

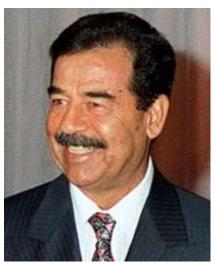
In 2006, 240 Councils Had Emissions Reduction Targets. How Many Council Met These Targets?

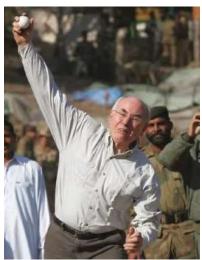
14th May 2018



Waaaaay Back When...















Waaaaay Back When...

ACT Brimbank Leichhardt Cockburn Tea Tree Gully Hawkesbury Moorabool Pittwater Adelaide Brisbane Coffs Harbour Lismore Thuringowa Hepburn Moreland Plavford Buloke Colac Otway Alice Springs Lithgow Port Adelaide Enfield Toodyay Hervey Bay Mornington Peninsula Alpine Bunbury Corangamite Liverpool Townsville Hobart Port Phillip Mosman Ararat Burdekin Cottesloe **Hobsons Bay** Loddon Mount Alexander **Port Stephens** Towong Armadale Burnside Darebin Logan Tweed **Holdfast Bay** Mount Barker Prospect Ashfield Burwood **Macedon Ranges** Unley Darwin Holrovd Movne Pyrenees Auburn Victoria Park Byron Douglas Mackay Queenscliffe Hornsby Mundaring Ballarat Caboolture Maitland Dubbo Vincent Horsham Murrindindi Randwick Ballina Cairns Fast Fremantle Mandurah Wangaratta Hume Murrumbidgee Redland Bankstown Calliope Eurobodalla **Hunters Hill** Manly Rockdale Wanneroo Murweh Caloundra Fairfield Manningham Warringah Banyule Hurstville Muswellbrook Rockhampton Bass Coast Cambridge Warrnambool Frankston Mareeba Indigo Narrandera Rockingham Bassendean Camden Maribyrnong Fremantle Waverley **Ipswich Nedlands** Rvde Wellington Shire **Baulkham Hills** Campaspe Gannawarra Marion Joondalup Newcastle Salisbury **Baw Baw** Campbelltown Gladstone Maroochy Serpentine-Jarrahdale West Torrens Kalamunda Nillumbik Bayside Canada Bay Glenorchy Maroondah Shellharbour Whitehorse Kalgoorlie Noosa Marrickville Bayswater Canning Gold Coast Kiama North Sydney South Perth Whittlesea Beaudesert Canterbury Golden Plains Melbourne Willoughby Kingborough Northam Stirling Bega Cardinia Gosford Melville Wingecarribee Kingston Northern Grampians Stonnington Belmont Carrathool Gosnells Mid-Western Wodonga Norwood P & St Peters Strathfield Knox Wollongong Benalla Casey **Greater Bendigo** Mildura Kogarah Onkaparinga Subjaco Central Goldfields Greater Dandenong Ku-ring-gai Blacktown Miriam Vale **Palmerston** Surf Coast Woollahra Wyndham Blue Mountains Mitcham Cessnock **Greater Geelong** Sutherland Kwinana Parramatta Greater Shepparton Lake Macquarie Boroondara Charles Sturt Mitchell Yarra Penrith Swan Clare & Gilbert **Botany Bay Greater Taree** Moira Yarra Ranges Lane Cove **Peppermint Grove** Swan Hill Griffith Bowen Claremont LaTrobe Monash Perth Sydney Brighton Clarence Hastings Moonee Valley Pine Rivers **Tamworth** Leeton



Who Met Their Reduction Target?

