

# Supply Chain Assessment

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West Coast port labor negotiations that began in May 2022 have intensified. Scheduling changes to dockworkers' shifts are delaying cargo handling processes and causing terminal backups at the nation's busiest ports of Los Angeles and Long Beach.

On March 15, federal regulators approved the first major railroad merger in over two decades that will create a single-line service linking the U.S., Canada, and Mexico as early as April. The merger is expected to create more than 800 new jobs in the U.S. and shift an estimated 64,000 truckloads from road to rail annually that would alleviate terminal delays with expanded gateway options and improved routes for shippers.

## Findings

### 1. Product Availability

#### a. HVAC

Distributors continue to report lead times of up to 50 weeks for direct expansion (DX) units and between 12 and 25 weeks for high efficiency water-source heat pumps depending on size.

#### b. Water Heating

A manufacturer will launch 50- and 80-gallon heat pump water heater (HPWH) units in Q2 2023.

#### c. Foodservice

Manufacturers report production bottlenecks of high efficiency combination ovens and fryers due to the ongoing shortage of microchips and other imported components.

### 2. Equipment Sales

#### a. HVAC

i. Distributors of variable refrigerant flow (VRF) equipment forecasting market growth and 2023 sales growth credit program incentives as a tool to expand their market share. A Massachusetts manufacturer's representative plans to further promote heat recovery ventilator (HRV) and energy recovery ventilator (ERV) equipment incentives in 2023.

ii. Predicted growth in data center construction over the next five years is expected to accelerate demand for energy-efficient cooling solutions, prompting a major manufacturer's recent acquisition that will expand their high efficiency data center equipment portfolio.

#### b. Water Heating

In April, a distributor will launch a market awareness campaign for midstream HPWH program incentives.

### Trade Ally Team Communications per Technology Domain

	This Issue	Volume 4 To Date
HVAC	32	118
Foodservice	27	56
Water Heating	25	79
Pumps	14	28
Lighting and Electrical	21	64
Life Sciences	12	25
<b>Total</b>	<b>131</b>	<b>370</b>



### c. Pumps

Manufacturers' representatives and distributors have expressed interest in variable speed, electronically commutated motor (ECM), and Pump Energy Index (PEI)-rated pumps incentives to promote high efficiency sales and offset rising equipment costs. A major pump manufacturer's representative reports an increase of at least 50 percent for the cost of ECM circulator pumps as part of a series of price increases implemented in the last year.

### d. Foodservice

- i. A refrigeration equipment dealer reports having to purchase equipment that is ineligible for program incentives due to price increases of major brands. However, some dealers report success in offsetting high costs of other equipment types, such as fryers, with special program promotions and supplier diversification.
- ii. The National Restaurant Association (NRA) has projected 2023 industry sales will stabilize following volatile shifts observed in recent years, with an increase of 1.1 percent from 2022 levels. 58 percent of operators report that the use of technology and automation will become increasingly common to help offset the ongoing labor shortage that is expected to remain a challenge throughout 2023.

### e. Lighting and Electrical

- i. Multiple manufacturers are expanding their lighting controls portfolios through acquisitions and partnerships that were finalized in March.
- ii. In recent surveys by the National Electrical Manufacturers Association (NEMA) comparing market conditions in February to January 2023, one-third of manufacturer respondents reported improved conditions due to lessening supply chain pressures, high order activity, and continued demand in EV, utility, and data centers indicative of trending investment in electrification. These survey results mark the first reported improvement since April 2022.
- iii. The commercial lighting market is pushing to complete general service lamp (GSL) projects within the first half of 2023 in anticipation of increased minimum efficacy requirements for GSLs that will take effect in July.

### f. Life Sciences

Manufacturers observe increased demand for cold storage equipment and opportunities for life sciences research and development in the Colorado, Massachusetts, and New York markets driven by funding opportunities, tax subsidies, and university projects.



## Industry Spotlight

The American Council for an Energy-Efficient Economy (ACEEE) Hot Water Forum and Hot Air Forum were held from March 7 through 9. Energy Solutions joined manufacturers, utilities, and program administrators to discuss emerging space and water heating technologies, and investments in building decarbonization and workforce development created by federal funding opportunities. Energy Solutions staff presented at sessions covering HPWH contractor workforce development, economic and energy benefits of HPWHs for low-income households, and the use of data science to measure costs of heat pump installations across California.





### 3. Service Providers, Contractors

#### a. Across Technologies

A national survey by Associated Builders and Contractors (ABC) revealed that lingering inflationary pressures continue to impact costs of construction input materials like copper wire and cable, which have seen a 40 percent price increase since February 2020, and are expected to challenge contractors through 2024 and beyond.

### From the Field

The **2023 AHR Expo and ASHRAE Winter Conference** was held from February 4 through 8, gathering manufacturers, manufacturers' representatives, and distributors in the HVAC/R, water heating, and pumps markets. Energy Solutions attended to promote program awareness, engagement, and enrollment; socialize program and measure updates; discover eligible product offerings; and participate in ASHRAE Technical and Standards Committees. Market conversations revealed market interest in more VRF programs, and a growing trend towards electrification, low-GWP refrigerants, and production of heat pump equipment, specifically air-to-water heat pumps and HPWHs.

From March 21 through 23, Energy Solutions hosted the Equipment Experience booth at the **Restaurant Facility Management Association (RFMA) Annual Conference**. Our staff collaborated with foodservice, water heating, and HVAC manufacturers to display high efficiency equipment. Chain restaurant facility managers and other RFMA attendees received an interactive equipment experience and information regarding foodservice Instant Rebates (IR) as well as water heating and HVAC midstream program incentives.

### 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](mailto:jjohnston@energy-solution.com) | [energy-solution.com](http://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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