

Mornington Peninsula Shire
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BESS Report

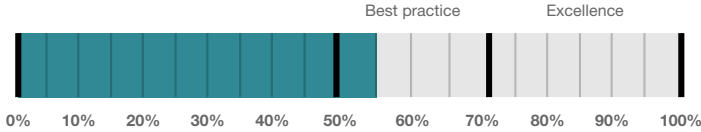
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at Lot 40 (#89) Ninth Avenue Rosebud Victoria 3939. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Mornington Peninsula Shire Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



59%

Project details

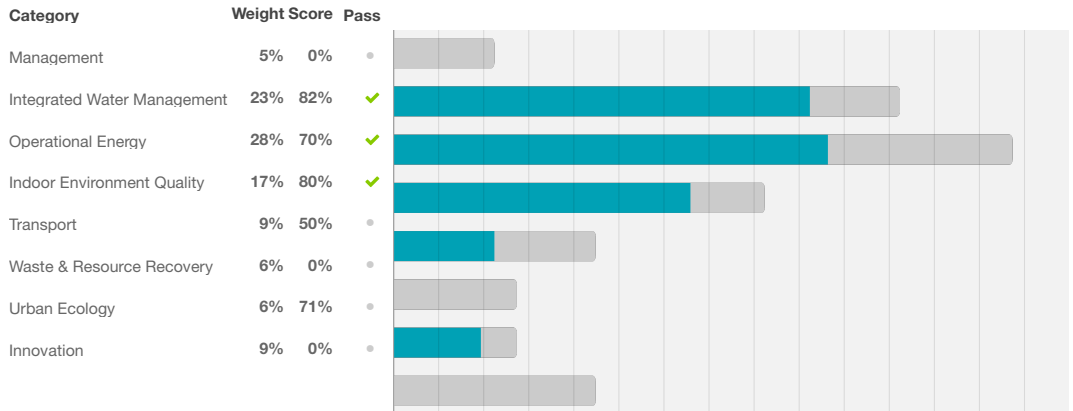
Name	758307/758308/758309
Address	Lot 40 (#89) Ninth Avenue Rosebud Victoria 3939
Project ID	C3D24730-R1
BESS Version	BESS-10
Date	19 May 2026
Software version	2.3.0-B.652



Site type	Multi dwelling (dual occupancy, townhouse, villa unit etc)
Account	energy@energyadvance.com.au
Application no.	
Site area	481 m ²
Building floor area	637 m ²

Performance by category

● This project ● Maximum available



Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	% of total area
Detached dwelling			
Dwelling 1	1	217 m ²	34%
Dwelling 2	1	214 m ²	33%
Dwelling 3	1	207 m ²	32%
Total	3	637 m²	100%

Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
Integrated Water Management 3.1	Annotation: Water efficient garden details		-
Operational Energy 3.3	Annotation: External lighting controlled by motion sensors		-
Operational Energy 3.4	Location of clothes line (if proposed)		-
Operational Energy 4.5	Location and size of solar photovoltaic system		-
Indoor Environment Quality 2.2	Annotation: Dwellings designed for 'natural cross flow ventilation' (If not all dwellings, include a list of compliant dwellings)		-
Indoor Environment Quality 3.1	Annotation: Glazing specification (U-value, SHGC)		-
Indoor Environment Quality 3.3	North-facing living areas		-
Transport 1.1	Location of residential bicycle parking spaces		-
Urban Ecology 2.1	Location and size of vegetated areas		-
Urban Ecology 3.1	Location of food production areas		-

Supporting Documentation

Credit	Requirement	Response	Status
Integrated Water Management 2.1	STORM report or MUSIC model		-
Operational Energy 3.5	Average lighting power density and lighting type(s) to be used		-
Operational Energy 4.5	Specifications of the solar photovoltaic system(s)		-
Indoor Environment Quality 2.2	A list of dwellings with natural cross flow ventilation		-

Credit summary

Management Overall contribution 4.5%

		0%
1.1 Pre-Application Meeting		0%
2.1 Thermal Performance Modelling - Single Dwelling		0%

IWM Overall contribution 22.5%

		82%	✓ Pass
1.1 Potable Water Use		46%	✓ Achieved
2.1 Stormwater Treatment		100%	✓ Achieved
3.1 Water Efficient Landscaping		100%	

Operational Energy Overall contribution 27.5%

		Minimum required 50%	70%	✓ Pass
1.2 Thermal Performance Rating - Residential		29%	✓ Achieved	
2.1 Greenhouse Gas Emissions		0%		
2.6 Electrification		100%		
2.7 Energy consumption		100%		
3.3 External Lighting		100%		
3.4 Clothes Drying		100%		
3.5 Internal Lighting - Houses and Townhouses		100%		
4.4 Renewable Energy Systems - Other		N/A	✦ Scoped Out	
No other (non-solar PV) renewable energy is in use.				
4.5 Solar PV - Houses and Townhouses		100%		

