

Energy Performance Evaluation

[Project Number] [Project Name]

Key Values

General Project Data

Location: Auckland
 Primary Operation Profile: Personal office (100%)
 Evaluation Date: 12/05/13 3:21 PM

Building Geometry Data

Gross Floor Area: **280.72** m²
 Building Shell Area: **165.92** m²
 Ventilated Volume: **685.61** m³
 Glazing Ratio: **15** %

Building Shell Performance Data

Air Leakage: **1.01** ACH
 Outer Heat Capacity: **14.04** J/m²K



Thermal Resistances

R value [m²K/W]
 Building Shell Average: **0.78**
 Floors: **1.38 - 0.07**
 External: **1.38 - 1.03**
 Underground: **1.06 - 1.06**
 Openings: **0.34 - 0.32**

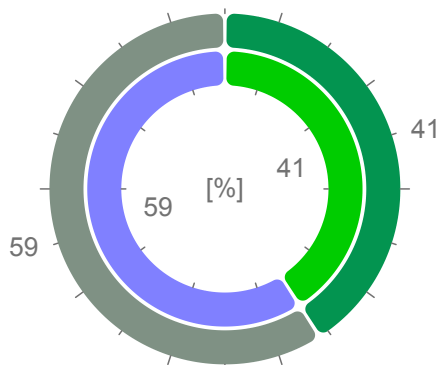
Specific Annual Demands

Net Heating Energy: **2.25** kWh/m²a
 Net Cooling Energy: **48.35** kWh/m²a
 Total Net Energy: **50.59** kWh/m²a
 Energy Consumption: **123.64** kWh/m²a
 Fuel Consumption: **73.05** kWh/m²a
 Primary Energy: **219.14** kWh/m²a
 Operation Cost: **18.63** NZD/m²a
 CO₂ Emission: **0.00** kg/m²a

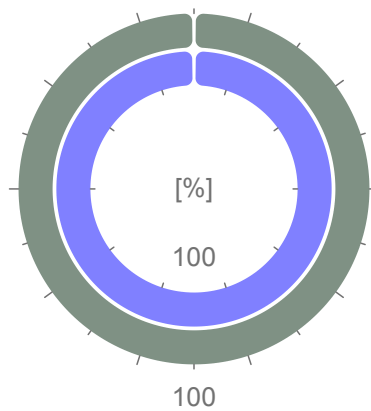
Energy Consumption by Sources

| Source Type | Energy | | | CO ₂ Emission kg/a |
|---|-------------|-------------------|---------------|----------------------------------|
| | Source Name | Quantity kWh/a | Cost NZD/a | |
| Renewable  | Environment | 13938 | NA | 0 |
| Secondary  | Electricity | 20123 | 5131 | 0 |
| Total: | | 34062 | 5131 | 0* |

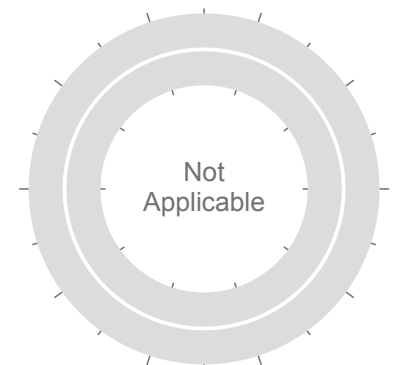
Energy Quantities



Energy Costs



CO₂ Emission



* This amount of CO₂ is absorbed in one year by 0 developed pine trees.

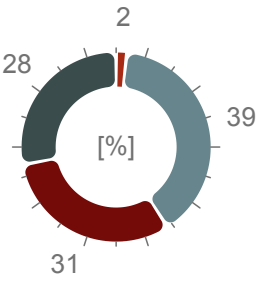
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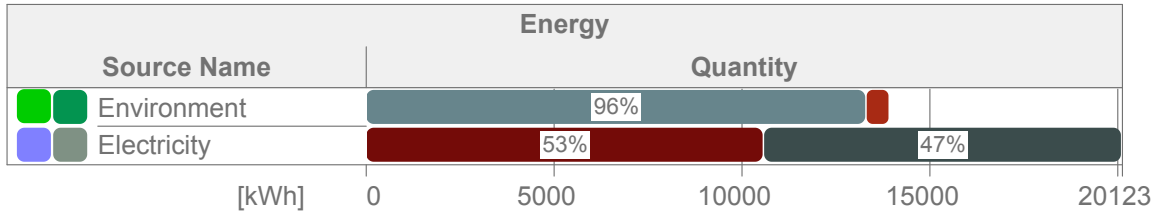
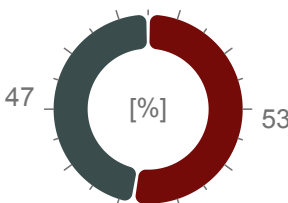
Energy Consumption by Targets

| Target Name | Energy Quantity kWh/a | Cost NZD/a | Primary kWh/a | CO ₂ Emission kg/a |
|-----------------------|--------------------------|---------------|------------------|-------------------------------------|
| Heating | 619 | 0 | 0 | 0 |
| Cooling | 13319 | 0 | 0 | 0 |
| Hot Water Generation | 10588 | 2700 | 31766 | 0 |
| Ventilation Fans | 0 | 0 | 0 | 0 |
| Lighting & Appliances | 9535 | 2431 | 28605 | 0 |
| Total: | 34062 | 5131 | 60371 | 0 |

Energy Quantities



Energy Costs



CO₂ Emission



Monthly Energy Balance

