

2021 Black & Veatch
Strategic Directions



Trends
MEGA



About This Report

2020 The unpredictability of the past year continues to reshape long-held conventions about the importance of infrastructure. The immense challenges we face from climate change, global pandemics and aging infrastructure systems have amplified the need for more reliability and resilience in our critical systems.

COVID-19 has made power, water, natural gas and telecommunications more essential than ever. The ability of countless businesses, municipalities, schools, healthcare facilities and more to continue to operate in the face of lockdowns and social distancing demonstrated the flexibility found in these infrastructure systems.

However, the recent proliferation of catastrophic wildfires across much of the American West, devastating hurricanes that wreaked havoc across the South, and late season storms in the Northeast underscored the growing impacts of climate change and the fragility of many infrastructure systems.

Perhaps nothing illustrated the devastating impact extreme weather can have on utilities more than the failure of the Texas electricity grid in early February 2021. The largest forced power outage in U.S. history left millions without electricity and millions more unable to access clean water as systems across the state ceased to function. The crisis shocked and reverberated throughout the nation, begging questions around why the grid failed, and how water service could be disrupted by these conditions.

Nationwide, utilities are working overtime to adjust operations to not only adhere to COVID-19 health and safety restrictions, but to continue to maintain uninterrupted service. At the same time, the global outbreak has highlighted the urgency of transitioning to new technologies and data-driven approaches that will enable more efficient management of critical systems and aging assets. This is occurring even as the economic impact of COVID-19 reduces utility revenue that is critical to meeting both these goals, adding tension and complexity to the prioritization of investments.



4

Customers Driving Sustainability in the C-Suite



10

Next-Level Reliability Through Resilience



15

Turning Data into Action

Besides addressing a global pandemic and a rise in extreme weather events, utilities also face pressure to help municipalities and commercial and industrial (C&I) customers meet their environmental, social and corporate governance (ESG) goals.

As Fortune 500 companies commit to 100-percent renewable energy and decarbonization targets, utilities have had to ratchet up their own ambitions to keep pace — or risk losing business to unregulated competitors.

But this comes even as new technologies such as green hydrogen, which saw major advancement in 2020, play a growing role across transport, power generation and storage, providing new opportunities for utilities when it comes to tightening its embrace of sustainability.

For many utilities, sustainability is centered on resilience and decarbonization. In the utility C-suite today, this means rethinking the use of every resource with a laser focus on ESG goals while ensuring the overall health of the business. At the operational level, sustainability comes down to the long-held goals of reliability and resiliency, which are elevated even more in the face of extreme weather events, and increasingly distributed assets. Additionally, digitalization and analytics will play a critical role in providing the insights necessary to reimagine the future and ensure secure, reliable long-term service.

This year, we identified three megatrends that build on the [themes of recent years](#) — but throughout this epochal year, our professionals' market insights and client interactions have revealed notable shifts in their trajectories and focus, examined closely in these sections:

1. Customers Driving Sustainability in the C-Suite
2. Next-Level Reliability Through Resilience
3. Turning Data into Action

To learn more, visit bv.com, where you can view and download our entire series of Strategic Directions reports at bv.com/reports.

THE BLACK & VEATCH INSIGHTS GROUP



Customers Driving Sustainability in the C-Suite

More efficient and sustainable operations have long been goals for utilities, but this has only become more challenging in the era of climate change. Utilities are being tasked with adapting faster than ever while also addressing more frequent extreme weather events, natural disasters and regulatory structures that often do not keep pace with

changing market dynamics. While utilities and many of their customers have varying ESG goals, decarbonization has emerged as a primary effort for many. In just the past two years, major decarbonization announcements — many pledged outside of regulatory mandates — have become the norm among the world's largest utilities.

Figure 1

Does your organization have either carbon reduction, greenhouse gas emissions reduction, or renewables goals? (Select all that apply).

Source: Black & Veatch

53.3% Yes,
separate from any
regulatory mandate

40.5% Yes,
state regulatory mandate

15.2% Yes,
local regulatory mandate

15.2% No

Highlighting this point, more than half of respondents to our [2020 Strategic Directions: Electric Report](#) survey said they have decarbonization goals apart from regulatory directives, illustrating the importance of market drivers in this transition (Figure 1).

While Xcel Energy was an early mover in 2018 with its own net-zero carbon plans, zero-carbon plans have been announced by many of the biggest U.S. utilities, including Duke Energy, Dominion, Southern Company and Ameren; at the end of 2020, 70 percent of the largest U.S. electric and gas utilities had disclosed net-zero emission or equivalent targets¹. Companies of all sizes are embracing sustainability not only in the face of climate change but also as the workforce of the future demands to know what their employers are doing about these issues.

