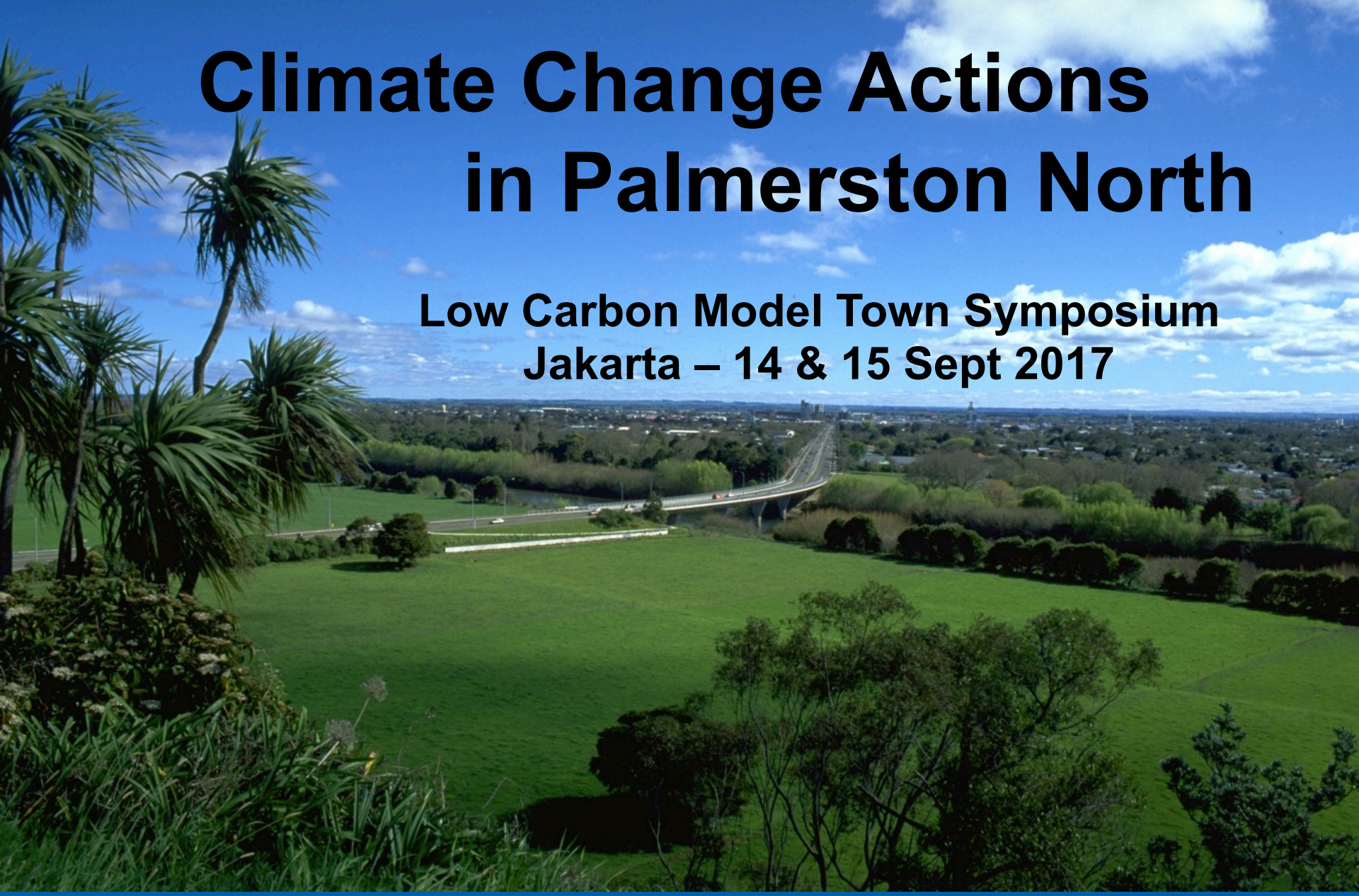
Climate Change Actions in Palmerston North

