



TEMPORARY HEATING

2016 - NORTH AMERICAN HEATING EQUIPMENT RENTAL MARKET

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RESEARCH SCOPE

NORTH AMERICAN RENTAL OPPORTUNITY: HEATING

Heaters for temporary heating applications enable customers to control the temperature and evenly distribute heat for a variety of applications.

For the purposes of this analysis, rental heaters have been segmented in the following categories:

- Direct-fired
- Indirect-heat
- Flameless
- Electric
- Ground thawing
- Steam

The report captures the following information about the North American Temporary Heating Market:

- Market Size, Growth Rate, Revenue Forecasts 2013-2022
- Growth Drivers & Restraints
- Market Trends
- Market Landscape
- Supplier Landscape
- Strategic Recommendations

DEFINITIONS: EQUIPMENT TYPES

NORTH AMERICAN RENTAL OPPORTUNITY: HEATING



Direct-fired heaters

The burner is fired directly into the process air stream to heat it. Air heaters which are direct fired are utilized in applications where the end product will not be affected by the by-products of combustion. For indoor applications, direct-fired make-up air heaters are used, where air from the outdoors is heated and then evenly distributed indoors in a controlled manner to replace air that is being exhausted. This drier, tempered, fresh air has the ability to absorb the moisture and ventilate the fumes from the construction process



Indirect-fired heaters

Simply means that the the air, in some cases, fluid, is heated “indirectly”. The burner is fired into a heat exchanger. The air is heated when it passes over the heat exchanger and, the by-products of combustion remain inside the heat exchanger and do not come into direct contact with the process air.



Ground thaw heaters

A ground thaw heater could be direct-fired, indirect-fired, steam or a hydronic surface unit. Generally, ground thawing is an indirect heating process. The unit might be a hydronic surface heater where hoses are laid out onto a surface, covered with insulation, and the frozen ice on the ground is thawed.

DEFINITIONS: EQUIPMENT TYPES

NORTH AMERICAN RENTAL OPPORTUNITY: HEATING



Steam heaters

Steam, or hot water heaters, can be used in structures where there is already a central steam or hot water boiler onsite. These portable air handlers, when combined with steam or hot water, will provide dry, even heat.



Electric heaters

Electric heat requires accessibility to high voltage and high amperage power and will often be accompanied with a generator. Due to operating off of electricity, electric heaters are fume, flame and moisture-free.



Flameless heaters

Mostly utilized in the oil and gas industry or some specialized solutions, like airports. Flameless heaters contain an internal combustion engine and is an indirect-fired unit, but the flame is contained and not visible. These units are seen as the most safe option available on the market, and most suited for explosion-proof requirements (or potentially dangerous applications). In a flameless heater, cool ambient and/or re-circulated air is drawn into the heater body and pulled through an exhaust heat exchanger and radiator, where it achieves heat gain. Air temperature increases further as it is drawn across the engine and heat plate. At the third and final heating stage, air is pushed through the shear plate oil heat exchanger, where it reaches its final temperature and is discharged through the outlet duct.



Hydronic surface heaters

An energy efficient heating system that uses tubing to run a hot liquid through hose or through radiators to heat. Fluid heat transfer is the most efficient way to transfer heat, resulting in reduced fuel consumption. Reheating warm ambient interior air allows a reduction in fuel costs dramatically over indirect-fired and direct-fired open flame heaters. There are also additional fuel savings by eliminating ventilation requirements to offset noxious fumes, heating of cold outside air, or any heat loss from routing air to the outside for reheating. Indirect-hydronic is by far the least expensive fuel burn per Btu/hr. For the purposes of this study, hydronic surface heaters are included in ground thaw figures for market opportunity.



DEFINITIONS: END USERS

NORTH AMERICAN RENTAL OPPORTUNITY: HEATING

For the purposes of this study, temporary heat excludes dehumidification equipment. Temporary heating refers to the rental of heating equipment used for the below categories.

Oil & Gas – Refers to the exploration and production component of the petroleum industry. Stages within the upstream petroleum-product industry include the search for underground or underwater oil and gas fields, the drilling of exploratory wells and the operation of wells that bring crude oil and raw natural gas to the surface.

Refining– Refers to production facilities composed of a group of chemical engineering unit processes and unit operations refining certain materials or converting raw material into products of value. Process heaters are used throughout the hydrocarbon and chemical processing industries in places such as refineries, gas plants, petrochemicals and chemicals and synthetics. This end user group includes downstream processes for oil and gas.

