How Lossnay Cuts Energy Costs vs. Traditional Ventilation – Electric Heating Comparison

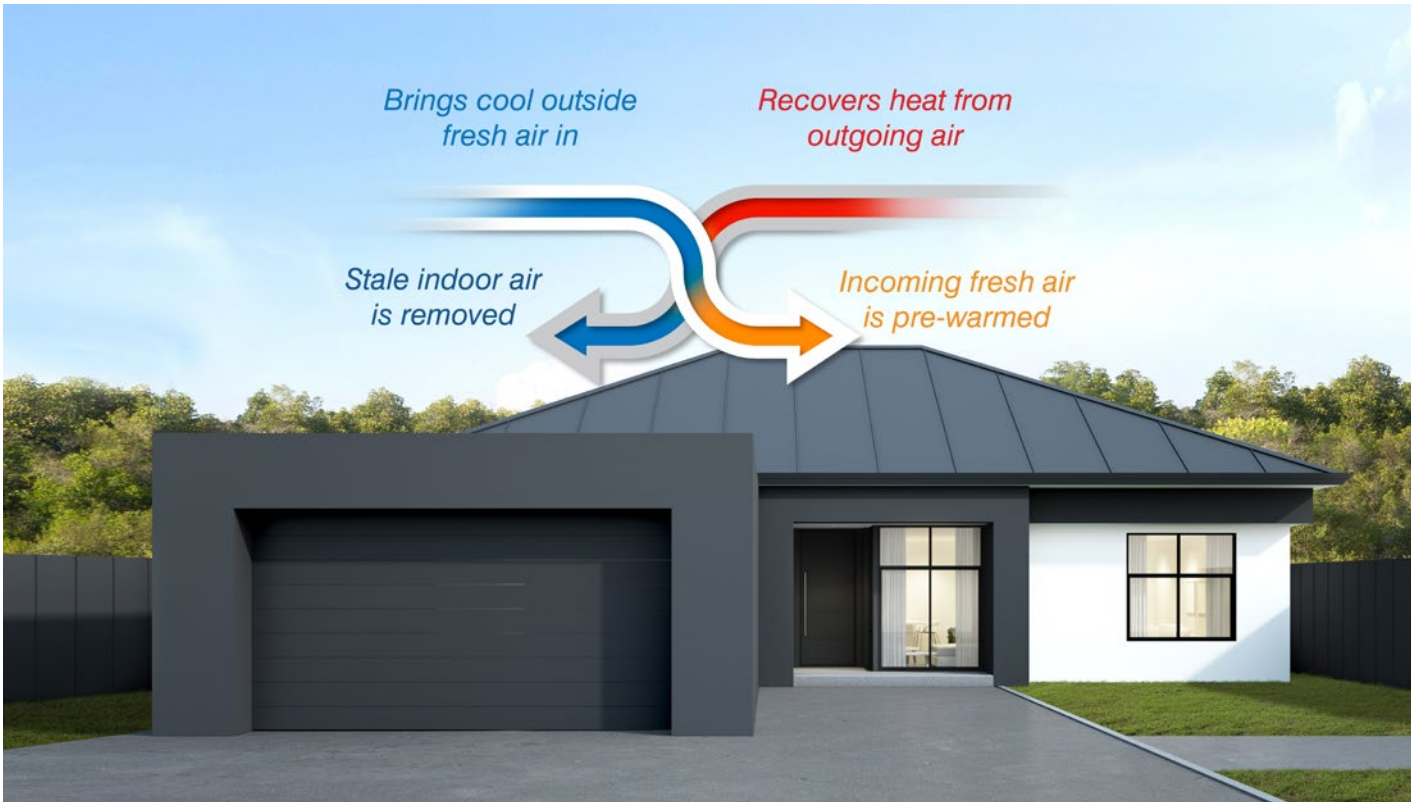
Maximise Energy Savings with Lossnay Heat Recovery Ventilation

Mitsubishi Electric's Lossnay Fresh Air Heat Recovery Ventilation Systems do more than just improve air quality – they help create a healthier, drier, and more comfortable home while reducing energy costs of heating and cooling. Ideal for homes across New Zealand's diverse climates, these systems offer significant energy cost savings when compared to traditional ventilation.

