COVID-19 ONE YEAR LATER U.S. GAS & ELECTRIC MARKET IMPACT STUDY

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Introduction & Purpose

Just over a year ago Coronavirus hit the U.S. resulting in state and local governments mandating stay at home orders. At the time no one really knew what impact Coronavirus would have. Skipping Stone conducted a study surveying a wide range of energy professionals to gather opinions on the potential impacts to U.S. natural gas and electricity markets.

Now, one year later, we have reached back out to assess what did happen versus what people predicted would happen. The same questions were asked in the survey, plus we added a couple to help gain additional understanding into the changes people experienced.

Work from Home

One of the largest business impacts of COVID-19 has been the shift to a home-based work

environment. In the 2020 survey, energy companies were more progressive and timelier in shifting to a work from home model than state government mandates for staying at home – with 72% of employees working from home in April 2020.

One year later only 10% of the energy work force has returned to the office.

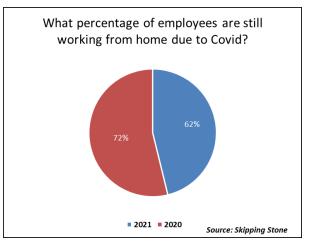


Chart 1 Work at Home?

Stay at Home

Now that companies have adapted to working from home, we asked what percentage of

employees they thought would continue working from home even after the pandemic is over. As the chart at right shows, the response varied by type of company. The technology and services sector with 59% of workers at home is not surprising. The utility and wholesale/retail sectors, indicate a significant shift from a traditional office environment to allowing one fourth (24%) of its workforce to continue working from home.

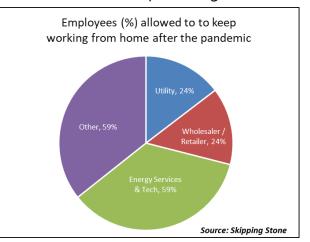


Chart 2 Stay at Home?

Predicted Challenges vs Actual Challenges

Predictions on the challenges companies would face due to COVID-19 were not too far off from what happened. The survey allowed respondents to choose only one answer, which in the 2020 survey resulted in a lot of "All the above" responses.

As things shook out over the year it became clearer where the challenges really were. Fortunately, operations and customer service predictions of lower impact levels turned out to be true. Unfortunately, productivity and decision-making impacts turned out to even more challenging than anticipated.

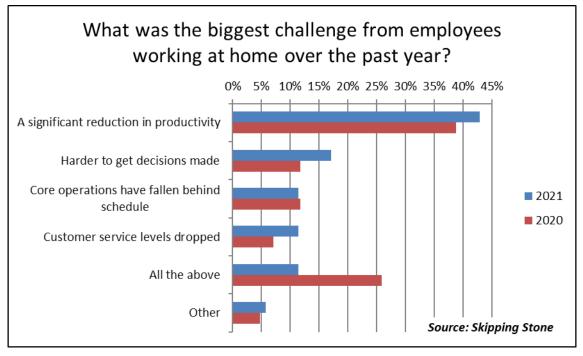


Chart 3 Predicted vs Actual Challenges

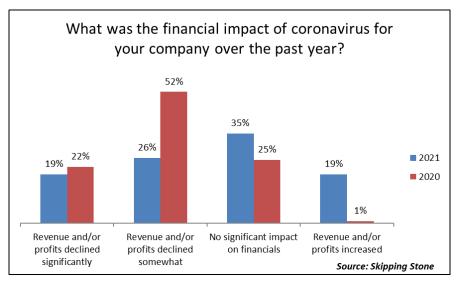
While most companies quickly adopted a "video meeting and email" operating methodology, the results tell us it did not fully compensate for the pre-Coronavirus model. With many companies planning to significantly increase the stay-at-home workers, it will be interesting to see how business practices continue to evolve.

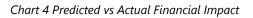
A majority of the 2021 fill-in answers on the "Other" category related to employee morale, which is not surprising.

Financial Impact

74% of 2020 survey participants indicated they expected revenue and/or profits to decline

due to Coronavirus. The good news is many were wrong, it was not as bad as most expected it to be. In the 2021 survey, only 45% cited actual declines and 35% did not experience much of an impact. 19% saw increases in revenue and/or profit, which is primarily attributable to responses from electricity suppliers with a residential customer base.





