Throwing Shade

Planning for Solar Access in Queensland

Travis C Schmitt, Barrister-at-Law

Introduction

Queensland, the Sunshine State. With that moniker, it is little wonder that Queensland has the highest rate of household solar panel installation in the world. Spurred by government incentives, generous feed-in tariffs, and the falling cost of technology, more than 32% of homes in Queensland now have solar panels on their rooftops.[1]

Those households have spent thousands of dollars on photovoltaic panels, battery storage systems, and related alterations to their home. Presumably, those who have invested in this technology have done so with an expectation that the sunlight that falls on their solar array will not be blocked by their neighbours. The effectiveness and viability of this technology, and the recovery of capital expenditure, depends on uninterrupted sunlight continuing to fall on the panels.

But is this expectation to solar access reasonable? Should it give way to the expectations of adjoining landowners that they may lawfully develop their land?

As the rate of solar panel installation continues to increase so too will the number of disputes between those who desire solar access for energy generation and those who seek to develop their land. This paper considers how conflicts of this kind may be resolved under our current planning law, and whether solar access should be better protected.

Queensland's planning system

In Queensland, the *Planning Act 2016* (Qld) and the *Planning Regulation 2017* (Qld) provide the statutory planning system for development assessment and approval. The purpose of the *Planning Act* is to establish a planning system that facilitates the achievement of ecological sustainability. It defines 'ecological sustainability' as a balance that integrates the potentially conflicting drivers of protecting ecological processes, promoting economic development, and maintaining the wellbeing of people and communities.[2] An accidental illustration of the tension between solar access and development is contained in the Act's description of what the last of those drivers includes:

> …maintaining the cultural, economic, physical and social wellbeing of people and communities includes…accounting for potential adverse impacts of development on climate change, and seeking to address the impacts through sustainable development (**sustainable settlement patterns or sustainable urban design**, for example). (emphasis added)

[1] Nance Haxton, 'Solar Power Boom in Queensland Helps Slash Bills, Battery Owners Say', *ABC News* (online), 12 April 2017 <http://www.abc.net.au/news/2017-04-12/qld-leading-nation-in-household-solar-power-and-battery-storage/8440396>.
[2] *Planning Act 2016* (Qld), s 3.

Is the Act's purpose best achieved by protecting and bolstering the community's ability to harness solar energy through sustainable design, or does a settlement pattern of densification and the prevention of urban sprawl warrant the limiting of solar access opportunities? That this tension even exists is symptomatic of the fact that there is no explicit legislation in Queensland that protects solar access for energy generation.

In fact, the law in Queensland does not recognise any right to sunlight. The *Property Law Act 1974* (Qld) makes this clear and provides that no right to the access or use of light for any building shall be 'deemed to exist, or to be capable of coming into existence, merely because of the enjoyment of such access or use for any period or of any presumption of lost grant based upon such enjoyment'.[3]

However, despite that provision,[4] some protections are afforded solar access under the *Neighbourhood Disputes (Dividing Fences and Trees) Act 2011* (Qld) where trees on adjoining land cause a 'severe obstruction of sunlight to a…roof of a dwelling on the neighbour's land'.[5] The Queensland Civil and Administrative Tribunal has used this provision to make orders requiring the removal of trees which degraded the performance of an existing solar hot water system, and which also precluded the possibility of installing solar photovoltaic panels.[6]

While some level of legislative protection is given to solar access from overshadowing caused by trees, there are no corresponding protections in respect of overshadowing caused by buildings and other structures. In Queensland, this type of overshadowing is treated as an amenity issue and is controlled at the development assessment level.

Solar access at assessment level

Queensland's planning system contemplates the creation of 'local categorising instruments'[7] which are used to assess and control development within local government areas. Those instruments set out the matters (the 'assessment benchmarks') that a local government must consider when assessing development.

