



Building a better  
working world

The background of the entire page is an aerial photograph of a solar farm. The solar panels are arranged in neat, parallel rows on a hillside. A light-colored, winding path or road cuts through the solar panels. In the distance, a range of mountains is visible under a soft, hazy sky, suggesting a sunrise or sunset. A large, thick yellow border frames the central text area.

# If tech powers the future, who powers the tech?

Power and Utilities Digital  
Transformation and the  
Workforce Survey



The better the question. The better the answer.  
The better the world works.



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## ABOUT THE SURVEY

TRUE Global Intelligence, the in-house research practice of FleishmanHillard, conducted an online survey of 159 power and utilities executives with responsibilities across multiple sub-sectors, including:

**125**

Electric

**59**

Gas

**28**

Water

**94**

Renewables

Respondents hold various functional roles across their organizations, including IT, HR, operations, strategy and digital departments. Respondents reflect a global audience both in terms of where they live and where their companies operate. Within the report, geographic analysis is focused on the Americas; Europe, Middle East, and Africa (EMEA); and Asia-Pacific (APAC).

The survey was conducted between 12 January and 8 February 2021.



## For some time, the power and utilities sector has been on the verge of transformation

For the power and utilities (P&U) sector, the long-imagined future of energy is becoming the present: governments are aggressively planning to decarbonize as the prices of renewables and electric vehicles fall, and customers and investors have new expectations of sustainability. Two critical components – people and technology – can either power companies through this transformation or become roadblocks to success.

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**93%** will be adapting to changing consumer expectations for a cleaner energy economy.

**91%** will be changing their mix of energy sources over the next several years.

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According to our recent survey, utility executives foresee dramatic changes over the next three years, with new technology, advances in renewable energy sources, and the response to decarbonization and related consumption behaviors as the top three expected positive drivers for the sector. More specifically, respondents recognize that to navigate these changes they need both the right digital technology and a dynamic and skilled workforce that can operate in new environments, many of which are just starting to be imagined.

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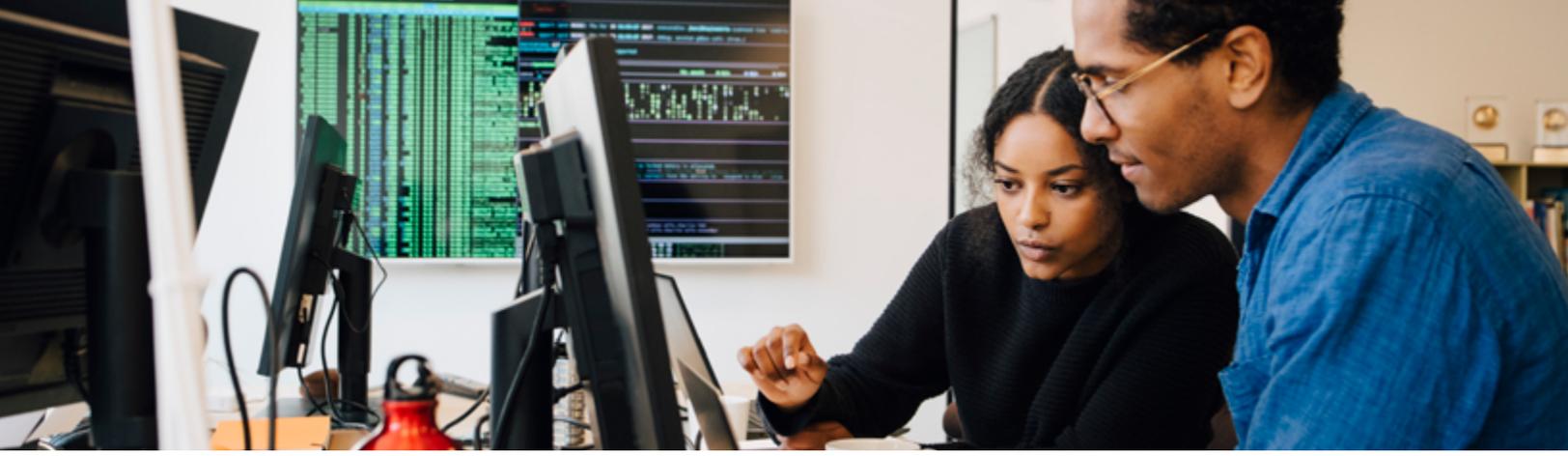
**91%** say they are planning to invest at least a moderate amount in technology.

**94%** say they need to invest in technology and invest in the workforce to succeed.

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When asked about the factors holding them back from addressing the changes they need to make, 52% say the speed at which their organization can move is a major challenge to digital technology adoption, and 40% cite funding as a major challenge.

Compounding the challenge, 89% report having too few workers with the right skills as a challenge to digital technology adoption. For example, the gap in the workforce's vehicle-to-grid and virtual reality skills is particularly notable, with 48% of respondents saying their workforce lacks skills in these emerging technologies. Also, 85% recognize that the ability to reskill quickly is crucial and would address this gap, yet only 57% of executives agree their organization has a robust plan to reskill over the next three years.



With neither the skills nor the funding to build, buy or borrow the talent to operate new technologies with renewed pace, utilities may find themselves on the defensive – with new entrants capitalizing on opportunities before established organizations are able. Currently, the European Commission is calling for at least 30 million zero-emission cars and 80,000 zero-emission trucks to be in operation by 2030.<sup>1</sup> While EY estimates that just 3 million of Europe’s total 308 million vehicles are electric today, more than 40 million electric vehicles (EVs) will travel on Europe’s roads by 2030.<sup>2</sup> Many utilities currently lack the capabilities or appropriately skilled employees to support this growth or to capture value from the emerging EV ecosystem. Clearly, a reinvigorated focus on talent and skills is necessary to fully realize the value of technology and process transformation across the utility value chain.

Ultimately, P&U leaders acknowledge that what drove their organizations’ success to date won’t yield the same positive results tomorrow. The pace at which the sector is changing means that the digital landscape and the workforce skills required to support it are far beyond the core financial, engineering, and command and control operational capabilities that used to be the critical factors to successful energy and water generation, transmission, distribution and retail services. While these skills remain at the heart of the culture and performance of P&U organizations, they do not always deliver differentiation, excellence in customer and employee experience, and cost optimization in today’s evolving energy landscape.

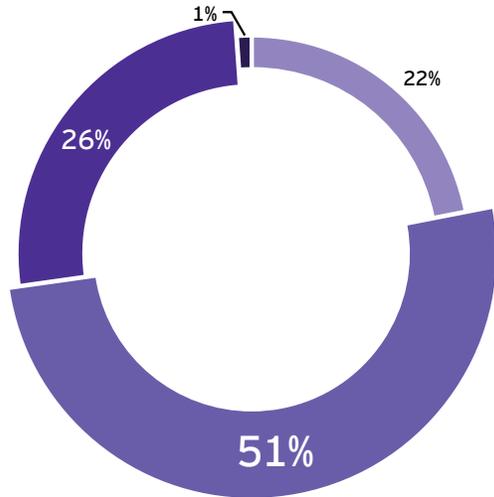
- 1 Don't just “do” digital – “be” digital**  
Digital investments are useful only to the extent that they can be matched with knowledge, skills and abilities – about the technology itself, its function in your organization, how it fits within your strategic vision, and your competitive position in the market. In other words, buying a fast car is important for a race, but so is knowing how to drive it. Start with your strategic vision and determine how existing platforms and future investments would bring it to life. Then, consider how those platforms and investments are embedded in the day-to-day work life of your employees and the experiences of your customers.
- 2 Pace, plan and prioritize to close the skills gap**  
If your organization is being digital, it’s a tech company just as much as it is a utility. Yet both the technical and adaptive skills needed to implement technology investments are lagging within utilities. Closing the skills gap begins with identifying and prioritizing what skills you need to achieve your goals and further your investments. Then, you must plan and implement at pace across the organization, focusing on cost optimization and in a way that strengthens workplace culture.
- 3 Align on strategies and eliminate challenges in the face of new threats**  
These changes don’t affect one single function or department, and they shouldn’t be viewed through a single lens: A reimagining of how business works requires everyone to be involved and make it a priority. Utilities need a cohesive plan that both emphasizes the reskilling strategies most in line with their business and proactively addresses potential barriers to reskilling and technology adoption.

