



Infrared Curing and Drying Incentive Program – Quick Facts

Infrared Curing and Drying: An Efficient and Cost-Effective Alternative

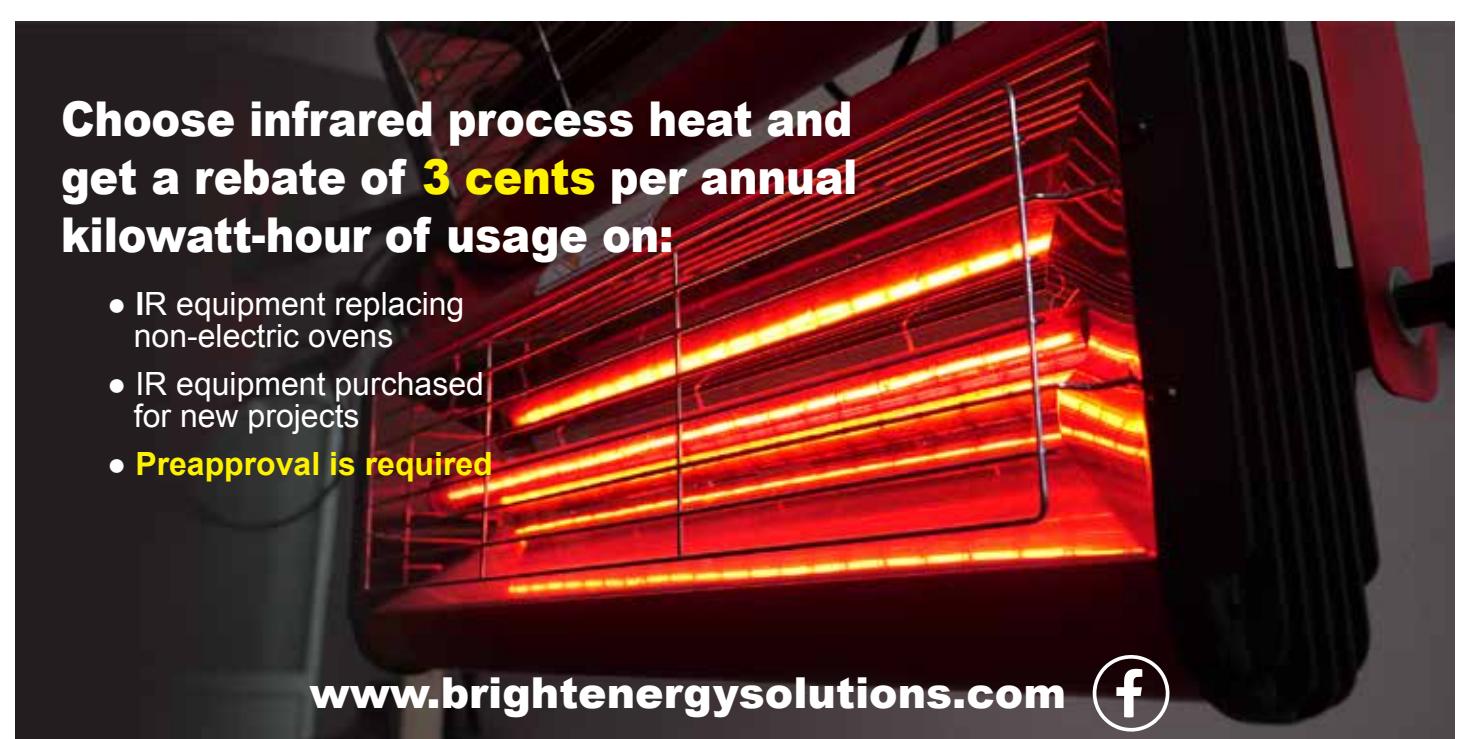
Many industrial processes require controlled heat for drying products and curing coatings. Electric infrared (IR) ovens offer many advantages over natural gas-fueled convection ovens.

- **Increased Efficiency and Productivity**

- No need to warm up or stay running means energy savings up to 90% in some applications
- Full output in seconds results in higher heat transfer rates and more product in less time
- Few maintenance requirements beyond cleaning

- **Improved Quality and Work Environment**

- IR ovens are compact, saving significant space
- Cleaner production due to reduced airflow
- Cleaner environment because drying equipment produces zero emissions
- Enhanced worker safety through elimination of open flames and dust
- Higher quality product due to more even coating and coloring — high-gloss products appear glossier



Choose infrared process heat and get a rebate of 3 cents per annual kilowatt-hour of usage on:

- IR equipment replacing non-electric ovens
- IR equipment purchased for new projects
- **Preapproval is required**

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Infrared Curing and Drying – How it Works

Unlike convection ovens, which use heated air to heat a product, infrared ovens transmit heat through electromagnetic waves. Electric IR emitters can provide fine control of IR wavelength in order to match specific requirements of an application. For example, IR frequency can be tuned to heat only the substrate while passing unabsorbed through a coating.

An IR oven can be used alone, or it can supplement heating from a natural gas convection oven. The latter is known as a hybrid IR application or a booster oven.

Applications

IR can be used in a wide range of processes to dry or cure products, including:

- Paint on car bodies and home appliances
- Paints and varnishes on hardboard, particleboard and chipboard
- Epoxy powder coatings on oil filters and irrigation pipes
- Ink and pre-drying of powder coating on paper
- Glass and glass product manufacturing
- Paint and powder coating
- Coatings on steel and aluminum
- Polyvinyl chloride waterproofing
- Dyes and coatings on textiles, apparel and fabric
- Machinery and computer products manufacturing

