Statement of Recommendation from the Executive Director, Heritage Victoria

Demonstration Wind Turbine, VHR PROV H2462

395 Blackrock Road, Connewarre, Greater Geelong City

Wadawurrung Country

VICTORIA State Government

HERITAGE VICTORIA

Executive Director recommendation

Under Section 37 of the *Heritage Act 2017* (**the Act**) I recommend to the Heritage Council of Victoria (**Heritage Council**) that the Demonstration Wind Turbine, located at 395 Blackrock Road, Connewarre, Greater Geelong City, is of State-level cultural heritage significance and should be included in the Victorian Heritage Register (**VHR**) in the category of Registered Place.

In accordance with Section 38 of the Act I include in this recommendation categories of works or activities which may be carried out in relation to the place without the need for a permit under Part 5 of the Act.

I suggest that the Heritage Council determine that:

- the Demonstration Wind Turbine is of State-level cultural heritage significance and is to be included in the VHR in accordance with Section 49(1)(a) of the Act
- the proposed categories of works or activities which may be carried out in relation to the place for which a permit under the Act is not required will not harm the cultural heritage significance of the place under Section 49(3)(a) of the Act.

STEVEN AVERY
Executive Director, Heritage Victoria

Date of recommendation: 17 March 2025

The process from here

1. The Heritage Council publishes the Executive Director's recommendation (section 41)

The Heritage Council will publish the Executive Director's (**ED**) recommendation on its website for a period of 60 days.

2. Making a submission to the Heritage Council (sections 44 and 45)

Within the 60-day publication period, any person or body may make a written submission to the Heritage Council. This submission can support the recommendation, or object to the recommendation and a hearing can be requested in relation to the submission. Information about making a submission and submission forms are available on the Heritage Council's website.

3. Heritage Council determination (sections 46, 46A and 49)

The Heritage Council is an independent statutory body. It is responsible for making the final determination to include or not include the place, object or land in the VHR or amend a place, object or land already in the VHR.

If no submissions are received the Heritage Council must make a determination within 40 days of the publication closing date.

If submissions are received, the Heritage Council may decide to hold a hearing in relation to the submission. The Heritage Council must conduct a hearing if the submission is made by a person or body with a real or substantial interest in the place, object or land. If a hearing does take place, the Heritage Council must make a determination within 90 days after the completion of the hearing.

4. Obligations of owners of places, objects and land (sections 42, 42A, 42B, 42C, 42D and 43)

The owner of a place, object or land which is the subject of a recommendation to the Heritage Council has certain obligations under the Act. These relate to advising the ED in writing of any works or activities that are being carried out, proposed or planned for the place, object or land.

The owner also has an obligation to provide a copy of this statement of recommendation to any potential purchasers of the place, object or land before entering into a contract.

5. Further information

The relevant sections of the Act are provided at the end of this report.

Background

On 7 February 2025, the ED received a request for an Interim Protection Order (**IPO**) for the above place. On 11 February 2025, the ED notified parties that he had formed the view that although there was evidence that the turbine is of historical significance, an IPO was not desirable, due to deterioration of the structure and risks to public safety.

Subsequently, the Heritage Council received a request for an IPO. On 18 February 2025, the Heritage Council issued an IPO for the place. An IPO has the effect of including a place or object in the VHR for a period while a cultural heritage significance assessment is undertaken. It requires the ED to recommend whether or not the place should be included in the VHR within 60 days. This report constitutes the recommendation.

Terminology and abbreviations

Anemometer – an instrument for measuring wind velocity and direction

ATA – Alternative Technology Association

kW – kilowatt, a unit of measurement of power

kWh – kilowatthour, a unit of measurement of electrical energy

Nacelle – an enclosed cover that houses an engine or similar equipment. In the case of the wind turbine, this is the housing to which the turbine blades and hub are attached, which sits on top of the tower, and houses the gearbox, brake and generator

Slewing ring – a mechanical element that enables heavy loads to rotate or move

SECV – State Electricity Commission of Victoria

VSEC – Victorian Solar Energy Council

Wind turbine – A wind turbine converts the kinetic energy of the wind into electrical energy

A note on location name

Over its history, the location of the wind turbine has been described as Breamlea, Blackrock, and Connewarre. Today it is within the locality of Connewarre. Its location is identified as Connewarre in this report.

Description

The following is a description of the Demonstration Wind Turbine at the time of the site inspection by Heritage Victoria in February 2025.

The Demonstration Wind Turbine is located near the corner of Thirteenth Beach Road and Blackrock Road, approximately 700 metres from the coastline between Barwon Heads and Torquay on Wadawurrung Country. It is situated on the far northwestern corner of a triangular parcel of land of approximately 23 hectares that is mainly flat and grassy in character.

The place has three main features: the wind monitoring tower, the wind turbine and a monitoring hut. All played a role in the production and transmission of wind power at the site, and they are connected to each other by underground cables.

Wind monitoring tower

The wind monitoring tower is a simple triangular lattice steel frame tower set in a concrete base. It has an anemometer affixed to the top of the tower designed to measure wind speeds and direction at 22 metres – the height of the turbine's hub. Its purpose was to initiate the turbine's operation when wind speeds were ideal. The tower is similar in design to other wind monitoring towers (which were all 10 metres in height) erected over the same period by the SECV and VSEC as part of a joint wind monitoring project (see History section below). The tower originally had two anemometers: one mounted at 10 metres and one at 22 metres.

Wind turbine

The Demonstration Wind Turbine is a 60-kW model, meaning it can produce a maximum of 60 kW during peak operation. The main components of the turbine are a set of blades, a nacelle and a tower. The Demonstration Wind Turbine measures 22 metres from the tower's base to the hub. The three fibreglass blades measure 8 metres long and are mounted to a hub. The rotating hub is attached to the nacelle, which contains a gearbox and connecting shafts, a brake, and an electricity generator (see diagram below). The nacelle can be opened from inside to enable inspection and maintenance. It displays hand-painted blue signage that reads ‘WESTWIND’ along each side, and on the rear, it contains the names and addresses of the manufacturers.

The nacelle sits on a slewing ring that enables it to rotate depending on wind direction. The slewing ring is mounted on a galvanised steel tower that consists of hollow, octagonal sections. The tower contains an internal ladder which is accessed by a door at ground level. It also contains control panels and electrical cabinets. Access to the nacelle is gained through the slewing ring. There is also a door near the top of the tower to enable inspection of the blade tips, which feature airbrakes in case wind speeds are too great.

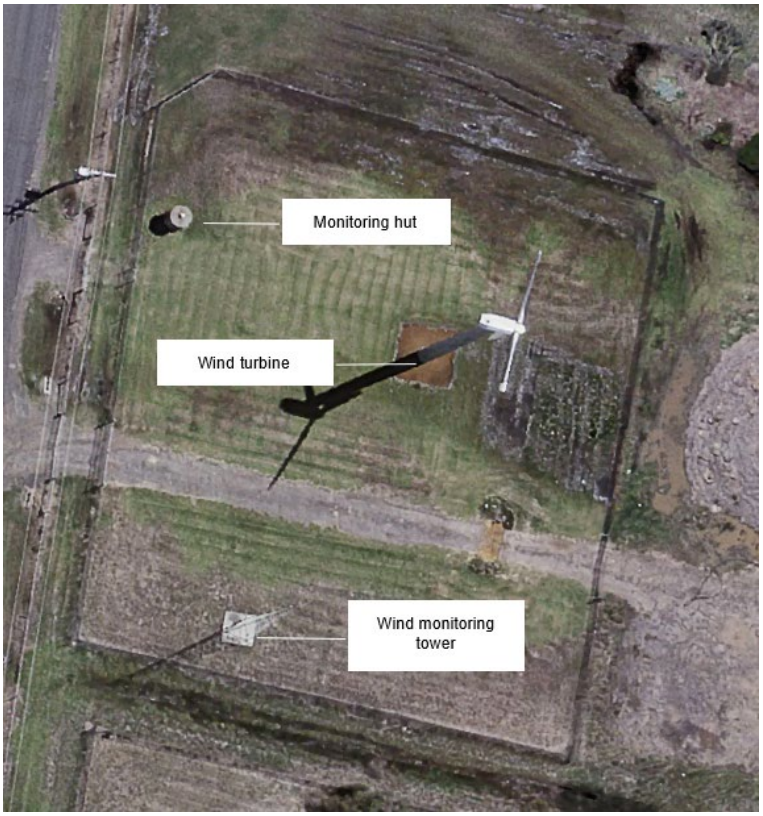
Monitoring hut

The monitoring hut is a small, circular concrete hut (a design commonly used and adapted from a commercially available water tank) located on the site's northern edge. It has a steel door and contains a switchboard and meter box. It was installed to connect the wind turbine to the power grid, monitor the wind turbine’s output, and transmit data to researchers. An aerial and a ventilator are located on the roof of the monitoring hut.