The key driver for utility decarbonization pledges is that sustainability has rapidly ascended as a priority for large corporate customers and other stakeholders, intensifying market drivers for decarbonization. Besides 100-percent renewable and net-zero commitments from Fortune 100 companies such as Amazon, Google, Maersk, Nestle Global and Dell — all part of the [RE100 initiative](#) — [net-zero goals](#) from telecom providers such as T-Mobile, Sprint and AT&T, along with the departure of major original equipment manufacturers (OEMs) from the coal power sector, like General Electric, Siemens and Toshiba, reflect the impact of sustainability among corporate leaders. Black & Veatch recently released its [2020-2023 Sustainability Strategy](#), which outlines the company's path towards a more sustainable future.

On the municipal front, cities large and small around the globe have net-zero goals. 2020 also saw a marked uptick in action from shareholders as well as from financial giants such as Blackrock, which declared climate risk as a financial risk in an open letter from its CEO, Larry Fink. Approximately US\$500 billion was committed to decarbonization efforts in 2020, up 9 percent from 2019². Additionally, an increasing number of financial regulators are exploring ways to address the systemic risk of climate change in financial markets. These trends are driving action from both forward-looking utilities and even the sector's most recalcitrant actors.

The newfound willingness by utilities to address deep decarbonization is attributable to the fast-expanding toolkit at their disposal, as well as collective understanding of market players that inaction also creates great risks to business as usual. It was only a few years ago that utilities saw "zero emissions" as an unrealistic or even impossible goal. But today, the continued cost declines of wind, solar and battery energy storage, along

¹ According to S&P Global Market Intelligence.

² According to Bloomberg New Energy Finance.

with fluctuating resources at scale, have made high penetrations of renewables a possibility without sacrificing grid reliability. Emerging technologies for dispatchable zero-carbon generation — including hydrogen, and carbon capture sequestration and utilization technologies — also are drawing growing interest from utilities, as well as from oil and gas and other industrial sectors, seeking a broader low-carbon resource base.

Developments in 2020 have raised expectations on the role of hydrogen as a gateway to decarbonizing the world’s energy systems, supply chains and heavy industries. For critical, energy-intensive industries, hydrogen provides a clear pathway to cost-competitive carbon emission reductions where reliability, resilience and performance cannot be compromised and

could also provide an alternative to electric battery technologies. In turn, 15 governments launched major hydrogen plans and policies. These early and significant movements set the stage for hydrogen, directly or stored in the form of ammonia, to emerge in the mid-term as a zero-carbon fuel for heating, commercial and passenger transport, storage of renewable energy and electricity generation.

Given the internal and external drivers, most utilities — no matter their size — are moving towards more sustainable operations. Survey results show that a combined 83 percent of large utilities (those serving at least 2 million customers) and 62 percent of smaller utilities (with fewer than 500,000 customers) “somewhat” or “strongly” agree that “we are pushing our capital towards clean energy” (Figure 2).

Figure 2

To what extent do you agree or disagree with the following statement:
We are pushing our capital towards clean energy.

Source: Black & Veatch

By population served	Strongly agree	Somewhat agree	Neither agree nor disagree	Disagree
Less than 500,000	29.2%	33.0%	28.3%	9.4%
500,000-1,999,999	37.0%	35.4%	22.0%	5.5%
2,000,000 or more	42.0%	37.6%	14.8%	2.4%

Utilities Take Action
with Decarbonization
and Hydrogen

It is not just the electric sector that has embraced sustainability at the highest levels of the organization, with hydrogen particularly emerging as the hot energy topic in the past year. Both oil and gas interests and electric and natural gas utilities have focused on hydrogen as a unique opportunity to leverage their expertise and capital to fill gaps in the existing decarbonization solution set.

The gas industry notably is keenly interested in the ability of “blue hydrogen” produced from natural gas, with the carbon dioxide captured during the production process, to accelerate the deployment of hydrogen at scale. Eventually the industry hopes to move towards zero-emission “green hydrogen” produced from excess renewable energy. With its ability to mix with existing natural gas fuels (to a point), expect the debate over the net-carbon benefits of blue hydrogen to be weighed against its rapid deployment and its rapid impact on power sector emissions.

Additionally, development of lower-emission materials such as carbon-sequestering cement and engineered wood is attracting interest in the construction sector. Renewable natural gas also can offer an opportunity for both wastewater utilities and natural gas providers to substantially reduce their carbon footprints. While many water utilities have traditionally been technologically conservative, many are now embracing



US\$500 billion:
committed to
decarbonization (up 9%)
[Bloomberg New Energy Finance]



15 countries:
launched major
hydrogen plans and
policies



35 GW: new projects
announced by major
industry players until
2030



US\$14 billion:
projected market
capital size of FCEV
by 2026
[Global Market Insights]



60%: potential fall in cost of
low-carbon and/or renewable
hydrogen production this
decade due to declining costs of
renewables, scaling up of
electrolyzer manufacturing, and
development of lower-cost
carbon storage facilities
[Hydrogen Council]



US\$1 trillion:
cumulative total of
green debt capital
market between 2015
and 2020, raising
record US\$269.5
billion in 2020
[Climate Bonds Initiative]