Industrial – Includes manufacturing, warehousing and all other industrial processes that are not refining.

Mining – The end-user utilizes heat for, both process and comfort purposes, extracting ore, coal and/or minerals from the ground.

Construction – Refers to any application involved with the construction, alteration and repair of buildings, structures and other real property. This category does not include some immediate specialty restoration and emergency heating/drying opportunity.

Events–Events such as weddings, sporting events, movie production, corporate entertainment and all other events that might require a heater.

Emergency – The emergency market refers to moisture removal and temporary heat used to quickly dry saturated structures. This market is predominantly a response to natural disasters – floods, fires and hurricanes or water leaks.

Others – All other temporary heat opportunities not covered in the above categories. Others category include areas like pest control, agriculture, and some commercial applications.



HEATER TYPES AND APPLICATIONS

NORTH AMERICAN RENTAL OPPORTUNITY: HEATING

| Industry | Heater Types | Applications |
|----------------------|--|---|
| Construction | Indirect-Heat, Direct-Fired, Electric, Ground Thawing and some Flameless | Comfort heating, paint drying, moisture reduction, concrete curing, column wrapping |
| Oil & Gas | Indirect-Heat, Electric, Ground Thawing & Flameless | Pipeline project heating, emergency thawing, pre-warming equipment, comfort heating |
| Refining | Indirect-Heat, Electric, Ground Thawing, Steam and Flameless | Comfort heating, climate control, process heating, shutdown and turnaround |
| Events | Electric, Direct-Fired, Indirect-Heat and some Ground Thaw | Comfort heating, climate control, thawing ground |
| Emergency | Indirect-Heat, Ground Thawing, Electric and Dehumidification Equipment | Moisture removal, specialty restoration, comfort heating, paint and coating drying |
| Industrial | Indirect-Heat, Electric, Ground Thawing and Steam | Comfort heating, climate control, process heating, power generation |
| Mining | Indirect-Heating, Electric, Ground Thawing | Comfort heating, climate control, pre-warming equipment |



ABOUT VERIFY MARKETS

ABOUT US

EXPERT ADVICE AND STRATEGY CONSULTING

Verify Markets is a market research and consulting firm specializing in Industrial, Environmental, Energy and Water markets. Our Research & Consulting practice provides global industry analysis, custom engagements, end-user analysis, strategy consulting, strategic market intelligence, and forecasts that are designed to facilitate strategic decision-making. Our team of consultants, industry experts and analysts continually monitor and evaluate information to create insights for your business needs. We are comprised of a group of analysts that have been tracking their respective markets for a number of years.

Our goal is to help you reach yours.



