Origen Air GHG emissions saved by 1 Pinnacle 100 m²/ 1000 ft²office (8000 ft³)

The built environment generates nearly 50% of annual global CO_2 emissions. Building operations are responsible for **27%** annually.

https://architecture2030.org/why-the-building-sector/

The Chartered Institution of Building Services Engineers (CIBSE) tells us that on average 11,670,000 of floor space, results in 1,062,048 of CO_2 emissions**.** Translating to an average of:

> **0.091 metric tonnes of CO_2 equivalent (mtCo₂e)** emitted per m², each year in Commercial Buildings

https://observablehq.com/@mrchrisadams/how-do-i-work-out-the-carbon-footprint-of-providing-space-to-w

Inefficient HVAC systems are responsible for 50-70% of these emissions.

https://architecture2030.org/why-the-building-sector/

> **(50% to 70% = 0.0455 to 0.0637 mtCo₂e** emitted per m² each year**).** By using an average of **60%**
> =
> **0.0546 mtCo₂e** wasted each year by inefficient HVAC System

By reducing HVAC air exchanges, the Pinnacle can reduce 33% of the **0.0546 mtCo₂e** to **0.0182 mtCo₂e** per year. This is equivalent to a conservative **20% reduction** in operational GHG Emissions for Commercial Buildings. (Competitors claim up to a 40% GHG reduction in HVAC efficiency gains with their products)

https://enverid.com/products/hvac-load-reduction-modules/

> **ONE (1) Pinnacle purifies: 100 m² (1000 ft²) continuously**
> **0.0182 mtCo₂e** reduction per m² x **100 m²**
> =
> **1.82 mtCO₂e** per Pinnacle per year
> Or
> **18.2 mtCO₂e removed by 10 Pinnacles per year**

By using the US EPA's GHG equivalency calculator this reduction is equal to:

GHG emissions from:	Carbon sequestered by:
0.39 gasoline-powered passenger vehicles per year **4,517** miles driven by an avg gas-powered vehicle	**30.1** tree seedlings grown for **10** years **2.15** acres of forest in one year **0.012** acres of Forest preserved per year
CO_2 emissions from:	GHG emissions avoided by:
204.9 gallons of gasoline consumed **178.8** gallons of diesel **2,013** pounds of coal burned **0.23** homes energy use for one year **0.35** homes electricity use for one year **4.21** barrels of oil consumed	**0.63** tons of waste recycled instead of landfilled **0.09** Garbage trucks of waste recycled instead of landfilled **78.8** trash bags of waste recycled instead of landfilled **69** incandescent lamps switched to LED

74.3 propane cylinder used for home BBQs **221,389** number of smartphones charged	

10 Pinnacles in 1000 m² or 10,000 ft² (80,000 ft³) commercial space

TEN (10) Pinnacle purifies: **0.0182 mtCo₂e** x **100 m²** x 10 = **18.2 mtCo₂e** reduced per year is equivalent to:

GHG emissions from:	Carbon sequestered by:
3.9 gasoline-powered passenger vehicles per year **45,176** miles driven by an average gasoline- powered passenger vehicle	**301** tree seedlings grown for **10** years **21.5** acres of forest in one year **0.123** acres of Forest preserved per year
CO₂ emissions from: **2,048** gallons of gasoline consumed **1788** gallons of diesel **20,137** pounds of coal burned **2.3** homes energy use for one year **3.5** homes electricity use for one year **42.1** barrels of oil consumed **743** propane cylinder used for home BBQs **2,213,896** number of smartphones charged	GHG emissions avoided by: **6.3** tons of waste recycled instead of landfilled **0.9** Garbage trucks of waste recycled instead of landfilled **788** trash bags of waste recycled instead of landfilled **690** incandescent lamps switched to LED