# 1

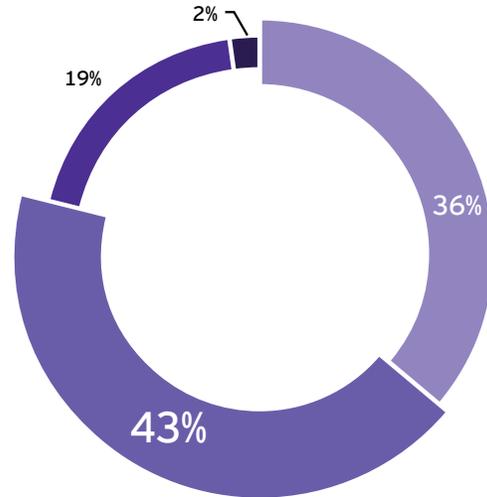
## Don't just "do" digital – "be" digital

P&U organizations recognize the digital imperative they face. Technology adoption and the planned pace of improvements suggest that the sector is positioning itself positively for the future. Yet more executives say they are responding more effectively to decarbonization than digitization. For true transformational potential, advancements in technology, analytics and automation must be paired with the relevant knowledge, skills and capabilities. This will enable a step change in the workforce's ability to deliver a positive service to their customers and communities.

Utilities believe they are responding effectively to transition driven by digitization



Utilities believe they are responding effectively to transitions driven by decarbonization



Strongly agree
  Somewhat agree
  Somewhat disagree
  Strongly disagree



If you think about the pace of change that we saw in the beginning of the pandemic, things were done in days that would've taken months or years to do.

CHRO, ELECTRIC UTILITY



**55%**

rank the adoption of new technologies as one of the three trends that will have the most positive impact on their organizations.

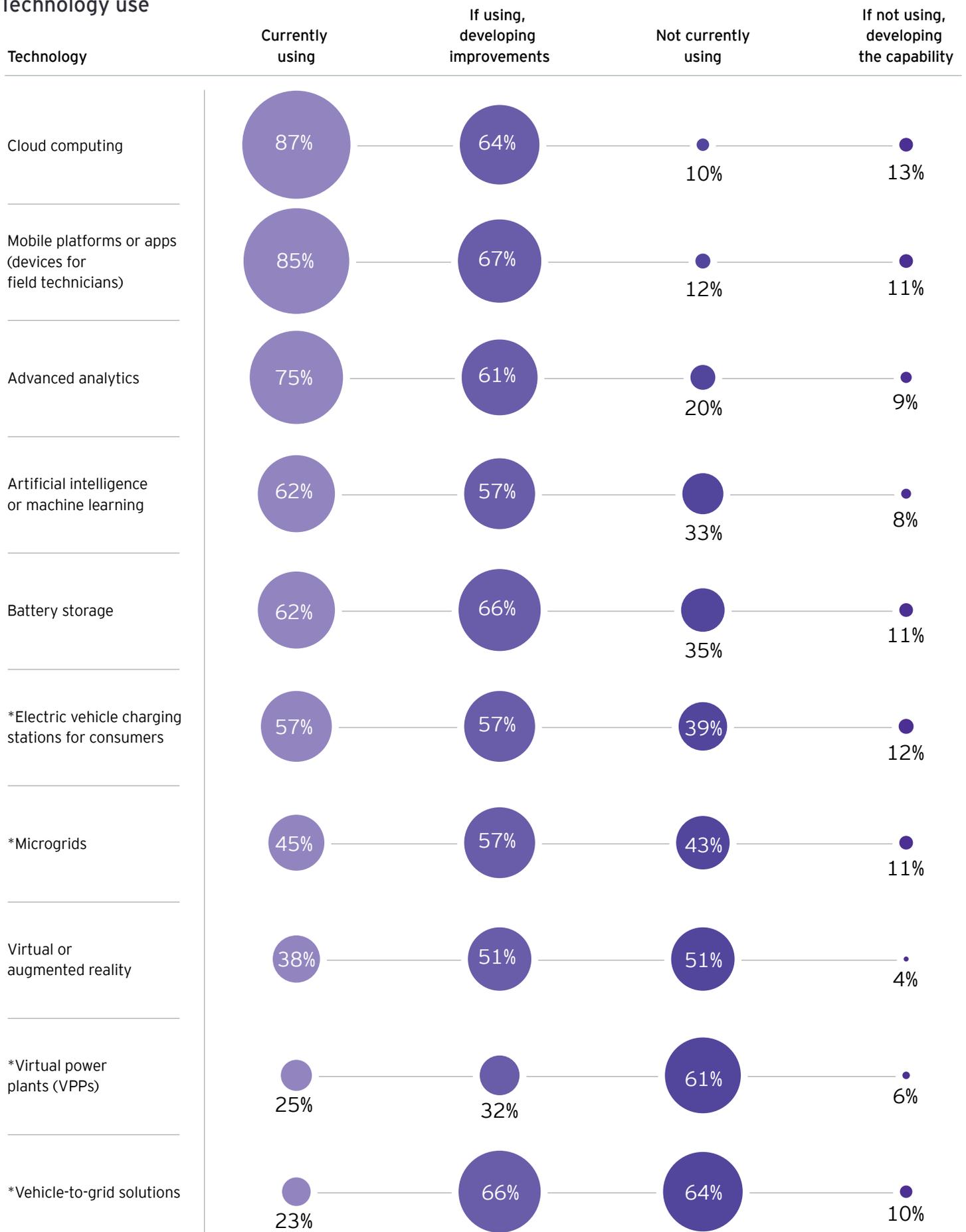
**60%**

of those at companies with 5,000+ employees expect to invest "a great deal" in digital technologies.

**88%**

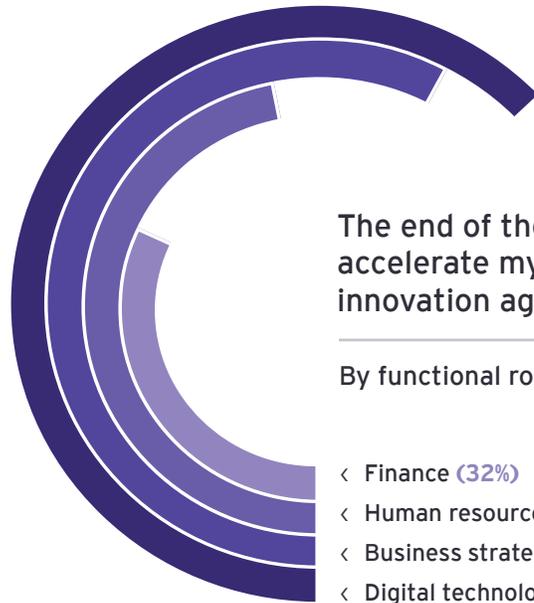
of those who say the pandemic has accelerated their agenda report that the end of the pandemic will accelerate it further.