Low Carbon Model Town Symposium
Jakarta – 14 & 15 Sept 2017



Councillor Brent Barrett

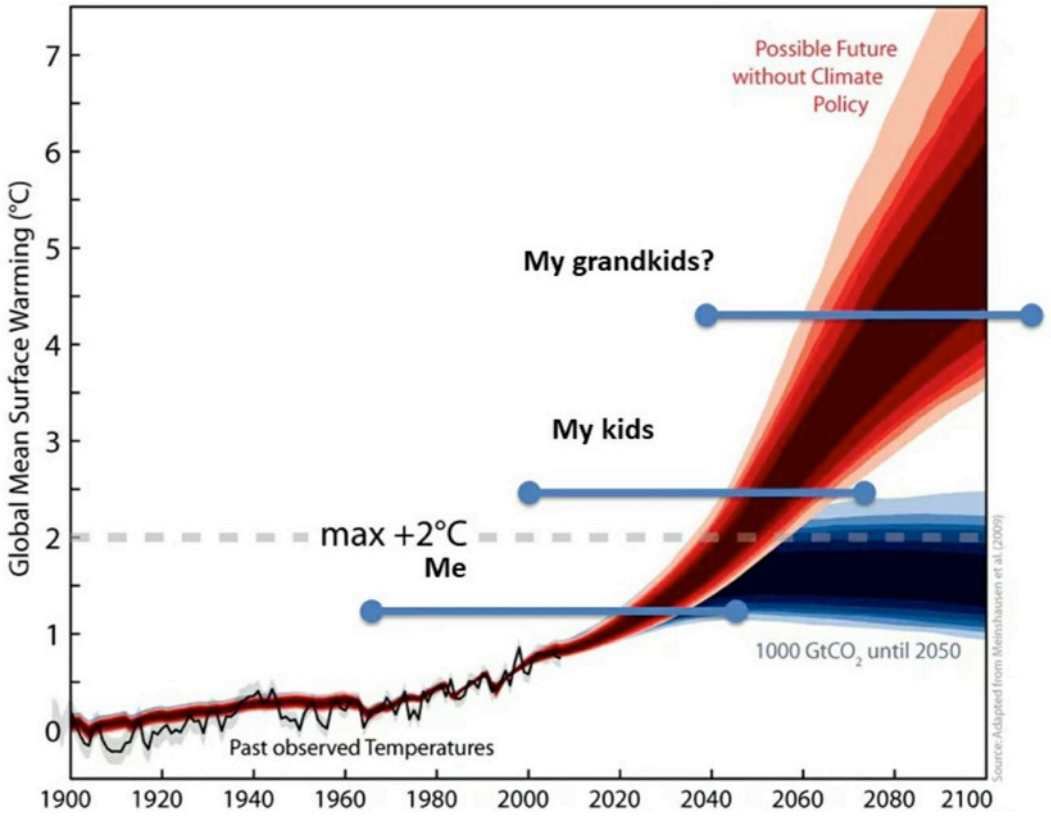
brent.barrett@pncc.govt.nz

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Our Future – Our People



The Risk & Challenge



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Paris Global Climate Accord and New Zealand options







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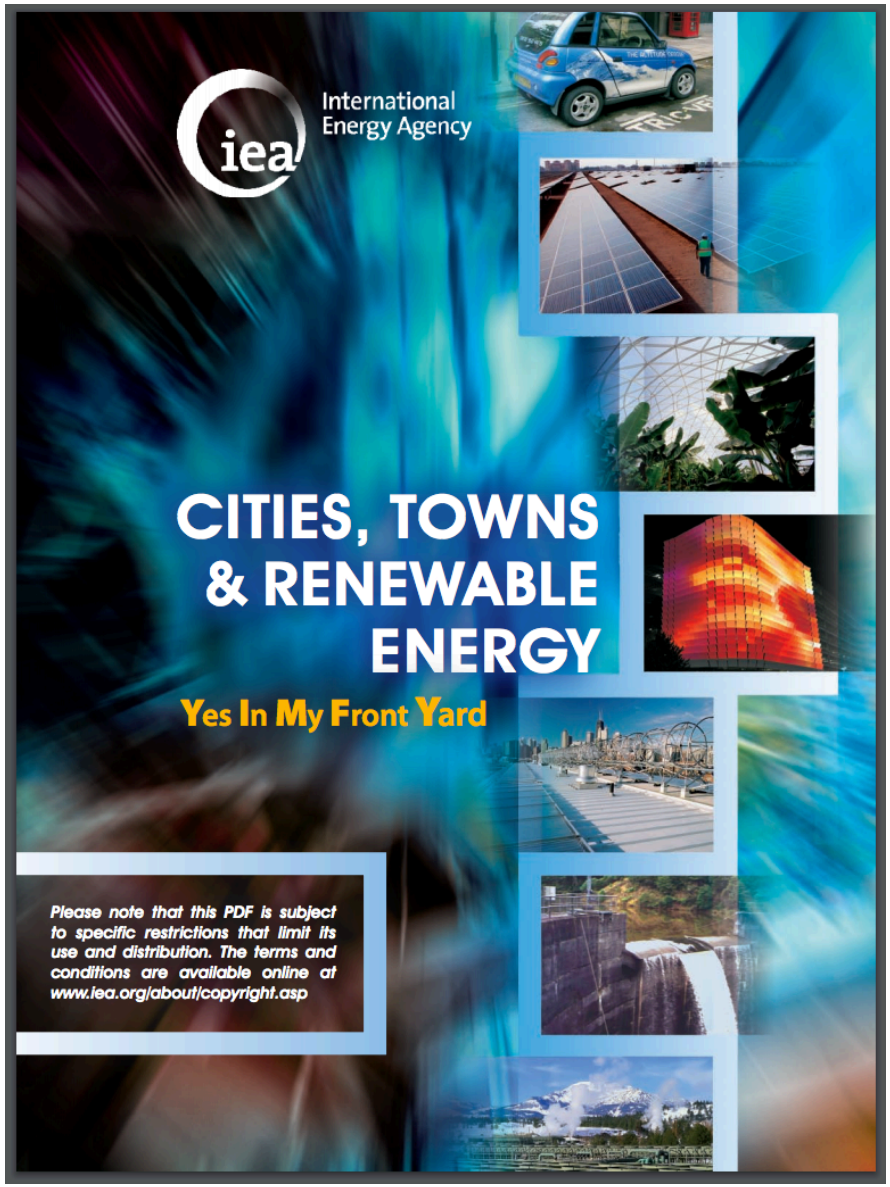
Local Government New Zealand Climate Declaration 2017

