

Item No: R3 Recommendation to Council
Subject: **PROPOSED CONTROLS FOR GAS APPLIANCES AND AMENDED CONTROLS FOR SOLAR ENERGY SYSTEMS**
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File No: 23/139390
Purpose of the Report: To respond to a Council resolution requesting staff to recommend controls to facilitate a transition from gas to electric appliances, and to seek Council's endorsement to prepare amendments to the Woollahra Development Control Plan 2015 to enhance our solar energy controls.
Alignment to Delivery Program: Strategy 4.1: Encourage and plan for sustainable, high quality planning and urban design outcomes.

Recommendation:

THAT Council:

- A. Receives and notes the report on the proposed amendments to the *Woollahra Development Control Plan 2015* to introduce new controls for gas appliances and amend existing controls for solar energy systems.
- B. Requests staff to prepare and exhibit a draft development control plan to amend the *Woollahra Development Control Plan 2015* to include new controls for gas appliances and amend the existing controls for solar energy systems

Executive Summary:

The purpose of this report is to respond to a Council resolution requesting staff to recommend controls to facilitate a transition from gas to electric appliances, and to propose amendments to Council's existing solar energy controls in the *Woollahra Development Control Plan 2015* (Woollahra DCP 2015).

The proposed controls for gas appliances will encourage a transition away from gas usage, and promote human health by improving indoor air quality. Changes to the controls for solar energy systems will bring the Woollahra DCP 2015 in line with the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (the SEPP) and provide clarity and certainty to applicants installing solar energy systems.

Staff seek Council's endorsement to prepare and exhibit a draft development control plan (Draft DCP) to amend the Woollahra DCP 2015.

Discussion:

Background - Gas Notice of Motion and Staff Research

On 14 June 2022, Council considered a Notice of Motion (at **Attachment 1**) relating to the phasing out of gas and it was unanimously resolved:

THAT :

- A. *Notes Woollahra Council's commitment and work with regards to addressing climate change and focusing on environmental sustainability including but not limited to an aspirational target to achieve net zero carbon emissions for the Woollahra LGA by the year 2030, being certified carbon neutral in 2019, agreement through SSROC with Zen Energy to purchase green power, solar panels on all council assets, commitment to utilising Reconophalt for road resurfacing and other strategies outlined in Council's report recognising and addressing the climate emergency.*
- B. *Notes recent decision of the Woollahra Local Planning Panel in relation to the approval of development consent at DA416/2020 117-119 O'Sullivan Road Bellevue Hill included deletion of all gas fireplaces.*
- C. *Commits in principle to reducing greenhouse emissions from gas, both from Council operations and from the broader community.*
- D. *Requests staff to prepare a report covering:*
 - (i) *a high-level audit of Council facilities that currently have gas connections and identifying opportunities for conversion to electric.*
 - (ii) *the feasibility of formalising a change to Council policy whereby existing gas connections and facilities in Council-owned facilities are replaced with electric equivalents, on the next occasion they are significantly upgraded/renovated.*
 - (iii) *a recommendation to Council regarding how changes could be made to the Woollahra Local Environment Plan 2014 and Development Control Plan 2015, to reflect the phasing out of gas connections to new dwellings and in alterations and additions to existing dwellings.*

Regarding Part D (i) and D (ii) of the resolution, the Environment and Sustainability Team has identified and completed an audit of all Council facilities that have gas connections, and commenced a programme for transitioning gas appliances to electric. For smaller sites, the main assets to transition are gas hot water heating system. For the highest using and most complex sites being Kiaora Place and Council Chambers at Redleaf, the Environment and Sustainability Team has commenced a feasibility study with a consultant to assess the best method of transitioning away from gas hot water heating and air conditioning systems. This work is being carried out in close collaboration with Council's Property and Projects department.

This report responds to Part D(iii) of the above resolution. Staff have researched relevant health information and the approaches of other councils, and have developed a set of draft controls that will assist in the phase out of indoor gas appliances. We reviewed controls adopted by Waverley Council, Parramatta City Council and Randwick City Council. Waverley Council has a suite of DCP controls that prohibits the installation of gas appliances in all residential development for health reasons. These controls apply to the whole LGA.