## Technology use



\*Asked only of electric utilities and renewable energy providers.  
 Respondents indicating "not sure" are not represented in this chart.

Executives with business strategy and digital technology functional roles are more likely to report that the end of the pandemic will accelerate their organization's urgency for digital innovation compared with their human resources or finance counterparts. Lack of alignment between the strategy and digital and people and finance leaders makes it more likely that those utilities will not fully realize the technology's intended value.



### The end of the COVID-19 pandemic will accelerate my organization's digital innovation agenda

By functional role:

- < Finance (32%)
- < Human resources (47%)
- < Business strategy, operations, supply chain and logistics (58%)
- < Digital technology (63%)

Underscoring the challenge of successful digitization is the finding that more executives feel confident that their organization is succeeding better in fundamentally overhauling its means of energy production (decarbonization) than it is succeeding with digitization – on the face of it, a far simpler task than the former.

## EY Insight

Adopting technologies alone is not enough for organizations to thrive. They must go further than just “doing digital,” i.e., implementing digital technology and working in a digitally enabled environment. A company must move to “being digital,” meaning technology – existing platforms and future investments – underpins its strategic vision and is embedded into the daily work life of every employee and the experience of every customer. Only by being digital will an organization proactively meet the market as it changes and capture the total value of its existing digital investments and future technology enhancements. Companies must embed technology in every facet of their organization while shifting the workforce's mindset to incorporate digital solutions to secure value today and tomorrow, whatever the future holds.

Of the executives surveyed, 9 out of 10 identify both training and hiring as technology adoption challenges.

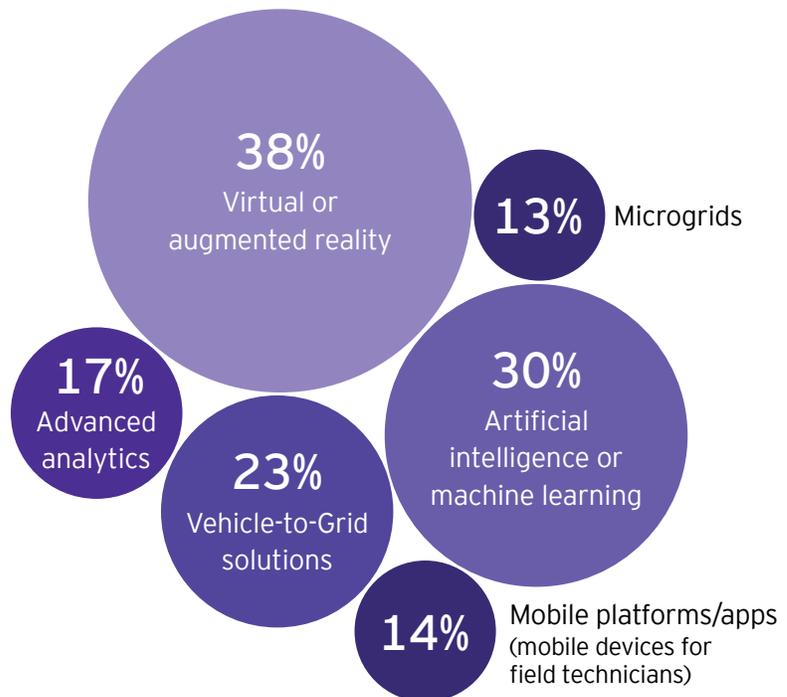


There definitely has been an acknowledgment that there needs to be a fast-moving shift in terms of culture to the use of technology more as a business enabler rather than just to keep the lights on.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

**Percentage of organizations that do not have the skills needed to realize investment in technology**

*Among those currently using each technology*



Consider how technological advancements can help utilities meet the global need for modernized energy delivery grids. Innovative digital solutions can help execute physical infrastructure improvement programs more quickly and efficiently. Virtual reality (VR) and augmented reality (AR), for example, can help simulate critical operations and enable workers to practice restoration functions. If these operations occur in the real world, workers can use what they learned to reduce safety incidents, service disruptions and work inefficiencies. But 73% of respondents who plan to adopt VR/AR – and 38% of the organizations that are already using it – say that they do not have the skills necessary to leverage the technology.



We don't have enough of the capabilities, and we're in the process of recruiting. There's not enough capability in the market yet, so you're going to have to retrain to expand the pool because otherwise, you're going to see a labor shortage.

CHRO, ELECTRIC UTILITY



## EY Insight

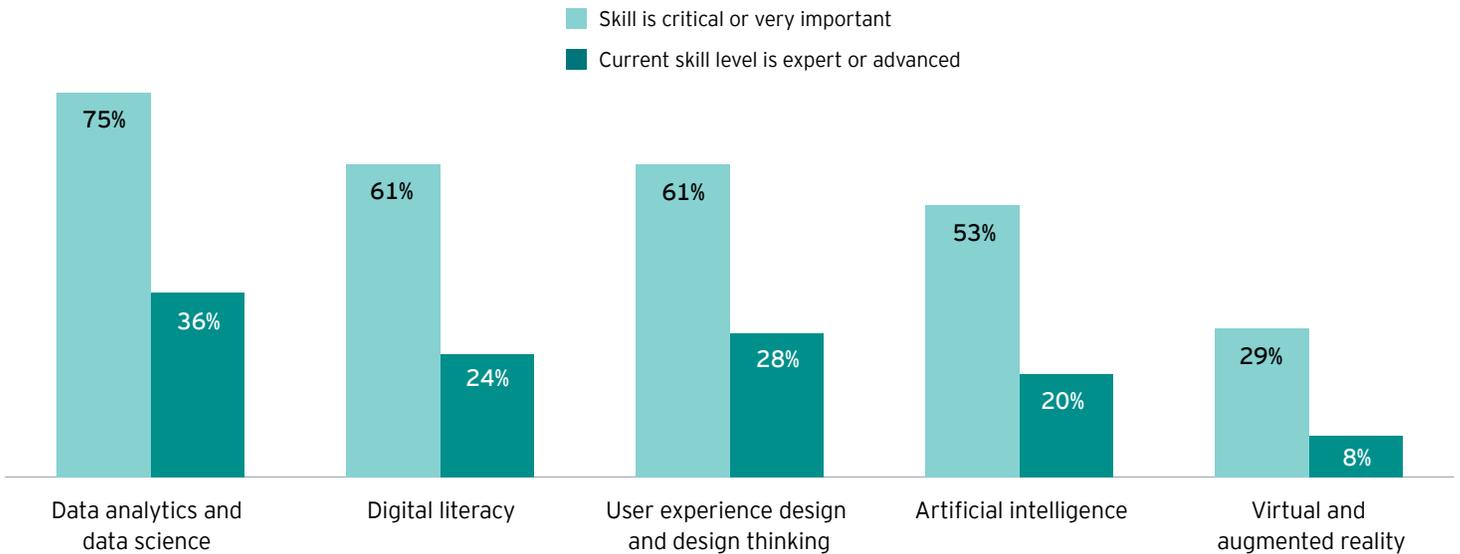
Developing skills in tandem with adopting new technologies will help organizations gain incremental value from their existing digital investments and accelerate the pace of further innovation. A skilled workforce will be best equipped to identify opportunities to implement digital solutions proactively. Digital-minded professionals may be more eager to jump on the opportunity to implement AR training for energy distribution infrastructure replacements, for example. They're also most likely to dig into data analytics to derive new insights into customer behaviors, identify process breakdowns and accelerate innovation to improve service delivery and reduce costs.

