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COVID-19 and Critical Infrastructure Part II: Regulatory Stability for the Future



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EXECUTIVE SUMMARY

At the onset of the COVID-19 pandemic, we released a White Paper detailing prudent regulatory responses by the states. Here, we expand upon our previous recommendations with a particular focus on regulatory actions to maintain stability for utilities in the medium- to long-term. As the country emerges from lockdowns and into a summer season where electricity consumption tends to grow, regulators face the same challenge as all Americans: how to get back to something more “normal,” and assessing whether there is a new “normal” to adapt to.

We remain committed to the regulatory values we expressed in the first paper: to support the continued stability, robustness, and reliability of the grid. Here, we deal with the longer-term steps that regulators will need to consider.

- **Medium-term recovery steps**

Utility regulators should evaluate revenue shortfalls and increases in bad debt expense, then institute recovery mechanisms over the length of time appropriate for the magnitude of recovery.

- **Rationalize rate design**

Utility regulators should take this opportunity to rationalize rate design to safeguard utility stability and robustness. Rates should reflect actual costs to efficiently recover revenues and convey price signals to customers.

- **Encourage utility investment through capital cost adjustments**

Regulated returns must be adequate to compensate investors for the increased risk associated with doing business in a COVID-19 world. Capital will be needed to support the investments utilities must continue making to modernize the grid in recognition of evolving generation mixes.

- **Decoupling**

We encourage regulators to consider how decoupling can promote utility stability and robustness while also fostering greater efficiency and conservation. We caution, however, that decoupling should not be executed in an overly simplistic way that limits total recovery and thereby creates disincentives to further electrification.

- **Infrastructure development and decarbonization**

Regulators should consider policies for developing electric vehicle infrastructure and promoting beneficial electrification. These programs will help advance state clean energy and emissions reduction objectives *and* benefit customers, given that spreading fixed costs over a greater demand base will decrease costs per customer.

INTRODUCTION AND BACKGROUND

All good things have at least one sequel—the Godfather, Shrek, Frozen, Sharknado. While unfortunately the COVID-19 pandemic is not a movie, in keeping with that tradition we bring forward this follow-on white paper directed at medium- and long-term actions utility regulators should take to promote stability and advance desired energy objectives as the country navigates and eventually recovers from the economic impacts of the COVID-19 pandemic.

In our recent white paper, we explored considerations for utility regulators dealing with the impact of the COVID-19 pandemic on their regulated utilities, and we concluded that utility regulators needed to provide short-term relief for customers while still ensuring the continued stability and reliability of the utilities under their jurisdiction. (1) We highlighted some of the immediate actions state utility commissions across a wide variety of states had taken in furtherance of those goals during this critical and unprecedented time. As we noted, utility regulators had largely pursued two paths in responding to the crisis: 1) suspending disconnections without any reciprocal action taken for utilities and 2) suspending disconnections while also providing immediate measures to prevent utilities from shouldering a disproportionate burden due to these customer protections. Recognizing that the public health and subsequent economic crises wrought by the pandemic were only just beginning, we noted that utility regulators had not yet “taken a systematic look at long-term approaches to ensuring utility health and stability in response to the COVID-19 crisis.” (2) On this question, we recommended that “state policymakers should begin contemplating their options for maintaining the viability of their utilities over the long-term, using this moment as an opportunity to rededicate themselves to regulatory policies that ensure the stability and viability of these regulated, essential service industries.” (3)

With the passage of several more weeks to observe the impact of the pandemic, and with many states taking gradual steps to reopen their economies, we develop more fully a roadmap for utility regulators to follow to safeguard long-term stability and reliability for the utilities under their purview. We focus on the next year, and even years ahead. Safeguarding utility stability presents a serious, ongoing, and prolonged challenge, however, because the risks to these regulated essential services have grown substantially as a consequence of the pandemic.