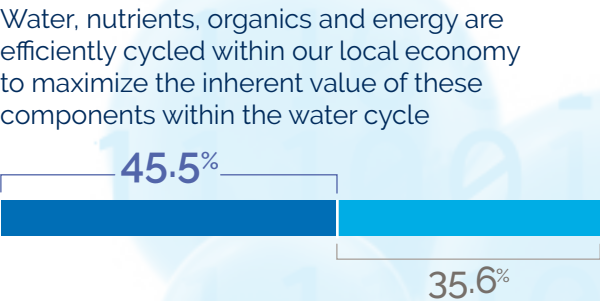
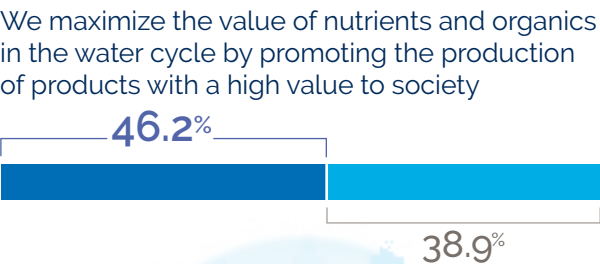
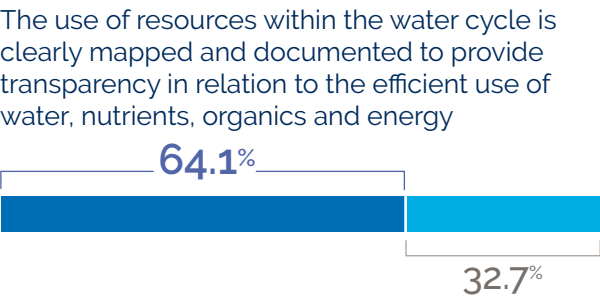
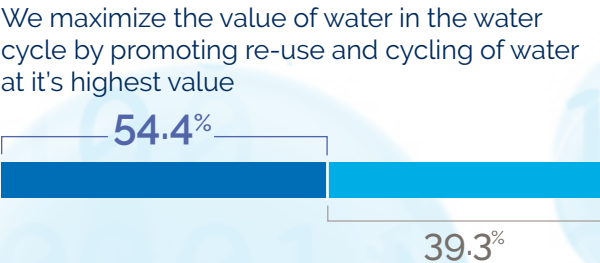
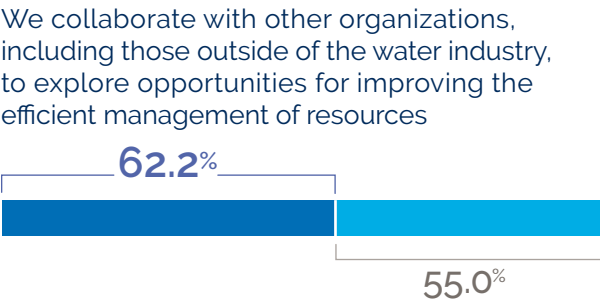
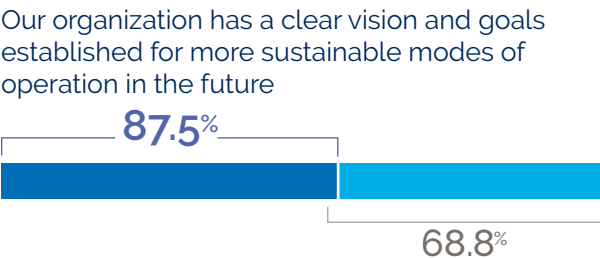
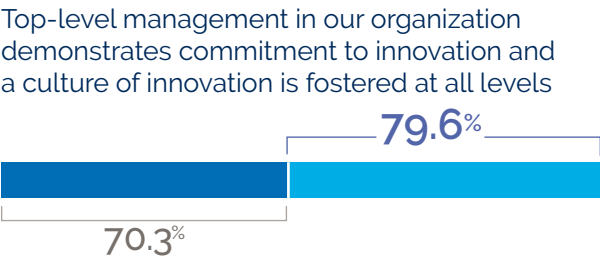


70%: share of the
largest U.S. electric
and gas utilities with
net-zero emissions
or equivalent targets
as of end of 2020
[S&P Global Market Intelligence]

Figure 3

Please indicate how much you agree or disagree with the following statements as they relate to your organization and local economy. (Select one for each row).

Source: Black & Veatch



Percent selecting strongly or somewhat agree

● Less than 500,000 ● 500,000 or more

innovation to meet environmental challenges, with nearly 70 percent of survey respondents claiming to be “leading innovation” or an “early adopter of innovative ideas” for environmental stewardship (Figure 3).