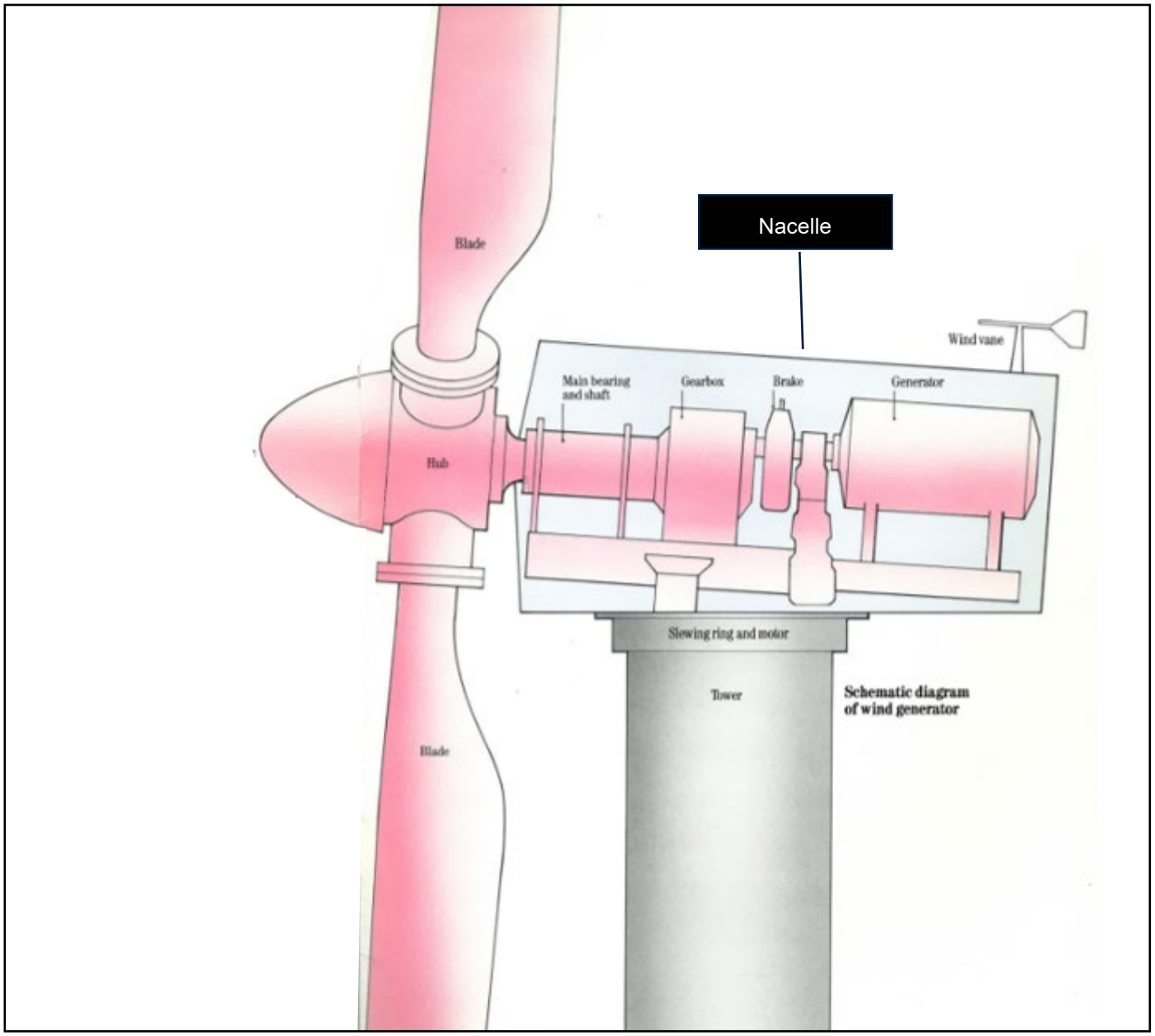
Other elements

The wind turbine, monitoring hut and wind monitoring tower are situated on a flat, grassy site surrounded by a chain link security fence. An additional agricultural style fence marks the parcel boundary. A gravel track runs through the site and connects to Blackrock Road. There are reportedly subsurface cables linking the wind turbine, monitoring hut and wind monitoring tower. Further research may identify their exact location.

Diagram of main elements



Description images



Simplified schematic diagram of the Demonstration Wind Turbine showing the main components, Source: brochure produced by SECV & VSEC, 'Wind Power in Victoria'*, 1988.*

2025, the Demonstration Wind Turbine viewed from Thirteenth Beach Road to the east, Source: Heritage Victoria

2025, the Demonstration Wind Turbine viewed from Blackrock Road, to the south of the turbine, Source: Heritage Victoria

2025, subject site. From left to right the wind monitoring tower, wind turbine and monitoring hut are visible Source: Heritage Victoria

2025, the Demonstration Wind Turbine and wind monitoring tower in the background, Source: Heritage Victoria

2025, the ground level access door of the wind turbine, Source: Heritage Victoria

2023, the upper access door of the wind turbine, Source: supplied by Barwon Water

2023, the nacelle of the wind turbine showing lettering, Source: supplied by Barwon Water

2023, the nacelle of the wind turbine showing lettering, Source: supplied by Barwon Water

2025, wind monitoring tower, Source: Heritage Victoria

2025, monitoring hut, Source: Heritage Victoria

History

Generation of electricity in Victoria

Electric lighting first appeared in Melbourne in the 1880s. Small, privately owned, electricity generating plants such as the Former Richmond Power Station (VHR H1055) were established at this time. Demand for electricity grew throughout the late nineteenth and early twentieth centuries, and Victoria relied heavily on coal imported from New South Wales for power generation. In 1918, the State Electricity Commission of Victoria (SECV) was formed (headed by General Sir John Monash), and established the Yallourn Power Station, using brown coal mined in the Latrobe Valley. Yallourn began feeding electricity to Melbourne in 1924 and was followed by other major coal-powered power stations, including the Morwell Power Station (1949-59), Hazelwood (1964) and Loy Yang A (1977-84). The SECV also established other forms of power generation, including hydro-electric power stations such as the Rubicon Hydro-electric Scheme north of Marysville (VHR H1187).

Development of wind power

People have harnessed wind power for thousands of years for numerous uses such as pumping water and grinding grain. In Europe, the use of windmills increased from the medieval period and technologies rapidly advanced in the 1700s.[1] Experimental wind generators specifically for creating electrical power emerged in Scotland and Denmark in the late nineteenth and early twentieth century. Globally, use of fossil fuels for electricity generation predominated throughout the twentieth century. In the early 1970s, there was a growing interest in the potential of large-scale and commercial wind power initiatives as an alternative to fossil fuels and nuclear power. This was due to a range of factors, including the oil and energy crises of the 1970s, concern about the long-term viability of fossil fuel supplies, growing environmental awareness and the potential of 'green power'. Denmark was key in advancing technologies in this era, while the first large-scale commercial wind farms were established in the United States. In Europe and the United States, the 1980s was a decade that saw the establishment and expansion of wind farms and improvements in technology, mainly driven by private industry. Wind farms were initially established on land and still predominated, while offshore wind farms began to be established in Europe and the United States in the 1990s. There is an increasing interest in offshore wind farms where land sites are scarce, and because of the slightly higher wind speeds over water (where there is less surface friction).

Wind power in Victoria

From around the mid-twentieth century, in rural locations in Victoria, small electric wind generators were used on some private properties that had no access to mains electricity.[2] From the 1970s in Victoria, there was an increasing interest in renewable energy sources, both from government agencies and throughout the general community. In 1980, the Victorian Solar Energy Council (VSEC) was established (replacing the earlier Victorian Solar Energy Committee) to encourage and promote research into the development of solar and other forms of renewable energy in Victoria.[3] From the 1980s, the SECV maintained an active interest in a range of renewable energy sources, including wind generation, hydro-electric power and solar cell technology.[4] There was a growing focus on the potential for larger wind generators to supply electricity for industry, small communities or to feed directly into the power grid.[5]

The SECV and VSEC collaboration

From 1983, the SECV and the VSEC collaborated to conduct a wind monitoring study to identify suitable locations along the Victorian coastline for potential wind power generation. The study installed wind monitoring equipment at locations like Apollo Bay, Portland, Port Fairy, Swan Reach and Toora to gather data about wind speed and direction to determine the feasibility of connecting wind-powered generators to the state electricity grid.[6] From February 1985 to January 1987, wind data was gathered from ten wind monitoring locations along the coastline.

While the wind monitoring study was underway, the SECV and VSEC conceived of a demonstration wind turbine to test the potential for a grid-connected wind generator.[7] Around 1985, the SECV and VSEC received a grant from the National

[1] See the Word Heritage Site Mill Network at Kinderdijk-Elshout, Netherlands, built 1738-40, consisting of 19 windmills, pumping stations, sluices and Water Board Assembly Houses.
[2] SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[3] *Victorian Solar Energy Council Act 1980*.
[4] *Report of the State Electricity* Commission *of Victoria for the year ended 30 June 1985-86*, p. 86.
[5] SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[6] 'Study will be a breeze', *the Age*, 14 August 1984, p. 61; *Report of the State Electricity Commission of Victoria for the year ended 30 June 1987*, p. 84; SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[7] SECV & the Solar Council, *Wind power in Victoria*, August 1988.

Energy Research Development and Demonstration Program for the installation and operation of a wind turbine at the subject site.[8] The SECV reported in 1986 that it was working with the VSEC to establish a grid connected wind turbine and that a 75 kW aerogenerator was being constructed by a 'local manufacturer'.[9] The chosen site was owned by the Geelong and District Water Board (now Barwon Water). This local manufacturer withdrew from the project the following year.[10]

Establishment of the Demonstration Wind Turbine

In 1987, the SECV reported that it would proceed with a 60kW wind generator at the subject site, to be jointly funded with the VSEC.[11] The 60 kW Venco-Westwind generator, constructed in Western Australia, was erected in November 1987 and operated for the first time later that month. The SECV's annual report stated that 'information obtained from the operation of the demonstration aerogenerator at Breamlea will make a valuable contribution to assessing the future use of Victoria's wind energy resource'. Additionally, it was hoped the demonstration site would 'provide valuable operating experience and enable assessments to be made of the economics, reliability and environmental effects of wind generation'[12] and 'test the feasibility of using wind power on a larger scale'.[13] The wind turbine was installed at a cost of $180,000.[14] This was jointly funded by the SECV and VSEC, but the monitoring was solely funded by the VSEC. It was estimated the turbine would generate 100 000 to 130 000kWh annually, approximately enough energy to supply 20 homes for a year.[15]

Operation and ownership

The turbine was intended to have an educational function as well as providing data and operational experience for the SECV and VSEC. An article in the newsletter of the VSEC stated that 'educational institutions and the general public can see the operational wind generator…a large sign visible from the road explains how the system works'.[16] In early 1988, monitoring equipment was installed at the site.[17] From March 1988 until March 1989, 95,000 kWh was produced by the wind turbine and fed into the grid.