ACT Brimbank Leichhardt Cockburn Tea Tree Gully Hawkesbury Moorabool Pittwater Adelaide Brisbane Coffs Harbour Lismore Thuringowa Moreland Hepburn Plavford Buloke Colac Otway Alice Springs Lithgow Port Adelaide Enfield Toodyay Hervey Bay Mornington Peninsula Alpine Bunbury Corangamite Liverpool Townsville Hobart Port Phillip Mosman Ararat Burdekin Cottesloe **Hobsons Bay** Loddon Mount Alexander **Port Stephens** Towong Armadale Burnside Darebin Logan Tweed **Holdfast Bay** Mount Barker Prospect Ashfield Burwood **Macedon Ranges** Unley Darwin Holrovd Moyne Pyrenees Victoria Park Auburn Byron Douglas Mackay Queenscliffe Hornsby Mundaring Ballarat Caboolture Maitland Dubbo Vincent Horsham Murrindindi Randwick Ballina Cairns Fast Fremantle Mandurah Wangaratta Hume Murrumbidgee Redland Bankstown Calliope Eurobodalla **Hunters Hill** Manly Rockdale Wanneroo Murweh Caloundra Fairfield Manningham Warringah Banyule Hurstville Muswellbrook Rockhampton **Bass Coast** Cambridge Warrnambool Frankston Mareeba Indigo Narrandera Rockingham Bassendean Camden Maribyrnong Fremantle Waverley **Ipswich Nedlands** Rvde **Baulkham Hills** Campaspe Gannawarra Marion Wellington Shire Joondalup Newcastle Salisbury **Baw Baw** Campbelltown Gladstone Maroochy Serpentine-Jarrahdale West Torrens Kalamunda Nillumbik Bayside Canada Bay Glenorchy Maroondah Shellharbour Whitehorse Kalgoorlie Noosa Marrickville Bayswater Canning Gold Coast Kiama North Sydney South Perth Whittlesea Beaudesert Canterbury Golden Plains Melbourne Willoughby Kingborough Northam Stirling Bega Cardinia Gosford Melville Wingecarribee Kingston Northern Grampians Stonnington Belmont Carrathool Gosnells Mid-Western Wodonga Norwood P & St Peters Strathfield Knox Wollongong Benalla Casey **Greater Bendigo** Mildura Kogarah Onkaparinga Subjaco Central Goldfields Greater Dandenong Ku-ring-gai Blacktown Miriam Vale **Palmerston** Surf Coast Woollahra Wyndham Mitcham Blue Mountains Cessnock **Greater Geelong** Sutherland Kwinana Parramatta Greater Shepparton Lake Macquarie Boroondara Charles Sturt Mitchell Yarra Penrith Swan **Botany Bay** Clare & Gilbert **Greater Taree** Moira Yarra Ranges Lane Cove **Peppermint Grove** Swan Hill Bowen Griffith Claremont Monash LaTrobe Perth Sydney Brighton Clarence Hastings Moonee Valley Pine Rivers **Tamworth** Leeton