# 2

## Pace, plan and prioritize – closing the skills gap

As utilities rely more on digital technologies, the volume and scope of data has surged. If used correctly, data can reflect distributed and customer-generated energy forecasts, enable new sales and marketing campaigns, and much more. But turning data into insights requires critical analytics skills that utilities often lack. This hinders their ability to maximize the investment return on the newly implemented digital technologies that yield this data. This is just one example of how skills required for success are constantly evolving and how, even if a technology is implemented, workforce skills are quickly outpaced by the technology.

## Importance of technical skills vs. current skill level



“

Most utilities were historically not prepared with the people, processes and systems to manage all this data. Now, with the influx of sensory data through so many different channels, it's making a big impact and has tremendous value as long as you can use it effectively.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

In addition to technical skills, executives rate adaptive skills such as communication and decision-making as highly important to their organization's success. Of note, analytical acumen is less of a priority, which may further challenge the adoption of data-intensive technologies such as artificial intelligence or machine learning. This view also creates an inherent paradox wherein utilities recognize the need for data analytics and digital skills, but do not place a premium on the analytical acumen that serves as a foundation for taking advantage of and optimizing data collected from smart grids, advanced control systems, customer experiences and preferences, and asset management platforms. This is a symptom of how utility companies can focus on business priorities such as advanced operational systems and data collection without aligning the supporting skills.

“

The digital dexterity in the utility sector is much lower relative to other industries. There's no doubt about it ... and the sector definitely struggles because it's not necessarily perceived as a dynamic industry for the younger generation.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

## Importance of adaptive skills

Showing percentage saying adaptive skill is critical or very important



“

Training your current workforce on new technology creates a competitive advantage because of the business acumen they have. It's much harder to teach business acumen.

CIO, ELECTRIC UTILITY

EY estimates that 18.7 million EVs are expected on US roads by 2030<sup>3</sup> and, in December 2019, the European Union set the goal to be carbon neutral by 2050. This increased electrification will create an increasing load from the transport, heating and industrial sectors, which will require distribution system operators to invest in tools, people and infrastructure. It will also require a cultural shift in terms of how the utility's workforce supports change, as well as new partnership models to manage the growing e-mobility penetration.<sup>4</sup>

### EY Insight

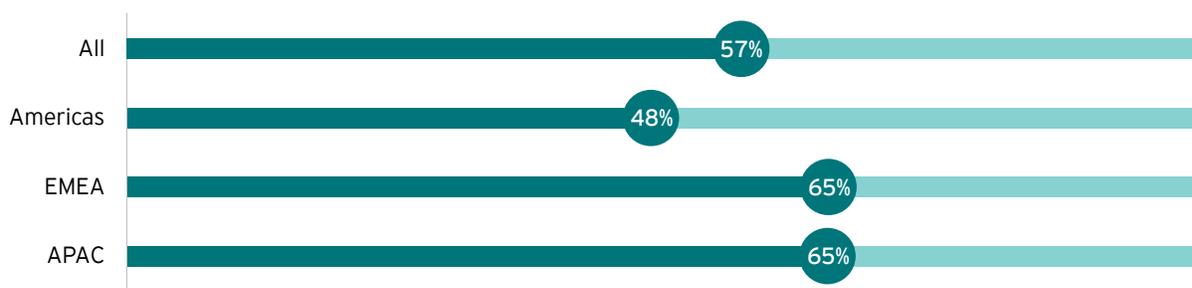
Technology alone is not the answer to a changing world. A human-centered approach must enable it – workforces must be built and critical skills identified and cultivated. Only then can technologies be effective and fully utilized, and realize the investments made in them. This calls for an agile, human-centered approach to digitization and the trends and forces driving it. Utilities need to focus on adjusting, investing in and transforming how they re-envision the world of work. Incentivizing learning and improving workplace culture can close the skills gap faster and boost effectiveness for operating in a digital, decarbonized and electrified market.

Despite recognizing that the ability to reskill will determine their success over the next few years, only 57% of those surveyed agree (of that, 13% strongly agree) they have a robust plan to reskill over the same period. Furthermore, one-third say they cannot measure the gap between the skills they have and what they need.

Across global regions, plans to reskill over the next three years are much more widespread outside the Americas, though also too uncommon elsewhere. This underscores the importance of local conditions and ways of working, and potentially points to weaknesses in how utilities approach workforce development – particularly in the US.

## We have a robust plan to reskill over the next three years

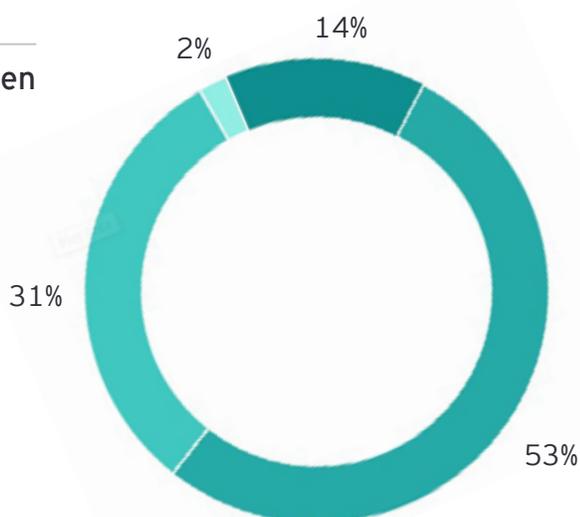
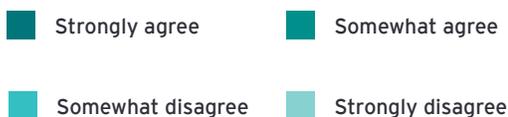
Showing total who agree



I think in the short term, it's kind of 70/30 hiring vs. reskilling. And maybe it's even 80/20 ... As the market gets more constrained, you have to come up with better solutions than just recruiting. The additional hiring cost is so high, so you have to retrain.

CHRO, ELECTRIC UTILITY

## We have the ability to measure the gap between the skills we have and the skills we need



Workforce development entails challenges specific to reskilling and upskilling workers, such as a shortage of teachers and trainers (83% cite this as a challenge), difficulty developing effective curricula (89%) and the ability to assess employees' progress (81%). Yet many challenges are more fundamental to how large organizations operate.



Within organizations, there is evidence of a disconnect between the most senior executives and those one layer below, with 49% of the former believing they have a robust plan to reskill over the next three years compared with 64% of the latter. Across functional areas, similar differences of opinion emerge, with 75% of those responsible for IT and 68% of those responsible for human resources believing their ability to reskill is superior to peers, compared to just 50% of those responsible for finance.

These differences imply a divergence among levels and departments on what constitutes a robust plan, what standards employees and the organization are held to, whether needs are being met, and how well these needs are being measured. This divergence can stem from different outlooks, different degrees of visibility and different needs. Regardless, it is evidence of the alignment that still must occur as a prerequisite for large-scale workforce development and digital transformation.