In early 1995, the Alternative Technology Association (ATA), a group focused on green energy and associated technologies, acquired the wind turbine from the SECV. The group carried out some repairs, modifications, and improvements to the turbine.[18] It generated a modest income for the ATA via the power it generated, then the group elected to sell the wind turbine to one of its members around 1996. The turbine continued to feed green power into the grid throughout the late 1990s and early 2000s.[19] In May 2003, an electrical generator burn-out within the turbine resulted in the need for major repairs. At this time, Barwon Water, the landowner, agreed to purchase the turbine for $1. Barwon Water then commissioned repairs to the generator to bring it back to operational condition.[20] Barwon Water started the turbine again in February 2004. Barwon Water carried out additional repairs to the blade tips in 2017. The turbine was eventually disconnected from the grid in 2012.

Other early wind power projects

The wind turbine at Connewarre was amongst the early Australian experiments in generating electricity for the power grid from wind in the latter decades of the twentieth century but was not alone. There was an interest in the potential of wind to provide electricity to remote communities, and wind turbines were installed on places like Rottnest Island in South Australia in the late 1970s. In 1983, the Mars Confectionery company installed the first medium-sized wind generator in Victoria at their factory in Ballarat. Although the Mars wind generator was reportedly connected to the electricity grid via the factory, it only supplied power to the factory.[21] Mars sponsored the generator, but the SECV and VSEC were aware of its existence, and it appears on a SECV/VSEC map of wind monitoring sites and wind turbine locations (see images

[8] *Report of the State Electricity Commission of Victoria for the year ended 30 June 1985-86*, p. 86.
[9] *Report of the State Electricity Commission of Victoria for the year ended 30 June 1985-86*, p. 86.
[10] *Report of the State Electricity Commission of Victoria for the year ended 30 June 1985-86*, p. 86; *Report of the State Electricity Commission of Victoria for the year ended 30 June 1987*, p. 85.
[11] *Report of the State Electricity Commission of Victoria for the year ended 30 June 1987*, p. 85.
[12] *Report of the State Electricity Commission of Victoria for the year ended 30 June 1988*, p. 75.
[13] *Solutions*, Summer 1988.
[14] SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[15] SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[16] *Solutions*, Summer 1988.
[17] 'Breamlea wind generator', *Solutions*, Undated.
[18] Michael Gunter, *ReNew*, Issue 100, July-September 2007, p. 54.
[19] Michael Gunter, *ReNew*, Issue 100, July-September 2007, p. 54.
[20] Michael Gunter, *ReNew*, Issue 100, July-September 2007, p. 54.
[21] SECV & the Solar Council, *Wind power in Victoria*, August 1988.

below).[22] This generator was damaged in high winds and was no longer functional by the time the Demonstration Wind Turbine began operation just a few years later.

In Western Australia, the Salmon Beach Wind Farm near Esperance began operation in early 1987. It comprised six 60kW wind turbines manufactured by Westwind (the same as that at Connewarre) and began supplying wind-generated power to supplement Esperance's diesel generator. It was decommissioned in 2002. As of 2022, one of the Salmon Beach wind turbines remains standing in situ and can be visited as part of an interpretative heritage trail. Another has been installed as a monument in the town of Esperance. The Salmon Beach Wind Farm turbines were very similar in design to the Demonstration Wind Turbine at Connewarre.

A wind turbine was also installed by the New South Wales Energy Authority at Malabar south of Sydney in 1987.[23] Like the Demonstration Wind Turbine at Connewarre, the Energy Authority erected the 150kW Windmaster turbine, manufactured in Belgium, mainly for research purposes, although it did supply power to the Malabar sewage treatment works.[24] The Malabar turbine was removed in 2000. At the time of writing, the wind turbine at Connewarre appears to be one of the only comparable wind turbines of the era to survive in Australia, and to remain in situ at its original location with additional features, being the monitoring hut and wind monitoring tower, in place.

Wind power today

Along with solar power, wind power has become an increasingly important and widespread form of power generation in Victoria. From testing individual turbines in the 1980s, the sector is now characterised by 'farms' of turbines which are significantly taller and more powerful than their predecessors. Large-scale wind farms established by private enterprise were established along the coast of Victoria from the early 2000s, Codrington Wind Farm near Portland being one of the first, followed by Toora and Wonthaggi. More recently, wind farms have been established or proposed inland. There are currently 41 windfarms and approximately 2,500 wind turbines in Victoria. Victoria's windfarms generated around 21% of Victoria's electricity in 2023 and are a key element of achieving the Victorian government's renewable energy targets.[25] The Demonstration Wind Turbine at Connewarre provided early evidence that wind power was viable in Victoria.

[22] 'Wind power for factory', *Canberra Times*, 22 January 1983, p. 8.
[23] SECV & the Solar Council, *Wind power in Victoria*, August 1988.
[24] 'Energy Authority wants to know watts in the wind', *Sydney Morning Herald*, 7 February, p. 3; '22-metre wind generator for Malabar', *Sydney Morning Herald*, 29 June 1985, p. 7.
[25] DEECA, 'Wind Energy', https://www.energy.vic.gov.au/renewable-energy/wind-energy.

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Gunter, Michael., *ReNew*, Issue 100, July-September 2007, p. 54.

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‘Study will be a breeze’, *Age*, 14 August 1984, p. 61.

‘Wind power for factory’, *Canberra Times*, 22 January 1983, p. 8.

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SECV & the Solar Council, *Wind power in Victoria*, August 1988.

SECV & the Solar Council, *Joint Wind Monitoring Study Final Report*, March 1988.

Report of the State Electricity Commission *of Victoria for the year ended 30 June 1985-86*.

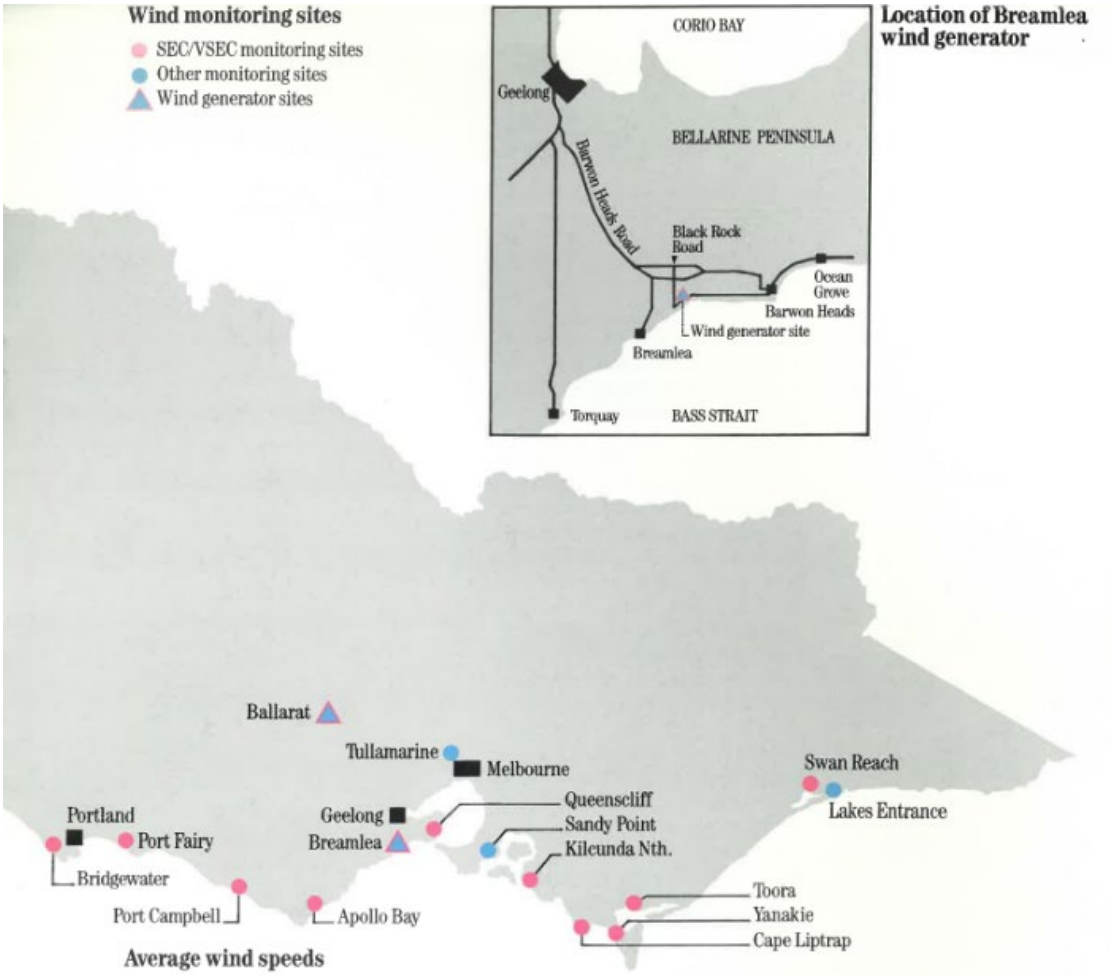
Report of the State Electricity Commission of Victoria for the year ended 30 June 1987.

Report of the State Electricity Commission of Victoria for the year ended 30 June 1988.

Interviews and consultation

The ED thanks Nick Wardrop, Victorian Solar Energy Council electrical engineer from 1986–1991, for sharing his knowledge of the Demonstration Wind Turbine.