Traditional Drivers for Local Government

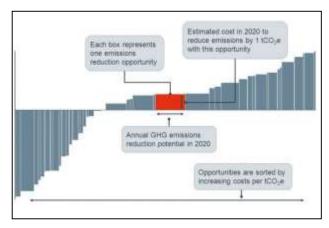








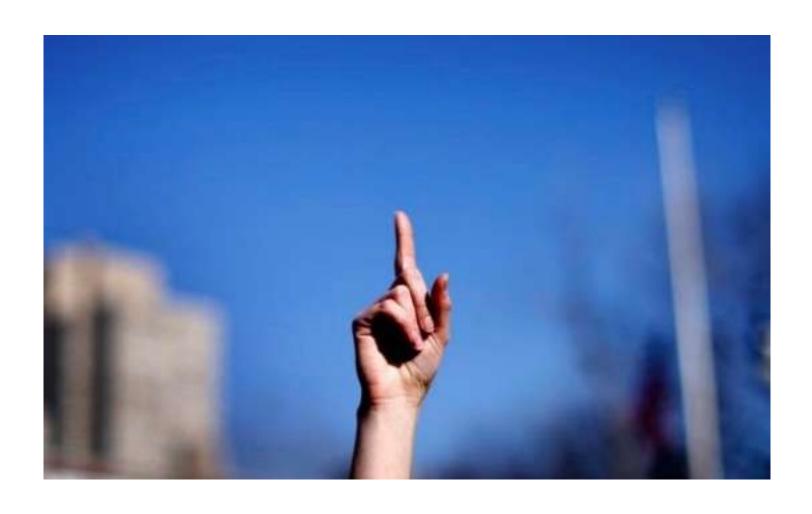








Traditional Drivers for Local Government

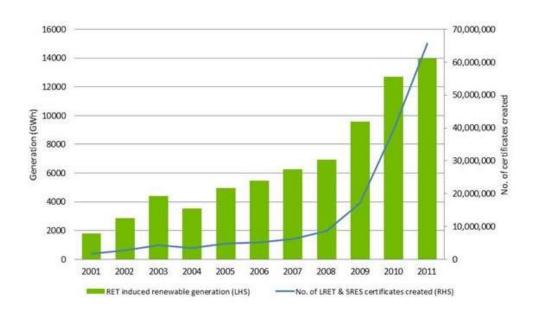




Climate Targets for Council

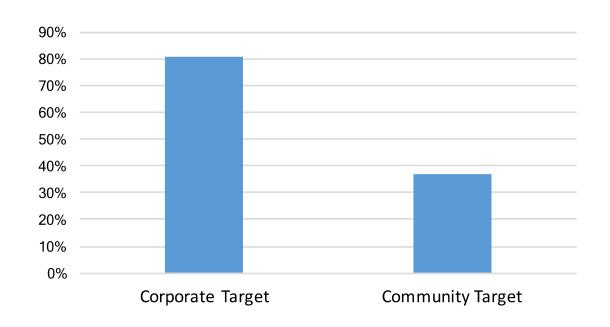
- Net Emissions Vs Per Capita
- C02 vs C02(e)
- Renewable Energy
- Energy Efficiency
- Carbon Neutrality

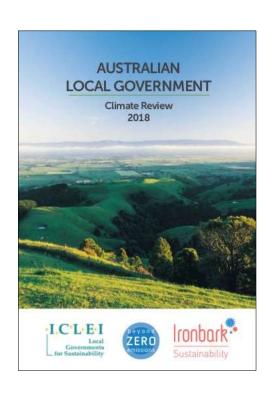






Who Has a Target?





www.realaction.com.au



Re-thinking Targets

Targets provide vital context for action plans. For carbon mitigation strategies there are three types of targets:

- Aspirational Target
- Top-Down Target
- Bottom-Up Target





Aspirational Target

The most common type of target. A **social or political construct**, created to give stakeholders something to strive for:

"By 2020 the levels of mercury in our water supply will be zero!"





Top-down (Science-Derived) Target

A target set by an **external limit**, or **independent** research.







Top-down (Science-Derived) Target

"Mercury levels need to stay below 2ppb, or people start to get sick." 3
Major Signs
You Have
MERCURY
POISONING



"If a modern submarine dives further than 730m (2,400 ft) the hull will collapse due to pressure"



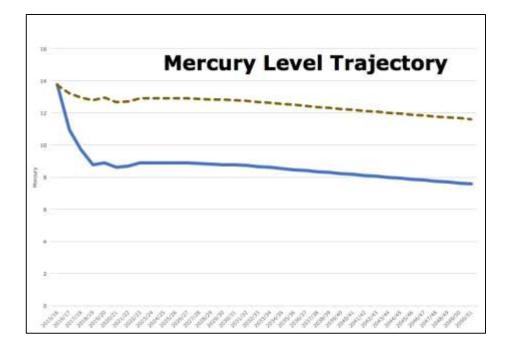


Bottom-up Target

A target set based on an estimate of what can be achieved from implementing a certain plan for action:

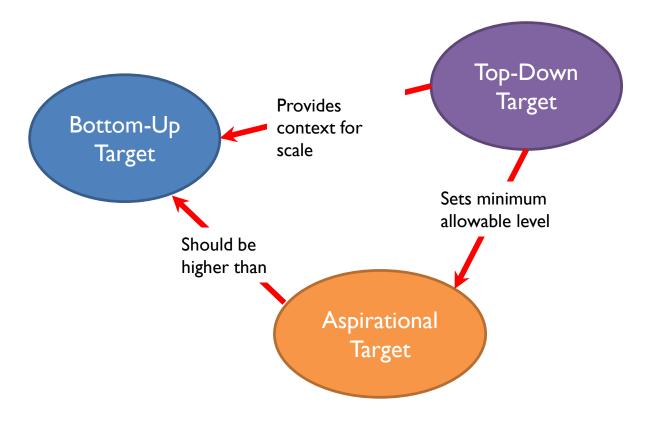
"Our mercury reduction strategies should reduce

levels to below Ippb."





