

“People always overestimate how much will change in the next three years and they underestimate how much will change in the next 10 years.” – Bill Gates

1 EXECUTIVE SUMMARY

NHF is to be congratulated for taking the leadership role in helping define the future of the HVAC industry. While absolute certainty regarding the future can never be predicted, the results of this study will provide the foundation for more informed discussions and planning by the industry’s stakeholders and their respective organizations. Now the hard work begins with the task of interpreting these findings, determining the potential implications for the HVAC and sheet metal industry, and developing the appropriate action plans to prepare for the future. By stimulating these discussions, NHF has provided a valuable planning platform and tool for the industry’s stakeholders’ collective benefit and use.

The outlook for unprecedented change within the HVAC industry is certain; the specific state of the HVAC industry in 2018 is, however, far from certain. Through this futures study, FMI, with strong support from the NHF Task Force and other industry stakeholders, has secured input for this “future state.”

The cornerstone factors driving change in the industry—sustainability, globalization, work force, and technology—are explored in the Key Findings and other sections of

this document. This report shows that the expectation from the NHF HVAC Futures Advisory Group is for rapid growth in the demand for HVAC services. The combination of code creation and compliance, performance issues related to energy costs, the sustainability movement, and consumer preference will align to create this significant market demand for HVAC services.

A few of the more significant expectations for the HVAC industry of 2018 include the following:

- Residential and nonresidential building will become heavily focused on energy conservation, sustainability issues, and “green” (environmentally friendly) construction. All these factors create opportunity for leading HVAC contractors and suppliers.
- The demand for retrofit and service work will grow at an unprecedented pace to meet the future building performance expectations and to serve an ever-growing supply of building inventory.
- Building Information Modeling (BIM), Building Information Systems, Lean¹ management, and other productivity tools will be required to successfully compete in the HVAC market of 2018.

¹ Principles of Lean Thinking and Lean management are presented in *Thinking Lean—Implementing a Methodology for Decreasing Costs and Increasing Profits*, a study funded by NHF and published in 2008.

IDENTIFYING ALTERNATIVE FUTURES

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- The emerging trade of energy/environmental specialists is expected to be a highly desired discipline in the future, with a requirement for a highly skilled work force to meet future demand.

With this enormous opportunity comes the challenge of choice and focus. Individual contractors and suppliers, labor organizations, trade associations, and other industry organizations will be required to clearly target the markets where they choose to participate. For example, the residential market has long been a declining market for contractors and union labor. *Will the new market dynamics provide the impetus for getting reengaged in this market?* In addition, new technology such as photovoltaic (PV) energy systems will be in demand for residential and nonresidential buildings. *Will this become a mainstay for the HVAC contractor or abdicated to the other trades?* The emergence of the energy/environmental specialist will be seen particularly in the nonresidential market. *Can the HVAC industry quickly mobilize to lead and control this market?*

To position the HVAC industry for future success, these are just a few of the decisions that will likely result from the industry's planning efforts. To successfully compete in the HVAC world of 2018 will require thoughtful consideration of these potential market changes and a careful challenge of the industry's current direction and strategy. FMI and NHF encourage industry stakeholders to begin this planning process now to capitalize on these opportunities.