Given the increased focus on climate risk and sustainability in the private and public sectors, utilities are embracing their own sustainability goals, knowing that they no longer need to

choose between decarbonization and financial performance. Instead, savvy utilities are seeing that sustainability is opening doors to new types of service such as green tariff and battery storage, which offer zero emissions and more reliable service to better serve tomorrow’s customers. ●

Next-Level Reliability Through Resilience

Reliable service always has been core to every utility's mandate, but achieving this is becoming more complex in the face of aging infrastructure and increasingly frequent and intense extreme weather events. As this report was being drafted, the second major hurricane of November (Category 3 or higher) made landfall in Central America as a Category 5 storm, with wind speeds accelerating from Category 1 to Category 4 in just 24 hours over abnormally warm seas. Similarly, wildfires continued to burn in parts of Colorado, months after the historic end to fire season.



Figure 4

What are the major challenges your team is facing with your current electric distribution system? (Select up to three choices).

Source: Black & Veatch

72.5%
Improving reliability

49.5%
Asset management

48.6%
Improving resilience

37.2%
Integrating distributed energy resources (DERs)

34.4%
Physical security and cybersecurity

24.8%
Common distribution automation plan

It is with these varied factors in mind that in order to sustain reliability, utilities across the board recognize the need to be more resilient than ever. Starting nearly a decade ago, resiliency became the battle cry for utilities after the extensive damage of Superstorm Sandy, while Hurricane Harvey in 2017 was a wakeup call for the Gulf Coast.

Today, that battle has intensified. For example, despite maintaining reliability through the unprecedented conditions of the pandemic, electric utilities still struggled with extended outages in the wake of historic wildfires in California, storms in the Northeast and hurricanes in the Gulf of Mexico. Customers and regulators are not just asking but are demanding to know the return on investment of utility investments for ratepayers when extended outages remain a reality after weather events.

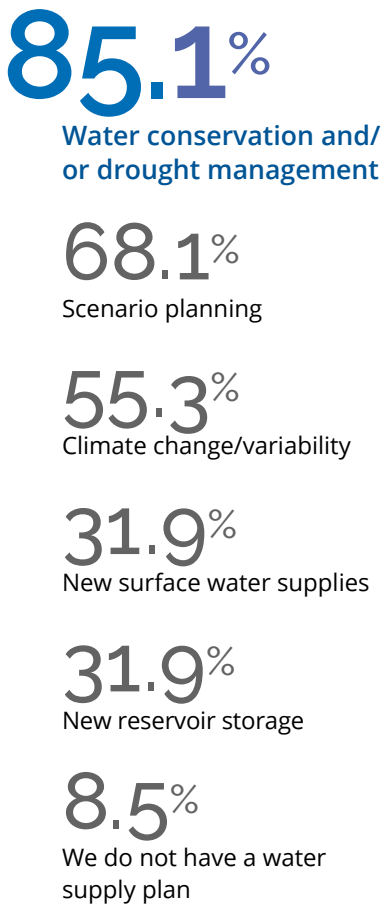
Unsurprisingly, when asked about the top challenges facing today's electric utility industry, the majority of respondents cited improving reliability, followed by asset management and, almost equally, improving resilience (Figure 4).



Figure 5

Which of the following elements are included in your water supply plan? (Select all that apply).

Source: Black & Veatch



According to our research, water utilities face the most aggressive resilience challenge from climate change, as more frequent droughts and unpredictable patterns of intense precipitation affect their ability to rely on reservoirs and other surface water resources while they also have to tackle aging infrastructure and the need to manage aging workforce. Whether it's less rain in increasingly populous regions or inundations from increasingly powerful storms, more than half of respondents to our [2020 water industry survey](#) are actively planning for climate change (Figure 5), employing strategies to bolster resilience that include seeking new groundwater sources — including investigating technologies for groundwater recharging — and adding reuse capabilities to help diversify supply (Figure 6).

One resilience strategy that is becoming increasingly important for both electric and water utilities is the pursuit of expanded and more integrated planning across their business silos. Water utilities are embracing programmatic solutions to mapping out resilience, including the popular One Water approach advocated by the U.S. Water Alliance, as well as the U.S. Environmental Protection Agency's (EPA) integrated planning process.

Electric utilities are broadening their planning lens to look at integrated resource blueprints that include supply and demand across central and distributed assets. Further still, many utilities are expediently revisiting winterization and climate adaptation programs as the impacts of the grid collapse in Texas reverberates

Figure 6

What steps are you taking to bolster water supply resiliency? (Select all that apply).

Source: Black & Veatch

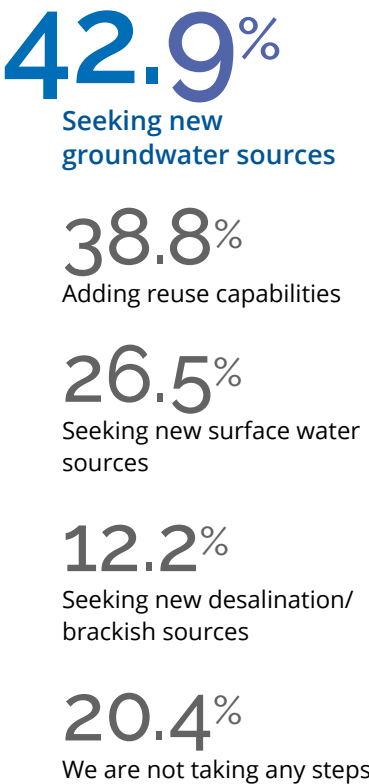


Figure 7

Is regulatory uncertainty at the federal or state level having an impact on your utility? (Select all that apply).