Both Parramatta City Council and Randwick Council have adopted site specific controls that require all new development to not be fitted with gas connections. In the case of Parramatta City Council, this includes commercial development as well as residential. However, staff have not addressed commercial development in this report as staff consider that it would be important to consult with our local hospitality industry before pursuing controls or carrying out any further work that could impact on commercial development.

Background - Gas Usage and Health Impacts

In response to the Council resolution from 14 June 2022, Council staff reviewed the most recent BASIX data (2011 to 2020) which shows the use of gas in dwellings subject to development applications¹ (DAs). The data shows that generally new dwellings in the Woollahra LGA are very gas dependent, using gas for:

- 95% of hot water heating systems;
- 86% of cooktops; and
- 34% of pools (includes gas and solar gas-boosted systems).

Hot water heating systems and pool heating systems are typically located outside of a residential home and therefore burn gas in a space with adequate ventilation. However, the same cannot be said for gas cooktops.

The use of these appliances presents a significant health issue. The combustion of gas has been shown to produce a complex range of pollutants including nitrogen oxides, carbon monoxide, sulphur dioxide, particulate matter (PM2.5), and formaldehyde, all of which are associated with adverse health impacts to adults and especially children^{2,3,4}.

An analysis of 41 studies showed a close association with gas cooking and childhood asthma or wheeze given increased exposure to nitrogen dioxide and other particulates⁵. In the Australian context, the combustion of gas in homes for cooking and space heating purposes is linked to 12% of asthma related cases⁶. Furthermore, a controlled trial of flued versus unflued heaters in NSW classrooms showed increased respiratory symptoms during the weeks when unflued heaters were in use⁷.

As such, using electrical appliances instead of gas appliances can improve indoor air quality and promote better health outcomes. The air quality standards necessary to achieve these outcomes are outlined under The National Environment Protection Measures for Ambient Air⁸.

The phasing out of gas cooktops and appliances is consistent with the recommendations from relevant organisations such as the Green Building Council of Australia, Doctors for the Environment Australia, and 350 Australia.

Proposed Gas Controls – Woollahra DCP 2015

In line with the above background research, Council staff have developed a proposed suite of controls to be inserted into the Woollahra DCP 2015 to assist in the phase out of gas appliances and consolidate the relevant controls into a single location. These are summarised below:

Chapter B3: General Development Controls

- Section B3.7.3 (Site Facilities) – Remove objective O9 ‘to protect the air quality and residential amenity’ and corresponding control C10 requiring ‘new fireplaces to burn non-solid fuels’. Relocate to new section in Chapter E6, as O1 and C1.

¹ This information is for new dwellings only (or for alterations and additions over \$50,000), and does not apply to residential flat buildings.

² [Ewald et al., 2022](#)

³ [Lebel et al., 2022](#)

⁴ [Doctors for Environment, 2021](#)

⁵ [Lin et al., 2013](#)

⁶ [Knibbs et al., 2018](#)

⁷ [Marks et al., 2010](#)

⁸ [Air NEPM](#)

Chapter E6: Sustainability

- Change chapter name to 'Sustainability and Health', to reflect proposed air quality provisions.
- Section E6.1.4 (Objectives) – Insert a new objective O5, 'to protect human health by maximising indoor air quality'.
- Section 6.4 (Air quality) – Insert a new section in Chapter E6 of the Woollahra DCP 2015 (which includes the relocated controls from B3.7.3).

The proposed amended controls for *Chapter E6: Sustainability* are at **Attachment 2**.

Insertions – identified in blue and underlined

Deletions – ~~identified in red and strikethrough~~

The proposed controls will prevent the installation of indoor gas appliances in new residential development, and development for substantial alterations and additions to dwellings. It should be noted that the controls focus on air quality outcomes rather than the reduction of fossil fuel usage, as *State Environmental Planning Policy (Sustainable Buildings) 2022* does not allow Council to establish any emissions reduction controls more onerous than its own provisions.

Recent letters of support, speaking to the health outcomes of the proposed controls, have been provided by Doctors for the Environment Australia and Green Building Council of Australia. They are included at **Attachment 3**.