Financial Impact Breakdown

As the chart below indicates, the tech sector financial impact was all over the board with 46% who did not lose ground and even gained some and 54% who did not fare so well. The utility sector experienced similar results from a financial perspective.

The "Other" group saw the most consistent impacts, with these educators, non-profits, and training firms seeing increased revenue and/or profits.

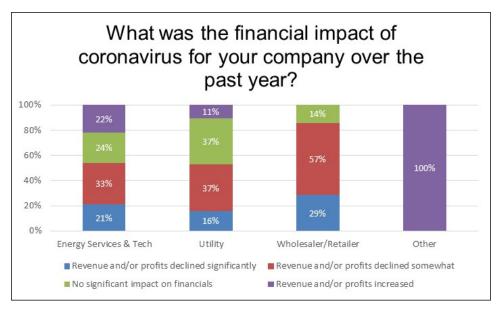


Chart 5 Financial Impact Breakdown

Source: Skipping Stone

Planned Actions vs Actions Taken

A year ago, a variety of actions to address Coronavirus were in the planning stages in anticipation of the need to address the fallout. A year later many of those actions had come true for 70% of survey participants. A significant 30% seemed not to have experienced any of these painful measures.

- Layoffs and salary cuts were right on target with what was expected and what happened.
- Borrowing money, cutting dividends, and reducing or eliminating new project budgets were also on target.
- Fortunately, the expectation that budget cuts on existing projects would occur did not have the level of impact many expected.

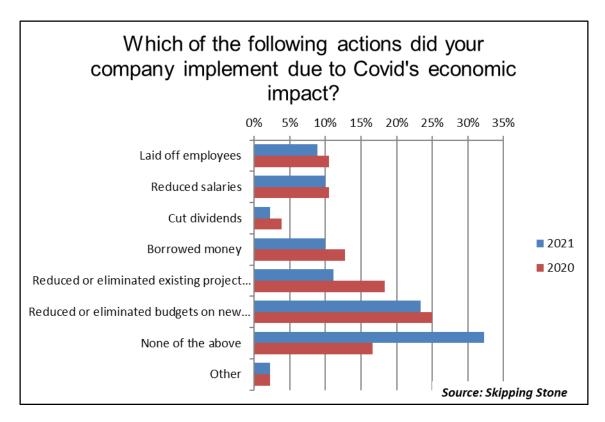


Chart 6 Actions Implemented

Impact on Projects

Building on the previous chart, 51% of respondents did not defer or eliminate any large

projects in 2020. Of the projects that were eliminated or deferred, "growth or expansionrelated projects" lead the way at 25%, followed by "infrastructure or maintenance-related projects" at 16%. "IT or systemsrelated projects" came in at a distant 4%. The "other" responses (5%) cited eliminating in-person events and meetings and in-person outreach for new work.

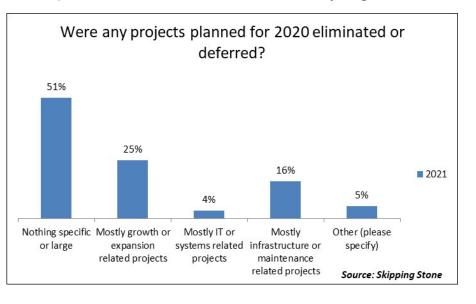


Chart 7 Impact on Projects

Returning to "Normal"

Chart 8 shows how energy companies are responding to the gradual loosening of COVID-19 restrictions, with 45% increasing staffing and/or salaries and 30% starting or reinstating

projects.

It is still early in the process of emerging from the effects of Coronavirus as vaccination percentages are growing rapidly. Given that the U.S. is not totally back to normal, it is not surprising that 55% of respondents have not taken any of these actions.

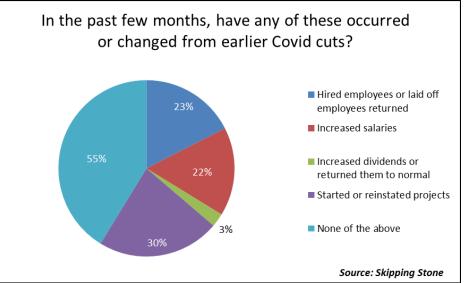


Chart 8 Loosening Restrictions

Timing Expectations

During the March/April timeframe of the initial survey, most people thought the Coronavirus emergency and stay at home business disruptions would be over before the end of 2020. Obviously, that did not happen.