By recovering heat energy from outgoing air, the Lossnay system pre-warms or pre-cools incoming fresh air, reducing the workload on your heating or cooling system. This means less power is required to maintain your desired indoor temperature, leading to noticeable reductions in your energy bills year-round.

Discover Lossnay Energy Cost Savings in Your Region

The following tables highlight the cost savings on heating and cooling when using Mitsubishi Electric's Lossnay Fresh Air Heat Recovery Ventilation in conjunction with an electric heating/cooling device (COP of 1) compared to using conventional ventilation with the same electric device. This is based on real-word operation delivering practical benefits for homes throughout New Zealand.



North Island Potential Cost Savings

Compared to Traditional Ventilation – Electric Heating/Cooling Device Comparison

Whole Home Systems for Homes with an Attic

Mitsubishi Electric Whole Home Lossnay Ventilation Systems are available with both energy recovery or heat recovery options to give whole home ventilation suitable for both smaller and larger homes with sufficient attic space.

- Balanced Pressure System
- ERV Permeable Core

LGH-35RVX3-E

Lossnay ERV (Energy Recovery Ventilation)

The below power savings are based on comparing a conventional, continuously run ventilation system using an electric heating/cooling device (COP of 1) to a Lossnay LGH-35RVX3-E Energy Recovery System.

Region	1 Year	3 Year	5 Year	Power Savings of up to
Whangārei	$494	$1,482	$2,470	**65%**
Auckland	$583	$1,749	$2,915	**66%**
Hamilton	$870	$2,610	$4,350	**70%**
Tauranga	$820	$2,460	$4,100	**70%**
Rotorua	$1,190	$3,570	$5,950	**72%**
Taupō	$1,386	$4,158	$6,930	**72%**
Gisborne	$901	$2,703	$4,505	**70%**
Napier	$934	$2,802	$4,670	**70%**
New Plymouth	$964	$2,892	$4,820	**71%**
Palmerston North	$1,057	$3,171	$5,285	**70%**
Whanganui	$897	$2,691	$4,485	**69%**
Wellington	$1,148	$3,444	$5,740	**71%**

To find out how these savings were calculated, visit page 6.

South Island Potential Cost Savings

Compared to Traditional Ventilation – Electric Heating/Cooling Device Comparison

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Region	1 Year	3 Year	5 Year	Power Savings of up to
Nelson	$1,193	$3,579	$5,965	**72%**
Blenheim	$1,320	$3,960	$6,600	**72%**
Westport	$1,096	$3,288	$5,480	**71%**
Christchurch	$1,497	$4,491	$7,485	**72%**
Hokitika	$1,286	$ 3,853	$6,430	**71%**
Kaikōura	$1,415	$4,245	$7,075	**72%**
Lake Tekapo	$2,277	$6,831	$11,385	**74%**
Alexandra	$1,621	$4,863	$8,105	**73%**
Timaru	$1,650	$4,950	$8,250	**72%**
Dunedin	$1,674	$5,022	$8,370	**72%**
Queenstown	$2,025	$6,075	$10,125	**73%**
Invercargill	$1,786	$5,358	$8,930	**73%**

To find out how these savings were calculated, visit page 6.

North Island Potential Cost Savings

Compared to Traditional Ventilation – Electric Heating/Cooling Device Comparison

Whole Home Systems for Homes with or without an Attic

Vertical Lossnay provides heat recovery ventilation that does not require installation in the roof space.

- Balanced Pressure System
- HRV Non-Permeable Core
- Suitable for wet areas

VL-350CZPVU-E

Lossnay HRV (Heat Recovery Ventilation)

The below power savings are based on comparing a conventional, continuously run ventilation system using an electric heating/cooling device (COP of 1) to a Lossnay VL-350CZPVU-E Heat Recovery System.

