COVID-19 ENERGY MARKET UPDATE
MAY 2020

ecom-energy
Your Independent Energy Experts

INTRODUCTION

After weeks under an unprecedented period of lockdown orders, portions of the globe are beginning to inch toward a sense of normalcy. Though much uncertainty still exists, a great deal of information has already come to light. This is particularly true of the energy industry, where both private and public sector organizations have been providing ongoing information. How have supply and demand of natural gas and electricity been affected by a global standstill? What actions can your organization take in the weeks and months ahead to ensure resiliency moving forward?

This article tackles various components of the energy industry, exploring the effects of COVID-19 and what to expect moving forward. Please note that due to the rapidly evolving nature of this information, new details may have already emerged after this update's publication.

NATURAL GAS

TAKEAWAY: **COVID-19 and the collapse of oil prices have reduced both supply and demand for natural gas. Price rallies and volatility have materialized, though not to the degree some would expect. Weather, storage inventories, economic recovery, and public health are the four main drivers in the short term. Long term can be considered a bargain and should be hedged.**

With natural gas a core focus for many of Ecom-Energy's customers, our team has kept a close eye on impacts to this commodity. For an all-encompassing understanding of recent trends in natural gas, it's critical to also address the crude oil crash that occurred concurrently with COVID-19.

In 2019, United States natural gas production grew by 9.8 billion cubic feet per day (Bcf/d), a 10% increase from 2018 and an all-time high. As production increased, the volume of natural gas exports - both through pipelines and as liquefied natural gas (LNG) - increased for the fifth consecutive year to an annual average of 12.8 Bcf/d. In fact, the United States exported more natural gas by pipeline than it imported for the first time since at least 1985. This abundance of production added to the global supply gut plaguing the market as a new decade was ushered in.

In some ways, the one-two punch of COVID-19 combined with a collapse in oil prices serves as a major rebalancing agent and provides a sturdy foundation for natural gas. With 2020 production already forecasted to decline, the scaling back in drilling rigs (currently their lowest level since August 2016) caused by the collapse of oil also means scaling back in natural gas byproducts (known as "associated gas"). This additional steep decline in the supply of natural gas was met with modestly reduced demand caused by pandemic-induced shut-in orders that impacted commercial need for the commodity. Interestingly, though the International Energy Agency (IEA) predicts natural gas demand could decrease by 5% globally in 2020, this decline is less than the anticipated fall in oil demand and is due mainly to declines in natural gas-fired power generation.

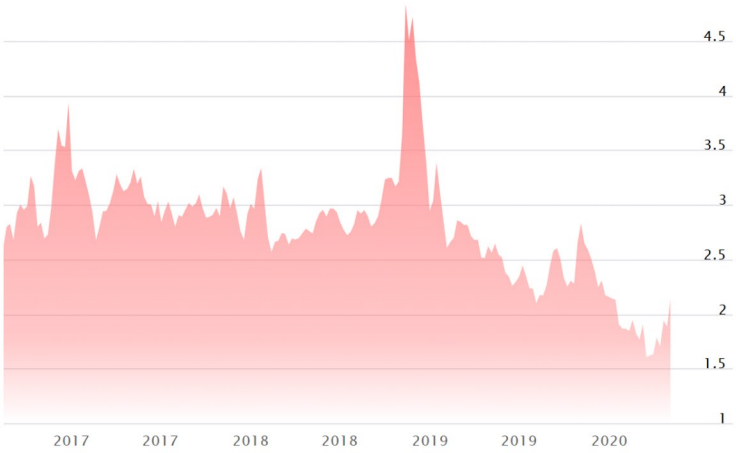
U.S. Dry Natural Gas Production

Source: EIA

So, how has this "rebalancing" impacted natural gas pricing? Since April 1, NYMEX wholesale natural gas pricing for the second half of 2020 and all of 2021 has risen $0.34 (16%) and $0.27 (11%), respectively (as of May 4). Nevertheless, though the market has seen volatility and will continue to do so as uncertainties remain, NYMEX pricing remains generally attractive for many users that contracted in the past few years.

NYMEX Wholesale Natural Gas Pricing

Source: Nasdaq



In the short term, United States pricing will be driven by weather, storage inventories, economic recovery, and public health. Customers with expiring contracts or that are exposed to market volatility should speak with Ecom-Energy for personalized procurement strategies based on their organization's risk tolerance.