"We ask that the Government make it a priority to develop and implement an ambitious transition plan for a low carbon and resilient New Zealand."

"We commit to develop and implement ambitious action plans that reduce greenhouse gas emissions and support resilience within our own councils and for our local communities."

We are. LGNZ.

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Lead Author: Ralph Sims

13 Global Case Studies

Mix of Targets, Incentives, Guidance, Voluntary

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City or town	Population	Policy classification																		Comments
		Target		Stick				Carrot						Guidance		Voluntary -municipal operation			Voluntary -role model	
		Overall target	Sector specific target	Urban planning	Building codes regulations/	Taxes	Standards and mandates	Capital grants and rebate	Operating grants	Investment	Soft loans and guarantees	Tax credits	Tax reduction/exemption	Information/promotion	Training	Procurement / purchase	Investment	Utility	Demonstration / land use	Voluntary agreements	
1) Tokyo	12 400 000	X	X		X		X							X		X	X				Wealthy mega-city
2) Capetown, S. Africa	3 400 000	X	X	X				X						X	X	X					Poor mega-city
3) Nagpur, India	2 100 000	X	X		X							X	X	X	X		X		X	X	Poor large city
4) Adelaide, Australia	1 160 000	X	X					X						X		X	X		X		Wealthy large city
5) Merton, London, UK	200 000	X	X	X	X		X							X							Mega-city leading district
6) Freiburg, Germany	200 000	X	X	X	X		X	X			X			X	X	X	X	X	X	X	Medium town
7) Växjo, Sweden	78 000	X	X		X			X						X		X		X	X	X	Small town
8) Palmerston North,NZ	75 000	X	X	X							X			X		X	X	X	X	X	Small town
9) Masdar City, UAE	40 000		X											X		X	X	X	X		Urban planning from new
10) El Hierro, Spain	10 000		X					X			X			X	X		X	X	X	X	One of Canary Islands
11) Samsø, Denmark	4 400		X					X			X			X	X		X		X		Island for comparison
12) Güssing, Austria	3 800		X				X							X	X	X	X	X	X		Small community -rural
13) Greensburg, USA	1 600		X	X	X					X			X	X				X	X		Rebuilding after tornado

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Palmerston North by the Numbers

- 87,000 people & growing – 120 ethnic cultures
- 395 km^2 – mostly river (flood) plain
- Research & Development, Education, Health, Defence, Agri-Business, Energy,
- Mayor and 15 Councillors and c. 500 staff
- Portfolios – Environment & Sustainability, Active & Public Transport

