

**ITEM 2. 2015/16 ENVIRONMENTAL PERFORMANCE GRANT PROGRAMS – FIFTH ALLOCATION****FILE NO: S087106****SUMMARY**

The Grants and Sponsorship Program is an important mechanism to assist our residents and business communities to deliver against *Sustainable Sydney 2030* and environmental targets. On 15 September 2014, Council adopted a revised Grants and Sponsorship Policy that included three new Environmental Performance Grant Programs.

These grant programs have been designed to help address barriers to action and to help encourage the innovative solutions that will be required to deliver *Sustainable Sydney 2030*. The grant programs are:

- Environmental Performance - Innovation: in which funding is available for feasibility and demonstration projects that seek to prove the feasibility of new technologies and processes that are currently not implemented in the local market, but that have the potential to achieve greenhouse gas emission reductions and resource efficiencies at scale within the City of Sydney Local Government Area (LGA);
- Environmental Performance - Building Operations: in which funding is available to help lower the costs of implementing building operation efficiency measures, such as water retrofits in apartment buildings; and
- Environmental Performance - Ratings and Assessment: in which funding is available to undertake building performance ratings, such as a National Australian Built Environment Rating System (NABERS), and assessments that will enable a building or facility owner to understand their opportunities to improve environmental performance.

Applications for the Environmental Performance Grant Programs are open year round. The City recently received eight applications across the Environmental Performance Innovation and Building Operations Grant Programs.

All grants in this report were assessed against criteria and guidelines set out in the Grants and Sponsorship Policy. This report recommends that Council approve a total of seven grants for a total value of \$119,995 in cash. No requests for revenue forgone/value-in-kind were received in these applications.

All grant recipients will be required to sign a contract, meet specific performance outcomes, and acquit their grant.

**RECOMMENDATION**

It is resolved that:

- (A) Council approve the following cash grant recommendations for 2015/16 under the Environmental Performance - Innovation Grant Program – Fifth Allocation:

<b>Applicant</b>	<b>Project Name</b>	<b>Project Description</b>	<b>\$ Amount Recommended</b>	<b>Conditions</b>
University Of Sydney	Challenging lease agreements in Australia: quantifying the effects of higher temperature set points on office workers productivity and thermal comfort.	A feasibility study investigating the relationship between productivity, thermal comfort in office buildings and energy efficiency.	<b>\$20,000 (exclusive of GST)</b>	Nil
Strata Plan 73502	Aria Apartments Solar PV Project	A demonstration project installing a 19.6 kilowatt solar photovoltaic system to power common building areas of 5 Potter Street, Waterloo.	<b>\$26,000 (exclusive of GST)</b>	Organisation to submit revised Communications Plan.
University Of Sydney	Energy savings in commercial buildings using real-time pervasive monitoring of Indoor Environmental Quality performance	A demonstration project using measurement stations to measure office building energy consumption in the provision of occupant comfort and indoor environmental quality.	<b>\$60,000 (exclusive of GST)</b>	Organisation to work with City Sustainability Programs Unit to determine which local buildings are best suited to host measurement stations.

- (B) Council approve the following cash grant recommendations for 2015/16 under the Environmental Performance - Building Operations Grant Program – Fifth Allocation:

<b>Applicant</b>	<b>Project Name</b>	<b>Project Description</b>	<b>\$ Amount Recommended</b>	<b>Conditions</b>
Strata Plan 30102	Water sub-metering	Installation of water sub-meters at 2 Springfield Avenue, Potts Point.	<b>\$3,245 (exclusive of GST)</b>	Nil
Regis Towers 56443	Water sub-metering	Installation of water sub-meters at 414-418 Pitt Street, Sydney.	<b>\$5,000 (exclusive of GST)</b>	Nil
Strata Plan 61131	Water sub-metering	Installation of water sub-meters at 102 Miller Street, Pyrmont.	<b>\$750 (exclusive of GST)</b>	Nil

Applicant	Project Name	Project Description	\$ Amount Recommended	Conditions
Strata Plan 73502	Water sub-metering	Installation of water sub-meters at 5 Potter Street, Waterloo.	<b>\$5,000</b> <b>(exclusive of GST)</b>	Nil

- (C) authority be delegated to the Chief Executive Officer to negotiate, execute and administer agreements with the applicants approved for grants in clauses (A) and (B) on terms consistent with this resolution and in accordance with the Grants and Sponsorship Policy.

