Data driven climate action

City of Sydney

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New South Wales
Population 7.4 million

Metropolitan Sydney
Population 4.6 million
12,367 square km

City of Sydney
250,000 residents
1.3 M people daily
26 square km
25,000 businesses
25% of NSW GDP
7% of Australia’s GDP
Sustainable Sydney 2030
Our target areas

- **Low-carbon city**: 70% reduction in emissions by 2030 on 2006 baseline
  - Net zero emissions by 2050

- **Water sensitive city**

- **Climate resilient city**

- **Zero waste city**

- **Green and cool city**

- **Active and connected city**
Our Challenge
3 clear requirements...

1. Take effective & efficient action on climate change
   (Paris Agreement + Sustainable Sydney 2030)

2. Monitor and report progress towards our goals
   (C40 – Global Protocol for Community Emission Reporting)

3. Use Data to motivate change & review actions
   (City of Sydney Digital Strategy + Transparent governance)
Low-carbon city
LGA potential pathway to 2030

- 2006 Emissions: 5.92M
- Estimated 2030 BAU Increase: 0.36M
- Energy Efficiency: 1.98M (▲6%)
- Renewable Energy: 1.29M (▲22%)
- Co-Generation: 0.15M (▼3%)
- Waste Diversion / AWT: 0.39M (▼7%)
- Transport: 0.24M (▼4%)
- Offsets and Future Opportunities: 0.47M (▼8%)
- 2030 Target: 1.77M (▼70%)
Our Emission Profile

CITY OF SYDNEY - LGA EMISSIONS
SCOPES (1 + 2 + 3)

LGA emissions reported by energy type. Reduction in emissions are achieved through energy efficiency initiatives, increasing local renewable energy generation and renewable energy delivered through the centralised electricity network.

Change
2016-17
0.4% ↑
from 2015-16

Low-carbon city
2016-17
4.7M tonnes CO₂e
Water sensitive city
2017-18
37.98M kl.
Zero waste city
2016-17
0.68 tonnes CO₂e / tonnes
Emission Intensity
2016-17
6.8 tonnes CO₂e / dwellings
Water Intensity
2016-17
161.25 kl. / dwellings
Emissions Intensity
2016-17
6.8 tonnes CO₂e / dwel
Floorspace and Employment Survey data

Every 5 years
All buildings and businesses
ESP – CCAP City - Methodology

1. RAW CONSUMPTION
   - Utility data
     - LGA/suburb
     - Residential/Non-Res.

2. LAND USE + LAYERS
   - Land-use data
     - m2 / dwellings / population
     - by sub-sector, sub-asset, and suburb

3. THEORETICAL END USE INTENSITIES
   - Theoretical intensities by end use
     - kWh per dwelling/m2
     - MJ per dwelling/m2
     - etc.

4. CALIBRATION ENGINE
   - Normalised intensities by end-use and scenario (kWh/m2)

5. EMISSION FACTORS
   - Layer aggregations
   - Arbitrary aggregations

6. ANNUAL REPORTING / GPC REPORTING / SECTOR ANALYSIS
   - DISAGGREGATED CONSUMPTION
Using Data to motivate change.

Sustainable Sydney 2030

Environmental Action 2016 – 2021
Strategy and Action Plan

Making Sydney a Sustainable Destination
A plan for environmental sustainability
in the accommodation and entertainment sector
August 2018

Sydney’s Sustainable Office Buildings Plan
A plan for efficient office buildings
relying on renewable energy
August 2018
Program Performance

CBD Total

- 30% decrease in CBD emissions

BBP Members

- 50% decrease in BBP members' emissions

- 20% decrease in CBD commercial m2

- 11% decrease in CBD Emissions
Our Data Ecosystem

City of Sydney operations

Programs

Sectors

Local Government area

CCAP City

City of Sydney Open Data Portal

Welcome to the City of Sydney's open data portal

Get access to the City of Sydney's ever-growing range of data, available in a number of formats. Our data sets span categories such as environmental sustainability, performance, transport, arts and culture, facilities, parks and more.

Whether you are an app developer, an academic researcher or a business ever seeking detailed information, our open data portal can help you.

We make this data available to anyone, for the wider benefit of the community and to encourage an accessible and connected city.

Popular tags

- Suburb
- Emissions
- Greenhouse Gas
- Natural Gas
- Intensity
- Gas
- Electricity
- SHG
- CPC Protocol
- CPC

CKAN
Using Data and GIS to Engage

Planning for Sydney 2050 – have your say

While 2050 may seem a long time away, we need to plan now if we are to meet the ongoing and future needs of our communities.

That’s why we’re reviewing our community strategic plan, Sustainable Sydney 2030. The updated plan will guide the work we do to 2050.

Key dates
- Public consultation period: 6 March to 23 April 2019
- Pop-up consultation events

https://www.cityofsydney.nsw.gov.au/council/your-say/planning-for-sydney-2050-have-your-say
NABERS-certified buildings in Australia have one of the world’s fastest rates of improvement
Leadership + Regional Impact
DASHBOARDS

- Resilient Sydney
- Bayside Council
- Blacktown City Council
- Blue Mountains City Council
- Burwood Council
- Camden Council
- Campbelltown City Council
- City of Canterbury-Bankstown
- City of Canada Bay
- City of Sydney
- City of Ryde
- Cumberland Council
Canopy Cover v Landsat Temperature

~ ↑10% Canopy Cover = ↓1.2°C
Regional collaboration having a metropolitan impact

- Provision of $37.5 million over four years to add 5 million trees to greater Sydney
- Doubling Sydney’s tree canopy cover to 40% by 2030
Our Challenge Scorecard

1. Take effective & efficient action on climate change

2. Monitor and report progress towards our goals

3. Use Data to motivate change & review actions

“Acceleration through sharing with cities, academia and industry”