

# COVID-19: Supply Chain Assessment



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## Editor's Note

As 2021 comes to a close, the effects of the global pandemic continue to ripple through the supply chain in ways that couldn't have been predicted. This year we had almost 900 conversations with our market partners who we would like to thank for generously sharing their experiences. In spite of unpredictable product availability and pricing, workforce shortages, and persistent market uncertainty, many businesses have not just survived, but have helped contribute to record sales in a challenging environment.

We would also like to thank our program administrator partners for their unwavering support that provided stability in uncertain times. At Energy Solutions, we continue to see strong engagement and program participation among our market partners, who are critical to achieving our mutual goals of energy savings and large-scale environmental impacts.

We look to the future with hope and confidence that, together, we will keep finding ways to support our mission and each other. We wish you all a joyful holiday season.

## Findings

### 1. Product Availability

#### a. Across Technologies

Material and labor shortages, volatile price fluctuations, and unpredictable delivery times continue to impact the supply chain. However, U.S. port decongestion and decreased shipping container costs show signs of improvement. Since the Ports of Los Angeles and Long Beach proposed a fee on ocean carriers for idle import containers on October 25<sup>th</sup>, the ports' combined 47% drop in loitering cargo has mobilized the traffic jam from "bumper-to-bumper" to a "slow crawl."

#### b. HVAC

A major manufacturer has been unable to provide a lead time for mini- and multi-split products. Distributors report lead times of up to 26 weeks for residential boilers and furnaces and two to three months for ductless heat pumps. More distributors are proactively placing orders in bulk and stocking equipment to circumvent delays. Some contractors are placing orders with multiple distributors for the same job to improve their odds of getting the equipment they need. Others are resorting to picking up equipment and warehousing it themselves so that distributors don't sell their orders to other contractors, reporting that secured equipment justifies storage costs.

For these updates, the Trade Ally Team has communicated with the following number of market actors per technology area:

	This Issue	Communications to Date – Vol. 2
HVAC	37	257
Foodservice	38	239
Water Heating	25	176
Pumps	17	116
Lighting	9	109
<b>Total</b>	<b>126</b>	<b>897</b>

TABLE 1.



### **c. Water Heating**

- i. There continues to be uncertainty regarding heat pump water heater (HPWH) availability in 2022. Long supply chain delays have driven distributors to alternative manufacturers they typically don't order from to ensure that they have stock for their customers.
- ii. As reported in Issue 11, Washington State approved a moratorium on the CTA port requirement for demand response connection due to manufacturers' difficulty producing code-compliant HPWH products amid raw material shortages. With the moratorium in place, distributors report alleviated supply chain pressures and improved stock levels.

### **d. Lighting**

- i. Major distributors have reported exceptionally long lead times with some fixtures facing a threefold increase exceeding 12 to 14 weeks and order fulfillment delays until February 2022. A manufacturer representative has noted that missing components are affecting production and a shortage faced by a major lighting manufacturer is disrupting controls product sales. Meanwhile, there is a strong trend in sales for products with selectable wattages.
- ii. The DesignLights Consortium (DLC) released their final draft for Light Usage for Night Applications (LUNA), a policy for technical requirements addressing light pollution reduction, outdoor luminaire energy consumption, and increasing interest in exterior fixtures as daylight savings time cuts into daylight hours nationwide. Manufacturers that produce this equipment are expected to respond to this change soon.

### **e. Foodservice**

Dealers are having varying difficulty stocking product. Oven lead times are as long as six months, while one manufacturer representative reports fryer lead times up to 11 months and cites issues with burner procurement. Manufacturers are actively reevaluating and condensing product models to optimize profitability. Meanwhile, dealers still awaiting orders placed months prior have shifted to selling products that are more readily available. Despite long lead times, large backorders, and representatives offering alternative brands for a product type, some customers are still willing to wait for their original orders.

## **2. Equipment Sales**

### **a. Across Technologies**

State regulatory policies have driven significant program changes in Massachusetts, New Hampshire, and Rhode Island that will impact 2022 product eligibility for national distributors across domains. Currently, the market anticipates challenges with changes that have raised concerns around sales for measures from ECM pumps to fryers. Energy Solutions will continue to assess the impact these program shifts will have on the supply chain and offer support to our clients in navigating these changes.

### **b. HVAC**

Despite rising material prices and high labor costs, major HVAC manufacturers saw increased sales and revenues in Q3 due to strong demand and multiple price increases.

### **c. Water Heating**

Multiple distributors have reported positively on their 2021 performance, with one regarding this past year as their best, particularly for storage and volume water heater sales in regions offering increased incentives. A HPWH manufacturer is looking forward to launching a new product and plans to engage distributors through lead generation, sales trainings, and contractor engagement.



**d. Foodservice**

Though dealers have seen double-digit price increases across all equipment, many regard 2021 as a year of strong sales and expect continued product investments among their customers in 2022.

### 3. Service Providers / Contractors

**a. HVAC**

Residential construction is up noticeably nationwide. Demand for home improvement projects is predicted to increase in 2022 with customers' high interest in energy efficiency upgrades. Contractors report labor shortages for qualified installers remain a barrier.

### 4. Administrative / Application Submittal

**a. Across Technologies**

Increasing staff turnover and staff resourcing constraints continue to challenge timely rebate claim submittal. Some have devised strategies to better manage their claim submission processes, such as training additional staff, improving systems to help record qualifying sales, and even administering contests to encourage submittals.

### 5. Year in Review

Energy Solutions compared rebates paid in 2021 month to month and by percentage change.

**a. HVAC**

This industry's seasonality was as expected, with a rise in rebates paid in Q3 that captured sales made during the summer cooling season and a climb into December with end-of-year claim submittals.

**b. Water Heating**

As an essential service, no discernible trend was observed.

**c. Lighting**

Similarly, no discernible trend was observed. However, impacts are anticipated from the New Hampshire regulatory decision to suspend all midstream programs in 2022.

**d. Foodservice**

A steady trend illustrates a quick turnaround with low lag time between claim submissions and payments. Difficulties in acquiring energy-efficient components have caused long lead times for rebate-qualified equipment compared to standard equipment since Q2 2021. Without these supply chain issues, even higher program participation could have been expected, especially in the last half of the year.

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**Disclaimer:** This report reflects our best estimate of market impacts at this time with the information available. We will be continually updating this forecast and adding details as more information becomes available and the actual impacts of the pandemic on the markets are felt. These updates will be versioned and dated so you can know at what time they apply.

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