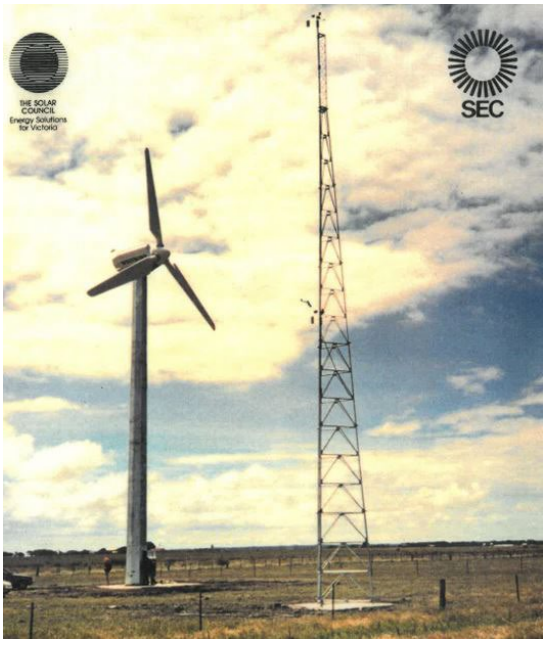
Historical images



Map showing SECV/VSEC wind monitoring sites (pink circles), as well as the locations of the Connewarre (Breamlea) and turbine at the Mars factory in Ballarat (blue triangles).

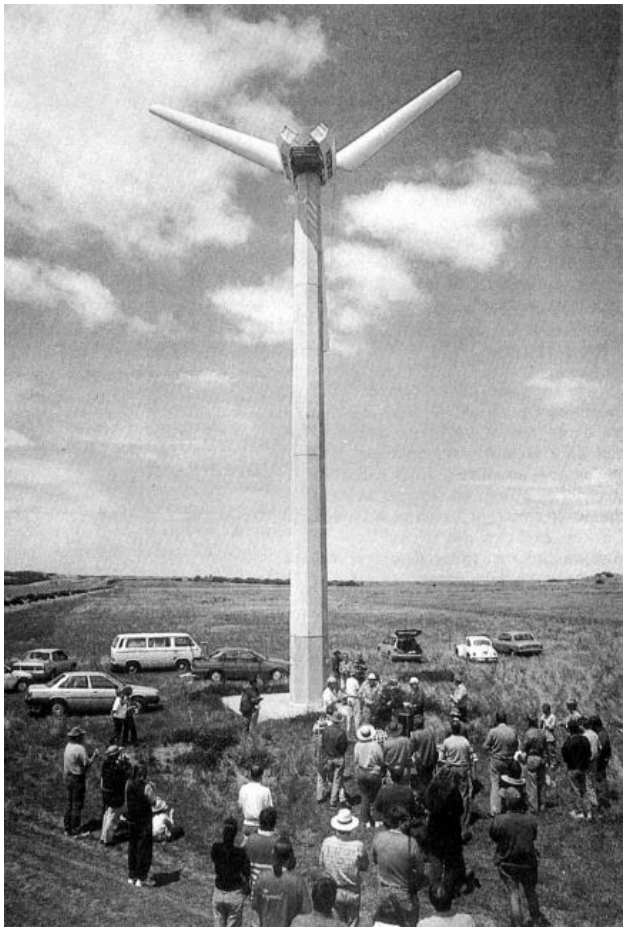
1987, Demonstration Wind Turbine being erected, Source: Waking up in Geelong website, <https://wongm.com/2011/10/breamlea-wind-turbine/>.

1987, Demonstration Wind Turbine being erected, Source: Solutions *(newsletter of the Victorian Solar Energy Council).*



1988, Demonstration Wind Turbine, Source: Joint Wind Monitoring Study Final Report *March 1988*

1988, photograph of the wind turbine showing the monitoring hut (far left) and meteorological monitoring tower with anemometers installed at the top of the tower and at 10 metres. Source: Solutions *(newsletter of the Victorian Solar Energy Council), Autumn 1988.*



1995, the wind turbine photographed in 1995 when it was owned by the ATA, Source: Soft Technology, *Issue 50, Jan-Mar 1995, p. 51.*

1997, the turbine on the cover of ReNew *magazine, photographed with then owner Michael Gunter,* ReNew, *Issue 58, Jan-Mar 1997.*

Further information

Traditional Owner Information

The place is located on the traditional land of the Wadawurrung People. Under the *Aboriginal Heritage Act 2006*, the Registered Aboriginal Party for this land is the Wadawurrung Traditional Owner Aboriginal Corporation.

Victorian Aboriginal Heritage Register

The place is within an area of Aboriginal cultural heritage sensitivity.

(28 February 2025)

Integrity

The integrity of the place is excellent. Its cultural heritage values can be easily read in the extant fabric, which includes the wind turbine itself as well as the monitoring hut and wind monitoring tower. These structures are original to the initial demonstration project funded by the SECV and VSEC. The turbine is no longer connected to the electricity grid. (28 February 2025)

Intactness

The intactness of the place is very good. There have been repairs and refurbishment of the place over its life but major original structures are in place. (28 February 2025)

Condition

Visually, the condition of the Demonstration Wind Turbine appears to be good, but closer inspection by engineers has revealed areas of significant deterioration, which suggest the wind turbine is in fair/poor condition.

There is corrosion to some key elements, including significant corrosion below the slewing ring at the top of the tower. There are other areas of localised corrosion to the wind turbine. One of the blade tips is visibly out of alignment. The monitoring hut and wind monitoring tower appear to be in good condition. (28 February 2025)

Note: The condition of a place or object does not influence the assessment of its cultural heritage significance. A place or object may be in very poor condition and still be of very high cultural heritage significance. Alternatively, a place or object may be in excellent condition but be of low cultural heritage significance.

Other information

Heritage Overlay

There is no Heritage Overlay for the place.

Other relevant planning scheme overlays

There are no other planning scheme overlays for the place.

Other Listings

There are no other listings for the place.

Other Names

Breamlea wind generator

Wind turbine, Connewarre

Date of construction/creation

1987 – wind turbine

1988 – monitoring hut and wind monitoring tower installed

Architect/Builder/Designer/Maker

Westwind/Venco

Statutory requirements under Section 40

Terms of the recommendation (Section 40(3)(a))

The Executive Director recommends that the Demonstration Wind Turbine is included in the VHR.

Information to identify the place or object or land (Section 40(3)(b))

Number: PROV H2462

Category: Registered place

Name: Demonstration Wind Turbine

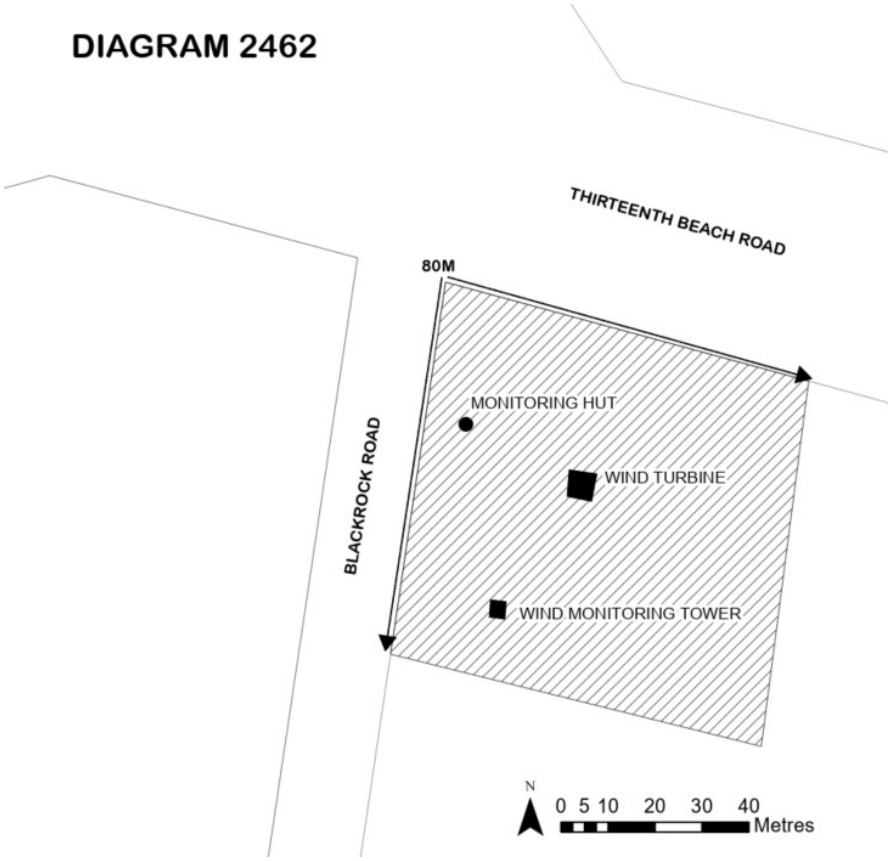
Location: 395 Blackrock Road, Connewarre

Municipality: Greater Geelong City

Proposed extent of registration

The Executive Director recommends that the extent of registration for the Demonstration Wind Turbine be gazetted as:

All of the place shown hatched on Diagram 2462 encompassing part of Lot 1 on Title Plan 600592 to the extent of an 80m square from the corner of the title boundary.



Non-statutory information about the proposed extent of registration

Aerial photo of the place showing proposed extent of registration

Note: This aerial view provides a visual representation of the place. It is not a precise representation of the recommended extent of registration. Due to distortions associated with aerial photography some elements of the place may appear as though they are outside the extent of registration.

Rationale for the proposed extent of registration

The recommended extent of registration includes significant structures at the place, being the wind turbine, wind monitoring tower, monitoring hut and all fixtures within the turbine and hut. It also includes sufficient land around these features to provide a setting and for change to the place to be managed via a Heritage Victoria approval process. It is a straightforward extent of registration that is easily discernible when mapped and on the ground.

It should be noted that everything included in the proposed extent of registration, including all of the land, all structures, any fixtures attached to structures and any sub-surface features (including cables connecting the structures), are proposed for inclusion in the VHR. A permit or permit exemption from Heritage Victoria is required for any works within the proposed extent of registration, apart from those identified in the categories of works or activities in this recommendation.