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Our Heart – The Square



Cultural Diversity



Suburban Areas



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Nature & Cultural Heritage



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Council



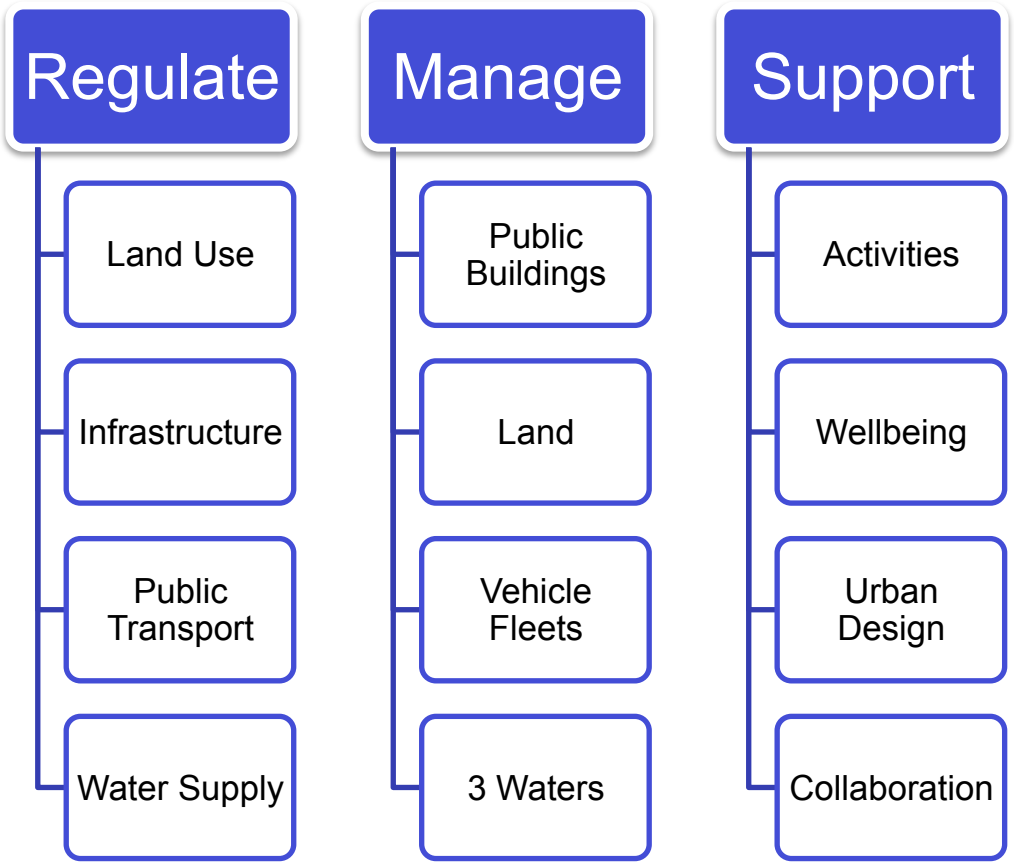
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Civic Administration Building



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City Council's Role



Goal: Council is Carbon Neutral by 2050

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Ranking Our Actions to Reduce Carbon Emissions



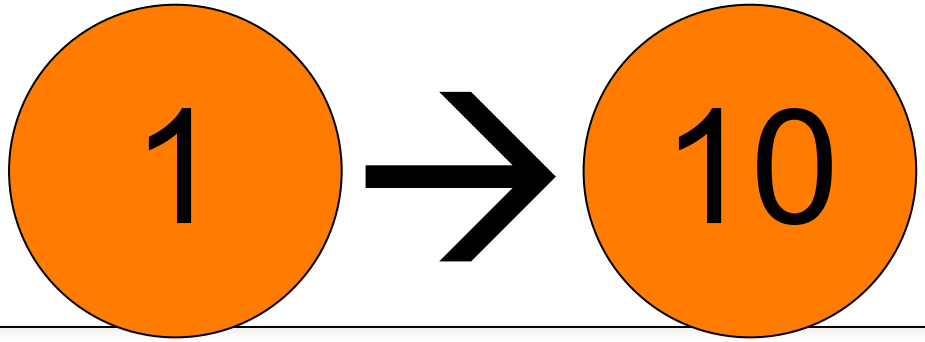
DRAWDOWN

THE MOST COMPREHENSIVE PLAN EVER PROPOSED TO REVERSE GLOBAL WARMING

EDITED BY PAUL HAWKEN

1 → 80

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Rank	Solution	Sector	TOTAL ATMOSPHERIC CO2-EQ REDUCTION (GT)	NET COST (BILLIONS US $)	SAVINGS (BILLIONS US $)
1	**Refrigerant Management**	Materials	89.74	N/A	$-902.77
2	**Wind Turbines (Onshore)**	Energy	84.60	$1,225.37	$7,425.00
3	**Reduced Food Waste**	Food	70.53	N/A	N/A
4	**Plant-Rich Diet**	Food	66.11	N/A	N/A
5	**Tropical Forests**	Land Use	61.23	N/A	N/A
6	**Educating Girls**	Women and Girls	59.60	N/A	N/A
7	**Family Planning**	Women and Girls	59.60	N/A	N/A
8	**Solar Farms**	Energy	36.90	$-80.60	$5,023.84
9	**Silvopasture**	Food	31.19	$41.59	$699.37
10	**Rooftop Solar**	Energy	24.60	$453.14	$3,457.63



2

Wind Turbines (on shore)

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JUST Zilch
Food Rescue | Free Store





Reduced Food Waste

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Massey University is no longer dumping more than 90 per cent of waste

MIRI SCHROETER

Last updated 12:53 16/08/2017

1 | Share 43 | Tweet | G+ | Share



DAVID UNWIN/STUFF

Dr Allanah Ryan and masters student Sarah Sandilands are helping make Massey University clean and grean with new compost bins.

