



**Randwick City
Council**

a sense of community

ENVIRONMENT COMMITTEE MEETING

BUSINESS PAPER

TUESDAY 1 DECEMBER 2015

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ENVIRONMENT COMMITTEE MEETING

Notice is hereby given that an Environment Committee Meeting of the Council of the City of Randwick will be held in the Council Chamber, First Floor, 90 Avoca Street, Randwick on Tuesday, 1 December 2015 at 6:00pm

Committee Members: The Mayor D' Souza, Andrews, Belleli, Bowen, Garcia, Matson (Deputy Chairperson), Moore, Nash, Neilson, Roberts, Shurey (Chairperson), Seng, Smith, Stavrinou & Stevenson

Quorum: Eight (8) members

NOTE: At the extraordinary meeting held on 22 May 2007, the Council resolved that the Environment Committee be constituted as a committee with full delegation to determine matters on the agenda.

Apologies/Granting of Leave of Absences

Confirmation of the Minutes

Environment Committee Meeting - 10 November 2015

Declarations of Pecuniary and Non-Pecuniary Interests

Address of Committee by Members of the Public

Privacy warning;

In respect to Privacy & Personal Information Protection Act, members of the public are advised that the proceedings of this meeting will be recorded for the purposes of clause 69 of Council's Code of Meeting Practice.

Urgent Business

Environment Reports

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Notice of Rescission Motions

Nil

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Ray Brownlee
GENERAL MANAGER

Environment Report No. E14/15



Subject: Updating and endorsing Council's Energy and Greenhouse Management Plan

Folder No: F2005/00230

Author: Peter Maganov, Manager Sustainability; Choonghan Yeo, Sustainability Projects Officer

Introduction

In February 2012, Council endorsed the preparation of an Energy and Greenhouse Management Plan to enable the prioritization of energy saving projects across the City encompassing primarily Council operations but also including some community based energy saving projects.

This paper provides an update on the implementation of our Energy and Greenhouse Management Plan for Council information and endorsement.

Issues

The 2012 Energy and Greenhouse Management Plan was developed to provide a more specific focus on energy saving projects to facilitate 20 per cent energy and greenhouse reduction targets established in two previous Council plans, namely our Energy Saving Action Plan, a previously mandatory requirement of the NSW Government, and our Local Greenhouse Action Plan prepared as part of our signatory to the Cities for Climate Change (CCP) Program.

Primary attention has been on our top 4 energy consuming sites, which use almost 80 per cent of our energy. These sites include our Administration Building; Des Renford Leisure Centre (DRLC); Bowen Library & Community Centre; and the Works Depot. To improve our understanding of where the energy consumption occurs within these sites, a number of energy audits of these buildings have been conducted which were then utilized to identify the priority areas of action to progressively implement the relevant energy saving projects.

There are 7 key priority areas of action identified in our Energy and Greenhouse Management Plan which include:

Priority area	Key projects / status*	approx costing
Management Approach	Re-establishing energy saving targets – separate report being prepared	Staff involvement costs
Monitoring and Reporting	Sub-metering 4 sites – quotes received and underway	\$60,000
Energy Efficiency Improvements	Office lighting upgrades for Admin, Bowen, DRLC & Depot – approved previously Council – tender in preparation	\$180,000

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Priority area	Key projects / status*	approx costing
Increasing our Renewable Energy projects	Completion and implementation of the Renewable Energy Master Plan for Randwick – including completion of a 30 kilowatt solar panel project at Prince Henry Centre	\$80,000 + \$50,000
Improving Sustainable Transportation Options for Randwick	Improved public transportation, cycling and walking improvement for Randwick	\$200,000 for Sustainable Transport officer + infrastructure improvements
Community projects	Community Solar incentives – including the partnership with Origin Energy (as approved previously by Council)	Staff involvement costs
Awareness / Communication on energy issues	Continuing awareness raising and information for Council staff, residents, businesses and schools	Staff involvement costs

* While there are additional projects under each priority area, these are the current main tasks underway or completed.

Relationship to City Plan

The relationship with the City Plan is as follows:

Outcome 10: A healthy environment.