For purposes of this analysis, we take the early anecdotal evidence as given that this much has changed: (1) overall demand for electricity has declined; (2) usage has shifted between rate classes, with commercial and industrial usage in deep decline, and residential usage holding steady or even slightly increasing; (3) the time to achieve a return to “normal” usage patterns is uncertain—and may never completely return as they were; and (4) the amount of bad debt and customers who cannot pay for service has increased significantly.

On top of these changes, utilities—as network industries—have high fixed costs relative to variable costs, and these costs are often—to a lesser or greater degree—recovered in part through volumetric rates. Accordingly, utilities may be left in challenging financial circumstances when demand decreases suddenly and steeply, and the utility’s revenue requirement cannot be met due to rates that were not designed to account for large swings in demand. The degree of impact on individual utilities will vary significantly and regulators should be cognizant of the specific circumstances in their own states. For example, residential demand has generally held its own during the pandemic. This is unsurprising given how much time people are spending at home. Commercial and industrial demand, however, has plummeted as businesses have shuttered their doors and closed-down assembly lines.

1. See TONY CLARK, RAY GIFFORD & MATT LARSON, COVID-19 AND CRITICAL INFRASTRUCTURE: AN AGENDA FOR DECISIVE STATE REGULATORY ACTION (Apr. 2020), <https://www.wbklaw.com/wp-content/uploads/2020/04/COVID-19-and-Critical-Infrastructure-4.16.20.pdf>.

2. *Id.* at 6.

3. *Id.*

It therefore stands to reason that utilities with a high percentage of industrial and commercial load will be more impacted than others. Similarly, state commissions that have disproportionately counted on commercial and industrial rate classes to cover the fixed costs of the network will need to assess how to realign cost-causation with cost-payers, or face real shortfalls for cost recovery.

Keeping these factors in mind, we turn to our recommendations for ensuring continued utility financial health in both the near- and long-term. Regulators must take the initial steps toward recovery by evaluating how the pandemic has affected utility balance sheets and taking the necessary steps to restore utilities to a strong and resilient financial position. But in addition to these short-term steps, regulators must also take a longer view and ensure robust utility performance over the long term, so they are prepared to weather whatever the next crisis might present.

THINKING IN THE NEARER-TERM

In the nearer-term, regulators should evaluate how utilities within their jurisdictions have been impacted by the crisis and then plot a path back to normal. The first step, and a critical one, will be to understand the accumulation of bad debt by utilities. Given pervasive and severe short-term job losses and most utilities' and state commissions' choice to suspended service disconnections for non-payment, we expect larger than normal amounts of bad debt expense on utility balance sheets. Although the size of the bad debt accumulations will not be apparent for months to come, there is already some indication it could be sizable. For instance, in North Carolina, between April 1, 2020 and April 30, 2020, utilities did not disconnect 425,454 residential utility accounts eligible for disconnection, established 14,638 extended payment plans for residential customers, and did not charge \$1.39 million in late fees and penalties. (4) Although some portion of these customers will pay their bills eventually, these significant numbers are only representative of a short snapshot in time. For this reason, regulators should be considering how to get customers paying again where possible. Indeed, we have already seen utility commissions explicitly note that suspensions of disconnections do not release customers from their obligation to pay. These types of communications are critical, for if a large percentage of customers believe a state's "no disconnection" policy is a *de facto* "utility bill holiday" policy, a moral hazard is created in which customers have incentives to stop paying utility bills, which will only exacerbate longer-term problems for both the utility and its customers as a whole. Utilities and commissions should ensure they are proactively communicating with customers. Such efforts may be as simple as making the information easily available on their webpages, through public awareness campaigns, or through targeted efforts to keep in-touch with those customers who are most at-risk.

No matter how much regulators and utilities encourage customers to pay their bills, however, it is an unfortunate reality that some customers will ultimately be unable to pay in-full given the significant job losses suffered as a result of the pandemic. Accordingly, state regulators must plot a course for how to address increased bad debt expense and allow for its recovery. Not doing so promptly will turn utilities into *de facto* lenders, and failure to do so at all will make utilities free service providers for a select group of economically distressed customers. This will inevitably involve some path to socializing the bad debt across the body of customers, (5) and a reasonable recovery regime that furthers utility stability should make all bad debt eligible for recovery, subject to appropriate safeguards such as a prudence review.