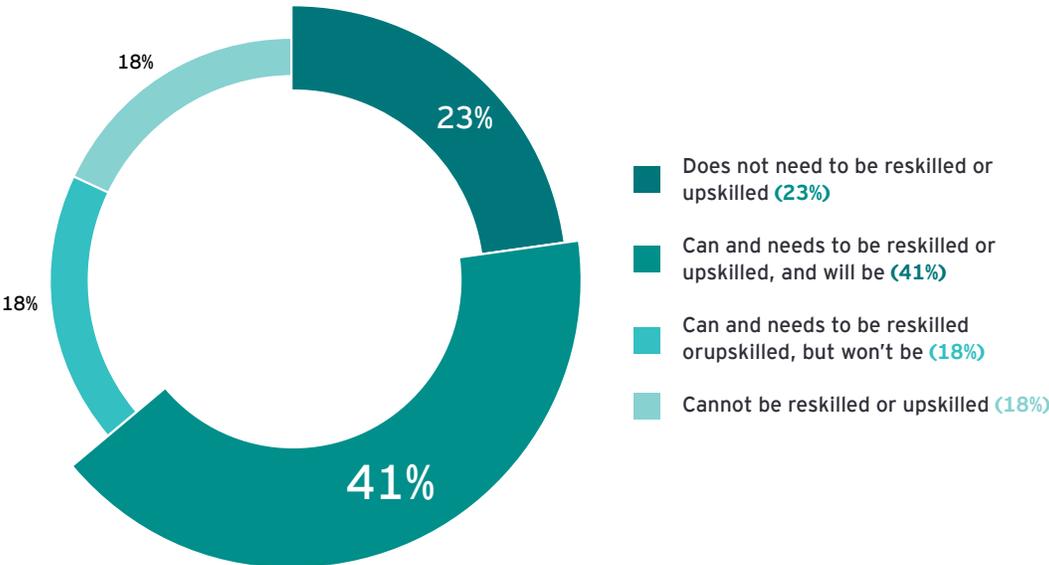


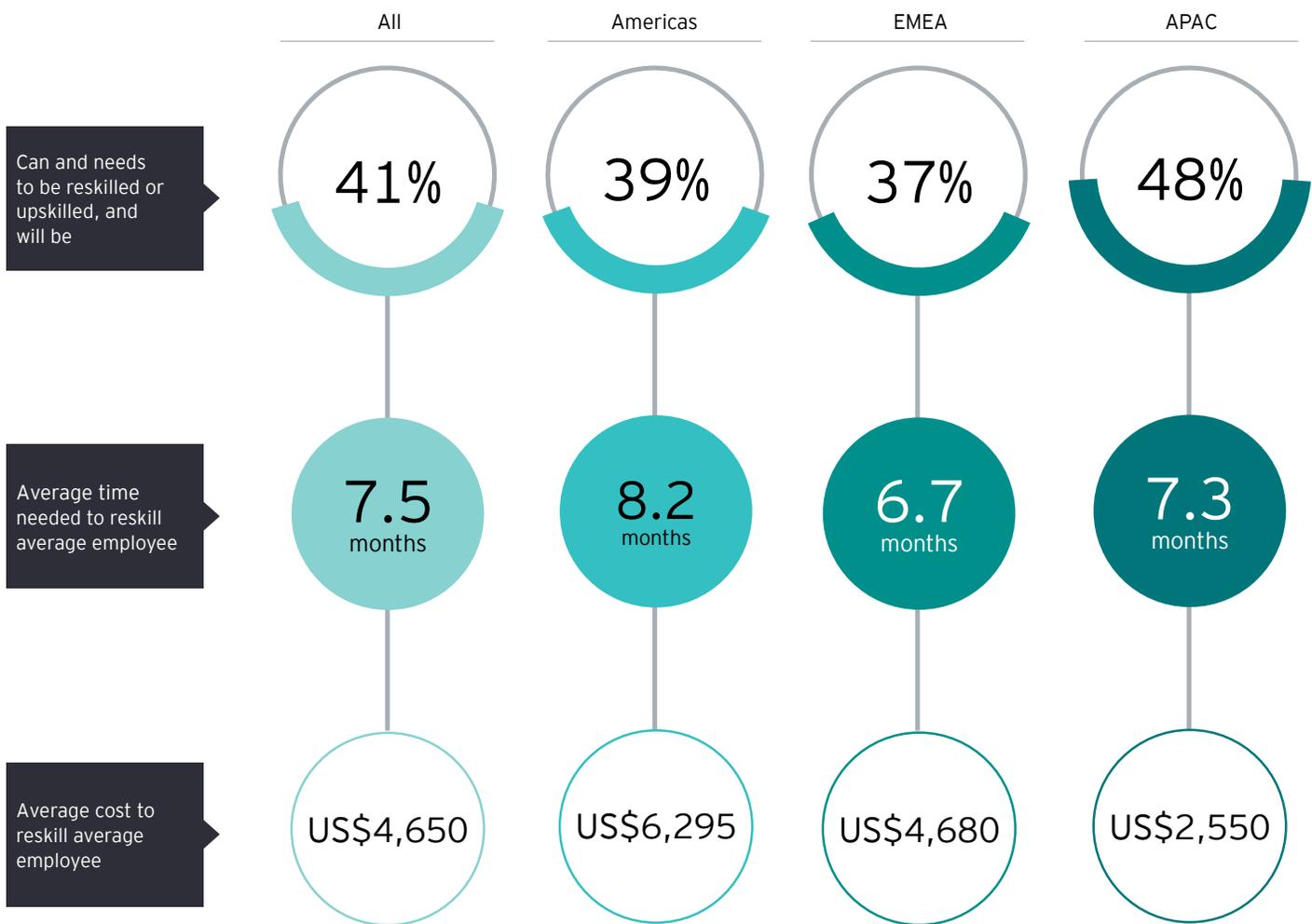
The sponsorship needs to be across multiple stakeholders at a senior level; then you have to sort of pick and choose where your areas of low-hanging fruit are, so that you can start focusing in and get some quick wins.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

All told, executives estimate that three out of every five workers in the P&U sector need reskilling or upskilling – yet of those three, only two will actually be reskilled or upskilled. Other priorities or market threats hinder companies from reskilling or upskilling 36% of employees.

### Proportion of workforce and reskilling





In the learning plan we made last year, 60% was concerning people that had to completely change. So, upskilling or reskilling, for us, is the big part.

SENIOR EXECUTIVE, DIGITAL POWER UTILITY

Executives are not talking about minor changes around the edges of employee skillsets, either. More than half of the workforce needs differentiated skill building and it is estimated that, on average, it will require 7.5 months and US\$4,650 to reskill or upskill the average employee who can be, needs to be, and will be reskilled or upskilled. This amount of time and money may prove a significant barrier.



Retraining takes effort, real effort. Much more so than recruitment. I think that's the dilemma. If you want a quick fix, recruitment is your answer. Your retraining efforts will take much longer, require much more investment, and you've got to identify the pathways for people who really want to do it.

