For 25 years, Energy Solutions has provided cost effective, market-driven solutions that deliver reliable, large-scale impacts. We currently implement more than 100 upstream and midstream programs across 22 states and Canada for HVAC, foodservice, water heating, pumps, and lighting technologies. During this pandemic, we have been in frequent contact with our global, national, and regional networks of distributors and manufacturers. We are surveying our trade allies to get a current snapshot of the market and inform you of developments and updates to supply chain and market conditions that affect our clients' programs.

Method Review

Our team gathered information across various technology areas and market actors to provide insight on company directives or market observations around the following categories: product availability, equipment sales, service providers/contractor impacts, and administrative impacts.

Findings

1. PRODUCT AVAILABILITY

- a. HVAC Manufacturers with facilities in Mexico have still not recovered from the impacts of production closures. Reports also describe difficulty in transporting goods across the border. Some distributors have reported they are proactively stocking domestic goods in anticipation of a second wave of lockdowns and associated impacts to the supply chain.
- b. **Foodservice** Dealers are continuing to reduce PAR (periodic automatic replenishment) and rely on manufacturers for both "just in time" deliveries and direct shipping to customers. PAR is lower, which is a good indicator and gauge for stocking trends, therefore, translating to dealers expecting decreased sales. There will also be a continued shift to more online focused sales within the dealer network.
- c. **Lighting** Stock levels and shipping consistency remain strong, though lead times for products with integrated controls are increasing.

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

	This Issue	Communications To Date
HVAC	13	91
Foodservice	18	99
Water Heating	6	47
Pumps	3	20
Lighting	13	74
Grand Total	53	331

Table 1

2. EQUIPMENT SALES

- a. **HVAC** A manufacturer with facilities located within the United States reported residential equipment sales are up 200% because new dealers are purchasing their products in response to shortages of products made in Mexico. Residential demand is pent up, as much of the workforce is working from home and comfort is a top priority. Contractors report a boom in residential and commercial sales of high-end air conditioning systems.
- b. **Water Heating/HVAC** A nationwide distributor commented that quoting volume for these businesses has increased as job pipelines are reopening.
- c. **Foodservice** Demand is down as thousands of restaurants are being forced to close again on state and local mandates and open restaurants must operate with fewer tables, fewer customers, and limited hours in compliance with social distancing.



To learn more about Energy Solutions' programs and services contact Jeff Johnston at: ijohnston@energy-solution.com | www.energy-solution.com d. **Foodservice/HVAC/Lighting** — Counters are generally reopened across all these segments though most are at reduced staffing and limited capacity for customers wearing PPE. Many still offer curbside pickup options to decrease liability and risk.

3. SERVICE PROVIDERS / CONTRACTORS

- a. **HVAC** Focus on indoor air quality across residential and commercial sectors continues to drive demand and is filling contractors' work schedules and pipelines. Residential customer campaigns are raising awareness of the importance of ventilation systems and air purification services. Some contractors are also offering early replacement incentives for equipment approaching the end of its useful life.
- b. **Foodservice** The prolonged work-from-home directives from many businesses and the continuation of distance learning for the foreseeable future (possibly well into 2021) have impact demand for services. Many large foodservice operations are expected to halt or reduce growth and remodels as well, e.g. McDonald's announcement.¹

Currently, all upstream and midstream programs implemented by Energy Solutions are active.

Rebates paid in the last four weeks vs. 2020 year-to-date weekly averages:		
HVAC	UP 28%	
Foodservice	UP 23%	
Water Heating/ Pumps	DOWN 18%	
Lighting	UP 4%	
Units submitted to programs average of last four weeks to year-to-date averages:		
HVAC	UP 27%	
Foodservice	UP 12%	
Water Heating/ Pumps	DOWN 44%	
Lighting	DOWN 7%	
Table C		

Table 2

4. ADMINISTRATIVE / APPLICATION SUBMITTAL

- a. Company restructurings in response to the pandemic have caused minor delays in administrative resourcing and coordination for program participation application processing.
- b. **Lighting** A major national distributor has ended their furlough program for 99% of staff as sales have returned to a level that can sustain returning salaries.

Market Insight

- a. **HVAC** Emerging indoor air quality requirements are driving strong interest and demand for filtration and dilution products. Notable examples include:
 - In **New York**, the governor's office revised filtration requirements for shopping malls 800,000 square feet and greater to have filters of MERV 13 rating or higher. For properties in which HVAC operations meet other 'enhanced' protective criteria, filters with MERV 11 rating are permitted. For facilities unable to meet the MERV 13 requirement, alternate recommendations include: Extending system run times, considering appropriately designed ultraviolet germicidal irradiation, and sealing filter edges to limit bypass.
 - In **Connecticut**, large commercial spaces require MERV 14 filters or higher.
 - In the **Rocky Mountain region**, the University of Colorado Boulder's back-to-classroom approach involves ventilating buildings with 100% outside air and using MERV 13 filters as an alternative.

To note: The filtration method increases static pressure in the system, requiring more fan energy resulting in decreased system efficiency.

- b. **Foodservice** Hundreds of ultra-low temperature (ULT) freezers are being purchased to support the U.S. government's Operation Warp Speed vaccine research efforts. Sales are expected to move toward downstream distribution, the "Cold Chain"², and overall drive ULT freezer sales over the coming years.
- c. **Lighting** A distributor provided feedback that increasing the incentives for high bays without controls would facilitate more sales.

Disclaimer: The COVID-19 pandemic is an evolving situation, and this is our best estimate of impacts to forecast, 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.

¹ https://www.nrn.com/quick-service/mcdonalds-save-1-billion-reducing-remodels-halting-new-unit-growth

² https://www.cdc.gov/vaccines/pubs/pinkbook/vac-storage.html