Region	1 Year	3 Year	5 Year	Power Savings of up to
Whangārei	$558	$1,674	$2,790	**70%**
Auckland	$611	$1,833	$3,055	**67%**
Hamilton	$858	$2,574	$4,290	**67%**
Tauranga	$788	$2,364	$3,940	**66%**
Rotorua	$1,072	$3,216	$5,360	**64%**
Taupō	$1,178	$3,534	$5,890	**61%**
Gisborne	$804	$2,412	$4,020	**61%**
Napier	$797	$2,391	$3,985	**58%**
New Plymouth	$939	$2,817	$4,695	**69%**
Palmerston North	$972	$2,916	$4,860	**64%**
Whanganui	$835	$2,505	$4,175	**63%**
Wellington	$1,010	$3,030	$5,050	**62%**

To find out how these savings were calculated, visit page 6.

South Island Potential Cost Savings

Compared to Traditional Ventilation – Electric Heating/Cooling Device Comparison

Whole Home Systems for Homes with or without an Attic

Vertical Lossnay provides heat recovery ventilation that does not require installation in the roof space.

- Balanced Pressure System
- HRV Non-Permeable Core
- Suitable for wet areas

VL-350CZPVU-E

Lossnay HRV (Heat Recovery Ventilation)

The below power savings are based on comparing a conventional, continuously run ventilation system using an electric heating/cooling device (COP of 1) to a Lossnay VL-350CZPVU-E Heat Recovery System.

Region	1 Year	3 Year	5 Year	Power Savings of up to
Nelson	$1,068	$3,204	$5,340	**64%**
Blenheim	$1,090	$3,270	$5,450	**59%**
Westport	$1,023	$3,069	$5,115	**65%**
Christchurch	$1,227	$3,681	$6,135	**59%**
Hokitika	$1,154	$ 3,462	$5,770	**64%**
Kaikōura	$1,137	$3,411	$5,685	**57%**
Lake Tekapo	$1,696	$5,088	$8,480	**55%**
Alexandra	$1,305	$3,915	$6,525	**58%**
Timaru	$1,373	$4,119	$6,865	**60%**
Dunedin	$1,361	$4,083	$6,805	**59%**
Queenstown	$1,558	$4,674	$7,790	**56%**
Invercargill	$1,521	$4,563	$7,605	**62%**

To find out how these savings were calculated, visit page 6.

How Lossnay Cost Savings are Calculated

Cost savings are calculated based on a comparison between a conventional ventilation system using an electrical heating/cooling device with a COP of 1, using thermistor-controlled operation to achieve desired set temperatures operating continuously (24/7) for 30 days a month versus a Lossnay Heat Recovery System.

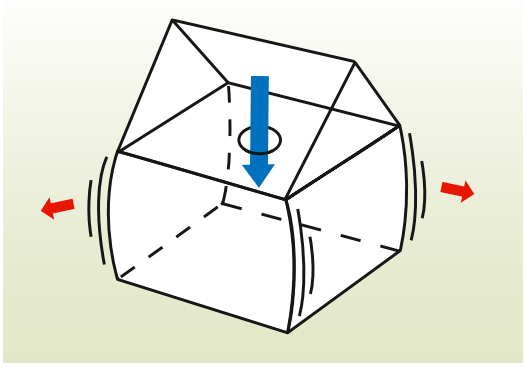
The comparison assumes a standard 150m² home with an average ceiling height of 2.4m, maintaining indoor temperatures of 21°C in winter and 20°C in summer, while achieving an air change rate of 0.5 ACH (Air Changes Per Hour).

Actual savings may vary depending on factors such as insulation, occupancy patterns, outdoor climate conditions, and energy tariffs.

