Benefits of Electrical Resistance Heating

Electric resistance heat is clean, quiet and economical.

Environmentally-Friendly

- Electric resistance heating equipment is environmentally friendly, generating zero greenhouse gases and no carbon emissions.
- Electric resistance heating is efficient because a significant portion of electricity is generated by hydro and nuclear facilities with the trend toward site-generated, wind and solar power.
- Power generated by renewable sources is increasing at 1.8% per year and trending up. Wind grew 10% per year for the past decade. Non-fossil fuel power generation, including nuclear, account for 28% of the US total. The future of electric power generation is with non-polluting, renewable energy sources.

Energy-Efficient

- Electric resistance heating can be controlled room-by-room saving 20 - 50% in energy verses a central system having only one control for all spaces served by the system.
- Permanent installed electric resistance heaters have an excellent, long running safety record, are designed and sized for the specific application, are ideally suited for supplemental heating applications and can be controlled by residential energy management systems and electronic set-back thermostats.
- Zonal electric resistance heat is always 100% efficient at the point of use and adapts well to the tighter insulated homes of today. Central systems lose efficiency in three areas:
  1. Equipment typically starts out at < 100% efficient and loses efficiency over time.
  2. The duct system generates a loss in efficiency of 10 - 20%.
  3. The fan forced central system pressurizes the space increasing infiltration loss.

Cost-Saving

- Electric rates are regulated and the cost has risen much less than that of natural gas, oil or propane over the last few years. Over the last 10 years, the US average cost of residential electricity has risen by 42% compared to 79% for natural gas and about 140% for heating oil and propane.
- Electric resistance heating typically decreases construction cost by having the option of expansion without having to replace or expensively add to the existing central heating system. In addition, the total operating cost of electric resistance heating is substantially less expensive, including equipment, installation and maintenance than a ducted central system.