Reasons for the recommendation, including an assessment of the State-level cultural heritage significance of the place (Section 40(3)(c))

Following is the Executive Director's assessment of the Demonstration Wind Turbine against the tests set out in *The Victorian Heritage Register Criteria and Thresholds Guidelines (2022)*. A place or object must be found by the Heritage Council to meet Step 2 of at least one criterion to meet the State level threshold for inclusion in the VHR.

CRITERION A: Importance to the course, or pattern, of Victoria's cultural history.

Step 1 Test for Criterion A

No.	Test	Yes/No	Reason
A1)	Does the place have a clear association with an event, phase, period, process, function, movement, custom or way of life in Victoria's cultural history?	Yes	The place has a clear association with the development of sources of renewable energy in Victoria in the 1970s and 1980s.
A2)	Is the event, phase, period, process, function, movement, custom or way of life of historical importance, having made a strong or influential contribution to Victoria?	Yes	This phase is of historical importance having made a strong and influential contribution to Victoria. Victoria has historically been reliant on fossil fuels, particularly coal, for producing electricity. Although the SECV had utilised hydroelectric power plants from the 1920s, coal burning power plants remained central to its provision of electricity. From the 1970s, there was a growing interest in the community and within government in forms of renewable energy – particularly solar and wind. Efforts to demonstrate that an electrical supply could be generated from renewable sources in this period were a manifestation of increasing concerns about the availability of fossil fuels and their impact on the environment. Research and early demonstrations of these technologies in the 1970s and 1980s were an important precursor to the renewable energy industry in Victoria.
A3)	Is there evidence of the association to the event, phase, period, process, function, movement, custom or way of life in Victoria's cultural history?	Yes	There is ample evidence of the association between the place and this phase. It was established in 1987 by the SECV and VSEC to study the potential of wind energy in Victoria and to provide operational experience and educational opportunities. The site retains key original structures being the wind turbine, monitoring hut and meteorological monitoring mast. The project is well documented.
If A1, A2 and A3 are <u>all</u> satisfied, then Criterion A is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		Yes	Criterion A is likely to be relevant.

Step 2 State-level test for Criterion A

No.	Test	Yes/No	Reason
SA1)	Does the place allow the clear association with the event, phase, period, process, function, movement, custom or way of life of historical importance to be understood better than most other places or objects in Victoria with substantially the same association?	Yes	The place allows the phase above to be understood better than most other places with substantially the same association. The wind turbine is distinctive in that it was established by two Victorian government agencies and was designed to feed electricity into the state electricity grid. There are very few places or objects in Victoria which demonstrate the Victorian government's emerging interest in renewable energy in the latter decades of the twentieth century. Other wind turbines in Victoria appear to be substantially later or were only for small-scale private use. The site has a high degree of integrity, including the retention not just of the wind turbine but of related structures. This enables its function and operation to be well understood. It is in a prominent location where it can be viewed by the public.
If SA1 is satisfied, then Criterion A is likely to be relevant at the State level			
Executive Director's Response:		Yes	Criterion A is likely to be relevant at the State level.

CRITERION B: Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

Step 1 Test for Criterion B

No.	Test	Yes/No	Reason
B1)	Does the place have a clear association with an event, phase, period, process, function, movement, custom or way of life of importance in Victoria's cultural history?	Yes	As above, the place has a clear association with the development of sources of renewable energy in Victoria in the 1970s and 1980s.
B2)	Is there evidence of the association to the historical phases etc identified at B1)?	Yes	As above, there is ample evidence of an association between the place and the phase.
B3)	Is there evidence that place is rare or uncommon, or has rare or uncommon features?	Yes	B3(i) There is evidence that the place is rare or uncommon. Few comparable wind turbines from the era appear to survive in Victoria. There are few places or objects related to early government efforts to establish renewable energy sources. B3(ii) There is no evidence that the place has rare or uncommon features.

		The turbine is now uncommon but is broadly comparable to conventional designs emerging from Europe and the United States in the era.

If B1, B2 AND B3 are satisfied, then Criterion B is likely to be relevant (but not necessarily at the State level)

Executive Director's Response:	Yes	Criterion B is likely to be relevant.

Step 2 State-level test for Criterion B

No.	Test	Yes/No	Reason
SB1)	Is the place rare or uncommon, being one of a small number of places/objects remaining that demonstrates the event, phase, etc identified at B1)?	Yes	The wind turbine is rare being one of a small number of places or objects remaining that demonstrates exploration of sources of renewable power in the latter decades of the twentieth century.
SB2)	Is the place rare or uncommon, containing unusual features, and these features are of note and these features were not widely replicated in Victoria?	No	The place is not rare or uncommon for containing unusual features or note.
SB3)	Is the existence of the class place that demonstrates the historical phases at B1) endangered to the point of rarity due to threats and pressures on such places/objects in Victoria?	Yes	The Demonstration Wind Turbine is of the class of wind turbines. It is an important and comparatively early surviving example. Few comparable wind turbines from the era appear to survive in Victoria or Australia.

If <u>any one</u> of SB1, SB2 OR SB3 is satisfied, then Criterion B is likely to be relevant at the State level

Executive Director's Response:	Yes	Criterion B is likely to be relevant at the State level.

CRITERION C: Potential to yield information that will contribute to an understanding of Victoria's cultural history.

Step 1 Test for Criterion C

No.	Test	Yes/No	Reason
C1)	Does physical fabric and/or documentary evidence and/or associated oral history or cultural narratives relating to the place indicate a likelihood that the place contains evidence of cultural heritage significance that is not currently visible and/or well understood or available from other sources?	Yes	The: 1) physical fabric and 2) documentary evidence and 3) associated oral history or cultural narratives. relating to the Demonstration Wind Turbine do not indicate a likelihood that the place contains evidence of cultural heritage significance that is not currently visible and/or well understood or available from other sources. The place has subsurface elements. The wind monitoring tower, wind turbine and monitoring hut are connected to each other with underground cables. They are part of the place but are unlikely to reveal information about the

			electrical engineering etc that could not be gained elsewhere.
C2)	And, from what we know of the place, is the physical evidence likely to be of an integrity and/or condition that it could yield information through detailed investigation?	N/A	The integrity and condition of the place may be good, but it is unlikely to yield information through investigation that is not currently visible and/or well understood or available from other sources (see C1).
If <u>both</u> C1 AND C2 are satisfied, then Criterion C is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		No	Criterion C is not likely to be relevant.

CRITERION D: Importance in demonstrating the principal characteristics of a class of cultural places and objects

Step 1 Test for Criterion D

No.	Test	Yes/No	Reason
D1)	Is the place one of a class of places/objects that has a clear association with an event, phase, period, process, function, movement, custom or way of life in Victoria's history?	Yes	The Demonstration Wind Turbine belongs to the class of wind turbine. This class has a clear association with the development of renewable energy sources in Victoria in the latter decades of the twentieth century.
D2)	Is the event, phase, period, process, function, movement, custom or way of life of historical importance, having made a strong or influential contribution to Victoria?	Yes	As described above at Criterion A, this phase is of historical importance.
D3)	Are the principal characteristics of the class evident in the physical fabric of the place?	Yes	The principal characteristics of the class are evident in the physical fabric of the place. The principal characteristics of the class include rotating blades attached to a generator which is mounted on a tower.
If D1, D2 AND D3 are satisfied, then Criterion D is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		Yes	Criterion D is likely to be relevant.

Step 2 State-level test for Criterion D

No.	Test	Yes/No	Reason
SD1)	Is the place a notable (fine, influential or pivotal) example of the class in Victoria?	No	The Demonstration Wind Turbine is of the class of wind turbine and has the characteristics of a medium-sized wind turbine of the era. However, in the ED's view, its historical significance and rarity are best considered under Criterion A, B and F, rather than Criterion D.
If SD1 is satisfied, then Criterion D is likely to be relevant at the State level			
Executive Director's Response:		No	Criterion D is not likely to be relevant at the State level.

CRITERION E: Importance in exhibiting particular aesthetic characteristics.

Step 1 Test for Criterion E

No.	Test	Yes/No	Reason
E1)	Does the physical fabric of the place clearly exhibit particular aesthetic characteristics?	Yes	The physical fabric of the place exhibits aesthetic characteristics related to its visual qualities and landmark characteristics.
If E1 is satisfied, then Criterion E is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		Yes	Criterion E is likely to be relevant.

Step 2 State-level test for Criterion E

No.	Test	Yes/No	Reason
SE1)	Are the aesthetic characteristics 'beyond the ordinary' or are outstanding as demonstrated by: • Evidence from within the relevant discipline (architecture, art, design or equivalent); and/or • Critical recognition of the aesthetic characteristics of the place within a relevant art, design, architectural or related discipline within Victoria; and/or • Wide public acknowledgement of exceptional aesthetic qualities of the place in Victoria expressed in publications, print or digital media, painting, sculpture, songs, poetry, literature, or other media?	No	There is no evidence that the aesthetic characteristics at the place are 'beyond the ordinary' or are outstanding. The turbine is an interesting structure that is highly visible in the landscape. However, there is no evidence that its aesthetic characteristics are beyond the ordinary or are outstanding.
If SE1 is satisfied, then Criterion E is likely to be relevant at the State level			
Executive Director's Response:		Yes	Criterion E is not likely to be relevant at the State level.

CRITERION F: Importance in demonstrating a high degree of creative or technical achievement at a particular period.

Step 1 Test for Criterion F

No.	Test	Yes/No	Reason
F1)	Does the place contain physical evidence that clearly demonstrates creative or technical achievement for the time in which it was created?	Yes	The Demonstration Wind Turbine contains physical evidence that clearly demonstrates creative or technical achievement for the time in which it was created. It is Victoria's first wind turbine successfully connected to the State electricity grid. It represents the first efforts of Victorian government agencies to seriously investigate the potential of generating wind power for the State electricity grid. It applied emerging technologies to the issue of Victoria's reliance on fossil fuels. Despite being designed as a demonstration unit it, it fed power to the grid for 25 years before being disconnected.
F2)	Does the physical evidence demonstrate a high degree of integrity?	Yes	The physical evidence at the place demonstrates a high degree of integrity. Although it has been updated and repaired over its history, it retains its wind turbine in situ as well as other significant structures.
If <u>both</u> F1 and F2 are satisfied, then Criterion F is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		Yes	Criterion F is likely to be relevant.

