Running Cost

1. Loft Units - on average setting (delivering 36 litres of air per second to dwelling)
    a. The average outdoor temperature October 1 to March 31 in the heating season 6°C - 7°C. The sun's warming effect on the roof structure raises the temperature of the loft. For this assessment we have taken a conservative 2°C rise in temperature. (Taken over the complete heating season.)
    b. The loft unit heater ensures that the air entering the dwelling never falls below 10°C.
    c. Therefore the required rise in temperature will average 2°C.
    d. The energy required to raise 36 litres per second of incoming air by 2°C is 100 watts.
    e. Between October 1 to March 31 there are 4380 hours
    f. 4380 x 100 = 438000 watts
    = 438 Kw – (or units at 16.4c per unit)
    = **€71.83** annual cost

2. *ENSURING HEATER IS DISABLED IN PERIODS WHERE HOUSE IS UNOCCUPIED WILL REDUCE COSTS FURTHER*

3. Electricity cost taken as 16.4cent per Kw/h

4. Fan power consumption
    a. Trickle – 24 l/s
        i. 4.1 watts = 0.0041 Kw
        ii. 0.0041 x €0.164 x 365 days x 24 hours
        iii. Fan Cost = €5.89
    b. Medium – 36 l/s
        i. 6.2 watts = 0.0062 Kw
        ii. 0.0062 x €0.164 x 365 days x 24 hours
        iii. Fan Cost = €8.91
    c. High – 48 l/s
        i. 8.6 watts = 0.0086 Kw
        ii. 0.0086 x €0.164 x 365 days x 24 hours
        iii. Fan Cost = €12.36

Filterless Extract Fan

WC, Bathroom & Kitchen Fan

Filterless Fan – DC Motor

- Bathroom use
  - 10 uses daily @ 15 minutes each = 2.5 hours daily
    - Modulated power use governed by the humidistat up to 30 l/s
      - ~5 watts = 0.005 Kw
      - 0.005 x €0.164 x 365 days x 2.5 hours
      - Cost = €0.75
    - Continuous running
      - 2 watts = 0.002 Kw
      - 0.002 x €0.164 x 365 days x 21.5 hours
      - Cost = €2.57
    - **Bathroom TOTAL ANNUAL COST €3.32**
- Kitchen use
  - 2.5 hours daily
    - Modulated power use governed by the humidistat up to 60 l/s
      - ~18 watts = 0.018 Kw
      - 0.018 x €0.164 x 365 days x 2.5 hours
      - Cost = €2.69
    - Continuous running
      - 2 watts = 0.002 Kw
      - 0.002 x €0.164 x 365 days x 21.5 hours
      - Cost = €2.57
    - **Kitchen TOTAL ANNUAL COST €5.26**

Traditional Fan Cost

Centrifugal Fan with volume flow of 60 l/s	€133.22
Humidity sensor	€72.79
Speed Controller	€46.88
Backdraught shutter	€16.59
Total excl VAT	€269.48

Power Consumption

Traditional Fan – 125w AC motor

- Bathroom or Kitchen use
  - 10 uses daily @ 15 minutes each OR 2.5 hours daily
    - 125 watts = 0.125 Kw
    - 0.125 x €0.164 x 365 days x 2.5 hours
- **TRADITIONAL FAN ANNUAL COST = €18.71**

ANNUAL POWER CONSUMPTION SAVING
Bathroom € 15.39 Kitchen € 13.45

EnviroVent Filterless Extract Fan vs Traditional Extract fans - Approximate 30 Year Life Cycle Costing Analysis

	Filterless Fan			Traditional Fan Installation			
Year	Fan	Recyclable Cartridge	Labour	Fan	Accessories	Filters	Labour
Year 0 - Initial Installation	149		150	133	137	0	200
Year 1							
Year 2							
Year 3						20	30
Year 4							
Year 5							
Year 6		75	30	133	75		75
Year 7							
Year 8							
Year 9						20	30
Year 10							
Year 11		75	30	133	75		75
Year 12							
Year 13						20	30
Year 14							
Year 15							
Year 16		75	30	133	75		75
Year 17							
Year 18						20	30
Year 19							
Year 20							
Year 21		75	30	133	75		75
Year 22							
Year 23						20	30
Year 24							
Year 25							
Year 26		75	30	133	75		75
Year 27							
Year 28						20	30
Year 29							
Year 30							
TOTAL	149	375	300	798	512	120	755

Total cost over 30 years	Total cost over 30 Years
€824	**€2,185**
Cost Saving per year	
€45	