Direction 10(a): Council's programs and partnerships foster sustainable behavioural changes and outcomes;

Direction 10(f): Energy conservation and efficiency programs are implemented.

Financial impact statement

Funding allocations for energy saving project implementation including sustainable transport has been approved by Council via the Climate Change budget of the environmental levy program. Current projects funded from the environmental levy are in the order of \$570,000. There are also staff costs involved in the ongoing implementation of various aspects of this plan.

Conclusion

Energy saving projects have been identified as an important outcome of Council's Sustaining our City initiative funded via our environmental levy program. Completed projects not only reduce our energy consumption, they reduce ongoing costs to Council as energy pricing continues to increase and they contribute substantially to reducing greenhouse gas emissions from Council and community based operations.

Council's Energy and Greenhouse Management Plan continues to represent a combination of strategic direction and practical implementation with the identified projects stemming from the previously conducted energy audits and quotes obtained from appropriately qualified external providers.

The continuing roll-out of our Energy and Greenhouse Management Plan provides the key approach to achieving our updated energy and greenhouse reduction targets into

the future. Further updates and reports will be provided to Council over the current financial year.

Recommendation

That Council notes the 7 priority areas of our Energy and Greenhouse Management Plan and endorses its ongoing implementation.

Attachment/s:

1. [Link to the Energy and Greenhouse Management Plan 2015](#)

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Environment Report No. E15/15



Subject: Seeking Council endorsement of
Randwick's Renewable Energy Master
Plan

Folder No: F2012/00581

Author: Peter Maganov, Manager Sustainability; Choonghan Yeo,
Sustainability Projects Officer

Introduction

In mid-2015, Council officers commenced preparation of a Renewable Energy Master Plan for Randwick City.

The purpose of this Renewable Energy Master Plan is to gain a better insight into the future opportunities for renewable energy deployment across the City, particularly how new investment could contribute to relevant energy saving targets and achieve savings in the way energy is generated into the future.

This report aims to summarise the key findings of Randwick's Renewable Energy Master Plan for Council's information and endorsement.

Issues

Randwick Council has taken a particularly strong leadership role in implementing energy saving programs across its own operations and in support of community initiatives. From a renewable energy perspective, this includes installation of almost 150 kilowatts of solar panels across Council and community buildings and the installation of a small scale wind turbine at Randwick Community Centre.

The Renewable Energy Master Plan considers the most cost effective and suitable renewable energy technologies for Randwick City. The Plan highlights the present number of 1,500 solar PV installations on Randwick households which represents less than 3 per cent of all Randwick households. This sits below the average for Sydney households of 4.3 per cent of households with solar PV installed.

There tends to be a strong correlation between the type of dwelling and the owner-occupancy of these dwellings and the take-up of renewable energy. Commonwealth and State Government renewable energy policies also have a strong influence on whether householders install solar panels on to their roof areas.

This analysis by the consultants indicates that 37 per cent of Randwick City's total energy demand and approximately 21 per cent of Council's energy demand could be met by renewable energy. The Plan identifies a range of options for renewable technologies to be deployed for take up by residents, businesses or Council itself, including the more recent developments around Community Solar. Community Solar enables a host site such as schools to install solar panels, funded by residents (or parents) with energy saving costs potentially returned as payments back to those who contributed in the solar investment in the first place. A number of community solar projects have already been installed with Council support at Lismore and Shoalhaven.

Key future opportunities identified in Randwick's Renewable Energy Master Plan include the consideration of battery storage technology with solar panels and energy from waste.

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In terms of establishing targets for the generation of renewable energy, the analysis identifies a potential Council implementation target of 15 per cent from renewable energy by 2025 and an aspirational target of 30 per cent of renewable energy for community purposes by 2050. These targets will be considered in a separate Council report.

In terms of future directions, Council's Renewable Energy Master Plan proposes the next steps for Council which include:

- Identifying appropriate assets and opportunities for renewable energy deployment for Council and the community,
- Engaging with internal and external stakeholders in the consideration of these future opportunities,
- Continuing the implementation of renewable energy projects, and
- Monitoring and reporting on the results and outcomes of these projects.

Relationship to City Plan

The relationship with the City Plan is as follows:

Outcome 10: A healthy environment.