CHRO, ELECTRIC UTILITY



## **EY Insight**

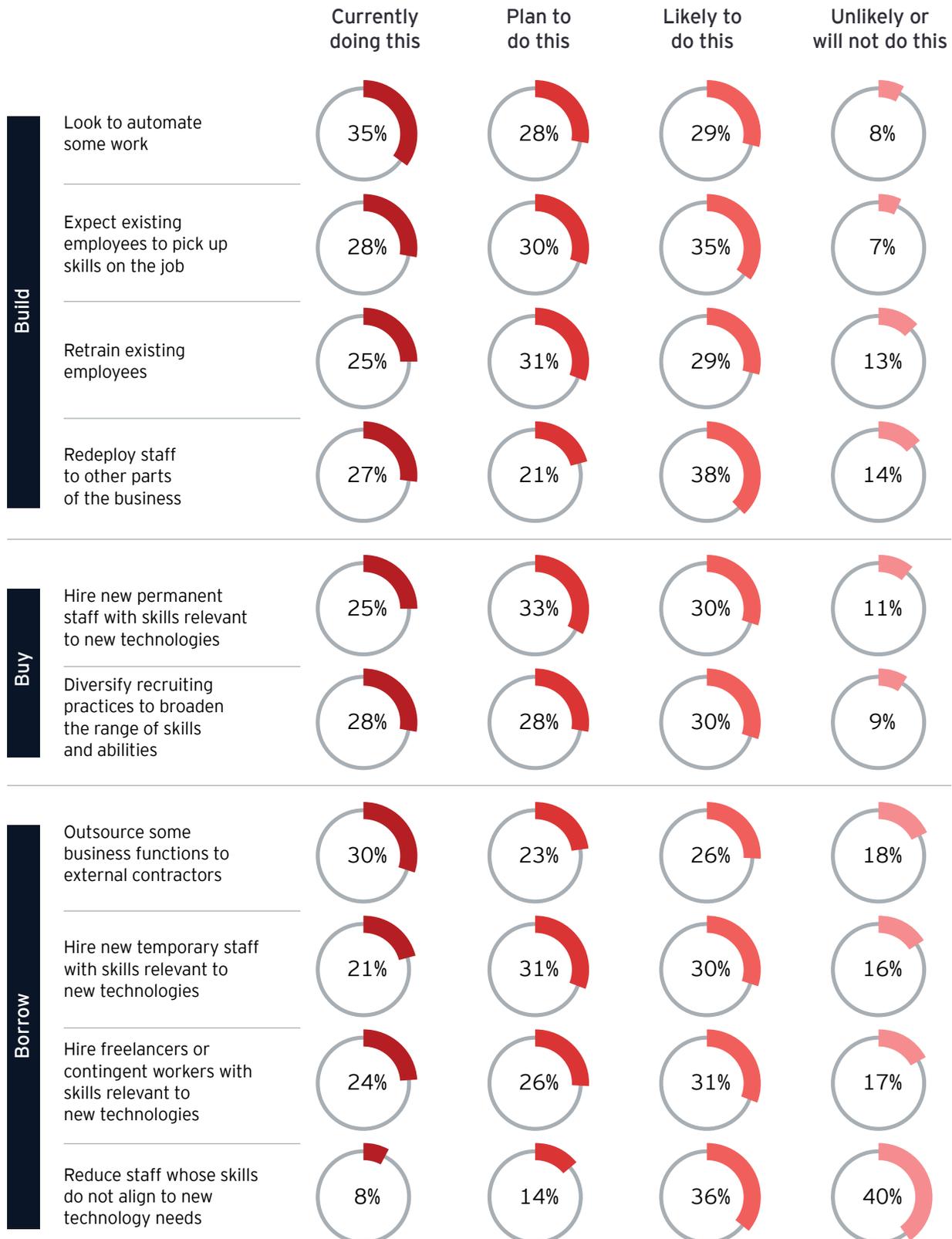
Each utility's digital skills needs may vary. By taking a magnifying glass to its current capabilities and looking ahead at where it wants to go, a utility can determine how big the skills gap is between its current state and its future goals. The methods to close this gap may span from learning and development program updates to operating model redesign efforts and large-scale organizational transformations.

# 3

## Strategies to optimize the workforce

What appears to be needed is action now. Respondents point toward an all-of-the-above approach to solving skills shortages – build, borrow, buy – yet across 10 strategies to achieve those ambitions, organizations are more likely to be “planning or likely” to carry out each strategy than they are to be currently executing it.

## Strategies to address changing skills needs





28%

are not currently executing any of the 10 strategies mentioned in the survey.

72%

reported meeting their organization's workforce needs will require them to rely more on vendors and contractors than in the past.

90%

reported their organization needs to make more strategic connections and alliances to augment their skills.

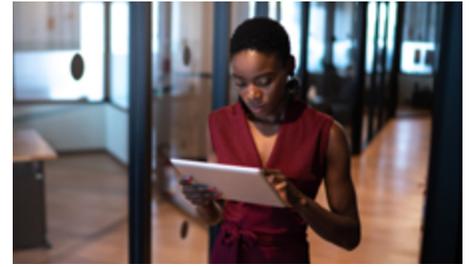
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We are developing deeper relationships with the universities for two reasons: to have an impact on the course curriculum, but also to have a presence on campus so that people understand who we are so that they want to come and work here.

CIO, ELECTRIC UTILITY

## EY Insight

Digitization and workforce transformation will impact every area of a company. As a result, both need to be prioritized and examined at an organizational level, not just at a departmental or functional level. For the workforce to be reskilled or upskilled in a holistic and meaningful way, corporate and operational leaders must be aligned on the digital skills gap and the investment required to close it – or else one department may be ahead of the curve while another lags. Furthermore, by looking at reskilling or upskilling as a required component of an organization's future assets, utility leaders can shift the narrative on cost recovery for digitally related workforce initiatives and explore the potential to fund programs using capital as opposed to traditional operations and maintenance costs. For example, skills-building and technology-enabled digital learning platforms can allow utilities to capitalize on the platforms themselves as part of the investment that depreciates over time.



45%

say training is seen as a cost center more than an opportunity for improvement.

76%

reported they're at risk of losing a generation of potential workers if they slow down their efforts to reskill and recruit a high-tech workforce.

90%

agree utilities need to consider different educational models to meet stakeholder expectations.

“

Everyone's in need of people who understand data and how to analyze it, and I think traditionally those jobs always sat in IT. But I think what we'll find as we go through time is a lot of those jobs will also sit within the other business groups as well.

CIO, ELECTRIC UTILITY

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Traditionally, HR departments, which often are responsible for learning and development, are quite lean because it's a cost center in most organizations. To translate that into a mindset where it should also be something that is not just a cost center but can be seen as, 'how can HR bring that additional value in terms of learning and development?' would be certainly worth it.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

## EY Insight

As power and utility organizations begin their three- and five-year strategic plans, attention, investment and leadership support for workforce development, combined with broader digital and automation investments, can help create broad-based buy-in and adoption. Coupling these workforce transformation efforts with capital programs, such as grid modernization and decarbonization efforts, can help utilities realize benefits and improve the overall financial case to internal and external stakeholders.



Agile culture, especially when you need to scale it, requires a support system, and that support system means processes, governance, an organizational structure, technology and the systems that go into it, which needs a different way of budgeting.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

## Enablers and barriers of skills development

More often an enabler    As frequently an enabler as a barrier    More often a barrier





62%

believe their organization's executives are attentive to workforce skill transformation. This figure rises to 75% in EMEA and 70% in APAC, but is only 48% in the Americas.

74%

of executives reported their organization's leadership is aligned to support digital priorities over the next three years.

82%

(including 78% of C-suite and executive officers) believe their organization's executives need more training on leading in a technology-augmented world.

“

How tech-savvy and aware of digital are your leaders and your leadership group? And how do you educate them and get them to embrace and buy into it so that it's much more holistic than just an IT fad? We've seen some interesting things where we've educated and got people thinking about digital and got leaders to own digital initiatives to drive different outcomes. But if what you're trying to do is kind of re-engineer your current process, it doesn't work.