Step 2 State-level test for Criterion F

No.	Test	Yes/No	Reason
SF1)	Is the nature and/or scale of the achievement of a high degree or 'beyond the ordinary' for the period in which it was undertaken as demonstrated by one or more forms of evidence: • evidence from within the relevant creative or technological discipline that recognises the place as a breakthrough in terms of design, fabrication or construction techniques <u>and/or</u> as a successful solution to a technical problem that extended the limits of existing technology; • critical acclaim of the place within the relevant creative or	Yes	There is evidence that the nature of the achievement is of a high degree or 'beyond the ordinary' within Victoria for the period in which it was undertaken. Similar demonstration wind turbines were erected in other Australian states in the same era, and Australia's first commercial wind farm had begun operation in Western Australia earlier in 1987. However, the Demonstration Wind Turbine at Connewarre represents the first time a wind power was successfully fed into the state electricity grid in Victoria. This required sophisticated electrical engineering and integration of systems. Its successful operation enabled valuable data to be gathered about the potential for the generation of wind power in Victoria. Coverage in publications such as *Renew Economy* and *ReNew Magazine* acknowledges the Demonstration Wind Turbine's status as an important early experiment in the potential of wind power.[26] Despite being designed as a

[26] 'Blow out the candles: Australia's oldest wind turbine turns 25', *Renew Economy*, 4 December 2021 <https://reneweconomy.com.au/blow-out-the-candles-australias-oldest-wind-turbine-turns-25-95412/>; 'Australia's oldest wind turbine faces final spin, will be dismantled after nearly 40 years or

technological discipline as an outstanding example in Victoria; • wide acknowledgement of exceptional merit in Victoria in media such as publications or print/digital media; • recognition of the place as an outstanding example of the creative adaptation of available materials and technology of the period?		demonstration unit only, it is acknowledged for the longevity of its operation.

If SF1 is satisfied, then Criterion F is likely to be relevant at the State level

Executive Director's Response:	Yes	Criterion F is likely to be relevant at the State level.

CRITERION G: Strong or special association with a particular present-day community or cultural group for social, cultural or spiritual reasons

Step 1 Test for Criterion G

No.	Test	Yes/No	Reason
G1)	Does the place demonstrate social value to a community or cultural group in the present day in the context of its cultural heritage significance? Evidence must be provided for all three facets of social value listed here:		
i)	Existence of a community or cultural group; and	Yes	There is evidence that communities exist in relation to the place, being those with an interest in renewable energy, and residents in the region who are aware of the turbine.
ii)	Existence of a strong attachment of a community or cultural group to the place or object; and	No	There is evidence that members of these communities have an awareness of the turbine and value its history and landmark qualities. However, this could not be said to amount to a strong attachment between these communities and the place.
iii)	Existence of a time depth to that attachment.	N/A	

If all facets of G1 are satisfied, then Criterion G is likely to be relevant (but not necessarily at the State level)

Executive Director's Response:	No	Criterion G is not likely to be relevant.

service', *Renew Economy*, 30 September 2024 https://reneweconomy.com.au/australias-oldest-wind-turbine-faces-final-spin-will-be-dismantled-after-nearly-40-years-or-service/; Michael Gunter, *ReNew*, Issue 100, July-September 2007.

CRITERION H: Special association with the life or works of a person, or group of persons, of importance in Victoria's history.

Step 1 Test for Criterion H

No.	Test	Yes/No	Reason
H1)	Does the place have a direct association with a person, or group of persons who have made a strong or influential contribution in their field of endeavour?	Yes	H1(i) There is a direct association between the Demonstration Wind Turbine and several individuals and groups of people. The State Electricity Commission of Victoria (SECV) and Victorian Solar Energy Council (VSEC) are the most notable of these. Both organisations were key in the planning, establishment and early operation of the turbine. Both were government agencies in their fields. H1(ii) As key government agencies involved in the evolution of electricity supply in Victoria, both organisations have made a strong or influential contribution in their field.
H2)	Is there evidence of the association between the place and the person(s)?	Yes	There is evidence of the association between the Demonstration Wind Turbine and the organisations named above. There is ample evidence in documentary material concerning the place.
H3)	Does the association relate: • directly to achievements of the person(s); and • to an enduring and/or close interaction between the person(s) and the place?	Yes	H3(i) The association between the Demonstration Wind Turbine and SECV and VSEC relates directly to their achievements. It is indicative of the ingenuity of the SECV and VSEC and their willingness to investigate emerging forms of power generation. H3(ii) The association relates to a close interaction between the groups above and the Demonstration Wind Turbine. They established and operated the turbine.
If all facets of H1, H2 AND H3 are satisfied, then Criterion H is likely to be relevant (but not necessarily at the State level)			
Executive Director's Response:		Yes	Criterion H is likely to be relevant.

Step 2 State-level test for Criterion H

No.	Test	Yes/No	Reason
SH1)	Are the life or works of the person/persons important to Victoria's history?	Yes	**SECV** The life or works of the SECV are important in Victoria's history. The SECV assumed responsibility for the Victorian government's provision of electricity from its formation in 1918 until its functions were privatised in the 1990s. **VSEC** The VSEC operated from 1980 until 1990 and was important in establishing government interest in renewable energy in Victoria. However, it is one of many small organisations established from the 1970s whose work

			related to renewable energy and 'green' technologies. In this context, this single agency cannot necessarily be said to be important to Victoria's history.
SH2)	Does this place allow the association between the person or group of persons and their importance in Victoria's history to be readily appreciated better than most other places or objects in Victoria?	No	The place does not allow the association between SECV and its importance in Victoria's history to be readily appreciated more than most other places or objects in Victoria. The SECV was responsible for a great number of large capital works programs over its history – including major power plants that were key parts of Victoria's electrical infrastructure over many decades. The Demonstration Wind Turbine is an important early symbol of the emergence of renewable power but could not be said to be foremost among the SECV's achievements. By comparison, the Morwell Power Station and Briquette Factory (VHR H2377) is included in the VHR on the basis that it is indicative of the SECV's achievements and meets Criterion H at the State level.
If SH1 <u>and</u> SH2 are satisfied, then Criterion H is likely to be relevant at the State level			
Executive Director's Response:		No	Criterion H is not likely to be relevant at the State level.

Comparisons

Windmills in the VHR

WINDMILL FARM (VHR H0311)

1203 KYNETON-METCALFE ROAD KYNETON, MACEDON RANGES SHIRE

Windmill Farm is historically significant as Victoria's only known surviving wind-driven flour (grain) mill. Built in 1856, it is a rare example of a stone windmill base and was one of six of its type in Victoria in the 1850s. The complex includes a bluestone windmill (without its rotating sails), small timber residence, substantial timber barn and smaller outbuildings. The windmill is a battered circular tower constructed of random coursed bluestone.

Places in the VHR associated with the generation of electricity

MORWELL POWER STATION AND BRIQUETTE FACTORY

412 COMMERCIAL ROAD MORWELL, LATROBE CITY

VHR H2377

The Morwell Power Station and Briquette Factories is of historical significance to the State of Victoria. It was the centrepiece of the Victorian Government's post-WWII strategy to revitalise Victoria's economic growth through the development of the Latrobe Valley by the SECV into the state's principal power and energy producing region. Built between 1949 and 1959, it was the second of Victoria's large-scale power stations (the first being the Yallourn Power Station which started powering Melbourne in 1924). With the demolition of Old Yallourn between 1995 and 1999, Morwell is now the earliest surviving large-scale power station designed to provide electricity to the state electricity network. The power station has now been demolished under a permit from Heritage Victoria. The Briquette Factory remains.

FORMER YALLOURN POWER STATION ADMINISTRATIVE BUILDING

YALLOURN DRIVE YALLOURN, LATROBE CITY

VHR H1054

The former Yallourn Power Station Administrative Building is historically important as the key surviving component of the first power station complex in Victoria designed to provide state-wide public supply of electricity. The first Yallourn Power Station was opened in 1924, soon after the formation of the SECV. The Station pioneered the technological

development of large-scale brown coal use for energy production in Victoria. The generation of electricity in the Latrobe Valley has been a cornerstone of Victoria's economy, particularly after the Second World War when the abundant and reliable supply of electricity stimulated the development of manufacturing industries throughout the State.

FORMER RICHMOND POWER STATION

658 CHURCH STREET CREMORNE, YARRA CITY

VHR H1055

The Former Richmond Power Station is of historical, technological and architectural significance to the State of Victoria. The power station was constructed by the New Australian Electric Lighting and Traction Co and opened in 1891. It is historically significant as evidence of the evolution of the electricity supply industry in Victoria during its most important formative years, and may be the oldest electric power station in Victoria. The Former Richmond Power Station is of technological significance as an important remnant example of a nineteenth-century coal-fired electricity generating station.

VICTORIA FALLS HYDRO-ELECTRIC POWER STATION

VICTORIA FALLS ROAD COBUNGRA, EAST GIPPSLAND SHIRE

VHR H1942

The Victoria Falls Hydro-Electric Power Station is of historical and technological significance to the State of Victoria. It was constructed by the Cassilis Gold Mining Company and completed in 1907. It is the site of Victoria's earliest large-scale hydro-electric power scheme constructed for gold mining purposes and enabled all the mine's steam engines to be replaced by electric motors. Hydro-electricity was a popular choice for remote mining locations that were far removed from mains power but had plentiful access to water. Equipment has been removed from the site but the locations of major components are still visible.