Direction 10(f): Energy conservation and efficiency programs are implemented.

Financial impact statement

Funding allocations for renewable energy projects are included in the Climate Change budget of the environmental levy program.

Current projects include the preparation and completion of the Renewable Energy Master Plan at a cost of approximately \$80,000 and the next major roll out of solar PV panels on a Council building, planned at Prince Henry Centre, with development application approval currently underway at a cost of approximately \$50,000.

Conclusion

Renewable energy innovations, including more efficient solar panels and battery storage technologies, will continue to emerge in light of governments' responses to Climate Change and increasing financial, environmental and social costs associated with an over reliance on fossil fuel technology.

Local Government approaches to renewable energy deployment in their area should be based on strong combination of sound strategic thinking as well as practical and cost-effective operational implementation. Randwick's Renewable Energy Master Plan enables both these approaches to be considered and planned for into the future with a focus on what remains feasible for our City, our residents, local businesses and schools.

Randwick's Renewable Energy Master Plan does not lock Council into a specific path of projects or investments but provides a sound complement to our Energy and Greenhouse Management Plan to inform future decision-making and investment in renewable energy technologies across Council and the City and contributes to our overall energy and greenhouse reduction targets.

Recommendation

That Council endorses Randwick's Renewable Energy Master Plan.

Attachment/s:

1. [Link to the Renewable Energy Master Plan 2015](#)

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Environment Report No. E16/15



Subject:	Review and update of Randwick Council's Climate Change Adaptation Roadmap
Folder No:	F2013/00389
Author:	Peter Maganov, Manager Sustainability; Choonghan Yeo, Sustainability Projects Officer

Introduction

In 2009, through funding provided by the Commonwealth, Randwick Council prepared two key documents related to its approach and management of local Climate Change issues. These two documents comprised Council's Climate Change Risk Mitigation plan, developed with Council staff by external consultants. This Plan was then utilized to prepare the second and main document, Randwick's Climate Change Adaptation Roadmap, also developed with Council staff by GHD consultants. Over the past 12 months, Council staff have been involved in an internal process to review and update Climate Change Adaptation Roadmap, mainly to ensure its ongoing relevance 5 years on as well as the level of new information and any key changes which should be incorporated into this Adaptation Roadmap.

This report aims to provide an update of this review for Council's endorsement and provide the context for its potential application to the City over the next few years.

Background

As a result of the Australian Government's Pathway funding in 2009, Randwick Council undertook a process to prepare a Climate Change Risk Mitigation Plan which then formed the basis for our Climate Change Adaptation Roadmap. To ensure consistency in each of the reports produced around that Australia at the time by a number of local Councils, the Commonwealth funding was contingent upon the use of a template developed specifically for these assessments as well as utilizing the services of approved consultants.

The first document was used to identify the range of Climate Change risks facing Randwick which then formed the basis for the range of responses for Council in our Climate Change Adaptation Roadmap. These responses were considered over the short term, medium term (to 2030) and longer term (2070). Results of our Climate Change Adaptation Roadmap were summarized and presented to Councillors in 2010.

The initial assessment of issues conducted in 2009 by GHD, considered the information available at the time in relation to climate change, with a focus on:

- sea level rise,
- increased temperature,
- rainfall changes and
- extreme weather events.

A scenario analysis was conducted attempting to establish the level of risk associated with these variables, after which a number of adaptation options were considered in categories described as: policy; engagement; infrastructure; and communication, for the time periods of 2009, 2030 and 2070. Rather than consider each of the above variables on their own, the risk scenarios reflected multiple climate change risks

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acting broadly together with priority adaptation approaches established from these considerations.

Current Issues

Our review process involved staff from across Council and staff from the NSW Office of Environment and Heritage (OEH) who were able to update Council on some of the more current information and analyses available.

Based on this review around the updated information, the key Climate Change risks for our LGA were adjusted to reflect the following priority order:

Priority	Risk	Type of event
1	Increased frequency and level of flooding	Extreme weather
2	Heat stress via	Extreme weather
3	Power outages via	Extreme weather
4	Decreased water availability via	Extreme weather
5	Coastal erosion / beach impacts	Storm surges

A number of response actions underway by Council, prior to and since our Climate Change Adaptation Roadmap in 2009, relate specifically to key response measures identified over the short, medium and long term timeframes. These include:

- **Floodplain Studies** – Council is developing floodplain management studies in accordance with the floodplain development standards and manual set by the NSW Government.