Source: Black & Veatch

Regulatory uncertainty impacts our ability to...

40.2%

Recover infrastructure investments to modernize the grid

39.2%

Recover operating costs and provide satisfactory earnings

26.8%

Accurately predict electricity prices

24.7%

Recover large one-time costs (e.g. storm restoration) in a timely fashion

16.5%

No, regulatory uncertainty does not have and impact



across the industry. Taking direct action to boost resilience through physical grid-hardening strategies and exploring non-wires alternatives are also being reconsidered. They also are reconsidering physical grid-hardening strategies and exploring non-wires alternatives to boost resilience.

The clear growing threat — and cost — of prolonged outages, experienced in Texas, California, New York and other storm-prone areas, is prompting policymakers and regulators to consider rate-basing expensive hardening investments. As with utilities across all sectors, the ability to embrace emerging opportunities to build resilience will be largely determined by regulators. At the time of publication, reform of ERCOT is an emergency item for Texas lawmakers while the Federal Energy Regulatory Commission (FERC) has also launched an investigation into the rolling blackouts in Texas and elsewhere. The message to the industry in 2021: Expect regulatory change ahead.

Amid rapid climate and technological change, electric utilities fear that regulators will not be able to keep pace with their need to invest in grid modernization approaches — and, in turn, cause them to lose customers to third-party competitors such as distributed solar providers, which offer the resilience and sustainability benefits they seek (Figure 7).

The growing mismatch between customers' expectations of the benefits of technology adoption, such as advanced meters, and regulatory incentives to adopt those technologies, can lead to negative publicity when outages occur, leaving customersto wonder, "What have you been doing with my money if you can't keep the lights on in a storm?" Utilities in our survey cited customer expectations as the second-greatest risk they face —

behind regulatory risk but ahead of the interrelated risks of climate change, technological change and environmental compliance (Figure 8). For example, some utilities still message their customers to contact the utility if the power goes out, despite the fact that they've deployed smart meters that automatically provide that information to the utility.

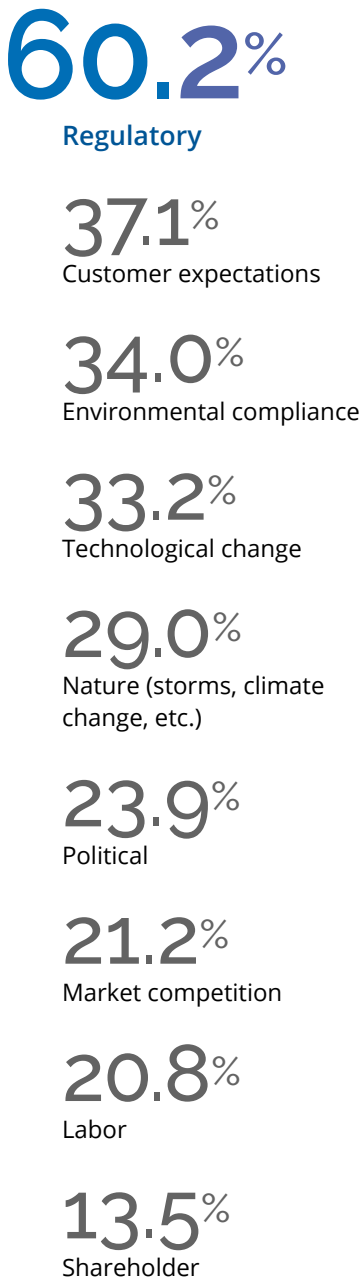
Some regulators are adapting, especially in hard-hit areas such as Florida, which is battered by more hurricanes annually than any other state. In 2019, the Florida Public Service Commission adopted new rules that would allow utilities to recover costs of system-hardening investments. Senate Bill 796, signed into law by Gov. Ron DeSantis in June 2019, enables the state's investor-owned utilities to levy a separate charge — outside of its base rates — to pay for undergrounding vulnerable power lines and other equipment to make them more resilient to hurricanes.

But reliability and sustainability do remain in conflict. In some regions, particularly in the Northeast, the mid-Atlantic and California, utilities increasingly are limited by growing opposition to natural gas, highlighting a potential tension between sustainability and resilience objectives in the near term. This conflict was on display this year in California, where Pacific Gas & Electric lacked sufficient gas resources and secondary power supply sources to meet the demands of heat waves and wildfires; and in the Northeast, where the Atlantic Coast Pipeline was cancelled despite aging existing pipeline infrastructure and repeated gas price spikes during winter months. But technology could render this sustainability-versus-resiliency issue moot in coming years, as demand-side resources and new technologies such as green hydrogen are brought into more comprehensive utility planning. ●

Figure 8

What are the risks that your organization must manage? (Select up to three choices).