3

Reduced Food Waste

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4

Plant-Rich Diet

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4

Plant-Rich Diet

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Council's solar farm ready to feed grid

Janine Rankin • 19:00, Feb 20 2014



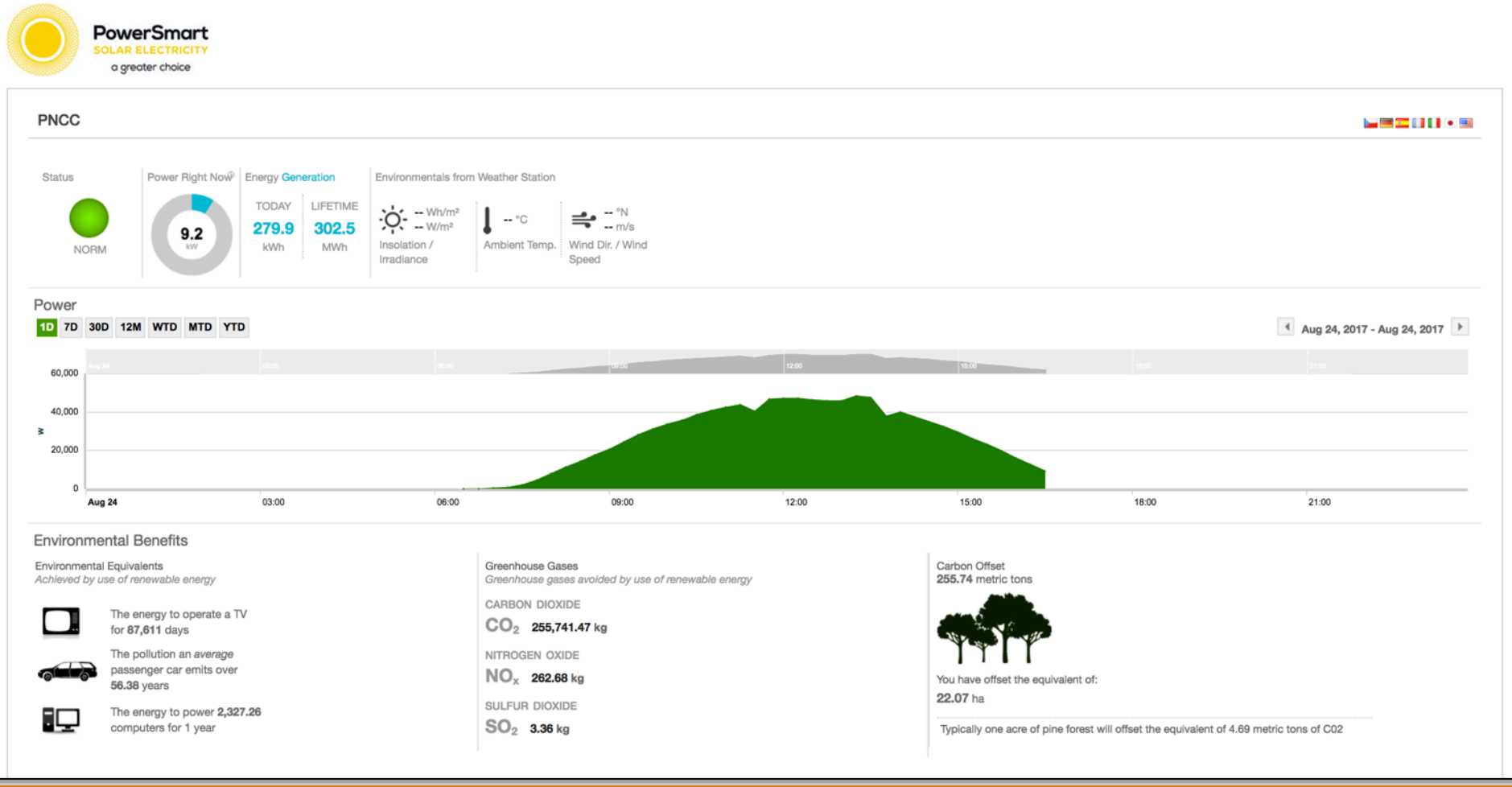
MURRAY WILSON/FAIRFAX NZ

8

Solar Farms

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Our Solar Energy Online



8

Solar Farms

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10

Rooftop Solar

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Green Corridors' success confirmed

JANINE RANKIN
Last updated 17:26, July 25 2017



SUPPLIED

Another Green Corridors planting day on the edge of Palmerston North in September 2016.