Flood studies and related investigations have now been completed across 4 of Randwick's 10 major catchments including Green Square / West Kensington, Coogee Bay, Maroubra Bay and Centennial Park. A long term process has been adopted for continuing this process to completion and implementation.

- **Local Environment Plan (LEP)** – Randwick's LEP 2012 was developed following a comprehensive process in line with the template and other requirements set by the NSW Government, adding to existing provisions relevant to Climate Change.
- **Development Control Plans (DCPs)** – As with the LEP, the review and adjustments to the DCP established a number of additional provisions relevant to Council's response or adaptation to Climate Change, for example improved sustainability outcomes across dwelling types and their construction materials etc that contribute to a higher level of thermal resilience.
- **Section 149 Certificates** - Section 149 certificates for various properties are updated accordingly based on the outcomes of the various floodplain management studies to mitigate risks from potential flooding.
- **Energy and Water efficiency** – Energy and water efficiency measures are being identified and implemented according to the relevant energy and water saving management plans.
- **Local Emergency Management Committee and Disaster Planning** – Heat related disaster and extreme weather events have been incorporated into the local and State Disaster Plans with input from the Local Emergency Management Committee on which Council is represented.
- **Engineering controls and works** – Engineering controls are underway to mitigate against erosion and other impacts likely from extreme weather events, storm surges etc.

- **Community education and engagement** - Further funding applications by Council, and via Sydney Coastal Councils Group and SSROC, continue to be prepared aimed at better understanding, engaging and educating the community on how to stay safe during extreme weather events, including heatwaves and flooding.
- **Further research into the local applicability and severity of climate change risks and adaptation strategies** – NSW OEH has completed an updated modelling of Climate Change over the Sydney Metropolitan Area in collaboration with UNSW. Sydney Coastal Councils Group finalised a coastal inundation analysis endorsed by NSW government which will be relevant to Randwick LGA (see a summary of relevant results in the attachment on Latest Climate Science).

The processes underway or completed since 2009 have provided a sound position for Council in terms of current climate change adaptation measures. Of particular interest for local government in the current context, including Randwick, is the level of detailed analysis and information which has become available since our original 2009 Roadmap was developed. Much of this analysis and information has been incorporated into our review and proposed adjustments for our updated Climate Change Adaptation Roadmap.

This updated Roadmap confirms the relevance and the success of measures taken or underway since 2009. A key area of opportunity identified in the updated Roadmap relates to communications and engagement around the priority issues identified above including:

- broadening our communication around Climate Change adaptation,
- publicising Council initiatives underway or completed, and
- preparation of more specific information on how communities can be better organised in relation to these five key Climate Change priorities in Randwick.

Relationship to City Plan

The relationship with the City Plan is as follows:

Outcome 1: Leadership in sustainability

Outcome 10: A healthy environment.

Direction 10(b): Policies and programs are developed and implemented in response to environmental risks and their potential impacts.

Financial impact statement

The range of integrated planning and other responses identified as underway or completed are dispersed across different Council roles, functions and responsibilities. There is no direct financial impact for this matter, however various Council strategic and operational plans incorporate consideration of a range of Climate Change responses and considerations.

Conclusion

Climate Change continues to dominate the list of environmental, social and financial risks which our society is facing over now and into the future. The current international negotiations may provide some useful policy guidance and response to the level of risk facing societies, however much of the immediate and future responses will fall to Local Councils to engage with and implement on behalf of their local communities.

The review of Randwick's Climate Change Adaptation Roadmap provides a timely reassurance to our community that their Council has a comprehensive range of measures underway or completed aimed at responding appropriately to Climate Change at our local level.

Recommendation

That Council endorses Randwick's updated Climate Change Adaptation Roadmap.

Attachment/s:

1. [Link to the Randwick's Climate Change Adaptation Roadmap 2015](#)

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