RUBICON HYDRO-ELECTRIC SCHEME

580 RUBICON ROAD AND RUBICON ROAD AND TOLSHERS ROAD AND RUBICON RIVER ROAD AND SNOBS NO.6 TRACK RUBICON, MURRINDINDI SHIRE

VHR H1187

The Rubicon Hydro-Electric Scheme is of historical and technological significance to the State of Victoria. The SECV commissioned the scheme in 1928, which consists of a series of dams, aqueducts and power stations. It was the first state-owned hydroelectric scheme. It continues to contribute a small amount of power to the electricity grid.

Places associated with energy conservation in the VHR

SOLAR HOUSE

32 ROSCO DRIVE TEMPLESTOWE, MANNINGHAM CITY

VHR H1312

The Solar House is of historical, technical and architectural importance to the State of Victoria. It was designed by architects Cocks and Carmichael Landmark Solar Houses Pty Ltd in 1978-79. It was designed with a range of energy conservation features, including solar central heating and hot water system, insulation, sun protection and careful orientation and zoning of internal spaces. It is historically important as the manifestation of a realisation which emerged during the 1970s that the supply of fossil fuels was exhaustible, that energy conservation was desirable, and that alternative sources of energy, such as the sun, could be commercially viable for heating residential buildings. The Solar House is technically and architecturally important as the first commercially available solar energy project house in Australia.

Wind farms in Victoria (not in the VHR)

CODRINGTON WIND FARM

PRINCES HIGHWAY, CODRINGTON

Codrington Wind Farm was officially opened by Premier Steve Bracks in July 2001. It is located in Codrington between Port Fairy and Portland in southwest Victoria. It was established by Pacific Blue energy and when it was completed was the largest wind farm in Australia and is one of the earliest. The site comprises 14 wind turbines, which measure 50 metres in height. The installation is sited to take advantage of the strong winds blowing off the Southern Ocean. It was recently announced that Codrington would be decommissioned, and the turbines removed from site.

TOORA WIND FARM

SILCOCKS HILL ROAD, TOORA

The Toora Wind Farm is located north of the town of Toora in south Gippsland. It was completed in 2002 by the Danish-owned Vestas Wind Systems and has 12 wind turbines. It is now owned by Transfield Ltd and remains operational.

GOLDEN PLAINS WIND FARM

ROKEWOOD–SKIPTON ROAD, ROKEWOOD

The Golden Plains wind energy facility located in Rokewood, between Colac and Ballarat in western Victoria. When completed it will comprise up to 228 turbines that measure 230 metres in height with a rotor diameter of 165 metres. it will be the largest wind farm project in Australia, powering the equivalent of 765,000 homes. The first stage of the Golden Plains wind farm began feeding into the electricity grid in late 2024.

Summary of Comparisons

There are a range of places in the VHR that relate to the provision of electricity in Victoria from the late nineteenth century until the mid-twentieth century. Some relate to the early provision of electricity in the steam power era by private companies (Former Richmond Power Station, VHR H1055). Other places, such as Former Yallourn Power Station Administrative Building (VHR H1054) and Morwell Power Station and Briquette Factory, are related to the establishment and development of the SECV and important eras in the Victorian government's efforts to supply reliable electricity to the State via local coal supplies. Places like the Rubicon Hydro Electric Scheme (VHR H1187) provide evidence of the SECV's diverse efforts to supply energy to Victoria's power grid. These places exhibit a range of responses to the ongoing challenge of supplying electricity across Victoria. They illustrate key stages in the evolution of electricity supply in the State of Victoria, an attribute that the Demonstration Wind Turbine shares. Unlike these places, the Demonstration Wind Turbine has the capacity to demonstrate the emerging interest in renewable energy sources in the latter decades of the twentieth century and recognition of their potential as a reliable and sustainable source of power for the State.

Inclusion of the Solar House (VHR H1312) in the VHR demonstrates that concerns about fossil fuels developing in the 1970s and 1980s are a phase of importance in Victoria's cultural history. Although typologically different, the Demonstration Wind Turbine is a manifestation of the same concerns and a place that enables the phase to be well understood.

The establishment of commercial wind farms in the early 2000s is evidenced in places like Codrington and Toora wind farms. The Demonstration Wind Turbine is an important precursor to these wind farms, and evidence of emerging interest in the technology. The present-day importance and success of wind power in Victoria is demonstrated by places like the Golden Plains Wind Farm, which began feeding power to the grid in 2024. The Demonstration Wind Turbine represents an important early step in the evolution of wind power in Victoria.

Summary of cultural heritage significance (Section 40(4))

Statement of significance

What is significant?

The Demonstration Wind Turbine is located on the land of the Wadawurrung People.

The Demonstration Wind Turbine is an electrical wind turbine located close to the coastline at Connewarre. Built in Western Australia, it was erected in 1987 by the State Electricity Commission of Victoria (SECV) and Victorian Solar Energy Council (VSEC) to test the viability of wind as a source of power for the state electricity grid. Significant features include the wind turbine itself, the accompanying wind monitoring tower and monitoring hut.

How is it significant?

The Demonstration Wind Turbine is of historical and technical significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

Criterion A

Importance to the course, or pattern, of Victoria's cultural history.

Criterion B

Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

Criterion F

Importance in demonstrating a high degree of creative or technical achievement at a particular period.

Why is it significant?

The Demonstration Wind Turbine is historically significant for its association with the development of renewable energy in the late twentieth century in Victoria. It was established as a collaborative project between the SECV and VSEC to demonstrate the potential of wind energy to feed power to the state electricity grid. The site retains several features that enable its function and operation to be well understood. It is emblematic of the Victorian Government's emerging commitment to renewable energy in the 1980s, and growing public concerns about the long-term viability of electricity derived from fossil fuels. It was an important precursor of Victoria's wind power industry, which by the early 2000s had evolved into large-scale wind farms. [Criterion A]

The Demonstration Wind Turbine is significant as a rare surviving example of a place that can demonstrate the growing interest in renewable energy sources in the latter decades of the twentieth century. It is also a rare surviving example of a wind turbine from the 1980s in a state and national context. It is uncommon in that it remains in place and retains the wind monitoring tower and monitoring hut in addition to the wind turbine. [Criterion B]

The Demonstration Wind Turbine is technically significant as an important experiment in the viability of wind powered electricity in Victoria. It was the first wind turbine in Victoria to be successfully connected to the state electricity grid. The erection and successful operation of the turbine is acknowledged as an important early step in the evolution of wind power in Victoria. It applied emerging technologies to the issue of Victoria's reliance on fossil fuels. Despite being established as a demonstration project, the turbine continued to feed electricity into the grid until 2012 and has been widely acknowledged for the longevity of its operation. [Criterion F]

Recommended permit exemptions under Section 38

Introduction

A heritage permit is required for all works and activities undertaken in relation to VHR places and objects. Certain works and activities are exempt from a heritage permit, if the proposed works will not harm the cultural heritage significance of the heritage place or object.

Permit Policy

It is recommended that a Conservation Management Plan or similar is developed and utilised to manage the place in a manner which respects its cultural heritage significance.

Permit Exemptions

General Permit Exemptions

General exemptions apply to all places and objects included in the VHR. General exemptions have been designed to allow everyday activities, maintenance and changes to your property, which don't harm its cultural heritage significance, to proceed without the need to obtain approvals under the *Heritage Act 2017*.

Places of worship: In some circumstances, you can alter a place of worship to accommodate religious practices without a permit, but you must notify the ED before you start the works or activities at least 20 business days before the works or activities are to commence.

Subdivision/consolidation: Permit exemptions exist for some subdivisions and consolidations. If the subdivision or consolidation is in accordance with a planning permit granted under Part 4 of the *Planning and Environment Act 1987* and the application for the planning permit was referred to the ED as a determining referral authority, a permit is not required.

Specific exemptions may also apply to your registered place or object. If applicable, these are listed below. Specific exemptions are tailored to the conservation and management needs of an individual registered place or object and set out works and activities that are exempt from the requirements of a permit. Specific exemptions prevail if they conflict with general exemptions.

Find out more about heritage permit exemptions here.

Specific Permit Exemptions

The works and activities listed below under the heading 'Exempt works and activities' are not considered to cause harm to the cultural heritage significance of the Demonstration Wind Turbine. These are subject to the following guidelines and conditions:

Guidelines for specific permit exemptions

1. Where there is an inconsistency between permit exemptions specific to the registered place or object ('specific exemptions') established in accordance with either Section 49(3) or Section 92(3) of the Act and general exemptions established in accordance with Section 92(1) of the Act specific exemptions will prevail to the extent of any inconsistency.
2. In specific exemptions, words have the same meaning as in the Act, unless otherwise indicated. Where there is an inconsistency between specific exemptions and the Act, the Act will prevail to the extent of any inconsistency.
3. Nothing in specific exemptions obviates the responsibility of a proponent to obtain the consent of the owner of the registered place or object, or if the registered place or object is situated on Crown Land the land manager as defined in the *Crown Land (Reserves) Act 1978*, prior to undertaking works or activities in accordance with specific exemptions.
4. If a Cultural Heritage Management Plan in accordance with the *Aboriginal Heritage Act 2006* is required for works covered by specific exemptions, specific exemptions will apply only if the Cultural Heritage Management Plan has been approved prior to works or activities commencing. Where there is an inconsistency between specific exemptions and a Cultural Heritage Management Plan for the relevant works and activities, Heritage Victoria must be contacted for advice on the appropriate approval pathway.
5. Specific exemptions do not constitute approvals, authorisations or exemptions under any other legislation, Local Government, State Government or Commonwealth Government requirements, including but not limited to the *Planning and Environment Act 1987*, the *Aboriginal Heritage Act 2006*, and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). Nothing in this declaration exempts owners or their agents from the responsibility to obtain relevant planning, building or environmental approvals from the responsible authority where applicable.
6. Care should be taken when working with heritage buildings and objects, as historic fabric may contain dangerous and poisonous materials (for example lead paint and asbestos). Appropriate personal protective equipment should be worn at all times. If you are unsure, seek advice from a qualified heritage architect, heritage consultant or local Council heritage advisor.
7. The presence of unsafe materials (for example asbestos, lead paint etc) at a registered place or object does not automatically exempt remedial works or activities in accordance with this category. Approvals under Part 5 of the Act must be obtained to undertake works or activities that are not expressly exempted by the below specific exemptions.
8. All works should be informed by a Conservation Management Plan prepared for the place or object. The Executive Director is not bound by any Conservation Management Plan and permits still must be obtained for works suggested in any Conservation Management Plan.