Afforestation

Electric car drivers line up for Drive Electric Week event in The Square

RICHARD MAYS
Last updated 12:02, September 5 2016



Warwick Smith/Fairfax NZ

Looking over a four Leaf 'clover' are Palmerston North drivers of the Nissan electric vehicles from left, Leith Pugmire, Leonie Gardiner, Daniel Morrimire with Bren Morrimire, Julie Dalziel and Rhys Gardiner.

Electric Vehicles

Fast charge station now in The Square

Last Published: 25 January 2017 | Print | Email

Thursday December 22 2016

Council hopes a new electric vehicle charging station in The Square will encourage more visitors to the region as well as helping to drive a switch to a more sustainable mode of transport.

The fast charging station is a first for Palmerston North. Council parks and property manager John Brenkley says the idea stemmed from an electric vehicle rally that came through the city earlier this year, with lots of cars needing to recharge at the same time.

"Mayor Grant Smith thought it would be a smart idea if we had a fast charger in place. With the charging station in The Square, motorists can leave their cars to charge while they look around the city."



The fast charging station can recharge an electric car battery in less than 25 minutes.

Electric Vehicles

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New electric trucks for Palmerston North

Last Published: 16 August 2017 | Print | Email

Council has been successful in its application to the Low Emission Vehicle Contestable Fund from the Energy Efficiency and Conservation Authority (EECA).



Electric Vehicles

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Palmerston North electric vehicle advocate Sue Pugmire nominated for national award

RICHARD MAYS
Last updated 12:20, September 4 2017



Warwick Smith/Stuff

A gathering of Nissan Leaf electric car owners in The Square last year.

As electric vehicles become more viable and popular, Palmerston North finds itself up for two national commendations.

Electric Vehicles





Methane Digesters

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Palmerston North eco designer leads the way to warmer homes with free blinds offer

RICHARD MAYS
Last updated 11:41, November 18 2016

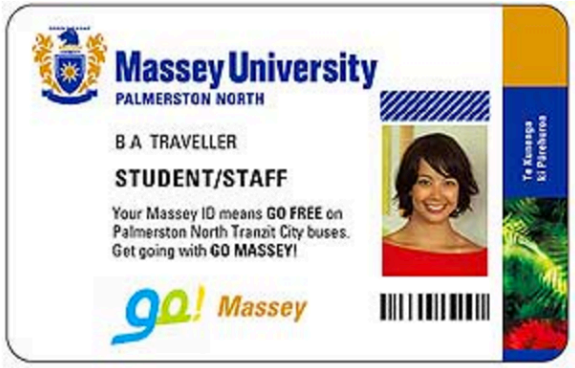


Supplied

Palmerston North City Council's eco design advisor Nelson Lebo with an example of the roman blinds he hopes to fit in residents' kitchens.

Insulation

Go Massey! free bus service launched



The new ID smartcard for Massey salaried staff and Palmerston North internal students features technology enabling unlimited free bus travel on any Tranzit city bus, anywhere in Palmerston North.

More than 13,000 smartcards have been distributed in the past fortnight. Director of National Student Relations Pat Sandbrook says the technology has been thoroughly trialled, and the cards are of a proven, industry standard.

Deputy Vice-Chancellor Professor Ian Warrington says the initiative of a free city bus service for staff and students is unique among New Zealand universities. There are many successful international free bus schemes operating. The initiative furthers the University's goals towards environmental responsibility and complements the University's and the city's efforts to make Palmerston North a vibrant and student-friendly city. It is anticipated that the service will help to address growing traffic congestion, with more than 11,000 people travelling to and from the Palmerston North campus during semesters.

A new Go! Massey timetable has been designed to better fit with lectures, and the routes extended to include the city's main concentration of student flats. Connecting services from other parts of the city have also been organised to minimise waiting times. The most popular routes will be recorded via a ticket issued from the matching card-reader installed in each bus, to assist with further streamlining of the system. Campus bus stops have also shifted from the Ring Road to the heart of campus, with the construction of a large station behind the main concourse, at the back of the science towers.

Bus timetables are available at: Massey Contact - Ground Floor, Registry Building; Reception, Tower Block, Massey Hokowhitu; I-Site (Information Centre) in The Square; Palmerston North City Tranzit city buses and depots , and under the Transport link at www.horizons.govt.nz

For further information about the Go! Massey free bus service, phone 0800MASSEY (0800 627739).