4. Letter from Charlotte A. Mitchell, Chair, N.C. Utils. Comm'n, to Roy Cooper, N.C. Governor (May 15, 2020), <https://starw1.ncuc.net/NCUC/ViewFile.aspx?id=d7620957-67f8-415d-841f-a16803e81566>.

5. As we noted in our recent paper, *Communications Policy Approaches and COVID-19*, fully regulated utilities such as electric and gas providers can accomplish this socialization of bad debt, while communications players cannot. Even restructured "competitive" states like Texas have relied on the monopoly part of the grid – the distribution utilities – as the vehicle for socializing bad debt. See Tony Clark, Ray Gifford & Matt Larson, *Communications Policy Approaches and COVID-19: Ensuring Access to Effective, Reliable, and Affordable Communications Services* at 4–5 (May 2020), <https://www.wbklaw.com/wp-content/uploads/2020/05/05.22.20-COVID-19-and-Policy-Approaches-Denver.pdf>.

After determining an approach to provide for recovery of all bad debt expense, regulators must also determine the appropriate period over which to recover those expenses. In our view, the higher the level of incremental bad debt expense, the more time needed to smooth bill impacts on customers (provided that this will depend on other aspects of a utility's billing structure). Last, the costs and extended timeline involved in filing and litigating a general rate case is not necessary to determine the total level of bad debt expense eligible for recovery and the rate classes through which it will be recovered. At its core, regulators will only need to answer the discrete question of what quantity of bad debt was incurred that is not already captured through rates and can do so through standalone proceedings. (6)

In addition to addressing bad debt expenses, the next critical step for regulators is to evaluate how demand reductions have affected revenue recovery. Because utilities in most jurisdictions do not recover fixed costs only through fixed charges, revenue shortfalls resulting from demand reductions are almost assured. (7) Although this directional effect is nearly guaranteed, its magnitude will likely vary considerably depending on rate designs across jurisdictions and utilities. In some jurisdictions that rely more heavily on volumetric rates, we of course expect to see larger deficiencies. Similarly, given the larger proportional decrease in commercial and industrial loads than residential loads, (8) larger reliance on variable commercial and industrial charges will affect revenue deficiencies more deeply. With these and other differing factors at work, we encourage utility regulators to assess how reduced demand has affected the utilities' financial positions. It is not likely to be consistent from utility to utility and jurisdiction to jurisdiction, and the proper policy response necessarily depends on responding to the facts on the ground. It already appears that a growing number of state utility regulators, like those in North Carolina, are asking that utilities file reports to track how their financial positions have been impacted by the crisis, and we encourage more regulators to follow this sensible path and to include revenue deficiencies resulting from demand reductions in this reporting. In this way, commissions can remain updated on the financial stability of their utilities.

ADVANCING STABILITY THROUGH RATE CASES

In this section, we describe regulatory actions that will arise in upcoming rate cases and explain some of the important and necessary steps that regulators can take with an eye toward ensuring utility stability in the future.

MEASURES TO SUPPORT INVESTMENT AND CREDITWORTHINESS

In future rate cases, regulators should consider how adjustments to returns on equity (ROE) and utility capital structure can be made to maintain a weighted-average cost of capital (WACC) that provides adequate investment signals. As this paper's audience is certainly aware, a utility's WACC depends on its capital structure (debt-to-equity ratio), its cost of debt, and return on equity (ROE). State regulatory commissions can directly set the debt-to-equity ratio and ROE, and those parameters in turn affect the cost of debt determined by debt markets. Without delving into the theories underlying the choice of ROE and capital structure, we encourage regulators to adopt approaches that maintain strong utility credit metrics through an appropriate WACC. This can be achieved through either avoiding a degradation of ROEs, adjusting the equity share in the capital structure, or a combination of the two.

