

# Supply Chain Assessment

June 30, 2022 | Volume 3, Issue 6



The ports of Los Angeles and Long Beach have seen a temporary reprieve in container ship backlog with idling vessels falling to their lowest levels since July 2021. However, congestion has spread to freight rail networks as cargo awaiting train transport accumulates at rail yards. This has further contributed to delays, exacerbated by a shortage of laborers and steel trailers for hauling containers from rail yards to warehouses. Meanwhile, East Coast ports are battling ongoing space constraints, unable to store the rising number of containers arriving at their terminals. At the Port of Savannah, one of the largest and fastest-growing ports in the U.S., containers linger for eight to ten days before mobilizing. Price increases of as much as 1,000% imposed by nine trans-Pacific ocean carriers have inflated customer costs and driven U.S. lawmakers to enact more stringent shipping regulations. Strategies have emerged to alleviate congestion and resulting bottlenecks at terminals, including converting vacant lots and department stores to pop-up container-storage facilities and automating dock equipment to handle growing volumes of cargo.

## Findings

### 1. Product Availability

#### a. HVAC

- i. A lack of resin has limited air handler production for a major manufacturer. Distributors face long lead times on high efficiency rooftop units (RTUs) and heat pump equipment of 20 weeks or more, prompting sales of alternate brands to alleviate delays and manage customer expectations.
- ii. In January 2023, the second phase of the U.S. Department of Energy's new efficiency standards will require that commercial air conditioners and furnaces, including RTUs, achieve a 15% increase in energy efficiency. Despite component shortages and continued production of some less efficient products due to demand, many HVAC manufacturers are integrating increased energy efficiency goals into their new product development to meet the 2023 standard at minimum and qualify for utility program rebates. A movement towards higher energy efficiency has influenced the residential market as well, as major manufacturers are introducing smart automation software in their product pipelines to improve HVAC system intelligence and energy savings potential for residential ductless mini-splits.

Trade Ally Team Communications per Technology Domain

	This Issue	Volume 3 to Date
HVAC	22	189
Foodservice	26	123
Water Heating	17	110
Pumps	7	60
Lighting	15	82
Life Sciences	11	62
<b>Total</b>	<b>98</b>	<b>626</b>

TABLE 1.

#### b. Water Heating

Heat pump water heater (HPWH) distributors with strong stock cite lead times falling from 16 weeks to as few as four weeks across brands.



**c. Foodservice**

Dealers with higher order and sales volume have been able to secure greater quantities of stock, while others face lengthy lead times depending on brand. Fryer lead times range from two months to as long as six months, and one dealer reports a one month-long wait for dishwashers.

**d. Lighting**

Distributors face delays of eight months across lighting equipment.

**e. Life Sciences**

A major manufacturer positively reports lead times ranging from eight to 12 weeks for ultra-low temperature freezers (ULTs). Another manufacturer plans to introduce a new energy-efficient ULT by Q1 2023.

**2. Equipment Sales**

**a. HVAC and Water Heating**

Amid widespread price hikes, a major HVAC manufacturer will implement a price increase of up to 12% on light commercial, commercial applied products, and controls next month, impacting distributors already constrained by sales staffing shortages. Some cite high costs as a barrier to selling high efficiency equipment such as water heaters, especially among residential customer bases. Those who do sell high efficiency equipment credit rebates as helping to offset these challenges and hope to see more growth in opportunities to participate in midstream programs.

**b. Foodservice**

Long lead times and significant price increases for fryers and convection ovens have created uncertainty in purchasing decisions for high efficiency equipment, slowing sales for many dealers. Still, some report how rebates have helped mitigate higher upfront customer costs and upsell high efficiency equipment.

**c. Lighting**

A major manufacturer announced price increases effective next month across indoor, outdoor, and controls product lines due to climbing costs in freight, raw materials, and labor. Meanwhile, concerns around COVID transmission have disrupted a distributor's plans to host an upcoming counter day event which may impact qualifying equipment sales.

**d. Life Sciences**

Citing rising costs, among other supply chain issues, a major lab equipment manufacturer reports that equipment sales are down by half of their typical volume and does not anticipate improvement until 2023.

**Program Spotlight**

**FLEXmarket** is a Market Access program issued by the California Public Utilities Commission (CPUC) that authorized up to \$150 million to fund projects to increase summer grid reliability by reducing and shifting peak demand. This makes it by far the largest investment in behind-the-meter demand flexibility to date. The program is designed to incentivize most energy reduction projects and pays incentives for the total energy saved or shifted based on meter usage data. This is a new demand-reduction incentive program based in California. Energy Solutions is pleased to be a partner in this program supporting enrollment for market participants. Please contact [jbirchfield@energy-solution.com](mailto:jbirchfield@energy-solution.com) for more information.

### 3. Administrative / Application Submittal

#### a. Across Technologies

Limited by persistent staffing constraints that have delayed claims submissions by as many as eight weeks, manufacturers and distributors continue to seek strategies that will bolster claims submission volume and consistency. Information sheets and increased training among sales staff aim to improve identification of qualifying sales, while regional branch competitions are designed to incentivize timely submissions.

### From the Field

From June 19<sup>th</sup> through 23<sup>rd</sup>, Energy Solutions attended **Lightfair**, the annual industry event featuring design and commercial lighting solutions. Energy Solutions met with lighting manufacturers and distributors to spread program awareness, drive program engagement, and discuss new product offerings in relation to measure eligibility. Our staff also met with program clients to discuss ways to bolster participation. Meanwhile, educational sessions assessed supply chain impacts on products like controls and future opportunities to consider embodied carbon in the lighting market.

#### 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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