

GRADIENT

Revolutionary Window Heat Pumps

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Multifamily heat pump challenges:

- Siting outdoor unit
- Routing refrigerant and condensate
- Electric upgrades
- Asbestos/lead
- Refrigerant leakage
- Resident disruption



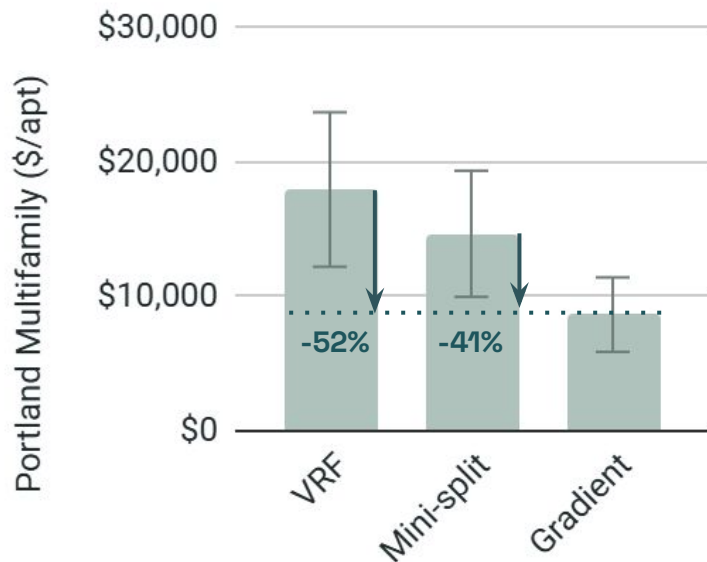
**The Gradient
All-Weather 120V
Window Heat Pump**

*GRADIENT





CapEx Savings with Cold Climate Performance



Source: Analysis of Urban Green Going Electric report (2020), inflation and location adjusted

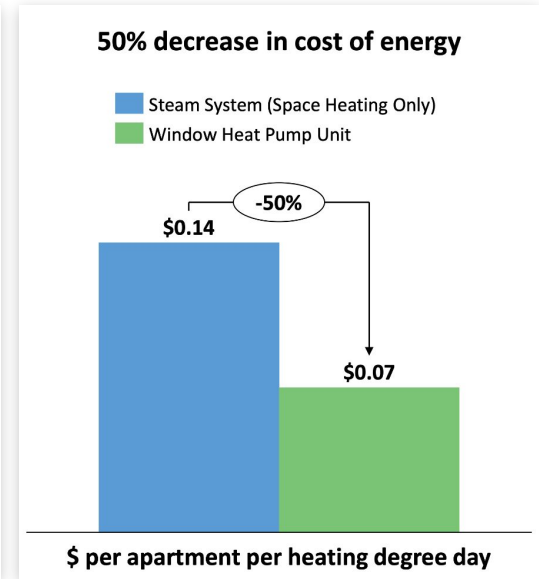
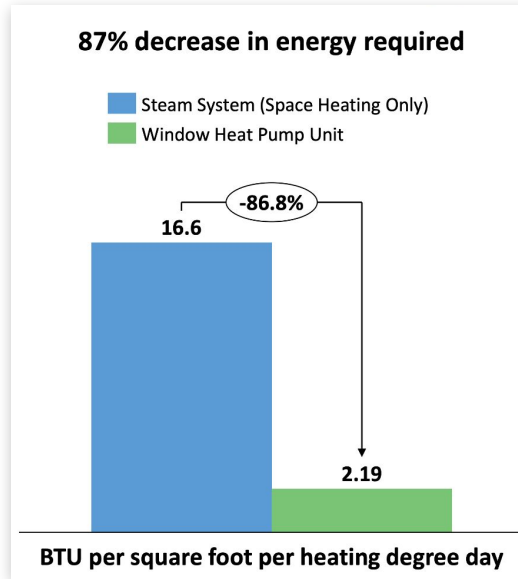
| Seasonal Efficiency | | | |
|---------------------|------|--------|---------|
| CEER | 16.8 | SEER2* | 19 - 23 |
| HEER | 9.4 | HSPF2 | 9.3 |

*Approximate equivalent

| Cold Climate | | |
|--------------|-------------|------|
| Temperature | Capacity | COP |
| 47°F | 9000 BTU/hr | 4.04 |
| 17°F | 9000 BTU/hr | 2.37 |
| 5°F | 7200 BTU/hr | 2.06 |
| -13°F | 7026 BTU/hr | 1.59 |

Proven Performance: Massive Energy Cost Savings, + Happy Residents

- M&V in NYCHA over winter '22-'23
- **87%** reduction in heating energy
- **50%** cost savings
- **70%** reduction in heating emissions
- Uniform Temperature: Consistent control, even in unheated spaces.
- Minimal electrical Impact: Only 30% of load from heat pumps at peak
- **89%** of residents satisfied, 11% neutral



Source: BEEEx Roundtable 1/16/25:

https://be-exchange.org/wp-content/uploads/2025/01/20250116_CleanHeat_Slides-UPDATED.pdf

Thank You!

Questions?

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