### ATTACHMENTS

**Attachment A:** Recommended 2015/2016 Environmental Performance - Innovation Grant Program – Fifth Allocation

**Attachment B:** Not Recommended 2015/2016 Environmental Performance - Innovation Grant Program

**Attachment C:** Recommended 2015/2016 Environmental Performance - Building Operations Grant Program – Fifth Allocation

**BACKGROUND**

1. Three Environmental Performance Grant Programs have been established that aim to build capacity and address barriers to the implementation of environmental actions within key customer sectors. The grant programs are:
  - (a) Environmental Performance - Innovation
    - (i) This program aims to support the development or implementation of new technologies or processes that are currently not implemented in the local market, but have potential to achieve greenhouse gas emission reductions and resource efficiencies that could be rolled out at scale within the City LGA.
    - (ii) Funding is available for feasibility studies and for demonstration projects.
  - (b) Environmental Performance - Building Operations
    - (i) This program aims to improve the environmental performance of buildings by lowering the costs and mitigating the barriers of implementing building operations efficiency measures, such as water retrofits in apartment buildings.
    - (ii) Funding provides support for environmental measures that reduce energy and water consumption, or reduce waste in buildings and facilities.
  - (c) Environmental Performance - Ratings and Assessment
    - (i) This program aims to address barriers to the uptake of building performance ratings and assessments across energy, water, waste and other sustainability aspects. The ratings and assessments enable the building owner to understand their opportunities to improve environmental performance.
    - (ii) Funding is available for credible industry accepted environmental performance ratings such as NABERS and energy audits. Applicants are expected to implement all cost-effective opportunities identified.
2. Four applications for Environmental Performance - Innovation Grants have been assessed, three of which are recommended for funding in this report and one of which is not recommended for funding (details are included in Attachments A and B). City staff will offer feedback to the applicant not awarded funding at this time.
3. Four applications for Environmental performance - Building Operations Grants have been assessed and are recommended for funding in this report (details are included in Attachment C).
4. It is expected that all successful applicants will work co-operatively with relevant City staff throughout the project for which they have received funding. Contact details for the relevant City staff are provided to all successful grant recipients.
5. All grants and sponsorships are recommended on the condition that any required approvals, permits and development consents are obtained by the applicant.

6. The grant applications received were assessed against the program assessment criteria as set out in the publicly available Grants and Sponsorship Guidelines. The assessment panel for the Environmental Performance Grant Programs was comprised of the Sustainability Program Leader, Manager Carbon Strategy, Grants Officer, Cycling Manager and the Sustainability Engagement Coordinator.
7. All applicants are required to demonstrate that their request for funding for the proposed activity meets the matched funding assessment criteria appropriate to the category of Environmental Performance Innovation (either Demonstration or Feasibility) or Building Operations Grant that they are applying for.
8. The panel assessed each applicant's proposed funding model, and cash grant recommendations have been made which are in-line with the assessment criteria as set out in the Grants and Sponsorship Guidelines. In this case, all successful applicants have either met or exceeded the matched funding condition.

### **ENVIRONMENTAL PERFORMANCE - INNOVATION**

9. This report recommends three grants under the Environmental Performance - Innovation Grant Program for a total value of \$106,000 (exclusive of GST) in cash. Below is a summary of the projects and the benefits to the City.

#### **University of Sydney - Challenging lease agreements in Australia: quantifying the effects of higher temperature set points on office workers productivity and thermal comfort**

10. This feasibility study will quantify the effects of higher air conditioning temperatures on office workers productivity and thermal comfort in commercial office buildings.
11. The Indoor Environment Quality (IEQ) Lab, a specialised research department within the University of Sydney, will test the effects of higher temperature set points on occupant productivity and thermal comfort through laboratory based research and surveys.
12. An objective of the City's Energy Efficiency Master Plan is to expand the range of temperatures that are considered acceptable in commercial buildings throughout the year, which could result in significant energy savings and progress towards the City's targets for energy efficiency and greenhouse gas emission abatement if it can be demonstrated that more flexible temperature set points do not negatively affect office workers' productivity.
13. Study findings will be used by City programs including City Switch Green Office and the Better Buildings Partnership to develop behavioural change campaigns and market education on appropriate temperature settings and the energy efficiency opportunities.
14. The University will include the NSW Office of Environment and Heritage in the project through their NABERS Program. Findings from the study will be incorporated into future reviews of their nationwide environmental assessment tools.
15. Grant funds will be used for a research assistant and equipment to conduct the project. The University of Sydney will provide funding for research personnel, lab instrument and facility use, and NABERS staff to participate in lab experiments.