ELECTRICITY

TAKEAWAY: **With the world facing the greatest year over year power demand destruction since the Great Recession, electricity markets have shown a great deal of unpredictability, especially in the United States. Many of the same market fundamentals impacting natural gas pricing are affecting power, along with added economic and public safety considerations. Consequently, if exposed to market volatility or facing an upcoming contract expiration, your organization should reassess its risk tolerance and speak with Ecom-Energy to focus on conditions in your unique region.**

COVID-19 ENERGY MARKET UPDATE
MAY 2020

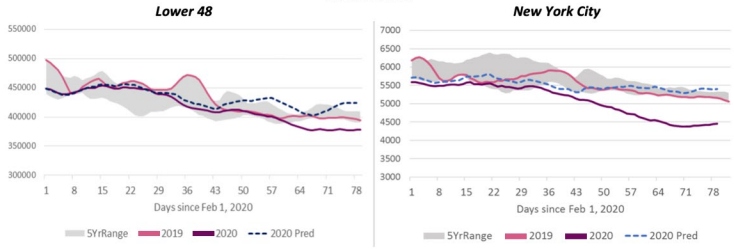
ecom-energy
Your Independent Energy Experts

In economies that rely more heavily on industry, lockdown measures have less effect on electricity demand. For example, in China, industry accounted for more than 60% of electricity consumption in 2019 according to the IEA, compared with 10% for services – part of the reason that it would experience a smaller impact on overall electricity demand. In the United States, however, industry only accounts for 20% of electricity demand, while the services sector accounts for almost 40%, leading to more pronounced impacts on total electricity demand.

However, power demand has not decreased uniformly across the Union. Comparing the Lower 48 to New York City, for instance, a noticeable departure from 2019 power demand can be seen in the Big Apple, as compared to a modest decline overall:

7-Day Moving Average of Daily Power Demand

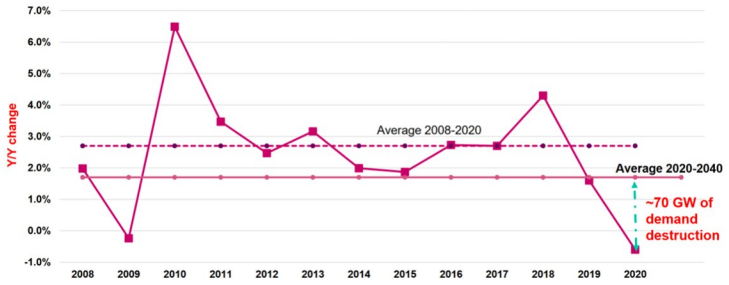
Source: Platts



Taken on a global level, demand destruction is far more noticeable, with ~70 GW of year over year demand destruction – worse than the decline caused by the 2008 financial crisis:

Year Over Year Power Demand

Source: Platts

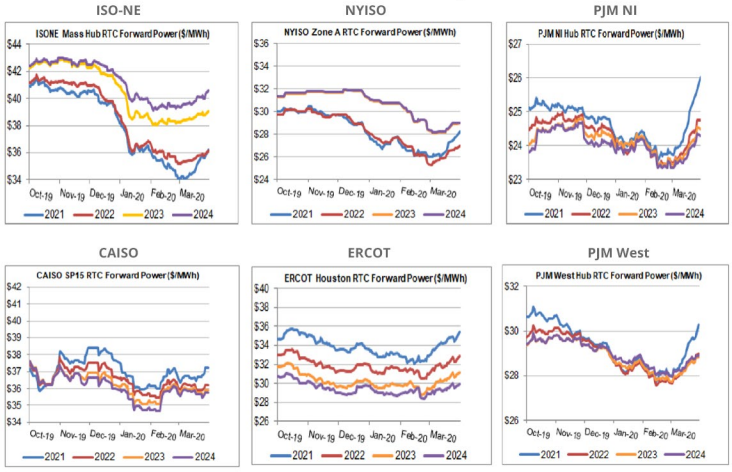


From an infrastructure perspective, there have been no major cybersecurity lapses or power outages as a result of short-staffed utilities. However, that is not to say that such topics have not been a concern. On April 17, the Federal Energy Regulatory Commission (FERC) approved the North American Electric Reliability Corp.'s (NERC) request to delay the implementation of seven reliability standards, including three cybersecurity Critical Infrastructure Protection (CIP) rules, due to the burdens of the electric sector's response to the COVID-19 pandemic. Meanwhile, in NERC's special report, *Pandemic Preparedness and Operation Assessment: Spring 2020*, several concerns are raised should the pandemic linger just a few months longer. Considerations include increased uncertainty in demand projections, the potential for increased forced outages, above normal operating voltages, light load conditions, reverse power flow, and increased DER penetration, among others.

When it comes to pricing, the market continues to factor how natural gas production cuts (a major fuel source for power generation), summer weather, and a potential second wave of the coronavirus will impact energy markets. That said, conditions and volatility can vary greatly by region. Wholesale electricity prices in February were down enough to set new 12-month lows of $19.41/MWh in New York City (NYISO) and $18.51/MWh in the Mid-Atlantic (PJM), and within cents of new 12-month lows in New England (ISONE) and the Midwest (MISO). Now, pricing in some retail markets is up quite a bit. Looking at the six-month forward power price trends through late April shows how regionalized pricing can be and, as a result, explains how difficult it can be to make a blanket recommendation for organizations navigating power contracting.