One year later, opinions are all over the map. Perhaps the most interesting results are the 28% who believe things have already returned to normal. There is no geographical consensus among these participants – they represent a cross-section of states, as well as large cities and rural areas.

What the rest of the 2021 survey results indicate is there may not be a consensus on when things are normal for some time to come. Perhaps the longer the Coronavirus effects linger the definition of normal will be forever altered. Maybe it already has been.

While roughly a third of those surveyed in March 2021 feel that they have finally returned to "normal" or will by summertime, two-thirds of respondents see the "end" a bit farther away with almost 20% seeing it stretch into next year.

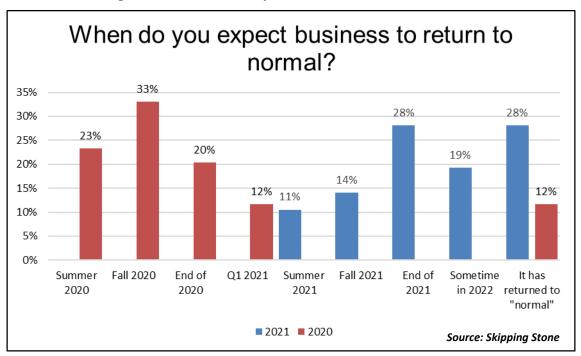


Chart 9 Returning to Normal

Customers & Supply Chain

As the survey results in Chart 10 indicate, energy companies anticipated "increasing their communications [*to customers*]" (78% in 2020) and largely followed through on this (59% in 2021). "Suspending or delaying disconnections" and/or "waiving or deferring late fees" were the next most anticipated actions in 2020 (each at 38%) and materialized at 23% and 27% respectively in 2021.

In keeping with the "maintaining customer communications" trend, "suspending customer outreach programs" came in lower than anticipated (9% versus 19%). Most interesting are the 27% of 2021 respondents that did not take any actions due to COVID-19.

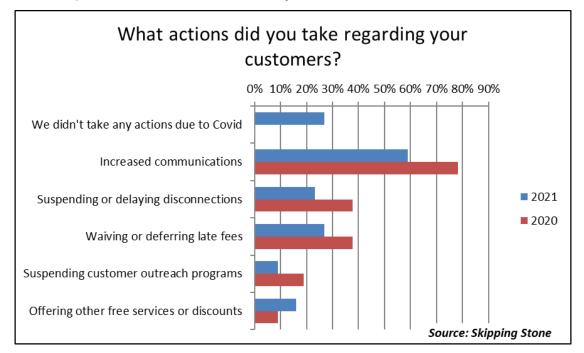


Chart 10 Customer Care

Supply Chain

In the supply chain area, it was already clear in March 2020 that some companies were experiencing or anticipating supply chain issues. The difference in anticipated impacts between the company types was expected. Utility supply chains contain many more components than do those of the retail/wholesale sector, whose supply chain is primarily electric generation or gas supplies. (Chart of responses follows.)

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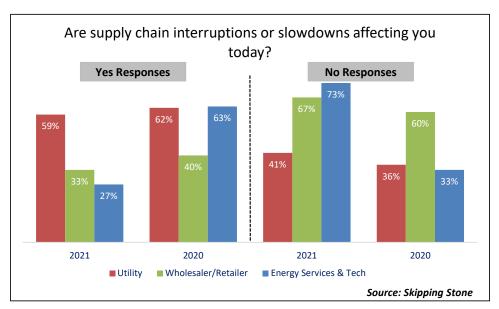


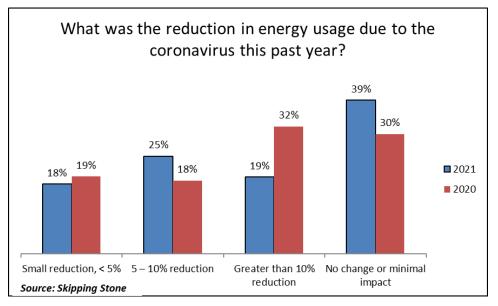
Chart 11 Supply Chain Issues

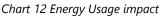
In aggregate, the 2021 "reality" is more positive than the 2020 "anticipation," with only 38% of companies experiencing supply chain disruptions compared to 56% experiencing and/or expecting disruptions in 2020. However, as Chart 11 shows, for utilities the reality and expectations of supply chain disruptions were virtually the same at 59% and 62% respectively.