Administrative amendments will also be made to other applicable sections of the Woollahra DCP 2015 to account for the changes in chapter name and the insertion of the new air quality section (e.g. the contents page).

If implemented, the controls will be reinforced by new content in Council's DA Guide, alerting applicants to the relevant requirements prior to the lodgement of a DA. A standard condition of consent will also be prepared by Council staff to ensure that (where relevant) the Principal Certifier certifies that no indoor gas appliances have been installed prior to the issue of an occupation certificate.

Background - Solar Energy System Controls

The internal staff user group *Sustainability continuous improvement working group*, known as the Sustainability Sparks, in collaboration with the Strategic Planning & Place and Environment & Sustainability Teams, have identified that some of the existing Woollahra DCP 2015 controls are inconsistent with exempt provisions for solar energy systems in the SEPP. This may unnecessarily confuse applicants and inhibit the installation of solar energy systems.

The SEPP allows for the installation of solar energy systems (that meet certain criteria) to be carried out without consent. That is, an owner is able to install certain forms of solar energy systems as exempt works without reference to Council or another approval authority. However, at present, the solar energy controls in the Woollahra DCP 2015 are inconsistent with the SEPP, appearing to prohibit works that are already exempt under the State legislation.

In summary, the SEPP contains provisions regarding the structural impact, location and protrusion of solar energy systems. Should a solar energy system comply with these provisions, it can be installed without consent. Having considered the provisions in the SEPP, staff have identified that the following controls in the Woollahra DCP 2015 are inconsistent with the SEPP criteria.

- *Chapter E6: Sustainability* of the Woollahra DCP 2015 requires that solar energy systems are in line with the roof surface or protrude no more than 300mm above it, and that they must be parallel with the roof. The SEPP is slightly more flexible in that it permits panels that are not parallel and that protrude no more than 500mm.

- *Chapter E6: Sustainability* of the Woollahra DCP 2015 requires that solar energy systems be located 'behind the front setback and not visible from the street'. The SEPP says that, in the case of ground-mounted systems, 'the system is not visible from any road at the point where the road adjoins the property boundary' and, in the case of non-ground-mounted systems, that 'the system is not attached to any wall or roof of a building facing a primary road'. Although the meaning of these two policies is substantially similar, the differing terminology creates potential for confusion.
- *Chapter E6: Sustainability* of the Woollahra DCP 2015 requires solar energy systems to be 'not located on any part of a roof plane, wall or chimney of the principal building form'. However, the term 'principal building form' is not a requirement under the SEPP provisions. i.e. under the SEPP, solar energy systems on the principle building form are permissible as exempt works (provided they comply with the other criteria).
- *Chapter C2: Woollahra Heritage Conservation Area (HCA)* of the Woollahra DCP 2015 places the following controls on solar water heaters, electricity generators and similar devices in the Woollahra HCA (emphasis added):
 - *must not be located on any part of the roof or chimney which is visible from the street frontage **or the public domain**;*

The requirement for the solar energy system not being visible from the public domain exceeds the requirement of the SEPP, which only requires that the system is not attached to any wall or roof facing a primary road.

Due to the differences in these provisions, it is suggested that applicants will utilise the more flexible exempt development pathway to install solar energy systems, rather than incorporating the works in a more holistic way into a DA. This could unnecessarily delay their installation and remove the opportunity for Council staff to provide feedback on site-specific factors. The differences could also confuse residents who are seeking to install solar energy systems as a standalone project.

As a result, staff have drafted a series of minor amendments to the Woollahra DCP 2015 to provide greater clarity and certainty to applicants seeking to install solar energy systems. The proposed amendments have been drafted to achieve the following objectives:

- Consistency with the exempt provisions under the SEPP.
- Reducing confusion for applicants wishing to install solar energy systems on their properties.
- Consistency across the Woollahra DCP 2015 so that all controls relating to solar energy systems are contained in *Chapter E6 Sustainability* (including those applying to HCAs).
- Retaining and reordering the existing provisions which ensure that non-exempt solar energy systems are appropriately designed and placed for their context.