The interaction between targets





Global Budget:

1,701 Gt CO₂-e

Between 2000-2050

Source: IPCC



Australian Budget: Australian Climate Change Authority recommends national emissions "fair share" budget for 2013–2050:

10.1 Gt CO₂-e

Source: Climate Works / Climate Change Authority



Global Budget: 1,701 Gt CO₂-e

Australian Budget*: 8.5 Gt CO₂-e

Maribynong Budget*: $0.02794 \text{ Gt CO}_2\text{-e}$ (27,940Kt CO₂-e)

*As of March 2018



Council Science-Derived Targets

Scaled for growth and SEIFA

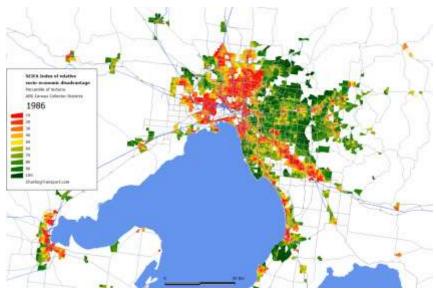
Remaining budget (kt CO ₂ -e)	27,940
Required rate of reduction (p.a.)	2.7%
Remaining years without change	25.4 years
Required annual reduction (t CO ₂ -e)	39,516



Council Science-Derived Targets

Scaled for growth and SEIFA



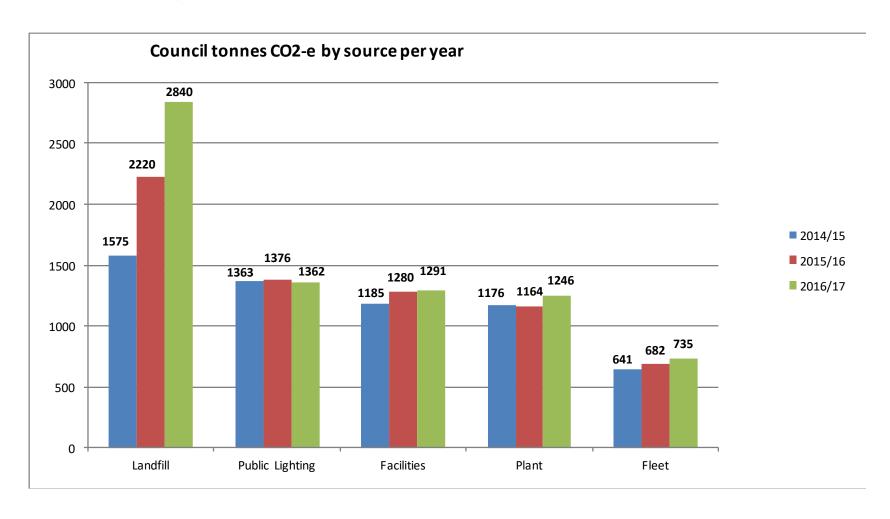




Communicating Targets

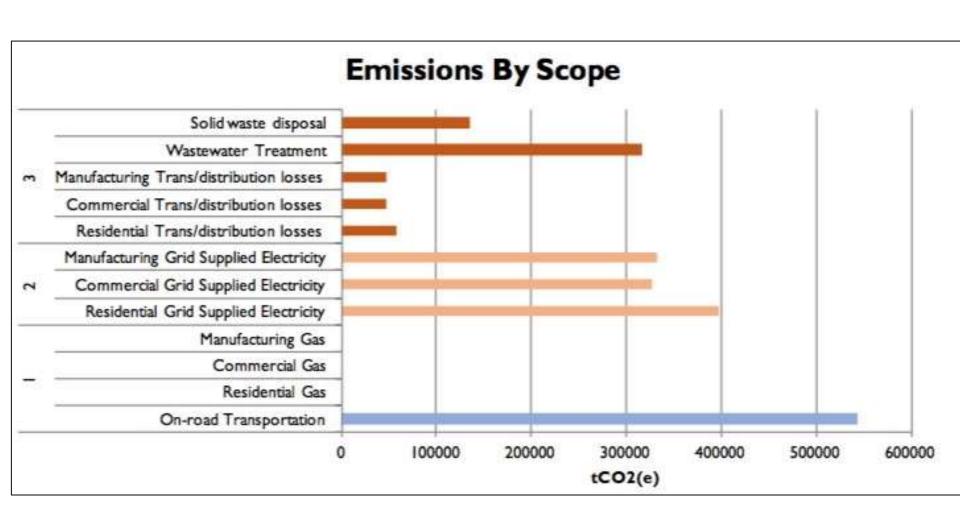


Corporate Thinking



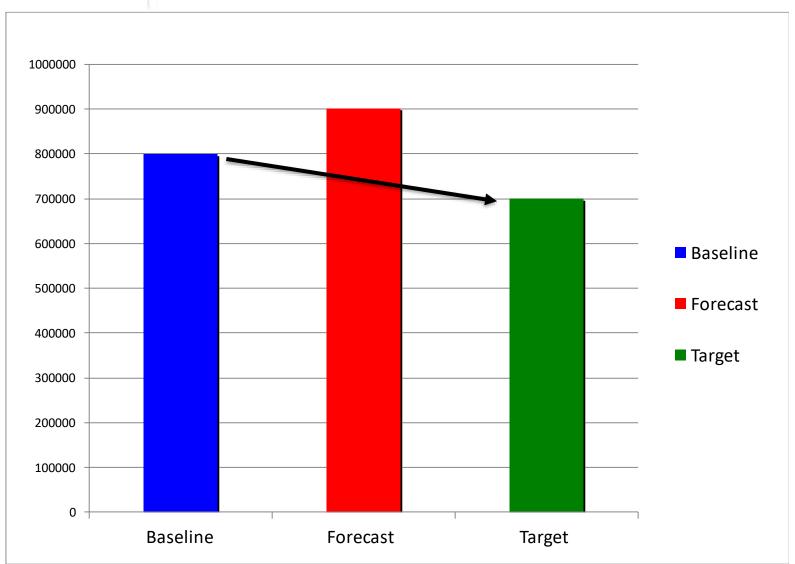


Applied to Community...



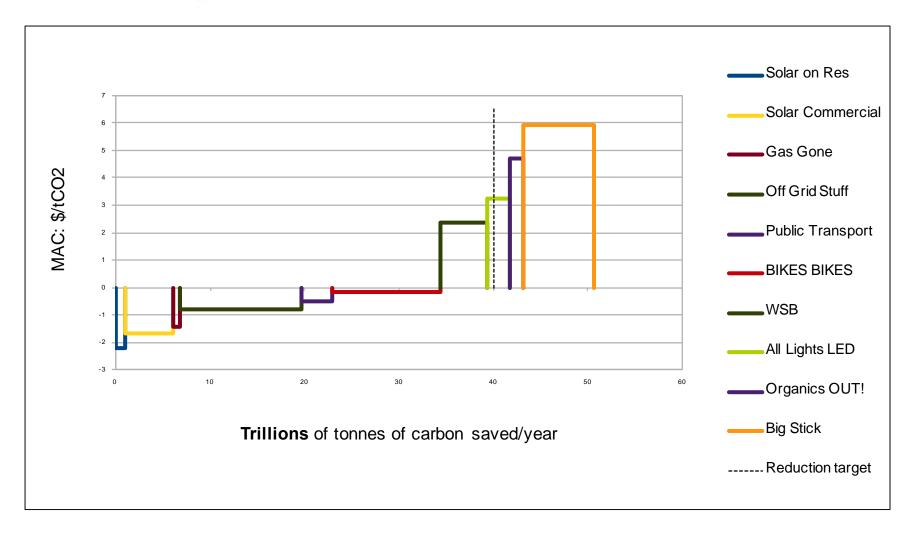


Applied to Community...