Models selected:

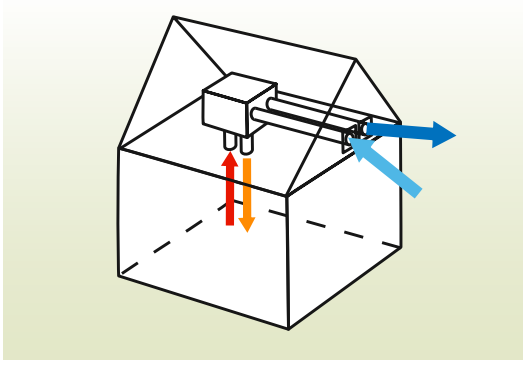
- ERV Application: LGH-35RVX3-E
- HRV Application: VL-350CZPVU-E

Old ‘Positive’ Pressure Forced Roof Cavity Ventilation



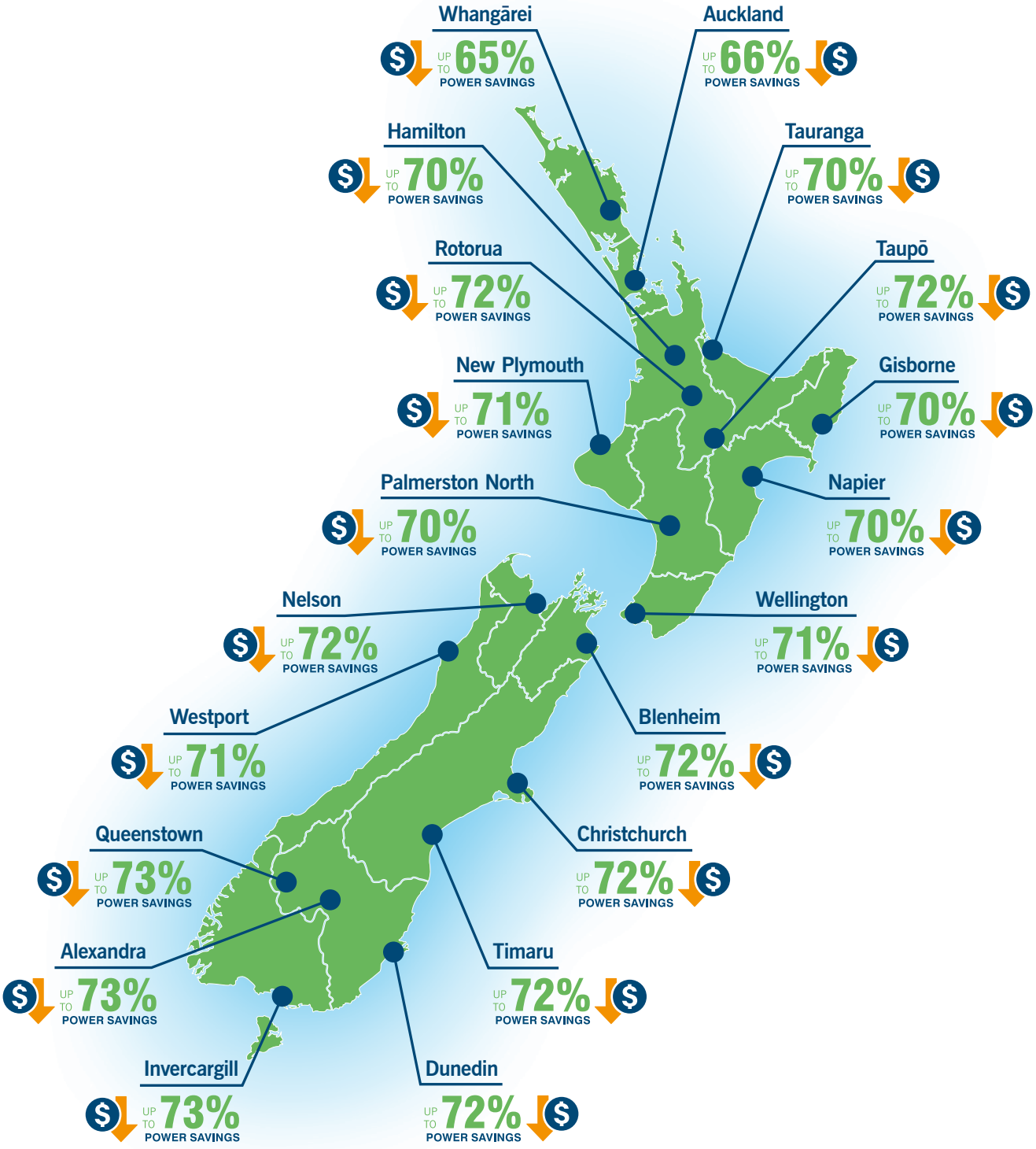
These traditional systems push air from the attic into your home, relying on gaps in older buildings for air displacement. However, without heat recovery, they introduce cold air, increasing your heating costs.