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Solar Water

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LED Lighting - Commercial

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Making it easier to do the right thing with recycling

JANINE RANKIN
Last updated 13:54, August 22 2017



DAVID UNWIN/STUFF

Sam Battman is woking inside and outside the Palmerston North City Council building to make recycling easier for people.

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55

Household Recycling

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56

Industrial Recycling

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Bike Infrastructure

PALMERSTON NORTH CITY COUNCIL

Nearly one third of Palmerston North households are composting

MIRI SCHROETER
Last updated 17:01, May 9 2017



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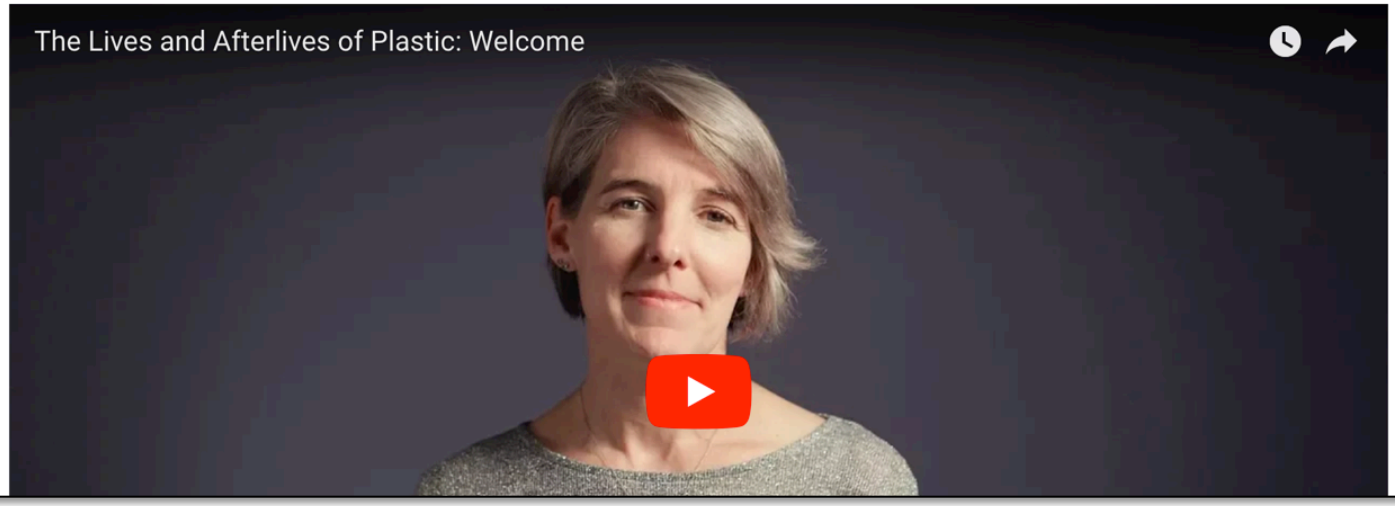
MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

POLITICAL ECOLOGY RESEARCH CENTRE

HOME BLOG PEOPLE CONFERENCE

THE LIVES AND AFTERLIVES OF PLASTIC

A nearly carbon-neutral conference held entirely online between June 26th and July 14th, 2017.



Telepresence

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Electric Bikes

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10 + 26 + 69 = Integration!

