

Section 30 Energy and Utilities

In general this section does not cover the residential use of energy in any detail. The “consumer” is a fundamental part of any sustainable energy system. Sustainability cannot be addressed without consumer involvement.

I specifically address renewable energy (wood) and solar energy as they concern residential sites. In my original submission I asked for changes as follows but did not suggest any rewording of policies/rules.

1. The housing density in all Arrowtown Urban Zones shall not be increased on the basis of current measured PM10 concentrations of respirable particulate matter in the atmosphere. This is known to have a severe effect on the health of people.
2. The installation of photo-voltaic panels and roofing profiles suitable for photo-voltaic laminates shall be a permitted activity under the plan in the Arrowtown Residential Historic Management Zone.

Many residents in Arrowtown are currently dependent on wood for home heating. Consequently there is substantial emission of wood smoke during the winter months. Since late May 2016 the National Environmental Air Quality Standard for PM10 (particles less than 10 microns) has been exceeded 30 times at the point of sampling in Arrowtown. The World Bank reported last week that air pollution is the fourth leading cause of premature deaths worldwide behind smoking, diet and obesity, and is known to lead to cancers and heart, lung and respiratory diseases.

The NZ Ministry for the Environment’s *2011 Users Guide (Updated 2014) National Environmental Standards for Air Quality (NES Air Quality)* says: *Section 44A(7-8) of the RMA requires that:*

(7) Every local authority and consent authority must observe national environmental standards.

(8) Every local authority and consent authority must enforce the observance of national environmental standards to the extent to which their powers enable them to do so.

The User Guide also says: *under section 5.4 Role of territorial authorities Compliance with the open fire bans and woodburner standards is the responsibility of the regional councils. However, in practice, the role of the territorial authorities is paramount.*

Under Objective 30.2.3 Objective - ***Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.*** a policy to control wood burning in locations where the NES Air Quality is not being met should be included. This would assist the Otago Regional Council to meet their obligations. It is suggested that 30.2.3 is changed to **Energy resources are used and developed, etc**

and a policy is added saying:

- In airsheds where the National Environmental Air Quality Standard for PM10 is not currently being met wood burning appliances are not permitted to be installed in new homes.

If the increased density of housing is permitted in some areas of Arrowtown under the QLDC proposed district plan, this policy would limit PM10 discharges from wood burning appliances to current levels until a solution is developed in co-operation with the Otago Regional Council to enable the NES Air Quality for PM10 to be met.

Despite the relatively detailed mention of the use of solar energy in the introduction to Section 30 there is only a single policy - *30.2.4.3 Encourage Small and Community-Scale Distributed Electricity Generation and Solar Water Heating structures within new or altered buildings* under 30.2.4 Objective - **Site layout and building design takes into consideration energy efficiency and conservation.**

In the proposed plan. Under this objective add:

- Allow the installation of solar panels and photo-voltaic panels on homes throughout the District as a permitted activity.
- Permit the installation of roofing profiles on homes suitable for fixing photo-voltaic laminates, throughout the district including the Arrowtown Residential Historic Management Zone.

In regards to sustainability it is essential that the use of solar energy is permitted and not prohibited by policies in the plan. There should also be a clause relating to the density of tree canopies. For example, the street trees in the Arrowtown Residential Historic Management Zone. It is suggested that a further policy is added.

- The Council will manage the street tree canopies to permit at least 30% of solar radiation from the sun to reach shaded properties at all times.

One point of policy *30.2.5.2 Ensure the efficient management of solid waste by:*

reads - encouraging methods of waste minimisation and reduction such as re-use and recycling.

The disposal of waste to landfill is not a sustainable and amongst other things contributes to global warming. Policies should be added to direct the Council into the proactive identification of waste streams that can be eliminated or reduced to the benefit the community as a whole. For example, construction and building waste, green waste, food waste, tourist waste, etc..

Add a policy:

- Identify waste streams that can be eliminated and/or reduced and work with waste stream owners to develop action plans.

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