Energy services and tech had the greatest disparity with 27% experiencing supply chain disruptions compared to 63% expecting to experience disruptions.

Energy Demand Destruction

The anticipated (2020) decreased demand compared to the actual (2021) results indicates a slightly rosier picture with reductions in energy usage much lower than anticipated.





Coronavirus Lasting Impact on Business

The final survey question was open-ended to encourage spontaneous responses and to better gauge what companies thought of the longer-term and lasting impacts from COVID-19. Some themes are worth noting.

The differences in viewpoints from 2020 to 2021 is telling now that everyone has a year of experience to go by.

- In 2020 only 26% believed remote workplaces would last beyond COVID-19. Today over 60% see remote workplaces as a lasting effect.
- In 2020 28% anticipated a lasting reduction in their business. A year later the outlook was much rosier with only 5% expecting business reductions to have a lasting impact.
- The 15% in 2020 that believed communications improvements would have a lasting impact has been reduced to only 5% today.

Lasting Impact on Our Business	2021	2020
Remote/Flexible Workplace	60%	26%
Business Reductions	5%	28%
Improved Communications	5%	15%
New Business Paradigms	5%	NA
None	9%	16%

• 16% of those surveyed in 2020 didn't think there would be any lasting impacts from COVID-19, a year of experience has reduced those who still believe there will be no lasting impact to less than 10%.

Vaccination

Of course, the hot topic today is COVID-19 vaccinations and the ability of employers to potentially mandate vaccinations for existing employees and new hires. We asked the 2021 respondents, "If your company does not mandate employees get vaccinated, will you return

to work if some people choose not to be vaccinated?" 73% responded with an unqualified "yes" and 14% said "yes if employees wear masks" – 87% combined. Only 2% agreed to return to work if it meant otherwise losing their jobs. But 11% of respondents say they would not return to work under such conditions if they had a choice.

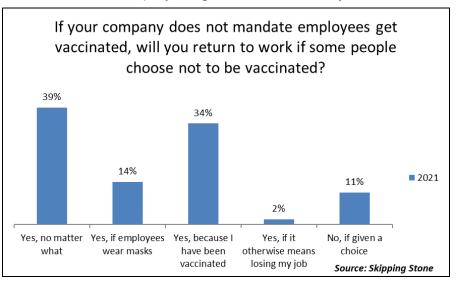


Chart 13 COVID-19 Vaccine Opinions

Survey Demographics

The energy companies surveyed represent a cross-section of the natural gas and electricity industry categorized into three primary types, plus "others."

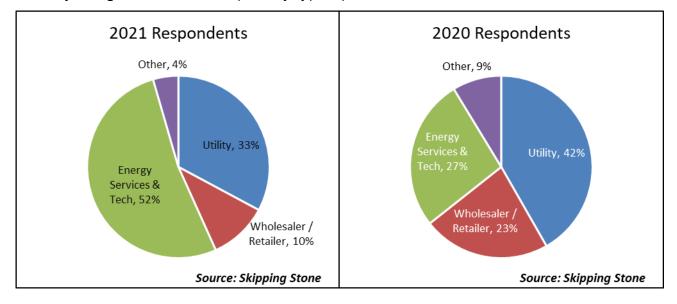


Chart 14 Respondents

- Utility Includes gas utilities, electric utilities, and combination gas and electric utilities.
- Wholesaler / Retailer Includes electric generators, gas producers and pipelines, trading companies, and retail suppliers. All companies in this category have direct involvement in one or both commodities.
- Energy Services and Tech Includes energy software and hardware vendors, consultants, and service providers.
- > **Other** Includes energy regulators, trade associations, educators, and end-users.

About Skipping Stone

Skipping Stone is a global energy markets consulting and technology services firm that helps clients navigate market changes, capitalize on opportunities, and manage business risks. Headquartered in Boston with offices in Atlanta, Houston, Los Angeles, London, Singapore, and Tokyo, the firm is focused on a variety of sub-segments of the natural gas and power markets. Services include market assessment, strategy development, and strategy implementation as well as technology and managed services. Skipping Stone's model of deploying energy industry veterans has delivered measurable bottom-line results for over 270 clients globally. For more information, visit <u>SkippingStone.com</u> or <u>www.SkippingStone.co.jp.</u>

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