General conditions for specific permit exemptions

1. All works or activities permitted under specific exemptions must be planned and carried out in a manner which prevents harm to the registered place or object. Harm includes moving, removing or damaging any part of the registered place or object that contributes to its cultural heritage significance.
2. If during the carrying out of works or activities in accordance with specific exemptions original or previously hidden or inaccessible details of the registered place are revealed relating to its cultural heritage significance, including but not limited to historical archaeological remains, such as features, deposits or artefacts, then works must cease and Heritage Victoria notified as soon as possible.
3. If during the carrying out of works or activities in accordance with specific exemptions any Aboriginal cultural heritage is discovered or exposed at any time, all works must cease and the Secretary (as defined in the *Aboriginal Heritage Act 2006*) must be contacted immediately to ascertain requirements under the *Aboriginal Heritage Act 2006*.
4. If during the carrying out of works or activities in accordance with specific exemptions any munitions or other potentially explosive artefacts are discovered, Victoria Police is to be immediately alerted and the site is to be immediately cleared of all personnel.
5. If during the carrying out of works or activities in accordance with specific exemptions any suspected human remains are found the works or activities must cease. The remains must be left in place and protected from harm or damage. Victoria Police and the State Coroner's Office must be notified immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the State Emergency Control Centre must be immediately notified on 1300 888 544, and, as required under s.17(3)(b) of the *Aboriginal Heritage Act 2006*, all details about the location and nature of the human remains must be provided to the Aboriginal Heritage Council (as defined in the *Aboriginal Heritage Act 2006*).

Exempt works and activities

1. Repair and maintenance of fences and gates, and replacement where the replacement is of the same height and type.
2. Installation of signage, security cameras, lights and the like to secure the site, provided they are not attached to significant structures.

Appendix 1: Important information for owners and interested parties

Heritage Council determination (Section 49)

The Heritage Council is an independent statutory body that will make a determination on this recommendation under Section 49 of the Act. It will consider the recommendation after a period of 60 days from the date the notice of recommendation is published on its website under Section 41.

Making a submission to the Heritage Council (Section 44)

Within the period of 60 days, any person or body with a real and substantial interest in the place or object may make a submission to the Heritage Council regarding the recommendation and request a hearing in relation to that submission. Information about making a submission and submission forms are available on the Heritage Council's website. The owner can also make a submission about proposed permit exemptions (Section 40(4)(d).

Consideration of submissions to the Heritage Council (Section 46)

(1) The Heritage Council must consider—

(a) any written submission made to it under Section 44; and

(b) any further information provided to the Heritage Council in response to a request under Section 45.

Conduct of hearings by Heritage Council in relation to a recommendation (Section 46A)

(1) The Heritage Council may conduct a hearing in relation to a recommendation under Section 37, 38 or 39 in any circumstances that the Heritage Council considers appropriate.

(2) The Heritage Council must conduct a hearing if—

(a) a submission made to it under Section 44 includes a request for a hearing before the Heritage Council; and

(b) the submission is made by a person or body with a real or substantial interest in the place, object or land that is the subject of the submission.

Determinations of the Heritage Council (Section 49)

(1) After considering a recommendation that a place, object or land should or should not be included in the Heritage Register and any submissions in respect of the recommendation and conducting any hearing, the Heritage Council may—

(a) determine that the place or object is of State-level cultural heritage significance and is to be included in the Heritage Register; or

(ab) in the case of a place, determine that—

(i) part of the place is of State-level cultural heritage significance and is to be included in the Heritage Register; and

(ii) part of the place is not of State-level cultural heritage significance and is not to be included in the Heritage Register; or

(ac) in the case of an object, determine that—

(i) part of the object is of State-level cultural heritage significance and is to be included in the Heritage Register; and

(ii) part of the object is not of State-level cultural heritage significance and is not to be included in the Heritage Register; or

(b) determine that the place or object is not of State-level cultural heritage significance and is not to be included in the Heritage Register; or

(c) in the case of a recommendation in respect of a place, determine that the place or part of the place is not to be included in the Heritage Register but—

(i) refer the recommendation and any submissions to the relevant planning authority or the Minister administering the Planning and Environment Act 1987 to consider the inclusion of the place or part of the place in a planning scheme in accordance with the objectives set out in Section 4(1)(d) of that Act; or

(ii) determine that it is more appropriate for steps to be taken under the Planning and Environment Act 1987 or by any other means to protect or conserve the place or part of the place; or

(ca) in the case of a recommendation in respect of an object nominated under Section 27A, determine that the object, or part of the object, is to be included in the Heritage Register if it is integral to understanding the cultural heritage significance of a registered place or a place the Heritage Council has determined to be included in the Heritage Register; or

(d) in the case of a recommendation in respect of additional land nominated under Section 27B, determine that the additional land, or any part of the additional land, is to be included in the Heritage Register if—

(i) the State-level cultural heritage significance of the place, or part of the place, would be substantially less if the additional land or any part of the additional land which is or has been used in conjunction with the place were developed; or

(ii) the additional land or any part of the additional land surrounding the place, or part of the place, is important to the protection or conservation of the place or contributes to the understanding of the place.

(2) The Heritage Council must make a determination under subsection (1)—

(a) within 40 days after the date on which written submissions may be made under Section 44; or

(b) if any hearing is conducted, within 90 days after the completion of the hearing.

(3) A determination made under subsection (1)(a), (ab), (ac), (ca) or (d)—

(a) may include categories of works or activities which may be carried out in relation to a place, object or land, or part of a place, object or land, for which a permit under this Act is not required, if the Heritage Council considers that the works or activities would not harm the cultural heritage significance of the place, object or land; and

(b) must include a statement of the reasons for the making of the determination.

(4) If the Heritage Council determines to include a place, or part of a place, in the Heritage Register, the Heritage Council may also determine to include land that is not the subject of a nomination under Section 27B in the Heritage Register as part of the place if—

(a) the land is ancillary to the place; and

(b) the person who owns the place, or part of the place—

(i) is the owner of the land; and

(ii) consents to its inclusion.

(5) If a member of the Heritage Council makes a submission under Section 44 in respect of a recommendation, the member must not take part in the consideration or determination of the Heritage Council.

(6) The Heritage Council must notify the Executive Director of any determination under this Section as soon as practicable after the determination.

Obligations of owners (Section 42, 42A, 42B, 42C, 42D)

42 Obligations of owners—to advise of works, permits etc. on foot when statement of recommendation given

(1) The owner of a place, object or land to whom a statement of recommendation has been given must advise the Executive Director in writing of—

(a) any works or activities that are being carried out in relation to the place, object or land at the time the statement is given; and

(b) if the place, object or land is a place or additional land, any application for a planning permit or a building permit, or any application for an amendment to a planning permit or a building permit, that has been made in relation to the place or additional land but not determined at the time the statement is given; and

(c) any works or activities that are proposed to be carried out in relation to the place, object or land at the time the statement is given.

(2) An advice under subsection (1) must be given within 10 days after the statement of recommendation is given under Section 40.

42A Obligations of owners before determination or inclusion in the Heritage Register—to advise of permits

(1) This Section applies if—

(a) an owner of any of the following is given a statement of recommendation—

(i) a place or object nominated under Section 27;

(ii) an object nominated under Section 27A;

(iii) land nominated under Section 27B; and

(b) any of the following occurs within the statement of recommendation period in relation to the place, object or land—

(i) the making of an application for a planning permit or a building permit;

(ii) the making of an application for an amendment to a planning permit or a building permit;

(iii) the grant of a planning permit or building permit;

(iv) the grant of an amendment to a planning permit or building permit.

(2) The owner must advise the Executive Director in writing of—

(a) the making of an application referred to in subsection (1)(b)(i) or (ii), within 10 days of the making of the application; or

(b) a grant referred to in subsection (1)(b)(iii) or (iv), within 10 days of the owner becoming aware of the grant.

42B Obligations of owners before determination or inclusion in the Heritage Register—to advise of activities

(1) This Section applies if—

(a) an owner of a place, object or land is given a statement of recommendation; and

(b) within the statement of recommendation period it is proposed that activities that could harm the place, object or land be carried out.

(2) The owner, not less than 10 days before carrying out the activities, must advise the Executive Director in writing of the proposal to do so.

42C Obligations of owners before determination or inclusion in the Heritage Register—to advise of proposal to dispose

(1) This Section applies if—

(a) an owner of a place, object or land is given a statement of recommendation; and

(b) within the statement of recommendation period a proposal is made to dispose of the whole or any part of the place, object or land.

(2) The owner, within 10 days after entering into an agreement, arrangement or understanding for the disposal of the whole or any part of the place, object or land, must advise the Executive Director in writing of the proposal to do so.

42D Obligations of owners before determination or inclusion in the Heritage Register—requirement to give statement to purchaser

(1) This Section applies if—

(a) an owner of a place, object or land is given a statement of recommendation; and

(b) the owner proposes to dispose of the whole or any part of the place, object or land within the statement of recommendation period.

(2) Before entering into an agreement, arrangement or understanding to dispose of the whole or any part of the place, object or land during the statement of recommendation period, the owner must give a copy of the statement of recommendation to the person who, under the proposed agreement, arrangement or understanding, is to acquire the place, object or land or part of the place, object or land.

Owners of places and objects must comply with obligations (Section 43)

An owner of a place, object or land who is subject to an obligation under Section 42, 42A, 42B, 42C or 42D must comply with that obligation.

Penalty: In the case of a natural person, 120 penalty units;

In the case of a body corporate, 240 penalty units.