Forward Power Price Trends (6-Month History)

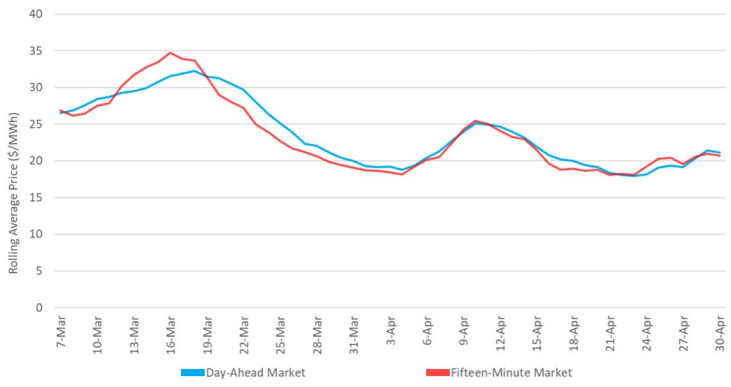
Source: Constellation NewEnergy



To complicate matters, in some markets, such as California, energy prices actually trended downward during the first two weeks of shelter-in-place provisions:

Rolling Average Power Prices in CA During Lockdown

Source: California ISO



As with Ecom-Energy's recommendation for natural gas, it will be important to consider your specific energy market and organization's risk tolerance when assessing how to deal with current conditions.

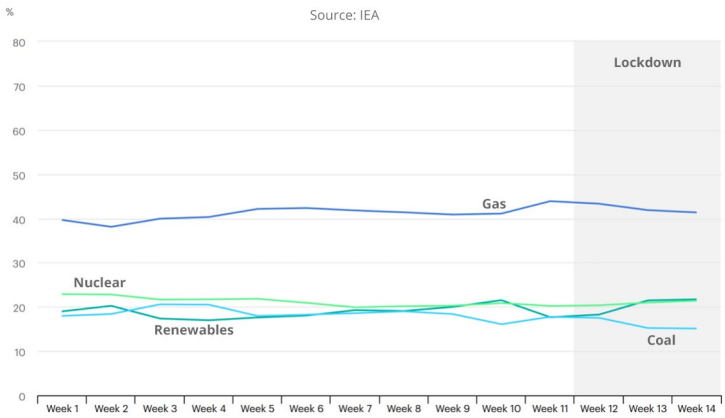
RENEWABLES

TAKEAWAY: Existing renewable energy technology is largely unaffected by reduced power demand, but the economic uncertainty surrounding unbuilt projects has led to delays and setbacks for the clean energy industry.

Amidst the novel coronavirus, renewables have claimed a greater share of electricity generation as a result of lockdown measures and depressed electricity demand. In fact, renewables-based generation increased by 3%, mainly because of a double-digit percentage increase for wind power and a jump in solar PV output from new projects over the past year.

In the United States, the role of renewables in the nation's electricity mix has increased during lockdown.

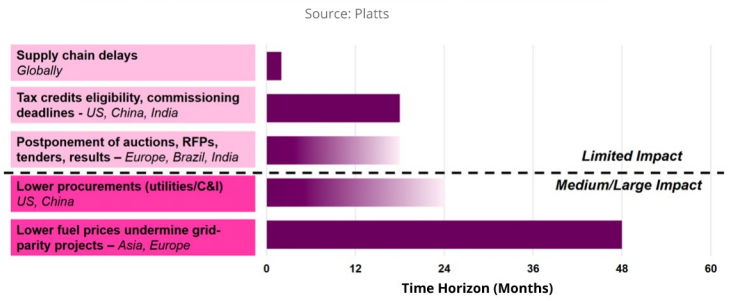
Electricity Mix in the United States (Q1 2020)



However, the story is not as inspiring for projects yet to be built. In New York, the New York State Energy Research and Development Authority requested to halt a 2020 solicitation for 2.5 GW of offshore wind. In California, a poll by the California Solar & Storage Association revealed that 92% of related companies are seeing the pandemic negatively impact their business, while 46% have rolled out some combination of layoffs, furloughs, and pay cuts.

According to Platts, the global challenges facing renewable energy technologies can be summarized as depicted in the graph below:

Emerging Risks for Renewable Energy Deployment



To date, clean energy has not been included in U.S. stimulus efforts, but the United States does have precedence for supporting renewables during trying times. For instance, amidst the Great Recession, the American Recovery & Reinvestment Act (ARRA) of 2009 offered $90 billion for low-carbon initiatives. It also debuted the Section 1603 Grant Program, which offered cash payments in lieu of tax credits. With new COVID-19 developments emerging daily and the looming 2020 presidential election, there is undoubtedly more to come for the clean energy sector – better or worse.

Yet, with all the uncertainty surrounding the renewable energy economy, one technology is bucking the trend: battery storage. According to a survey conducted by the U.S. Energy Storage Association (ESA), 75% of respondents said they did not anticipate reducing employment, including contractors. The Long Duration Energy Storage Association of California is also optimistic. The state's Public Utilities Commission recently identified the need for long-duration energy storage by 2026 to meet its climate goals. Further, on May 1, Southern California Edison (SCE) announced it's procuring a 770 MW/3,080 MWh package of battery resources to bolster grid reliability in what would be one of the largest storage procurements made in the United States to date.

Ecom-Energy hopes you found this update insightful and would love to help your facility navigate current energy markets. Don't hesitate to email us at info@ecom-energy.com