

Supply Chain Assessment

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Ongoing risks to route cargo through the Red Sea and low water levels at the Panama Canal have perpetuated ocean carrier diversions and lengthened vessel transit times. These factors, combined with East and Gulf Coast port labor negotiations, have prompted importers to ship cargo earlier ahead of peak shipping season to reduce risk of end-of-year delays. The shift has resulted in a surge of imports arriving at West Coast ports and record cargo growth at the Ports of Los Angeles and Long Beach. To mitigate supply chain challenges, some companies are investing in their logistics networks to optimize their port and transportation services and strategically locating their warehouses to improve distribution efficiencies.

Findings

1. Product Availability

a. HVAC

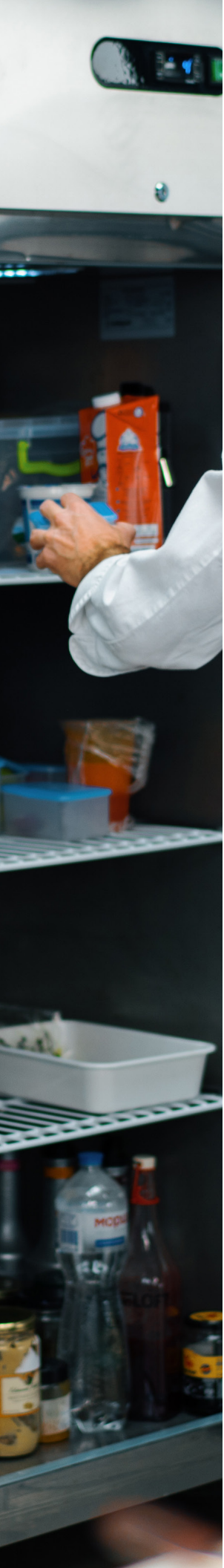
- i. A leading manufacturer, predicting substantial industry growth by 2030, will acquire a global residential and light commercial business encompassing multiple manufacturing sites, engineering locations, and popular brands of air conditioning and heat pump products. Meanwhile, another manufacturer has partnered with a Northeastern distributor to expand their regional market share for gas and electric residential equipment.
- ii. Regulatory changes and federal funding opportunities have prompted major manufacturers to redesign or expand their product portfolios of ductless systems and air-to-water heat pumps that incorporate inverter technology and integrate refrigerants with lower global warming potential like R-454B and R-32.
- iii. Limited availability of certain heat pump brands and lead times as long as four weeks for variable refrigerant flow units have impacted stocking decisions and high-efficiency equipment sales for some distributors.

b. Water Heating

Manufacturers are introducing heat pump water heater (HPWH) products with enhancements like integrated mixing valve technology and multiple discharge port options. Benefits of these enhancements include higher first hour ratings, an expanded array of sizes, and easier installation.

Trade Ally Team Communications per Technology Domain

	This Issue	Volume 5 To Date
HVAC	38	339
Foodservice	13	141
Water Heating	25	216
Pumps	10	77
Lighting and Electrical	27	156
Life Sciences	9	87
Clean Transportation	6	10
Total	128	1,026



2. Equipment Sales

a. HVAC

- i. A major manufacturer reports that their launch of a new air conditioning product line with R-454B refrigerant has positively impacted their unitary equipment sales.
- ii. In the Northeast, manufacturers' representatives and distributors report a steady trend in summer sales, despite a slower start compared to previous years that has been attributed to high interest rates, economic uncertainty, and the forthcoming presidential election.

b. Water Heating

In New York, manufacturers are coordinating contractor training events and co-branded program collateral to showcase new HPWH equipment and increase sales through distribution channel expansion and midstream rebate promotion. One manufacturer is creating a dedicated sales division to provide purchasing assistance to small-size contractors to grow HPWH sales nationwide. Amid high quoting activity for HPWHs, distributors predict a continued rise from seasonal sales in the fall.

c. Foodservice

Ahead of updated state regulations that will eliminate program rebates for energy-efficient gas equipment in September, dealers in Massachusetts are exploring opportunities to boost electric sales. One dealer notes that offering eligible refrigeration equipment has provided them with a competitive advantage to win more projects.

d. Lighting and Electrical

- i. Despite observations of a seasonal slowdown, some distributors report sales growth due to large commercial projects driven by predictions of improved economic conditions in 2025. In New Hampshire, distributors note success in leveraging program rebates and available promotions to further boost low bay and high bay equipment sales.
- ii. In preparation for program changes that will implement requirements for integrated controls in 2025, Massachusetts distributors are increasing their stock of controls products, educating their branch locations to ensure compliance, and building awareness with contractor customers through rebate promotion.

e. Life Sciences

- i. Across the country, midstream incentive program rebates and promotions are driving university, biotechnology company, and freezer farm replacement sales in favor of ultra-low temperature (ULT) freezers that feature technology upgrades and higher energy efficiency. In July, a leading manufacturer completed a large-volume sale of ULTs and high-performance laboratory-grade refrigerators that totaled more than 114,000 kWh in savings.



Program Spotlight

CalNEXT, California's emerging technology initiative led by Energy Solutions and an expert team of partner organizations, published its first article: "Smart Panel Technology May Replace Need for Pricy Upgrades: New Power Solutions Provide Options for Making Electrification Budget-Friendly." Featured in various external industry publications, the article summarizes project findings from the "Market Study of Household Electric Infrastructure Upgrade Alternatives for Electrification" Final Report that was developed by VEIC, with support of the Ortiz Group, and assesses four alternative technologies for reducing grid demand. Read the [full article](#) and [Final Report](#) on the CalNEXT website and contact info@calnext.com for more information.



- ii. Cold storage continues to be a key topic, with My Green Lab concluding their annual International Freezer Challenge to promote cold storage equipment and the International Institute for Sustainable Laboratories holding a forum on energy-efficient practices to achieve laboratory sustainability.

3. Service Providers and Contractors

a. Across Technologies

- i. In July, the US Environmental Protection Agency announced their selection of the New England Heat Pump Accelerator coalition application to receive a \$450 million Climate Pollution Reduction Grant. The grant will fund projects in Massachusetts, New Hampshire, Rhode Island, Connecticut, and Maine to accelerate the adoption of residential cold-climate air-source heat pumps, ground-source heat pumps, and HPWHs.
- ii. A leading manufacturer has partnered with a supply chain technology company to launch a streamlined supply chain management system that directly connects home builders with their distribution partners and simplifies ordering processes.

From the Field

From August 4 to 9, the **American Council for an Energy-Efficient Economy (ACEEE) Summer Study** gathered utilities and program administrators, manufacturers, government agencies, and other industry professionals. Energy Solutions staff shared their insights as panelists and engaged as session participants to discuss HVAC fuel substitution measure opportunities, embodied carbon, and emerging technologies in California; grid-connected HPWH benefits for low-income households in the Southeast; and other topics including micro heat pumps, dishwasher and clothes washer savings, and equitable program planning.

About Energy Solutions

For more than 25 years Energy Solutions has provided cost-effective, market-driven solutions that deliver reliable, large-scale impacts. We implement more midstream and upstream programs in North America than any other company, which gives us access to valuable insights across technologies.

Our program success is fueled by a deep connection to the market. These market relationships have allowed us to closely monitor supply chain impacts to keep you informed.

To learn more about Energy Solutions' programs and services, contact Jeff Johnston at: jjohnston@energy-solution.com | energy-solution.com

Disclaimer: This report reflects our best estimate of market impacts, with the information available at this time. Energy Solutions will continue to provide valuable reporting on supply chain conditions. These updates will be versioned and dated to indicate at what time they apply.

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