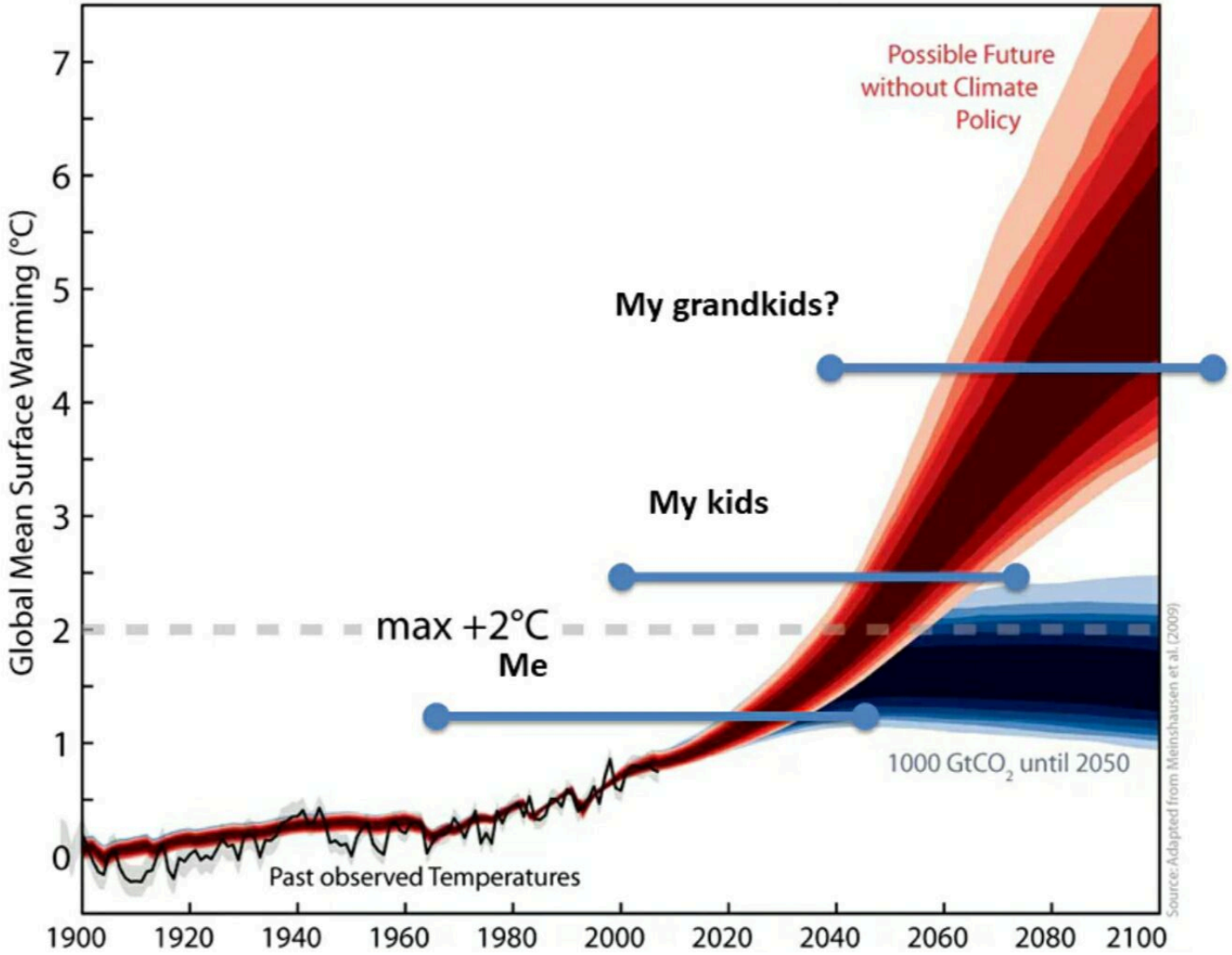
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Looking Ahead: New Goals & New Actions

- Draft Goal: City-wide 25% reduction in carbon emissions by 2028.
- Sustainability an imperative across all areas of Council activity.
- Council will take a systematic approach, make pragmatic choices, build in monitoring, build in deliverables, measure our success and strive for excellence

City or town	Population	Policy classification																			Comments
		Target		Stick				Carrot						Guidance		Voluntary -municipal operation			Voluntary -role model		
		Overall target	Sector specific target	Urban planning	Building codes regulations/	Taxes	Standards and mandates	Capital grants and rebate	Operating grants	Investment	Soft loans and guarantees	Tax credits	Tax reduction/exemption	Information/promotion	Training	Procurement / purchase	Investment	Utility	Demonstration / land use	Voluntary agreements	
1) Tokyo	12 400 000	X	X		X		X							X		X	X				Wealthy mega-city
2) Capetown, S. Africa	3 400 000	X	X	X				X						X	X	X					Poor mega-city
3) Nagpur, India	2 100 000	X	X		X							X	X	X	X		X		X	X	Poor large city
4) Adelaide, Australia	1 160 000	X	X					X						X		X	X		X		Wealthy large city
5) Merton, London, UK	200 000	X	X	X	X		X							X							Mega-city leading district
6) Freiburg, Germany	200 000	X	X	X	X		X	X			X			X	X	X	X	X	X	X	Medium town
7) Växjo, Sweden	78 000	X	X		X			X						X		X		X	X	X	Small town
8) Palmerston North,NZ	75 000	X	X	X	?	?	?	?	?	?	X	?	?	X	?	X	X	X	X	X	Small town
9) Masdar City, UAE	40 000		X											X		X	X	X	X		Urban planning from new
10) El Hierro, Spain	10 000		X					X			X			X	X		X	X	X	X	One of Canary Islands
11) Samsø, Denmark	4 400		X					X			X			X	X		X		X		Island for comparison
12) Güssing, Austria	3 800		X				X							X	X	X	X	X	X		Small community -rural
13) Greensburg, USA	1 600		X	X	X					X			X	X				X	X		Rebuilding after tornado

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Thank You
brent.barrett@pncc.govt.nz