For example, it is an assessment benchmark under the Townsville *City Plan 2014* that 'buildings are designed to achieve good solar access by: minimising the extent of shadows on usable private open space or public spaces; and providing adequate sunlight to habitable rooms'. Similar outcomes are prescribed in planning schemes throughout the State.[8]

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[3] *Property Law Act 1974* (Qld), s 178.
[4] *Neighbourhood Disputes (Dividing Fences and Trees) Act 2011* (Qld), s 66(4). Despite the *Property Law Act 1974*, s 178, QCAT may make an order under subsections (2)(b) and (3) that is intended to result in the access of light to land.
[5] *Neighbourhood Disputes (Dividing Fences and Trees) Act 2011* (Qld), s 66.
[6] *Gallant v Cassar and Anor* [2014] QCAT 610; *Fairbank and Anderson v Cassar and Anor* [2014] QCAT 608; Cf *Collins v McNeil* [2013] QCAT 429.
[7] *Planning Act 2016* (Qld), s 43.
[8] See, eg, Brisbane *City Plan 2014*, Dwelling House Code, PO2, which requires that development has a building height that: is consistent with the building height of dwelling houses prevailing in the immediate vicinity; and does not unduly overshadow adjoining dwelling houses and their associated private open space in terms of access to sunlight and daylight. See also *Queensland Development Code*, MP1.1, which requires the height of a building is not to unduly overshadow adjoining houses.

However, despite reference to ‘solar access’ or ‘shadowing’ those terms are not usually defined. That lack of certainty, combined with the conventional understanding of solar access as an amenity issue concerning private space, means that protection of solar energy generation is completely at the discretion of the local government and the extents to which it is willing to stretch the interpretation of solar access. Existing or potential solar users can have no confidence that solar access for energy generation will be considered during assessment of development on neighbouring properties.

It is therefore often left to the affected neighbour to defend his or her ‘right’ to solar access, either through judicial review or appeal processes, once a decision has been made to allow development which would overshadow their property. While a dispute of this kind has not, to the best of the author’s knowledge, reached the courts in Queensland, the tension between solar access and adjoining development has been building in other Australian jurisdictions for some time.

Approach in Victoria

Likely due to its latitudinal position (meaning the sun is lower in the sky and the potential for shadowing is therefore greater) and a faster rate of densification in its larger cities, Victoria has seen a high number of solar access cases.

The early case of *Australian Conservation Foundation Inc. and Surrowee Pty Ltd v Melbourne City Council and Anor* [2002] VCAT 1 concerned an eight-level apartment building proposed to be constructed on land adjoining the ‘60L Green Building’ in inner city Melbourne. One of the issues in the case was the extent to which the proposed apartment building would overshadow a large array of photovoltaic panels on the roof of the 60L Building, which were a significant feature of its ‘green’ credentials.

In another illustration of the tension between sustainable settlement patterns and sustainable urban design, the Victorian Civil and Administrative Tribunal considered there to be ‘an obvious irony’ in the case presented by the 60L Building owners:

> It is argued that the intensity of development adjacent to the 60L Green Building should be restricted, however, the South Carlton precinct is being encouraged for intensive development in response, inter alia, to broader goals including the environmental benefits of urban consolidation.[9]

In approving the development, the Tribunal considered that property owners are entitled to a reasonable expectation in regard to solar access. However, that expectation is based on the strategic planning direction and the proposed height limits for the area, and an expectation that there be no loss of sunlight is unreasonable.

A case more directly concerning solar access is *Bowden v Greater Geelong City Council* [2007] VCAT 1334. That case concerned construction of a new double storey dwelling which would overshadow solar panels installed on the carport of the adjoining house. There was evidence that the proposed dwelling would cast shadows over about 25% of the panels. The applicable planning control only dealt with shadowing of private open space and, therefore, did not deal with shadowing of the carport roof. The Tribunal considered the issue turned on whether the extent of the impact to the solar panels was ‘reasonable in the circumstances’.

[9] *Australian Conservation Foundation Inc. and Surrowee Pty Ltd v Melbourne City Council and Anor* [2002] VCAT 1, [86].

The Tribunal considered the location of the panels, on a low roof near the boundary, made them vulnerable to overshadowing and, therefore, it was not reasonable to reject the development proposal on the ground that the panels were overshadowed. The Tribunal reasoned that:

> While efforts to embrace and effectively utilise alternative and environmentally friendly energy sources deserves strong support, it is also important that the infrastructure be installed in a way that does not unreasonably prejudice the use and development of nearby land in a way that is supported by policy and the purpose of the zone.[10]

A decade on from *Surrowee*, in *Chen v Melbourne City Council* [2012] VCAT 1909 the Tribunal recognised that the overshadowing of solar panels was becoming an 'issue of increasing frequency' and this 'trend is likely to continue'.[11] In that case the Tribunal found that shadowing to solar panels that caused a system loss of 50 - 70% was unreasonable. Importantly however, the determination was made in the context of planning controls which required that new buildings minimise impacts on active solar collecting devices on adjoining buildings, and which sought to protect energy efficient dwellings. However, the Tribunal went on to observe that:

> …there is no quantifiable guidance available at the present time with which to form a judgement about whether the impacts of a proposal upon neighbouring solar collecting devices will be acceptable or not. Such judgements are occurring on an ad-hoc, case-by-case basis. It would appear timely for there to be consistent and clear guidance on a state-wide basis to create greater certainty about what might be regarded as acceptable impacts.[12]

In *John Gurry & Associates Pty Ltd v Moonee Valley City Council & Ors* [2013] VCAT 1258 the Tribunal sought to provide some clarity around this issue and laid out a number of useful reference points for decision-makers dealing with potential overshadowing of existing solar panels:

- (primary factor) The ultimate test is one of 'reasonableness', not avoiding overshadowing altogether.
- (primary factor) What constitutes 'legitimate expectations' in light of the strategic planning controls and policies affecting the subject land?
- (primary factor) Have the relevant solar panels been placed in an unreasonably vulnerable position on the host building?
- Whether the position of the solar panels on the host building is due to constraints arising from heritage planning controls or a heritage covenant?
- What model of solar panels are involved?
- How much supporting evidence any one party has provided?
- How long ago were the existing adjacent solar panels installed on the host building?[13]

In the subsequent case of *Babaniaris v Greater Geelong City Council* [2015] VCAT 1793 the Tribunal was most concerned with the second of those points, in circumstances where the strategic planning policy encouraged more intensive forms of development at the subject site. In light of that fact, the tribunal considered that:

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[10] *Bowden v Greater Geelong City Council* [2007] VCAT 1334, [26].
[11] *Chen v Melbourne City Council* [2012] VCAT 1909, [36].
[12] Ibid [43].
[13] See VCAT Red Dot Decision Summary, *John Gurry & Associates Pty Ltd v Moonee Valley City Council & Ors* [2013] VCAT 1258.

> A highly nuanced assessment is required before concluding that a neighbour must compromise their preferred and otherwise satisfactory design to reduce the overshadowing of solar panels. Relevant considerations would include the implications of modifications on, the cost of development, the efficient use of land including the utility and orientation of open spaces, the integrity of the architectural design, internal amenity et cetera.[14]

Despite the Tribunal's call in *Chen* for some form of state-wide guidance, as is clear in *Babaniaris,* decisions regarding solar access for energy generation continue to be decided on an ad-hoc basis at the discretion of local governments or the Tribunal.

Queensland's planning assessment system is not dissimilar to that in Victoria and it is suggested that the Planning and Environment Court can take guidance from the approach of the Victorian Civil and Administrative Tribunal when a case of this kind reaches the Court. It is also suggested that, in the absence of any Queensland precedent or policy on this issue, Queensland local governments should apply the principles laid out in *John Gurry* (and the additional relevant considerations in *Babaniaris*) when assessing development applications where overshadowing is an issue.

Alternative forms of planning control

But is this discretionary, ad-hoc approach appropriate given the continual increase in solar panel installation and the growing concerns about the risks of climate change?

Currently, planning instruments in Queensland create a legitimate expectation that landowners can develop their property even if it will cause shadowing to adjoining land. Only were it causes an impact to amenity, by shadowing private open space or windows, would the planning instrument prescribe some form of control.

That may be appropriate in inner city areas where the strategic intent for densification is clear and development is preferred over solar access for energy generation. However, too often the language used around assessment benchmarks for solar access in the inner city, is also used in residential areas where policy does not support densification. This can lead to confusion when it comes time to consider solar access for energy generation in those residential areas; that is, solar access will continue to be treated as an amenity issue even where protection of existing or future solar energy systems may be the preferred policy outcome.

This conflict between solar access and densification is not new. Since the 1970s academics have called for some form of legal protection for solar access to be found.[15] Despite those calls governments in Australia have been slow to act on the issue. However, many forms of planning control exist in other countries which may be useful in Queensland. Some of the more novel methods include 'solar access permits', 'solar envelopes', and 'hypothetical solar fences'.[16]

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[14] *Babaniaris v Greater Geelong City Council* [2015] VCAT 1793, [56].
[15] Adrian Bradbrook, 'The Development of an Easement of Solar Access' (1982) 5 *University of New South Wales Law Journal* 229, 230.
[16] Terry Williamson, 'Solar Access' (1985) (June) *Environmental and Planning Law Journal* 143, 145; Adrian Bradbrook, 'Solar Access Law: 30 Years On' (2010) 27 *Environmental and Planning Law Journal* 5, 18-20.