IEQ Overall contribution 16.5%

		Minimum required 50%	80%	✓ Pass
2.2 Cross Flow Ventilation		100%		
3.1 Thermal comfort - Double Glazing		100%		
3.2 Thermal Comfort - External Shading		0%		
3.3 Thermal Comfort - Orientation		100%		

Transport Overall contribution 9.0%

		50%
1.1 Bicycle Parking - Residential		100%
2.1 Electric Vehicle Infrastructure		0%

Waste & Resource Recovery Overall contribution 5.5%

		0%
1.1 Construction Waste - Building Re-Use		0%
2.1 Operational Waste - Food & Garden Waste		0%

Urban Ecology Overall contribution 5.5%

		71%
2.1 Vegetation		100%
2.2 Green Roofs		0%
2.3 Green Walls and Facades		0%
3.1 Food Production - Residential		100%

Innovation Overall contribution 9.0%

		0%
1.1 Innovation		0%

Credit breakdown

Management Overall contribution 4.5%

		0%
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1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 60% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.1 Thermal Performance Modelling - Single Dwelling		0%
Score Contribution	This credit contributes 40% towards the category score.	
Criteria	Has a preliminary NatHERS rating been undertaken?	
Question	Criteria Achieved ?	
Detached dwelling	No	

IWM Overall contribution 22.5%

		82% ✔ Pass
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Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No

Stormwater profile

Which stormwater modelling software are you using?:	Blue Factor
Blue Factor score achieved?:	102
Flow:	0 %
Total Suspended Solids:	0 %
Total Phosphorus:	0 %
Total Nitrogen:	0 %

Rainwater tank profile

What is the total roof area connected to the rainwater tank?:	
Tank 1	170 m ²
Tank 2	159 m ²
Rainwater Tank 3	158 m ²
	-

Tank Size:

Tank 1	5,000 Litres
Tank 2	5,000 Litres
Rainwater Tank 3	5,000 Litres
	-

Irrigation area connected to tank:

Tank 1	0.0 m ²
Tank 2	0.0 m ²
Rainwater Tank 3	-
	-

Is connected irrigation area a water efficient garden?:

Tank 1	Yes
Tank 2	Yes
Rainwater Tank 3	No
	-

Other external water demand connected to tank?:

Tank 1	0.0 Litres/Day
Tank 2	0.0 Litres/Day
Rainwater Tank 3	-
	-

Fixtures, fittings & connections profile

Showerhead: All	3 Star WELS (>= 7.5 but <= 9.0) (minimum requirement)
Bath: All	Medium Sized Contemporary Bath
Kitchen Taps: All	>= 4 Star WELS rating

Bathroom Taps: All	>= 4 Star WELS rating
Dishwashers: All	Default or unrated
WC: All	>= 4 Star WELS rating
Urinals: All	Default
Washing Machine Water Efficiency: All	Default or unrated
Which non-potable water source is the dwelling/space connected to?:	
Dwelling 1	Tank 1
Dwelling 2	Tank 2
Dwelling 3	Rainwater Tank 3
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	Yes
Non-potable water source connected to Hot Water System: All	No

1.1 Potable Water Use		46%	✔ Achieved
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Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.
Output	Reference
Project	702 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	657 kL
Output	Proposed (including rainwater and recycled water use)
Project	491 kL
Output	% Reduction in Potable Water Consumption
Project	30 %
Output	% of connected demand met by rainwater
Project	100 %
Output	How often does the tank overflow?
Project	Very Often
Output	Opportunity for additional rainwater connection
Project	172 kL

2.1 Stormwater Treatment		100%	✔ Achieved
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Score Contribution	This credit contributes 60% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Output	Min Blue Factor Score
Project	100
Output	Blue Factor Score
Project	102

3.1 Water Efficient Landscaping		100%
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Score Contribution	This credit contributes 6.7% towards the category score.
Criteria	Will water efficient landscaping be installed?
Question	Criteria Achieved ?
Project	Yes

Operational Energy Overall contribution 27.5%

		Minimum required 50%	70%	✔ Pass
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Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	All-electric
Solar Photovoltaic system profile	
System Size (lesser of inverter and panel capacity):	
Solar Photovoltaic system 1	3.0 kW peak
Solar Photovoltaic system 2	3.0 kW peak
Solar Photovoltaic system 3	3.0 kW peak
Orientation (which way is the system facing)?:	
Solar Photovoltaic system 1	East
Solar Photovoltaic system 2	North
Solar Photovoltaic system 3	East
Inclination (angle from horizontal):	
Solar Photovoltaic system 1	22.5 Angle (degrees)
Solar Photovoltaic system 2	22.5 Angle (degrees)
Solar Photovoltaic system 3	22.5 Angle (degrees)
Dwellings profile	
Below the floor is: All	Ground or Carpark
Above the ceiling is: All	Outside
Exposed sides: All	4
NatHERS Annual Energy Loads - Heat:	
Dwelling 1	67.0 MJ/sqm
Dwelling 2	66.2 MJ/sqm
Dwelling 3	57.6 MJ/sqm
NatHERS Annual Energy Loads - Cool:	
Dwelling 1	15.1 MJ/sqm
Dwelling 2	11.8 MJ/sqm
Dwelling 3	11.9 MJ/sqm
NatHERS star rating:	
Dwelling 1	7.1
Dwelling 2	7.3
Dwelling 3	7.6
Type of Heating System: All	Reverse cycle ducted
Heating System Efficiency: All	Current Default / MEPS
Type of Cooling System: All	Refrigerative ducted
Cooling System Efficiency: All	Current Default / MEPS
Type of Hot Water System: All	Electric Heat Pump Band 1
% Contribution from solar hot water system: All	0 %
Clothes Line: All	Private outdoor clothesline
Clothes Dryer: All	No clothes dryer

