

Supply Chain Assessment

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Recent labor and wage conflict negotiations have been testing the resiliency of supply chain networks. An impending strike by more than 90,000 rail workers in late September threatened to cause a nationwide freight rail shutdown, but was narrowly averted by a last-minute contract agreement. One factor driving wage negotiations has been inflationary pressures, which many have attributed to supply chain snags and the global microchip shortage. Although both have eased in recent months, material costs are still 17% higher than what they were in 2021. In August, a survey conducted by the National Association of Manufacturers (NAM) revealed that in addition to supply chain disruptions as a leading business hurdle, with only 10.8% of respondents anticipating improvement by the year’s end, more than three-quarters of manufacturers reported that rising material costs were a primary challenge. Hiring and retaining a qualified workforce was reported as being of equal concern.

Findings

1. Product Availability

a. HVAC

Since the Inflation Reduction Act (IRA) was signed into law in August, manufacturers have been hosting informational webinars to discuss qualifying equipment and anticipated impacts of funding provisions as a catalyst, particularly in the heat pump market. When the IRA rolls out, some expect that a flood of demand will compound existing production bottlenecks, constraining distributor stock levels and lengthening lead times. Meanwhile, the forthcoming 2023 Department of Energy (DOE) code changes have led to suspended production of many 2022 models that do not meet the new minimum efficiency standards, further impacting project timelines.

In addition to reported air handler production delays, distributors quote lead times of 12 weeks for water-source heat pumps, 20 to 24 weeks for direct expansion units, 25 to 40 weeks for mini-split and multi-split products, 27 weeks for rooftop units (RTUs), and 30 to 35 weeks for air-cooled chillers. To meet growing demand, manufacturers are launching new heat pump products such as air-to-water and split unitary heat pumps compatible with a range of applications that have driven down installation costs and inspired other heat pump manufacturers to feature similar technology.

b. Water Heating

A fire at a circuit board factory in August continues to impact heat pump water heater (HPWH) production for a major manufacturer. Lead times are expected to normalize in November.

Trade Ally Team Communications
per Technology Domain

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HVAC	29	257
Foodservice	17	195
Water Heating	14	160
Pumps	7	86
Lighting	8	126
Life Sciences	12	90
Total	87	914

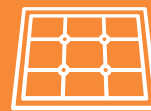
TABLE 1.

c. Foodservice

Persistent price increases and warehouse staffing shortages continue to impact stocking capabilities. One dealer quotes lead times of up to eight months for convection ovens and one year for fryers.

d. Lighting & Electrical

On September 18, California bill AB 2208 was signed into law, mandating phase out dates for CFLs and linear fluorescent lamps (LFLs) beginning in 2024. This is expected to favor LEDs as a more cost-effective and efficient alternative.



Program Spotlight

Illinois Shines, also known as the Adjustable Block Program, is a state-administered incentive program managed by the Illinois Power Agency that promotes new solar energy generation in Illinois. Expanded in 2021 through the directive of the Climate and Equitable Jobs Act, and with transition to Energy Solutions as Program Administrator, the program recently reopened with an increased emphasis on customer protections, diversity, equity and inclusion, and prevailing wage requirements. Energy Solutions will support project development goals of over 1,200 MW of solar projects in Illinois, including 39,000 residential and 2,200 non-residential projects, and 240 community solar projects providing benefits to more than 90,000 homes. For more information, visit illinoisabp.com.

2. Equipment Sales

a. Across Technologies

With peak heating season on the horizon, some distributors predict that residential customers awaiting rebates from the IRA rollout will postpone heat pump and HPWH upgrades, which could negatively impact Q4 sales.

b. HVAC

- i. Although there are distributors already selling products that comply with the upcoming 2023 DOE standards, others with portfolios consisting largely of high efficiency equipment that do not fully meet minimum efficiency requirements forecast fewer sales in 2023. Meanwhile, many distributors have bolstered their high efficiency equipment sales using program incentives as a tool to upsell projects and win more jobs.
- ii. Commercial equipment prices continue to rise, with another manufacturer implementing an increase effective in September.

c. Life Sciences

Investments in research and development (R&D) and biopharma company expansion continue to drive strong demand, job growth, and projected facility expansion in Massachusetts within the laboratory and biomanufacturing space. Although demand has slowed for cold storage equipment like high performance lab grade freezers and ultra-low temperature freezers (ULTs) since the onset of the pandemic, some distributors report reinvigorated sales to renovation and building conversion projects that are expected to continue into Q4 2022.

3. Service Providers / Contractors

a. HVAC

Lengthy lead times are impacting project timelines if not costing contractors the job altogether.

b. Water Heating

Enforcement has begun for Washington State's Labor & Industries (L&I) law, which mandates only certified plumbers may install HPWHs. A major distributor with a large HVAC contractor base anticipates significant impacts to their HPWH sales.

c. Foodservice

One dealer reports that refrigeration product delays have pushed project starts until 2023 or 2024.

From the Field

On September 8, Energy Solutions was featured as a presenter in the DOE's 2022 National Energy Codes Conference (NECC) Seminar Series to discuss the connection between midstream program successes and energy code development using a market-driven, program-to-codes approach. Energy Solutions staff highlighted the energy savings potential of envelope measures such as triple pane windows, demonstrating the impact that shifting from downstream to midstream programs can deliver to realize greater savings, accelerate new measure market adoption, and inform cost-effective code development as a consumer and utility solution.

The 2022 Foodservice Equipment Distributors Association (FEDA) Annual Conference was held from September 20 through 23. Energy Solutions attended as an event sponsor to promote dealer engagement and participation in the Instant Rebates programs we implement and participated in educational sessions discussing the industry's response to the pandemic, supply chain issues, labor shortages, and other challenges confronting the foodservice equipment 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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