6. We acknowledge there may be utility-specific circumstances that commissions may wish to take into consideration in addressing bad debt expense. For example, in consultation with the regulated utility, a commission may determine there are other expenses that are unlikely to be incurred due to the pandemic. These accounts may offer an appropriate offset to a portion of bad debt expense. Nonetheless, we view these opportunities as limited. By and large, these more expansive reviews of expenses are better suited to a company's next general rate case.

7. Of course, as we discuss later, jurisdictions with rates that have been reformed through decoupling or other approaches are far less likely to face the same revenue shortfalls because revenue recovery in such jurisdictions does not depend directly on sales volumes.

8. See *Today in Energy*, U.S. ENERGY INFO. ADMIN. (May 7, 2020), <https://www.eia.gov/todayinenergy/detail.php?id=43636#> (noting falling demand from commercial and industrial customers compared to residential demand).

We recognize, however, that absent any countervailing effects, an increased WACC could lead to higher customer rates, and utility regulators must balance the benefits of higher WACCs against any potential customer impacts. Similarly, diminished credit metrics can lead to increased financing costs and have the same effect in terms of heightened customer impacts. In striking the right balance, we encourage regulators to consider how the pandemic has created a set of circumstances that need to be taken into account when approaching these issues. For example, it may be tempting to look solely at current yields on Treasury bills and conclude regulated ROEs should decrease accordingly. But such an approach risks losing sight of the proverbial “forest for the trees.” Given the totality of the impact of the pandemic, a cratering of ROEs—precisely when utility risk is increasing and coupled with the need for grid and system investments to advance state energy objectives—would be a profoundly misguided result.

More specifically, to maintain an adequate flow of capital into utility critical infrastructure post-COVID-19, investors will have an expectation of compensation for increased risks tied to their investment. Further, the significant utility investments to modernize infrastructure and decarbonize electric generation portfolios are not obviated by the pandemic—indeed, these investments are just as necessary today as they were pre-COVID-19. Sending a positive signal by maintaining a supportive WACC will ensure that utilities hold advantageous credit ratings, which thereby puts downward pressure on borrowing costs at a time when lenders might be more cautious. These measures can benefit customers through lower borrowing costs and by sending appropriate investment signals for needed capital improvements. Given the increased risks that utilities face, capital markets will likely require higher utility returns to provide the capital utilities will need in the next decade, and utility regulators would do well to consider what changes to ROEs and capital structure will be required to provide for that and to ensure investments are made so as not to stall the advancement of state energy objectives due to the pandemic.

IMPROVED RATE DESIGN FOR FUTURE UTILITY RESILIENCE

In addition to appropriately compensating utility investors for the robust and capital-intensive networks their investments support, utility regulators should also focus on how rationalizing rate design can not only mitigate many market inefficiencies (and thereby benefit customers) but can also support utility financial stability. We do not advocate any specific rate reform proposals in detail. Instead, we offer our broad view on the criteria that such rate reforms should satisfy. On this score, we urge regulators to consider ways to eliminate implicit cross-subsidies and employ rates that reflect the actual underlying costs of the service provided.

Although the subject is politically fraught, net-metering provides a paradigmatic example of the types of ratemaking approaches for which we recommend reform. (9) Although most of our readers will no doubt be aware of the problems wrought by net-metering, we briefly recount its core deficiencies for the uninitiated. By paying net-metering customers at full retail rates for the non-firm energy-only product their systems provide, net-metered customers are compensated at a rate far in excess of the benefits they provide to the system, even when accounting for environmental benefits. Combined with the fact that customers with home solar panels tend to be wealthier, net-metering essentially acts as a regressive cross-subsidy. Further, when paired with rate designs that recover fixed costs through variable charges, net-metering also negatively impacts utilities’ ability to recover their costs of investing in assets needed to serve all customers. While the problems of net-metering policy were manifest before this crisis, the pandemic’s effects on both lower income customers and utility stability have only put the shortcomings in sharper focus. In the face of the pandemic, regulators have taken