**Strata Plan 73502 - Aria Apartments Solar Photovoltaic**

16. Strata Plan 73502, an Owners Corporation, will demonstrate the installation of a large solar photovoltaic system using a self-ballasted mounting system on the Aria residential apartment building located at Waterloo.
17. This project will be the first in the City LGA to use a self-ballasted mounting system, a method of installation which ensures waterproof roof membranes are not penetrated. The potential damage to waterproofing has been identified as a barrier to solar photovoltaic uptake in residential buildings.
18. Reducing greenhouse gas emissions in residential apartments is a key objective of the City's Residential Apartments Sustainability Plan. The City is also committed to increasing renewable energy in the LGA. The applicant will communicate the project lessons and benefits of this installation technology to enable scalability across other residential apartments to reduce greenhouse gas emissions.
19. Grant funds will be used to support the installation of the solar panels and self-ballasted mounting system. Strata Plan 73502 will also contribute funding for system installation, plus measurement and verification and communications.

**University of Sydney - Energy savings in commercial buildings using real-time pervasive monitoring of Indoor Environment Quality performance**

20. This demonstration project seeks to determine the appropriate balance between providing acceptable levels of indoor environment quality for commercial office building occupants and energy efficiency across a range of commercial office buildings to establish an Indoor Environment Quality Index.
21. Indoor environment quality is managed by a building's heating, cooling and ventilation system and includes removal of volatile organic compounds and management of carbon dioxide, air and humidity levels – all factors which have a significant impact on worker productivity and wellbeing.
22. The City's Energy Efficiency Master Plan has identified that heating, cooling and ventilation contributes half the energy use in a commercial office building, which increases the less efficient the performance of a building's heating, cooling and ventilation system is.
23. Improvements in indoor environment quality can improve energy efficiency and have a significant impact on worker wellbeing and consequently productivity, the latter being motivations that mainstream commercial offices value rather than traditional sustainability messages.
24. The University of Sydney will collect energy savings data across a selection of city buildings by installing desk based measurement stations, which monitor and display real time whole building performance against volatile organic compounds, carbon dioxide, light, air and humidity levels.
25. The outcomes of this project will form scientific publications for local and global building research disciplines and will be communicated at conferences. It will also transform Indoor Environment Quality into a powerful tool to advance building management strategies and optimise building performance.

26. The index will enable City programs, such as City Switch Green Office, to drive market change through campaigns targeted at the motivations of mainstream commercial offices to take action.
27. Grant funds will be used for a research assistant and the purchase of measurement stations. The University of Sydney will contribute funds for research staff, project personnel and the purchase of measurement stations.

### **ENVIRONMENTAL PERFORMANCE - BUILDING OPERATIONS**

28. This report recommends four grants under the Environmental Performance - Building Operations Grant Program for a total value of \$13,995 (exclusive of GST) in cash for the installation of water sub-meters in residential apartment buildings.
29. These buildings are located at Springfield Tower in Potts Point, Aria Tower in Waterloo, Regis Towers in Pitt Street and the Palladium in Pyrmont. Sub-metering will provide timely information for Strata management to reduce potable water consumption through the management of leaks and the operation of water using plant and equipment in the buildings.

### **KEY IMPLICATIONS**

#### **Strategic Alignment - Sustainable Sydney 2030**

30. This report complies with the Grants and Sponsorship Policy adopted by Council on 15 September 2014. The provision of grants and sponsorships is a mechanism for the City to further the aims identified in its social, economic, environmental and cultural policies. The City of Sydney's Grants and Sponsorship Program is a key element in the delivery of *Sustainable Sydney 2030*. All grants in this report were assessed against criteria and guidelines set in the Grants and Sponsorship Policy and how they can directly contributing to the following City of Sydney strategic targets:
  - (a) to reduce greenhouse gas emissions by 70 per cent by 2030 based on 2006 levels;
  - (b) to deliver 30 per cent of electricity consumption through renewable energy by 2030;
  - (c) to reduce mains water consumption by 10 per cent by 2030 based on 2006 levels; and
  - (d) to divert waste from landfill by 66 per cent.

#### **Environmental**

31. The recommended building operations projects will provide direct water savings. The recommended innovation projects should provide a catalyst for the adoption of new solutions that improve environmental performance across several key customer sectors.

**BUDGET IMPLICATIONS**

32. From the total Environmental Performance Grants budget allocation for 2015/16, there is a current commitment of \$270,377. With a recommendation of \$119,995 grant funding for these seven projects, the remaining budget for 2015/16 will be \$109,628.

**RELEVANT LEGISLATION**

33. Section 356 of the Local Government Act 1993. Section 356(3)(a) to (d) is satisfied for the purpose of providing grant funding to for-profit organisations.

**PUBLIC CONSULTATION**

34. The Environmental Performance Grant Programs are advertised on the City's website, Green Villages website, City of Sydney Facebook page and through the City's social media networks. Information is also emailed to interested parties.

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