'Solar access permits' are modelled on a system of riparian rights, where solar access is treated as a separate interest in property. Solar users can obtain a permit which then protects their solar energy system from shading. It is a 'first in time' system. Although, if the neighbour wants to develop their land in a way which would cause shadowing, the solar user can transfer their permit to their neighbour for a negotiated price.

'Solar envelopes' are a form of building envelope, which establish limits on the size of buildings which can be built on land without significantly shading adjoining land. Under this system it is possible to specify the land area and air-space of one block of land that can be built upon without significantly shading neighbouring land.[17]

Finally, 'hypothetical solar fences' have similar results to solar envelopes but by a manner much more easily reduced to assessment benchmarks. Under this system, no building may be erected which would cause a shadow to be cast over adjoining land longer than the shadow cast by an imaginary fence of a designated height on the boundary between those properties, during certain times of the day.

While each of these methods are good at protecting solar access, they all place enormous burdens on adjoining owners, the effect of which may cause increased development costs, or sterilise their land for development altogether. A solar access permit holder may refuse to transfer their rights or only do so at an exorbitant price. Solar envelopes and hypothetical solar fences have merit as planning controls, however they are difficult to apply universally in a planning instrument due to topography and other constraints particular to individual sites.[18]

Is reform needed?

It is clear that the current planning system does not offer sufficient protections to existing and potential solar users. If governments are to continue to incentivise the installation of solar energy technology then some form of legal protection should be afforded those who choose to make that investment. That is not to say, however, that those who install solar energy systems should be able to stymie the legitimate development of adjoining land. A balance must be struck.

The answer does not lay in universal planning controls, such as solar fences or envelopes; those methods are difficult to apply and indiscriminately burden all landowners regardless as to whether a solar energy system has been installed, or will be installed in the future.

As expectations in respect of solar access are based on strategic planning policy, further work must therefore be done at a strategic level to better define in what circumstances

[17] Adrian Bradbrook, 'The Legal Right to Solar Access' (2011) 68 *Environment Design Guide* 1, 4.

[18] Attempts made by the ACT government to adopt a universal control in its *Territory Plan*, without particular regard to individual site constraints resulted in some owners having to perform significant excavation to ensure the height of their new home didn't exceed the prescribed limits; *Territory Plan* (ACT), Variations 306 & 346; Lisa Cox, 'Overshadowing Planning Law Likely to be Rolled Back', *Canberra Times* (online), 29 January 2014 <http://www.canberratimes.com.au/act-news/overshadowing-planning-law-likely-to-be-rolled-back-20140128-31l79.html>; Mary Lloyd, 'Planning Changes Let the Light Shine In', *ABC News* (online), 5 July 2013 <http://www.abc.net.au/news/2013-07-04/planning-changes-let-the-light-shine-in/4800358>.

solar access will be protected. That requires a standard definition of what is ‘solar access’, clarity around what is ‘reasonable’ in terms of shadowing to solar energy systems, and greater contemplation as to in which precincts of a local government area will an individual’s interest in solar access give way to the wider planning need for densification.

There may be cases where the strategic intent means that existing solar users lose their solar access. An argument can be made that those landowners should be compensated for their loss where the strategic policy is adopted after the system was installed. If compensation is necessary, it should not be a cost borne by the developer who is merely acting on the local government’s strategic intent.

Conclusions

Queensland’s planning system currently fails to protect those landowners who have invested in solar energy systems. At any time, their access to sunlight could be blocked by development on adjoining land. While most planning instruments control solar access, it is treated as an amenity issue and does not protect solar energy systems.

Until more detailed strategic planning is done, solar users must trust that local governments will consider their investment when exercising their discretion in the assessment of development applications. Much can be learned from the decisions of the Victorian Civil and Administrative Tribunal, which can provide helpful assistance to Queensland local governments and the Planning and Environment Court when a dispute about solar access arises.

Work must be done at a strategic planning level to provide clarity around solar access and the interests of solar users. Failure to do will only ratchet up tensions between those who desire solar access and those who seek to develop their properties.

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