Source: Black & Veatch





Turning Data into Action

Leveraging smart infrastructure to enable data-driven utility operations has long been a work in progress, and advancement has been uneven. While many utilities have access to vast amounts of data thanks to deployment of advanced metering infrastructure and sensors across new and legacy assets, only a few early adopters have operationalized the data in a significant way.

Figure 9

What are the barriers your utility is facing to enable smart distribution infrastructure? (Select up to three choices).

Source: Black & Veatch

54.1%
Budget constraints

37.6%
Other competing priorities

36.6%
Regulatory hurdles

35.1%
Lack of resources or expertise

23.9%
Communication network capabilities

22.9%
Data quality or issues

19.5%
Gaining stakeholder support

18.0%
Ownership across departments

12.7%
Availability of technology

10.7%
Waiting for others to pave the way

5.4%
Unwillingness to look at opportunities in unregulated arena

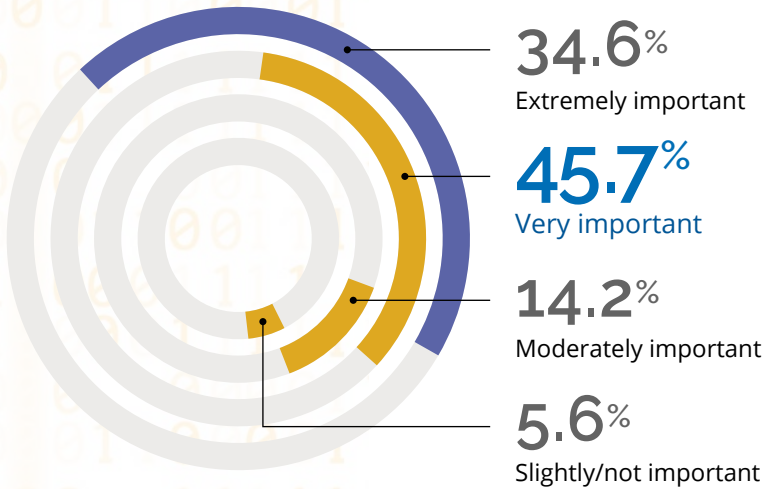
For example, the New York Power Authority (NYPA), the largest state public power utility in the U.S., is actively working to transform itself into a true “digital utility.” The utility is “one of the key creators and implementers” of Gov. Andrew Cuomo’s Reforming the Energy Vision (REV) initiative, which aims to transform how electricity is produced, bought and sold in New York state. Recognizing the need to gain comprehensive insight into the systems within their jurisdiction, the NYPA has invested in creating digital twins of all their assets, deploying technology capable of modeling how their systems might react to major storms, cyberattacks and other risks.

Similar to the NYPA, a growing number of large investor-owned utilities are making major commitments to using data to truly transform their operations. These utilities are enabled by the availability of software as a service and cloud-based solutions from third-party vendors, making it easier to close the digital divide. Even so, more than half of utilities said budget constraints, followed by competing priorities and regulatory hurdles, are impeding their ability to have smart distribution infrastructure that gathers data from sensors that can be used for a range of decision-making activities (Figure 9).

Figure 10

How is your organization viewing the importance of integrating its planning functions (e.g. transmission, distribution, and resource planning)? (Select one).

Source: Black & Veatch



Artificial Intelligence and Analytics

Given these constraints, the use of data for asset management has seen perhaps the greatest amount of interest, given that the ability to anticipate equipment failures and avoid costly outages presents a straightforward case for regulatory approval. This is particularly important for gas utilities, which are under greater scrutiny over risk-management practices after a series of high-profile safety incidents in recent years. The emergence of tools enabled by artificial intelligence (AI) to provide predictive analytics is especially important for all utility sectors, as the aging assets most likely to fail are less likely to be equipped with sensors. Better system intelligence and analytics also facilitate better and more reliable operation of utility systems and facilities.

Beyond enhancing reliability, early movers also seek to leverage data analytics and AI capabilities to build resilience. Many of these early movers have been collecting terabytes of data yet doing little with it so far. Data-driven modeling is a key for power utilities to anticipate and control the behavior of distributed



energy resources (DER), improve distribution grid resilience and enable more granular pricing. Sophisticated data analytics also are key to making the regulatory case for sustainable investments that take into consideration the benefits for the utility, the customer and the environment.

To this point, the data-driven integration of utility planning is emerging as a fast-growing use case, with 80 percent of respondents ranking planning integration as “very” or “extremely” important (*Figure 10*). For water utilities, digital tools are being used to dynamically plan and prioritize capital improvement plans based on scenarios of severe storms, financial events and more. Similarly, more than three-quarters of power utilities either “somewhat” or “strongly” agree that integrated IT/OT planning will deliver significant benefits. (*Figure 11*).