CHRO, ELECTRIC UTILITY

“

I think culture is a driving factor behind whether or not the employees embrace technological change or not. I don't think it's employees alone.

CIO, ELECTRIC UTILITY

## EY Insight

Organizational structure and culture challenges are some of the most difficult to solve, as they touch all aspects of an organization. Infusing digitization into an organization's culture requires buy-in from executive leadership through to each field worker and other individual contributors. For leadership to simply say they want their employees to have a digital mindset is not enough – tangible structures that integrate digital thinking into existing ways of working are necessary to reinforce digital innovation as a priority. As new digital solutions and their complementary skills emerge in the market, organizations need to seek out and provide opportunities for employees at all levels to help implement these new solutions as well as the learning and skills-building programs that support them. This approach of incorporating digital solutions and skills into the day-to-day working environment will help accelerate workforce development and improve the digital initiatives' efficacy and impact.

“

One function alone does not own the culture. It's every leader's job.

CHRO, ELECTRIC UTILITY



44%

reported their organization's structure makes innovating more difficult, falling to 23% in EMEA.



49%

(including 61% of those responsible for their organization's finances) reported their organization's culture impedes the adoption of digital technologies.



94%

reported that the speed at which their organization can move is a challenge to both technology adoption and reskilling.



Reskilling means that you put in continuous learning initiatives which are ongoing and frequent throughout the tenure of staff. That means having continuous, shorter bursts of frequent training, which can be done remotely or classroom-based, and it really needs to be a healthy mix of all of these, but shorter and frequent. It needs to be lifelong because technology is constantly changing, so those skills need to be constantly updated as we go through changes in technology.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

## Challenges to reskilling and technology adoption

■ Is a challenge to worker reskilling ■ Is a challenge to digital technology adoption



While nearly a third of respondents expect existing employees to pick up skills on the job, this strategy leaves much to be desired if resistance to change among frontline employees is as widespread as executives report.

Again, it's clear that functional areas within an organization, despite some respondents having overlapping responsibilities, have a different outlook, with HR much more likely than other functions (especially finance) to believe they're ahead of their peers in digital workforce development. This misalignment can become a barrier if one segment of an organization believes it is already succeeding at addressing workforce development. It can impact how that segment prioritizes additional development, and creates the potential for defensiveness and conflict as other functions raise the issue. It also impacts cross-functional goal-setting, strategizing, programming, and measuring progress and success in this area.

## We are ahead of our peers in building a workforce for the digital future

*Showing percentage agreeing with this statement by functional area*



## EY Insight

Typical P&U transformations tend to occur in a silo within the function targeted for new technologies or skills. Organizations have an opportunity to break this model by creating program structures that rely on – or at least incorporate – cross-company input, and that include overarching and comprehensive learning and culture requirements. This approach can emphasize how all facets of an organization must adopt new skills, shifting from a culture in which technology and the accompanying skills are seen through a narrow lens. Ideally, this effort supports the entire company's ability to work efficiently and effectively in a continuously changing environment. Taking this approach also keeps the organization primed for future change, and can help make the inevitable and ongoing journeys of adaptation and transformation more manageable.



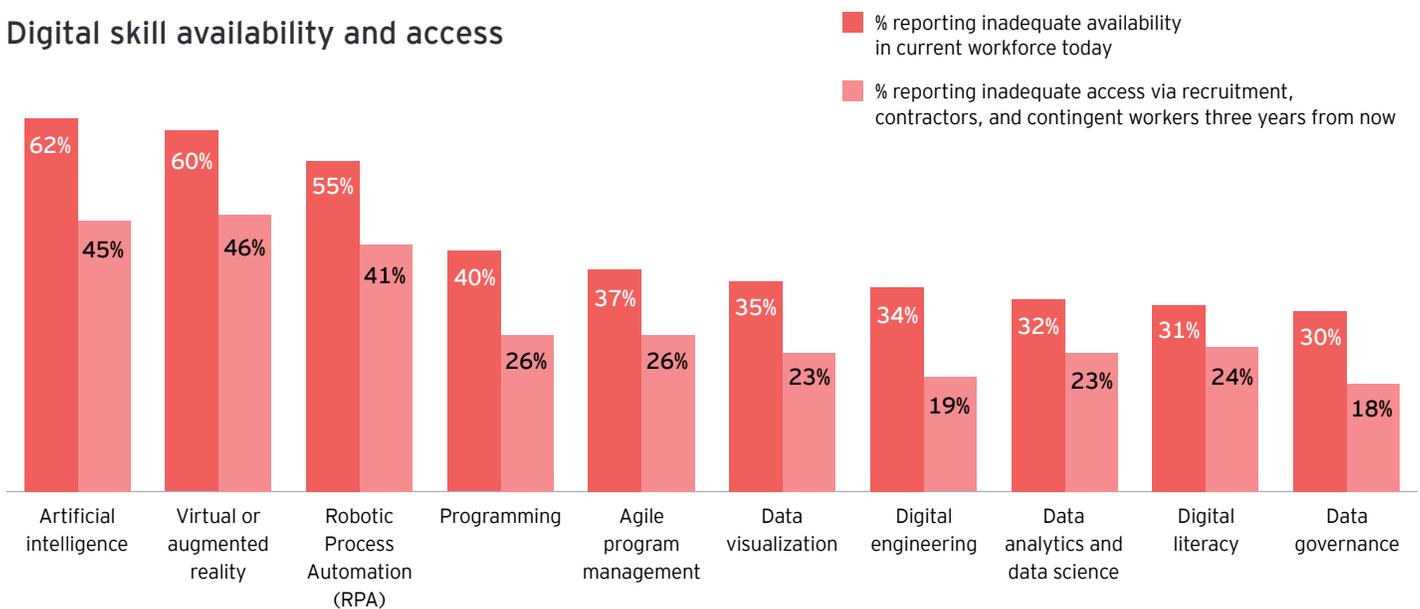
You're going to hire some digital people. You put them into a very traditional culture; they'll get drowned out. In order to be successful, the things that they want to do will challenge quite a lot of the organization's ways of working.

CHRO, ELECTRIC UTILITY

To develop the workforce they need to achieve digital transformation, utilities know they need to hire new talent and continue to reskill and upskill because the need for workers and specific skills simply outpaces what the current workforce can provide. However, hiring for specific skills is not a simple fix because the skills shortage is not unique to the P&U sector.

Large parts of the sector have inadequate access to the skills crucial to digitization now. And though the sector as a whole expects improvements, many companies anticipate continued inadequate access in the future.

### Digital skill availability and access



In large part, this is because many industries are facing the same challenges. The P&U sector is competing with every other sector that needs high-tech workers, from technology companies to retailers and investment banks. Compounding the challenge is that many potential recruits consider utilities to be part of an outdated industry unlikely to provide the sense of purpose or opportunities to work on cutting-edge projects that other companies can. For this reason, it's not only imperative for the sector to recruit but also retain workers – which two-thirds of utilities report difficulty in doing.



Employees want it simple. Four months ago, we were using 30 apps. Now we've got one app for all employees' needs.

SENIOR EXECUTIVE, DIGITAL POWER UTILITY



27%

report redeploying existing staff to other parts of the business to address skills needs.

45%

report difficulty retaining their best high-tech talent during the pandemic.

66%

report difficulty keeping people with in-demand skills in their organization.