9. For purposes of this paper, we highlight the example of net metering as particularly illustrative, due to its high impact, but distributed energy resources (DERS) can be accounted for in a number of ways. Some of these are less economically distortive than net metering. Regardless, the larger point is that the trend towards greater integration of DERs already had necessitated a reconsideration of how rates are structured, even in a pre-COVID-19 world. The effects of the pandemic merely increases the imperative.

swift action to protect customers who cannot pay their bills, but they should also apply these customer-oriented considerations in the coming years to reevaluate how net-metering may work against the interests of the most vulnerable customers. The same goes for impacts to utilities. In the absence of economically irresponsible policies like full retail net-metering, utilities' balance sheets would be in a better position to act as short-term lenders—which is exactly the role they have been called to serve by virtue of state disconnection suspension policies. We hope regulators take this lesson to heart in considering how to make utility customers and utilities themselves more resilient in the face of the next crisis; not just through net-metering reform, but all reforms that rationalize ratemaking to better align cost causation and beneficiaries with cost-payers.

The COVID-19 pandemic has not made these principles any truer than they already were, but it has exacerbated and laid bare all the problems inherent in poor, messy, politically expedient—or all of the above—rate designs.

DECOUPLING TO ENCOURAGE EFFICIENCY AND REVENUE RECOVERY

In addition to the rate reforms discussed above, revenue decoupling—executed properly—can also provide value. By executing decoupling properly, we mean decoupling total revenue recovery from the absolute volume of sales to customers while still allowing for revenue increases from organic growth as customer and service bases expand.¹⁰ Decoupling has often been relied on as a conservation measure because it removes the so-called “throughput incentive” where energy utilities recover more revenue by increasing sales. Consequently, decoupling removes utility disincentives to encourage energy efficiency and conservation. But the impacts of the COVID-19 pandemic have made clear that removing the throughput incentive is not decoupling's only benefit. When done right, it provides a backstop on revenues so that when any large and unforeseen events cause massive demand decreases, utilities are not put in financial peril.

More fundamentally, under the cost-of-service regulatory model, a utility's revenue requirement is designed to cover the utility's capital and operating costs. Decoupling, in addition to removing any disincentives for conservation and efficiency, provides a mechanism that makes the utility more likely to recover its revenue requirement. In doing so, it hews more closely to public utility regulatory principles. Accordingly, we would have advocated for decoupling even in the absence of this pandemic, but the current stresses placed on revenue recovery underscore why regulators and other policymakers should consider how decoupling might benefit customers and utility stability within their jurisdictions.

Utility regulators should consider the merits of decoupling at an appropriate time, but in doing so should be wary of decoupling gone wrong, where utilities are effectively penalized for growth and the decoupling tool serves as a headwind to electrification that can have broader system and climate benefits. Accordingly, decoupling is a great tool—particularly for times like the present—but it needs to be done thoughtfully and correctly so as to avoid unintended consequences.

10. To be clear, we support mechanisms to remove any disincentive for efficiency and conservation, but we are cautious about decoupling in a form where utilities are prevented from increasing revenues even when that increase is driven by growing populations or expanded ranges of electric services. For instance, as we discuss in the next section, electric vehicle adoption and electrifying more appliances are trends that may increase in succeeding years. Utilities should not be penalized for making these service expansions.

NAVIGATING ADDITIONAL DEMAND DRIVERS: ELECTRIFICATION AND REGULATING FOR THE LONG-TERM

While we have discussed avenues for ensuring utility stability through a collection of policy levers, regulators should also consider ways to expand utility demand that serve the public interest and advance economy-wide greenhouse gas emission reduction goals. In general, expanding total demand can benefit customers by driving down unit costs as fixed costs are spread over a greater demand base, and in that way these policies can alleviate the electricity cost impacts that may result from the pandemic. Moreover, demand growth in the electricity sector is one way to support state greenhouse gas emission reduction policy through measures like expanded transportation (*i.e.*, measures to expand electric vehicle (EV) infrastructure and encourage broad deployment of EVs, including school buses and commuter buses) and beneficial electrification (*i.e.*, electrifying appliances for cooking and heating that were previously powered by fossil fuels).