Figure 11
Statement agreement: there will be meaningful benefits if we integrate the planning of all our operational (OT) and information technology (IT) systems.

Source: Black & Veatch

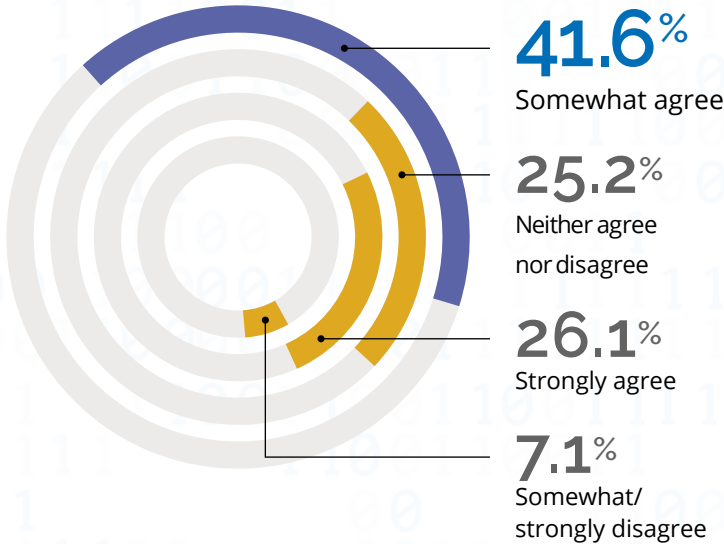
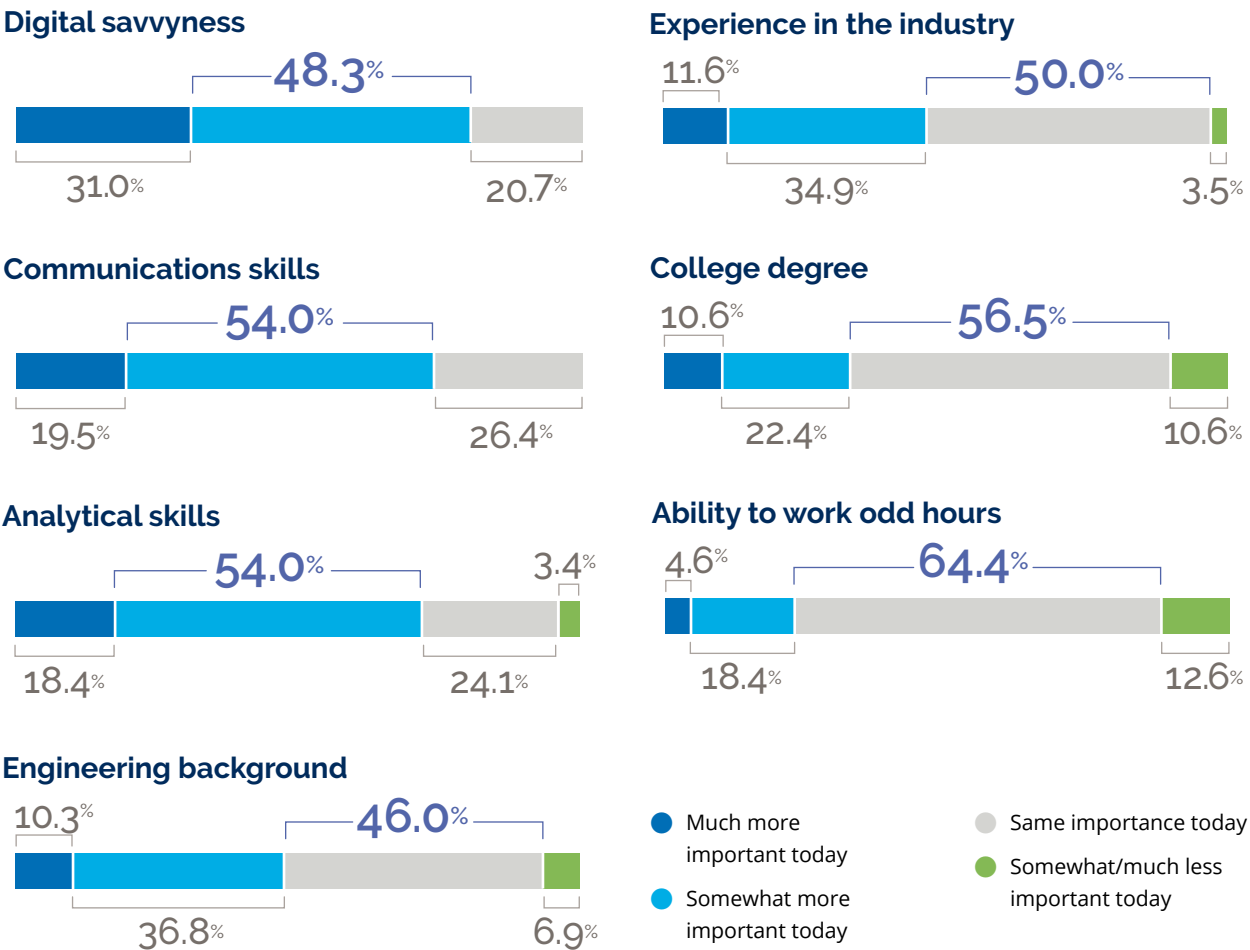


Figure 12

When thinking about the qualities your organization looks for in a new hire, how have those qualities changed from five years ago? (Select one for each row).