Proposed Solar Energy Controls – Woollahra DCP 2015

As discussed above, staff have identified opportunities to provide greater clarity and certainty to applicants seeking to install solar energy systems. These changes are effectively administrative in nature, as the works are already permissible under the SEPP. However, and where relevant, the existing controls are being retained so that DAs that exceed the SEPP provisions can be considered on merit.

The proposed amended controls for *E6.3 Solar energy systems (including solar panels, solar hot water systems and solar heating systems)* in *Chapter E6: Sustainability* are at **Attachment 2**.

Insertions – identified in blue and underlined

Deletions – ~~identified in red and strikethrough~~

In addition to the changes being made to Chapter E6, **Table 1** below provides a summary of the other proposed amendments relevant to other solar energy systems controls in the Woollahra DCP 2015, and the reasons for each.

Table 1: Proposed Amendments to Woollahra DCP 2015 for Solar Energy Systems		
Existing DCP text	Reason for amendment	Proposed wording
Throughout Woollahra DCP 2015		
Delete references to outdated legislation eg. <i>State Environmental Planning Policy (Infrastructure) 2007</i>	Delete references to outdated regulations.	Replace with updated references to legislation e.g. <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
Chapter A3 Definitions		
[New definition to be added to chapter.]	The new definition is from the SEPP. Inserting the SEPP's definition into the Woollahra DCP 2015 will remove any ambiguity about what each policy covers, confirming they capture the same type of development. E.g. the Woollahra DCP 2015 contains a reference to <i>solar water heaters</i> and <i>solar electricity generators</i> which could be interpreted as distinct from the above. The SEPP groups all these elements as one, being solar energy systems.	solar energy system means any of the following systems— (a) a photovoltaic electricity generating system used for the primary purpose of generating electricity for a land use— (i) carried out on the land on which the system is located, or (ii) carried out by the owner of the system on adjoining land, (b) a solar hot water system, (c) a solar air heating system.
Chapter B2 Neighbourhood Heritage Conservation Areas		
B2.1.7 General development controls		
C29 Roof additions and utilities, such as skylights, dormers and solar panels, are not to be visible from the street front zone (and side front zone for corner buildings)	Remove reference to 'solar panels' and redirect reader to section E6.3.	C29 Roof additions and utilities, including skylights and dormers, are not to be visible from the street front zone (and side front zone for corner buildings). <i>Note: Solar energy systems such as photovoltaic electricity generating systems, solar hot water systems, or solar air heating systems are addressed in Chapter E6, Section 6.3 Solar Energy Systems.</i>
Chapter C2 Woollahra Heritage Conservation Area		
C2.5.13 Site facilities and aerial devices		
[New wording to be added to existing description of clause.]	Redirect reader to Section E6.3.	<i>Note: Solar energy systems such as photovoltaic electricity generating systems, solar hot water systems, or solar air heating systems are addressed in Chapter E6, Section 6.3 Solar Energy Systems.</i>
C2 Satellite dishes, solar water heaters, solar electricity generators, aerials and similar devices:	Remove reference to solar hot water or energy systems in this control. These are addressed by E6.3	C2 Satellite dishes, aerials and similar devices:
Chapter C3 Watsons Bay Heritage Conservation Area		
C3.5.9 Site facilities and aerial devices		
[New wording to be added to existing description of clause.]	Redirect reader to Section E6.3.	<i>Note: Solar energy systems such as photovoltaic electricity generating systems, solar hot water systems, or solar air heating systems are addressed in Chapter E6, Section 6.3 Solar energy systems.</i>

Table 1: Proposed Amendments to Woollahra DCP 2015 for Solar Energy Systems		
Existing DCP text	Reason for amendment	Proposed wording
C1 Satellite dishes, solar heating devices, aerials and similar devices are not to be located on any part of a roof that is visible from the street, the public domain or elevated locations within the area	Removes reference to solar hot water or energy systems in this control. Redirect reader to Section E6.3.	C1 Satellite dishes, aerials and similar devices are not to be located on any part of a roof that is visible from the street, the public domain or elevated locations within the area
C2 Depending on their design, size and visual impact, satellite dishes, solar heating devices, aerials and similar devices may be positioned at the rear of buildings, subject to townscape considerations.	Removes reference to solar hot water or energy systems in this control. Redirect reader to Section E6.3.	C2 Depending on their design, size and visual impact, satellite dishes, aerials and similar devices may be positioned at the rear of buildings, subject to townscape considerations.
Chapter D1 Neighbourhood Centres		
D1.5.3 Objectives and Controls		
C19 Skylights, solar panels and the like, are not visible from any street frontage.	Remove reference to 'solar panels' and redirect reader to section E6.3.	C19 Skylights and the like are not visible from any street frontage. <i>Note: Solar energy systems such as photovoltaic electricity generating systems, solar hot water systems, or solar air heating systems are addressed in Chapter E6, Section 6.3 Solar Energy Systems.</i>