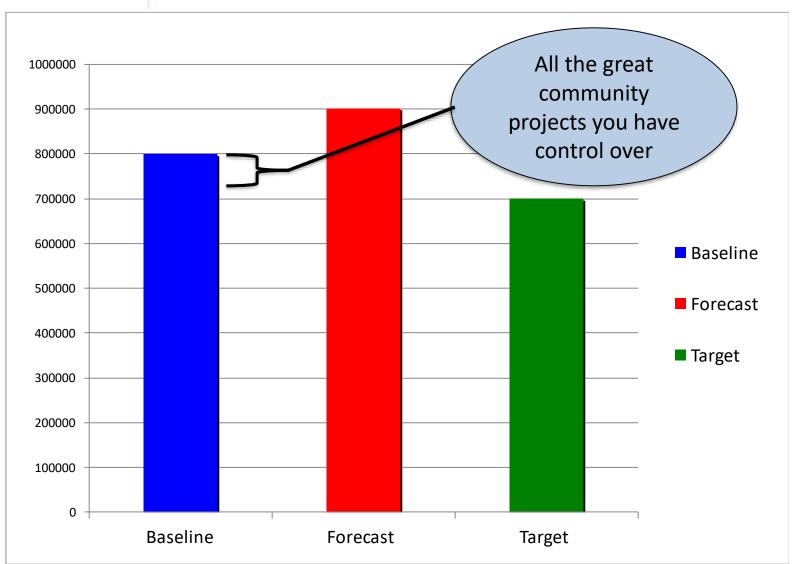


Don't Tie Actions to Profiles





Actions are within the margin of error





Will Meeting These Targets be Challenging?

Yes...



... Maybe.



Challenging?















Challenging?

Easter morning 1913: 5th Ave, New York City. Spot the horse.



Source: George Grantham Bain Collection.



Line of Accountability

Goal: Avoid Dangerous Climate Change Science-Derived Target for the entire municipality













Aligning the Programs



CCP; GCOM; ZCC; CPP... WTF?













CCP, CCR, C40, GPC, CDP





Cities for Climate Protection

Australia's largest local government climate program. In 2008 there were 240 participants representing 84% of the population





Carbonn Climate Registry

The world's leading reporting platform to enhance transparency, accountability and credibility of climate action of local and subnational governments.





Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC)

A GHG protocol standard for cities created by World Resources Institute, C40 Cities Climate Leadership Group and ICLEI.



CCP, CCR, C40, GPC, CDP

C40



C40

Network of the world's megacities committed to addressing climate change. C40 supports cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action

CDP



Carbon Disclosure Project (formally)

Runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.

CCP



City Climate Planner Certificate Program

World Bank's City Climate Planner Certificate Program to train and certified GPC greenhouse gas emissions inventory specialists

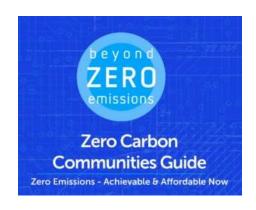


Which Program? CCP; GCOM; ZCC; CPP?





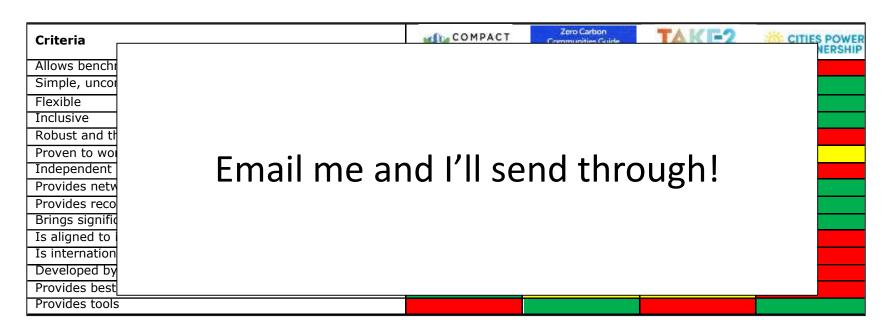








Which Program? CCP; GCOM; ZCC; CPP?





Thanks

alexi@realaction.com.au 0407381344