



## Energy Trust of Oregon, Inc. Gas Radiant Heat Nectar of the Gods- Maybe



### Gas Radiant Heat- Huh?

Energy Trust promotes *low intensity gas radiant heat* as an alternative to:

- \* Unit heaters
- \* Furnaces

In warehouse, industrial and other “big space with few people”. NOT where the atmosphere contains ignitable material or hazardous vapors



## Gas Radiant Heat- Eh?

### Why radiant?

- Permits comfort at lower temperature
- On/off quick
- No fan
- 90%+ efficient

### Why gas?

- Lower fuel cost
- If spot heaters are more applicable then electric radiant heaters may be the better answer since electric panel heaters can be cooler operating than gas —as long as fuel switching is not an issue.



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## Energy Trust offer

- \$6.50/MBTUH
  - Amounts to about 30%
  - Also eligible for Oregon business energy tax credit
- In our rate regime we figure we're bring payback down
- from about 4.4 to 2.7 years in existing buildings
  - From 2.9 for 1.2 for new construction or if they were planning to put in a heating system anyway.
- Program promoted through customer/vendor educational meetings
  - Program largely vendor driven



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## Result to Date

- About 38 jobs committed
- About 28 complete
- Include industrial, warehouse, one large chicken farm
- About \$104,620 in incentives
- 48,180 annual therms saved
- Incentive is viewed as good- generous for self-installs



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## Questions/Doubts

### Baseline energy use

- Were they heating before?
- Would they have heated anyway?
- System use (hours)



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## Example- Reed Harris Printing

- Previously unheated- poor working conditions- effected product quality
- Non-insulated 19 foot ceilings
- Solution: Ceiling insulation and Radiant Heat
- Gas heaters without insulation: \$168,970/year to heat
- Radiant heaters/insulation: \$52,024
- ET incentive (\$12,024) + tax credit passthrough (\$14,544)  
= 44% reduction in cost
- 1.18 year simple payback
- 22,877 annual therms, 5,445 annual kWh saved. About half from insulation



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## Benefit/Cost analysis

Life: 18 years  
Ann. Elec savings/MBTUH: 2.7 annual kWh  
Ann Gas savings/MBRUH: 4.3  
Cost/MBTUH: \$21  
Incentive: \$6.5  
Utility System B/C: 6.6  
Societal B/C: 2.3



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