



# Supply Chain Assessment

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Port congestion for ocean carriers is clearing and shipping rates continue to normalize due to waning domestic import demand. Still, some large ocean carriers who turned to air freight during the height of pandemic-related congestion are expanding air cargo operations to facilitate resilient supply chains.

On the West Coast, port disruptions from ongoing labor disputes resurfaced in early April when operations ceased for 24 hours at the nation's busiest container port complex at Los Angeles and Long Beach.

## Findings

### 1. Product Availability

#### a. HVAC

- i. A manufacturer has opened a warehouse in the Midwest that will expand their regional distribution capacity for unitary, mini-split, and variable refrigerant flow (VRF) product lines by more than 400 percent.
- ii. Major manufacturers are introducing new electric products, including hydronic VRF systems, water-source heat pumps, and heat pump rooftop units (RTUs). To support wider heat pump adoption, a global manufacturer has announced plans to open a U.S. factory to expand production of energy-efficient heating and cooling equipment components.

iii. Distributors report lead times as long as 20 weeks for RTUs.

#### b. Water Heating

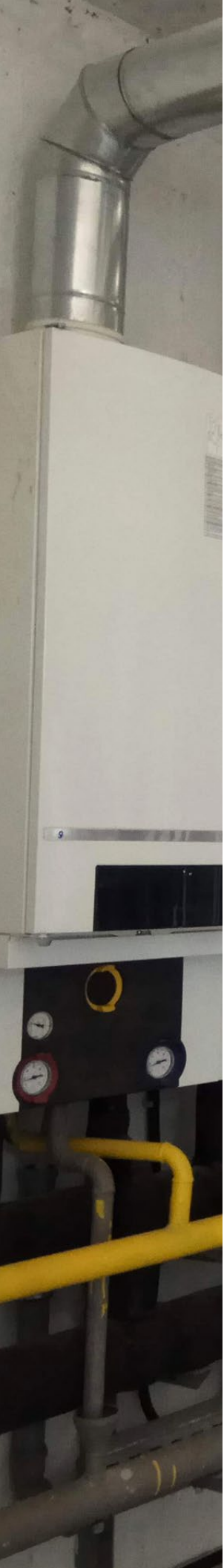
A shortage of steel used in water heater jackets has impacted unit production. A manufacturer's representative reporting low stock of 50- and 80-gallon heat pump water heaters (HPWHs) is encouraging distributors to maintain a minimum level of stock at branches and strategically stock additional units at central distribution centers.

#### c. Lighting and Electrical

- i. A national manufacturer attributes an increase in their fiscal Q2 2023 net sales to effective price management that has mitigated inconsistent supply availability and achieved a low of 16 inventory days.
- ii. To keep pace with heightened demand driven by electric vehicle (EV) market growth, U.S. steelmakers are ramping up production of electrical steel as a critical EV material that has fallen in supply.

#### Trade Ally Team Communications per Technology Domain

	This Issue	Volume 4 To Date
HVAC	28	146
Foodservice	12	68
Water Heating	20	99
Pumps	11	39
Lighting and Electrical	16	80
Life Sciences	11	36
<b>Total</b>	<b>98</b>	<b>468</b>



## 2. Equipment Sales

### a. HVAC

A major manufacturer opened a training and distribution center in the Northeast to support bolstered demand for heat pump equipment, as federal codes and funding available through the Inflation Reduction Act (IRA) have prompted increased stocking and sales of high efficiency equipment. Meanwhile, some distributors have expressed concern with new minimum efficiency standards disqualifying certain VRF brands and impacting eligible sales.

### b. Water Heating

- i. Ongoing inflationary pressures have contributed to significant price increases for boilers, prompting one manufacturer to increase prices by a total of 15 percent this year and impacting high efficiency sales for some distributors. Others report increased sales for high efficiency HPWH and commercial water heaters, crediting program incentives that manufacturers continue to promote through information sheets on IRA tax credits.
- ii. A Massachusetts distributor reporting fewer year-over-year sales anticipates that their recent warehouse expansion will incentivize increased stocking capacity and sales of HPWH equipment.

### c. Pumps

Residential electronically commutated motor (ECM) pump sales have declined for some distributors due to significant price increases.

### d. Life Sciences

A life sciences development company plans to repurpose its existing Rhode Island location and introduce an additional Massachusetts facility to meet growing demand for wet laboratory space.

## 3. Service Providers, Contractors

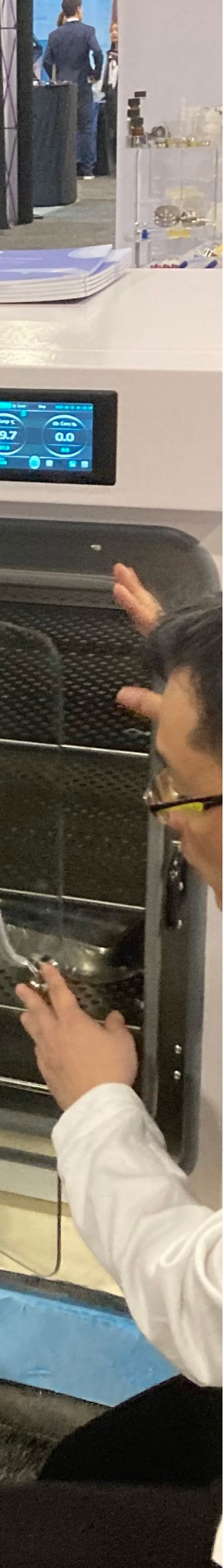
### a. Across Technologies

A national survey by Associated Builders and Contractors (ABC) revealed that the construction backlog fell to 8.7 months in March, its lowest level since August 2022. Meanwhile, fears of an imminent recession have fueled predictions of deceleration in nonresidential construction activity in the months ahead.



## Program Spotlight

From March 28 to 30, the Puget Sound Energy (PSE), Seattle City Light, and Snohomish County Public Utility District's Pacific Northwest Regional Midstream HVAC and Water Heating Program partnered with the National Comfort Institute (NCI) to instruct a "Residential System Performance and High-Performance Heat Pump Retrofits" class for contractors. Four contractors identifying as Black, Indigenous, or People of Color (BIPOC) received scholarships through PSE's Diversity, Equity, and Inclusion (DEI) initiative to ensure equitable opportunities. Participants became experts in comfort, safety, and energy efficiency, learning to discover defects that inhibit system performance, reduce call-back, increase satisfaction, and measure system performance.



#### b. Lighting and Electrical

According to a Q1 survey conducted by Channel Marketing Group, distributors are observing a shift toward small and medium new and renovation projects with slowing activity in other market segments. Although most respondents reported project delays driven by limited product availability, project quoting activity remains strong, with the commercial, industrial, healthcare, and educational markets identified as key segments for sales generation.

### 4. Administrative, Application Submittal

#### a. Across Technologies

Contractors are stocking heat pump equipment to have units readily available, making it difficult for distributors to obtain information necessary for eligible claim submissions. To streamline submission processes, distributors continue to invest in training, enact internal system improvements, and promote program incentives.

## From the Field

From March 19 through 21, Energy Solutions attended **Pittcon**, the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. Staff connected with manufacturers and gathered information on new potential measures for environmental chambers, fume hoods, and glassware washers. Additional opportunities for energy savings were uncovered for products such as lab water purification systems and freeze dryers.

### 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:

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**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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