Source: Black & Veatch



Opportunities, Challenges of Digitization

The pandemic has proven data and IT solutions are valuable for operations planning, work prioritization and personnel management. Digitization has helped facilitate rapid changes to asset maintenance and incident response protocols, including a move to one-person crews, different work-staging processes and even quarantining on-site staff at critical facilities. As in other areas of the economy, it also has made it possible for large swaths of utility personnel to work remotely. While some of these changes may be temporary, the cost savings and efficiency improvements are likely to make them permanent in many cases.

Because data analytics is becoming core to utility operations, it has heightened the challenges they face in replacing an aging workforce. Eight out of 10 utilities see digital savviness as “somewhat more” or “much more” important for new hires today than it was five years ago (Figure 12). But that means utilities are competing with the likes of Amazon and Google, as well as the financial sector, for the latest crop of data scientists that may not see the utility sector as cutting edge.



Finally, any discussion of digitization must include the evolving cybersecurity environment. Attempted cyberattacks have risen in recent years, and this trend has accelerated since the pandemic's outset. But there has been growing utility collaboration and coordination with the federal government to share knowledge and protect against these threats, fueling hope they can continue to avoid major cybersecurity breaches — or, at the very least, avoid the liabilities by following established best practices. However, when best cybersecurity practices are followed, embracing data is an opportunity for utilities to truly transform their operations while also building a new paradigm to offer best-in-class customer experiences.

As uncertainty enveloped the globe due to COVID-19 this year, utilities have proven capable of taking a long-term view, especially when it comes to climate change and sustainability. With technology and data at their fingertips, utilities are poised to execute on increasingly aggressive decarbonization plans and respond to emergencies quicker and better. The details of these plans vary widely, but the ability of first movers to execute will bring confidence to historically cautious service providers who must transform their operations while providing even more reliable, resilient service to customers of all sizes. ●



P +1 913 458 2000
E MediaInfo@bv.com
W bv.com

© Black & Veatch Corporation, 2021. All Rights Reserved. The Black & Veatch name and logo are registered trademarks of Black & Veatch Holding Company. REV 2020-12

LEGAL NOTICE

Please be advised, this report was compiled primarily based on information Black & Veatch received from third parties, and Black & Veatch was not requested to independently verify any of this information. Thus, Black & Veatch's reports' accuracy solely depends upon the accuracy of the information provided to us and is subject to change at any time. As such, it is merely provided as an additional reference tool, in combination with other due diligence inquiries and resources of user. Black & Veatch assumes no legal liability or responsibility for the accuracy, completeness, or usefulness of any information, or process disclosed, nor does Black & Veatch represent that its use would not infringe on any privately owned rights. This Survey may include facts, views, opinions and recommendations of individuals and organizations deemed of interest and assumes the reader is sophisticated in this industry. User waives any rights it might have in respect of this Survey under any doctrine of third-party beneficiary, including the Contracts (Rights of Third Parties) Act 1999. Use of this Survey is at users sole risk, and no reliance should be placed upon any other oral or written agreement, representation or warranty relating to the information herein.

THIS REPORT IS PROVIDED ON AN "AS-IS" BASIS. BLACK & VEATCH DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. BLACK & VEATCH, NOR ITS PARENT COMPANY, MEMBERS, SUBSIDIARIES, AFFILIATES, SERVICE PROVIDERS, LICENSORS, OFFICERS, DIRECTORS OR EMPLOYEES SHALL BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR RELATING TO THIS REPORT OR RESULTING FROM THE USE OF THIS REPORT, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOSS OF PROFITS, USE, DATA OR OTHER INTANGIBLE DAMAGES, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

In addition, user should place no reliance on the summaries contained in the Surveys, which are not intended to be exhaustive of the material provisions of any document or circumstances. If any point is of particular significance, reference should be made to the underlying documentation and not to this Survey. This Survey (and the content and information included therein) is copyrighted and is owned or licensed by Black & Veatch. Black & Veatch may restrict your access to this Survey, or any portion thereof, at any time without cause. User shall abide by all copyright notices, information, or restrictions contained in any content or information accessed through this Survey. User shall not reproduce, retransmit, disseminate, sell, distribute, perform, display, publish, broadcast, circulate, create new works from, or commercially exploit this Survey (including the content and information made available through this Survey), in whole or in part, in any manner, without the written consent of Black & Veatch, nor use the content or information made available through this Survey for any unlawful or unintended purpose.