State utility regulators should thus consider over the longer term how these types of demand expansion policies may serve economy-wide climate goals while also providing much needed benefits to electric utility customers. To ensure that electrification in EVs and in other sectors of the economy is implemented in such a way as to meet state public policy goals, regulators and other policymakers can work with electric utilities and other stakeholders to understand what policies might allow for a measured but determined shift to electrifying more sectors of the economy. Such policies might include EV charging station projects or other infrastructure projects, which can produce net greenhouse gas emissions reduction benefits by taking emissions out of other sectors of the economy (*e.g.*, the transportation sector) and bring local economic development benefits.

Perhaps more importantly, regulators should work to remove regulatory impediments or disincentives that might discourage utilities from pursuing broader electrification. For example, and as we noted above, states with decoupling mechanisms or considering decoupling need to ensure that the revenue formula under the decoupling mechanism does not discourage growth in total demand when that growth can serve to advance broader state policy objectives. Doing otherwise would be counterproductive because decoupling is meant to remove impediments to conservation and efficiency, which in turn can have environmental and cost benefits. But when decoupling discourages the electrification of broader sectors in the economy it would also discourage the climate and cost benefits that such an expansion would produce. Thus, just as regulators should not approve decoupling designs that discourage organic growth, they should also avoid decoupling designs that stifle the benefits of broader electrification.

Similarly, in states that have greenhouse gas emissions reduction goals, regulators must make sure that transportation and beneficial electrification complements the emission reduction policy. When transportation or other forms of beneficial electrification produce net economy-wide greenhouse gas emissions reductions, regulators should not penalize utilities for greenhouse gas emissions occurring on its system as a result of the shift in load. Rather, regulators should equitably attribute these emissions to any budget that the utility has so as to encourage electrification and its net greenhouse gas emissions reduction across the economy. Moreover, for combined utilities with both electric and gas businesses, where the electric utility is the beneficiary of the attribution policy, the policy should not penalize the gas utility for the load shift due to electrification and the gas utility should retain the benefit of any reduced emissions under any economywide GHG emissions reduction program. (11) A failure to do so would not only disincentivize expanded electrification but would also penalize utilities for making positive contributions to economy-wide greenhouse gas emissions reduction goals and objectives.

11. Carbon offsets and their role as more and more utilities announce “low to no” emissions in the future are another topic ripe for further consideration by forward-thinking regulators. The offsets market saw increased activity in 2019 up until the COVID-19 pandemic shuttered the economy. Stephen Lacey, *The New Wave of Carbon Offsets: Is This Time Different?*, GREENTECH MEDIA (May 21, 2020), <https://www.greentechmedia.com/articles/read/the-new-wave-of-carbon-offsets-is-this-time-different>. While offsets have a checkered history, their role as a tool is worthy of further examination as the investor-owned utility world coalesces around net-zero GHG emissions goals.

BEYOND THE RETAIL ELECTRIC UTILITY: CONSIDERATIONS IN OTHER REGULATORY CONTEXTS

The regulatory principles and considerations set forth above have application beyond the investor-owned retail electric utility context and apply equally to other regulated energy industries. This expanded horizon encapsulates other essential energy providers such as natural gas distribution utilities, FERC jurisdictional interstate transmission, and interstate natural gas and oil pipelines.