The proposed changes to the Woollahra DCP 2015 have been developed in collaboration with Council's heritage officers, who have recommended that the proposed controls will not negatively impact on our HCAs or heritage items. Conversely, by bringing the Woollahra DCP 2015 in line with the SEPP, applicants are more likely to integrate proposed works into a DA which will offer more opportunities for Council's heritage staff to comment on the works proposed.

Options:

As a consequence of this report Council may resolve to:

1. Endorse the proposed changes to the Woollahra DCP 2015, and request staff to prepare a draft DCP and place it on public exhibition (this is the staff recommendation).
2. Request staff to amend the proposed controls before implementing Option 1.
3. Not make any changes to the Woollahra DCP 2015

Community Engagement and / or Internal Consultation:

The proposed amendments to the Woollahra DCP 2015 were prepared in consultation with Council's Planning and Place Division (Development Control, Strategic Planning and Heritage Teams), Infrastructure & Sustainability Department (Environment & Sustainability Team).

If Council supports the proposed amendments to the Woollahra DCP 2015, the next step is to prepare and exhibit a Draft DCP. The process for amending a DCP is set out in the *Environmental Planning and Assessment Act 1979*, the *Environmental Planning and Assessment Regulation 2021* and the *Woollahra Community Participation Plan 2019*.

A Draft DCP must be publicly exhibited for a minimum of 28 days. Public notice will be given in the Wentworth Courier each week of the exhibition and on Council's website, and we will circulate notification emails to key community groups in the LGA. The outcome of the public exhibition will be reported to a future meeting of Council.

Policy Implications:

Should Council resolve to support and finalise the Draft DCP after exhibition, there would be policy implications as the Woollahra DCP 2015 would be amended.

Financial Implications:

Should Council resolve to progress a draft DCP, there will be financial implications to facilitate the public exhibition.

Resourcing Implications:

Should Council resolve to progress a draft DCP, staff resources will be associated with managing the public exhibition and preparing a post exhibition report to a meeting of Council.

Conclusion:

In response to Council's resolution from 14 June 2022, staff propose amendments to the Woollahra DCP 2015 to encourage the transition away from gas in residential development.

The proposed controls prevent the installation of gas cooktops, gas ovens and unflued gas internal space heating systems seek to address the concerns regarding poor indoor air quality as a result of burning gas.

The proposed Woollahra DCP 2015 amendments for solar energy systems controls seek to address the inconsistencies between Woollahra DCP 2015 and the SEPP. These administrative changes will bring Council's controls into line with the SEPP and provide clarity and certainty for applicants wishing to install solar energy systems in the Woollahra LGA.

Staff recommend that Council resolve to prepare and exhibit the draft DCP to include proposed and amended controls for gas phase out and solar energy systems.

Attachments

1. Council Agenda (Notice of Motion) - 14 June 2022 [!\[\]\(098e47036f78288d477e334896a43770_img.jpg\) !\[\]\(4eae4ca9e3bdd839cea72df3843a6754_img.jpg\)](#)
2. Draft Development Control Plan Wording - September 2023 [!\[\]\(85c10fe0ae97c3e2f0e940987ab0a900_img.jpg\) !\[\]\(886bb00f68a0102765319f7e3e73d979_img.jpg\)](#)
3. Letters of Support from Green Building Council Australia and Doctors for the Environment - September 2023 [!\[\]\(0fbfb77cc5f54acd9a6cc5e2e99729c4_img.jpg\) !\[\]\(bcfed6d10b13d512440f89f52a81eafd_img.jpg\)](#)