VERIFY MARKETS

METHODOLOGY

METHODOLOGY

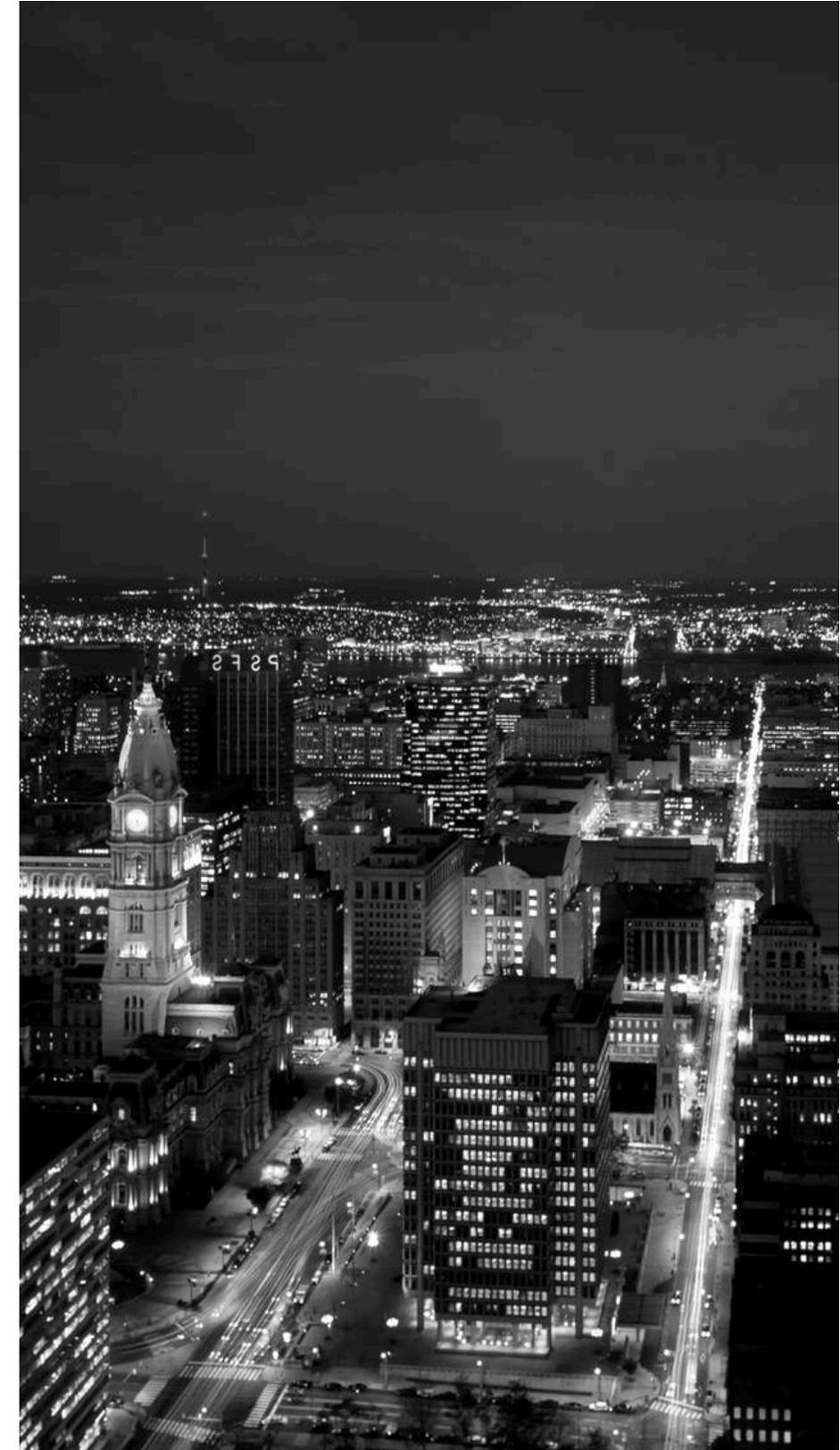
The methodology when formulating market trend projection is outlined below. Historical trends were determined through secondary research and Verify Markets in-house database.

- Secondary research was conducted. A list of key industry participants was put together.
- Telephonic interviews were conducted. Most of the leading participants across all countries were contacted.
- Bottom up methodology was used to calculate the market size.
- Market drivers and restraints were built into the forecasting model to estimate the revenue growth and market size figures.

METHODOLOGY

Profiles of Interviewees: Vice President, Marketing Manager, Business Development Manager, Brand Manager, CEO (for smaller companies).

Most of the primary interview data was captured through telephonic interviews. Pictures, company contacts, preliminary data was captured through secondary research. Images are derived from company websites and other web sources.



DISCLAIMER

Despite Verify Markets' best efforts, certain challenges were encountered and certain assumptions had to be made. The extremely competitive nature of the heating rental market often results in an increased reluctance on the part of several competitors to discuss their market position, future plans, or market trends. Verify Markets used its skills and experience to extract the relevant data in order to complete the analysis.



Verify Markets is not responsible for any incorrect information supplied to us by companies during our primary research process.

Verify Markets report is for customers' internal use and not for general publication. This research cannot be given, disclosed, or sold to non-customers or third parties.

Since most of the data is based on company personnel views, it is subject to fluctuation.

CAPABILITIES

MARKET COVERAGE

Water & Wastewater Treatment

Air Treatment

Environmental Technologies

Energy & Power Equipment

Power Supplies & Batteries

Oil & Gas

Building Technologies & Efficiency

Consumer Products

Healthcare IT

SERVICES

Competitive Intelligence

Market Research

Custom Consulting

Strategic Planning

White Papers

Verified Leader Awards

Claim Validation

Strategy Workshops

Customized Monthly Newsletters

LOCATIONS

GLOBAL PRESENCE





ANY QUESTIONS?
CONTACT US AND SET UP A TIME TO
SPEAK WITH OUR ANALYSTS.

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