NATURAL GAS LOCAL DISTRIBUTION COMPANIES (LDC)

COVID-19 pandemic impacts on LDCs generally track those on electric utilities—reinforcing the concepts addressed in this paper. Further, if anything, costs of the gas distribution system—especially for residential customers—are even more fixed than in the electric grid, with the natural gas itself being the main variable cost input. To the degree volumetric rates recover fixed costs of the distribution system, all of the same implications would arise as compared to electric utilities. The degree of impact on LDCs, as with electric utilities, is largely dependent on the circumstances of each company (*i.e.*, commercial/industrial versus residential exposure, and when the system “peaks” temporally relative to the greatest demand impacts of the pandemic).

INTERSTATE ELECTRIC TRANSMISSION, NATURAL GAS PIPELINE AND OIL PIPELINE COMPANIES

Each of these FERC jurisdictional industry segments utilizes slightly different regulatory tools to achieve FERC’s mandate of establishing “just and reasonable” rates. Interstate electric transmission companies have frequently adopted formula rates. Interstate natural gas pipelines establish a cost of service “recourse rate,” but also often utilize negotiated rates as an alternative to the otherwise applicable tariff. Interstate oil pipelines fall under FERC economic regulation via the Interstate Commerce Act. The “light hand” regulation FERC employs for these liquid and refined product pipelines is characterized by a combination of rate setting mechanisms—though its greatest distinction in contrast to other jurisdictional companies is the relative importance of “indexed rates,” essentially a form of modified price-cap regulation in which an index periodically adjusts the maximum allowable rate. Just as with the other types of regulated entities we have discussed, impacts will vary between different companies and different industries. An in-depth discussion of each of these regulatory mechanisms is far beyond the scope of this paper, but key takeaways include:

- There are multiple ways regulators establish rates for regulated companies.
- Regulations are often tailored to meet the specific characteristics and market dynamics of each industry.
- Just as with the other types of regulated entities, impacts on these interstate companies will vary by circumstance. (12)
- There will not be one singular regulatory answer to address impacts from COVID-19, but regulators will need to pay special attention to assessing the individual characteristics of each industry and each company.

The myriad tools that FERC and states use to regulate energy companies all point to one overarching conclusion: The impacts of the pandemic are profound, and this is not a normal time. Regulators, now more than ever, will need to exercise a mix of caution, situational awareness, flexibility and pragmatism to successfully navigate the shoals that lie ahead. (13)

12. For example, while nearly all segments of society and the energy sector have been impacted by the pandemic, few have seen as swift and precipitous an impact as the oil industry.

13. Notably, FERC has issued several items that speak to this need for flexibility during the present crisis. See *FERC Provides Guidance to Oil Pipelines During COVID-19 Emergency*, FED. ENERGY REGULATORY COMM’N (May 8, 2020), <https://www.ferc.gov/media/news-releases/2020/2020-2/05-08-20.asp#.Xt593zpKg2w>; *FERC Provides Accounting Guidance to Ease Administrative Burdens; Shortens Comment Period for Federal Power Act Section 204 Filings*, FED. ENERGY REGULATORY COMM’N (May 7, 2020), https://www.ferc.gov/media/news-releases/2020/2020-2/05-07-20.asp#.Xt5_YTpKg2x; *Coronavirus Update: FERC Acts to Prioritize Reliability, Provide Regulatory Relief*, FED. ENERGY REGULATORY COMM’N (Apr. 2, 2020), https://www.ferc.gov/media/news-releases/2020/2020-2/04-02-20-2.asp#.Xt5_ozpKg2w.

CONCLUSION

These unprecedented times have shown the importance of utilities and other providers providing essential services to our homes and to other important businesses. But we must not take this service for granted; utilities and their networks require substantial capital investments, no matter their sales. Although it may be difficult to look ahead to the next crisis at a time like this, it is precisely these times when utility regulators must consider how they may buttress utility stability and reliability. Then, once the most pressing and immediate concerns caused by this crisis have subsided, regulators should take the further steps needed to enhance stability for the long-term. The proposals and recommendations offered in this paper should advance this goal and simultaneously help utilities recover from this crisis *and* be more resilient in the future, for the unknown challenges that lie ahead.