1.2 Thermal Performance Rating - Residential			29% ✔ Achieved
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What is the average NatHERS rating?		
Output	Average NATHERS Rating (Weighted)		
Detached dwelling	7.3 Stars		
2.1 Greenhouse Gas Emissions			0%
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?		
Output	Reference Building with Reference Services (BCA only)		
Detached dwelling	9,505 kg CO2		
Output	Proposed Building with Proposed Services (Actual Building)		
Detached dwelling	9,412 kg CO2		
Output	% Reduction in GHG Emissions		
Detached dwelling	< 1 %		
2.6 Electrification			100%
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	Is the development all-electric?		
Question	Criteria Achieved?		
Project	Yes		
2.7 Energy consumption			100%
Score Contribution	This credit contributes 23.5% towards the category score.		
Criteria	What is the % reduction in annual energy consumption against the benchmark?		
Output	Reference Building with Reference Services (BCA only)		
Detached dwelling	91,010 MJ		
Output	Proposed Building with Proposed Services (Actual Building)		
Detached dwelling	43,440 MJ		
Output	% Reduction in total energy		
Detached dwelling	52 %		
3.3 External Lighting			100%
Score Contribution	This credit contributes 2.9% towards the category score.		
Criteria	Is the external lighting controlled by a motion detector?		
Question	Criteria Achieved ?		
Detached dwelling	Yes		
3.4 Clothes Drying			100%

Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?
Output	Reference
Detached dwelling	1,970 kWh
Output	Proposed
Detached dwelling	394 kWh
Output	Improvement
Detached dwelling	80 %

3.5 Internal Lighting - Houses and Townhouses  100%

Score Contribution	This credit contributes 2.9% towards the category score.
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm or less?
Question	Criteria Achieved?
Detached dwelling	Yes

4.4 Renewable Energy Systems - Other  N/A  Scoped Out

No other (non-solar PV) renewable energy is in use.

This credit was scoped out No other (non-solar PV) renewable energy is in use.

4.5 Solar PV - Houses and Townhouses  100%

Score Contribution	This credit contributes 11.8% towards the category score.
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?
Output	Solar Power - Energy Generation per year
Detached dwelling	10,379 kWh
Output	% of Building's Energy
Detached dwelling	86 %

IEQ Overall contribution 16.5%

		Minimum required 50%	80% ✔ Pass
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2.2 Cross Flow Ventilation		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are all habitable rooms designed to achieve natural cross flow ventilation?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
3.1 Thermal comfort - Double Glazing		100%
Score Contribution	This credit contributes 40% towards the category score.	
Criteria	Is double glazing (or better) used to all habitable areas?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
3.2 Thermal Comfort - External Shading		0%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Is appropriate external shading provided to east, west and north facing glazing?	
Question	Criteria Achieved ?	
Detached dwelling	No	
3.3 Thermal Comfort - Orientation		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are at least 50% of main living areas orientated to the north?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	

Transport Overall contribution 9.0%

			50%
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1.1 Bicycle Parking - Residential		100%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	How many secure and undercover bicycle spaces are there for residents?	
Question	Bicycle Spaces Provided ?	
Detached dwelling	3	
Output	Min Bicycle Spaces Required	
Detached dwelling	3	
2.1 Electric Vehicle Infrastructure		0%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	No	

Waste & Resource Recovery Overall contribution 5.5%

	0%
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1.1 Construction Waste - Building Re-Use		0%
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Score Contribution	This credit contributes 50% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 Operational Waste - Food & Garden Waste		0%
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Score Contribution	This credit contributes 50% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No

Urban Ecology Overall contribution 5.5%



2.1 Vegetation 100%

Score Contribution	This credit contributes 57.1% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	36 %

2.2 Green Roofs 0%

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No

2.3 Green Walls and Facades 0%

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No

3.1 Food Production - Residential 100%

Score Contribution	This credit contributes 14.3% towards the category score.
Criteria	What area of space per resident is dedicated to food production?
Question	Food Production Area
Detached dwelling	3.0 m ²
Output	Min Food Production Area
Detached dwelling	3 m ²

Innovation Overall contribution 9.0%



1.1 Innovation 0%

Score Contribution	This credit contributes 100% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

Disclaimer

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