New Lossnay ‘Balanced’ Pressure Fresh Air Heat Recovery Ventilation

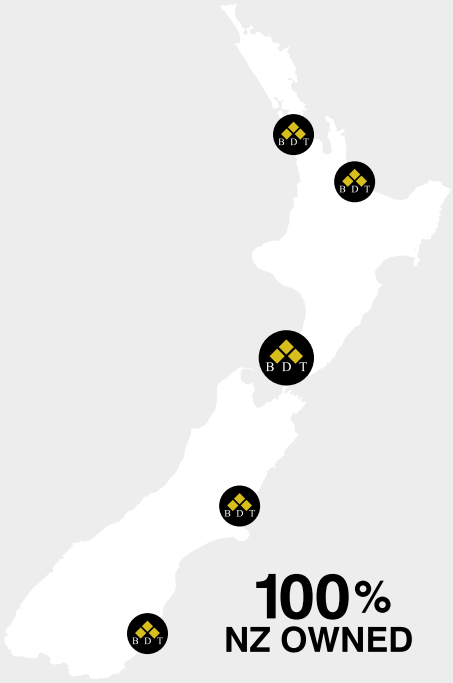


This system replaces stale indoor air with fresh outdoor air at the same rate while **recovering heat energy** to pre-warm incoming air. Designed for modern, airtight homes, it reduces the need for extra heating, keeping energy costs down.

How Lossnay Energy Cost Savings Compare Across New Zealand



- Cost savings are calculated based on a comparison between a conventional ventilation system using an electrical heating/cooling device with a COP of 1 using thermistor-controlled operation to achieve desired set temperatures operating continuously (24/7) for 30 days a month versus a Lossnay LGH-35RVX3-E Heat Recovery System using an electrical heating/cooling device with a COP of 1.
- The comparison assumes a standard 150m² home with an average ceiling height of 2.4m, maintaining indoor temperatures of 21°C in winter and 20°C in summer, while achieving an air change rate of 0.5 ACH.
- Actual savings may vary depending on factors such as insulation, occupancy patterns, outdoor climate conditions, and energy tariffs.



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The combination of an internationally trusted brand with the comfort of a locally owned and operated company means that you will always get the best products, the best local service and the best local support.

Based in Wellington with a further 4 support offices throughout New Zealand, Black Diamond Technologies Limited is here to help.

Our Vision – Creating New Zealand's Sustainable Future

Black Diamond Technologies Limited in partnership with Mitsubishi Electric, strives to develop and introduce new technologies for New Zealanders that will make our lives more comfortable while also creating a greener tomorrow.

Our Nationwide Trained Specialist Installation Network

Mitsubishi Electric Ventilation products are installed through an extensive network of trained specialist dealers. This ensures you are supported with a superior level of product and installation quality.

Our Comprehensive 5 Year Warranty

Peace of mind is assured with your choice of Mitsubishi Electric Lossnay Energy Recovery Ventilation – supported by a comprehensive 5 year parts and labour warranty.

For more information please visit our website or call our Customer Service Team.

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