“

We compete with a lot of the start-ups and a lot of the cooler companies for some of the talent. Especially if they're good talent.

CHRO, ELECTRIC UTILITY

“

The energy and utilities sector definitely struggles because it's not necessarily perceived as a dynamic and sexy industry for the younger generation. But there are specific initiatives and things you can put in place to cater to what I refer to as 'digital stars,' and that is based on mapping your employee value proposition with the culture and mindset of the younger generation.

DIGITAL TRANSFORMATION EXECUTIVE, WATER UTILITY

## EY Insight

Sourcing, hiring and retaining the right talent requires a perfect match between both employer and employee. Utilities need to align their value proposition with the experience desired by the utility worker of the future. Furthermore, their recruitment and retention strategies must demonstrate how that experience comes to life. To do so, utilities could identify their ideal candidates' profiles and map out potential career journeys for them. Additionally, by overlapping both the skills a utility needs to develop with those skills that candidates want to learn, organizations can develop appealing, employee-centric messaging that attracts and keeps the right kind of talent.



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Data science is one of those skills that we've identified that we need to find a good balance between developing our own people that have the aptitude and the desire to do this sort of work and buying, going out and recruiting for a few, and then borrowing some as well from outside firms that specialize in this. So we'll bring them in for some projects, help them train us up and then go.

CHRO, ELECTRIC UTILITY

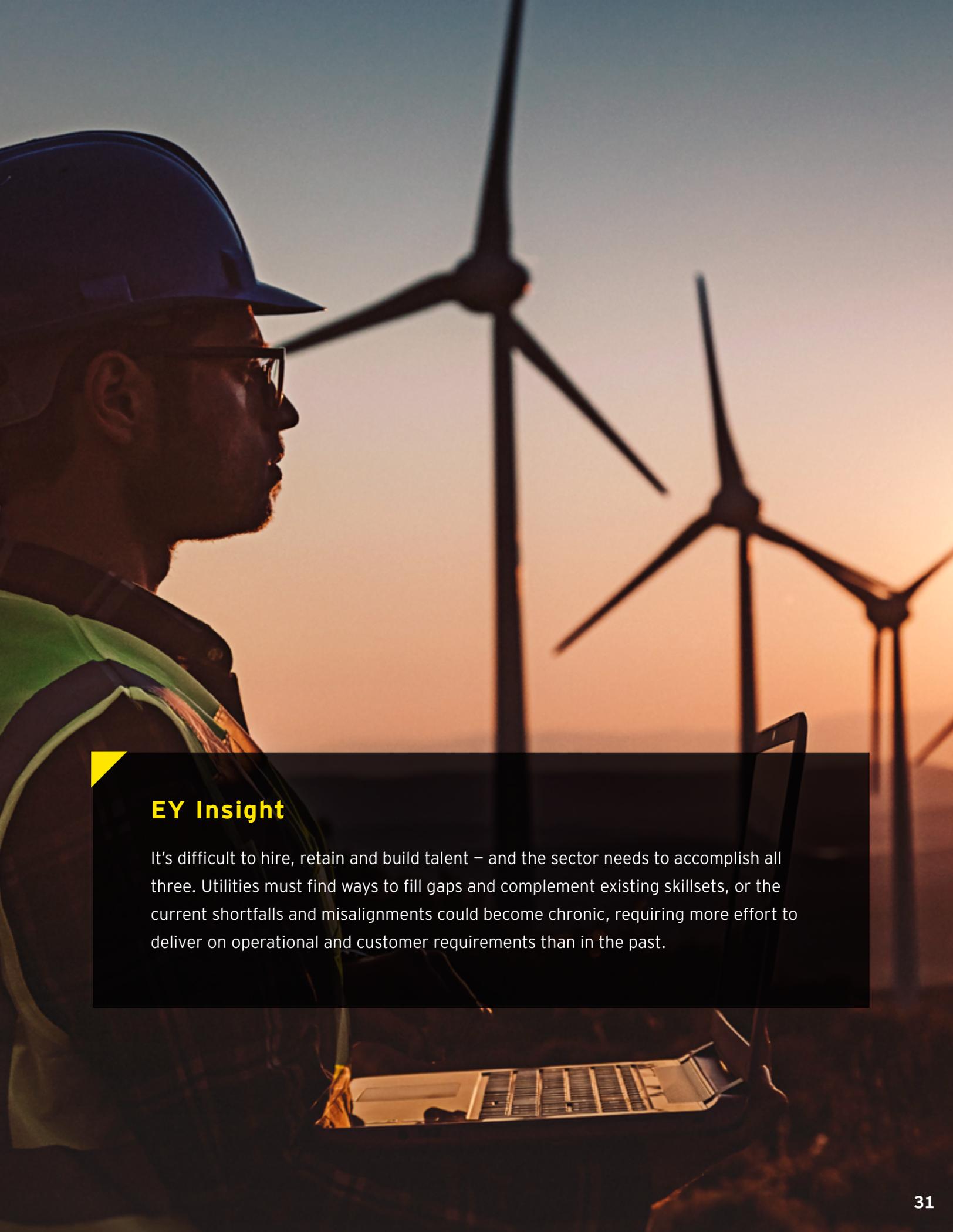
Outside of reskilling or hiring, the most common strategy to address changing skills needs is automation. Currently, it's only being pursued by 35% of P&U organizations, making it common but far from sector-wide.

Organizations intend to take advantage of automation as a way to offload manual work. However, executives provide some of the lowest marks for maturity in the areas of RPA, use of bots and AI, so the skills needed to realize the benefits fully may not yet be available. Most utilities are therefore focused on redirecting employees from repeatable, transactional tasks to those requiring a deeper analytical approach. In doing this, organizations can unlock value for the business, customers and employees in ways they have not been able to previously.

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At the end, it's always the people that make the final choice. The people ask the right question, the machine tries to give a good answer, and at the end, it's once again the person who says okay or not. The machine enables; the person answers.

SENIOR EXECUTIVE, DIGITAL POWER UTILITY



## **EY Insight**

It's difficult to hire, retain and build talent – and the sector needs to accomplish all three. Utilities must find ways to fill gaps and complement existing skillsets, or the current shortfalls and misalignments could become chronic, requiring more effort to deliver on operational and customer requirements than in the past.



# Conclusion

Disruptive forces – such as digitization and decarbonization – are only accelerating, and the end of the pandemic is not going to bring a respite for P&U companies. Strategic priorities must be identified, addressed and funded concurrently, and the path forward involves not only the right investments in technology but also in employee skillsets and mindsets.

There isn't a one-size-fits-all solution – instead, key questions should be considered as you move forward:

- 1 Set your strategy for transformation**  
Do you have a comprehensive view of your needs and resources to prioritize efforts strategically and position your organization for success, both now and in the future? Are your leaders aligned on the value of and pathway to digital and around the process and priority of unlocking your workforce's potential? If you wait to invest, you will likely sacrifice talent to more proactive sectors. Skills, adaptivity and continuous learning cultures will be a competitive advantage.
- 2 Identify your talent needs**  
Do you have an accurate understanding of your employees' current skills and development potential, and, therefore, a sense of how many will need to and can be reskilled or upskilled? What are the current maturity, availability and access levels of critical skills within your organization and local market? What systems are necessary to begin to consistently and accurately measure those levels? This is crucial for understanding where gaps exist between your digital and skill investments.
- 3 Determine how to reskill and upskill**  
What tools, partnerships and other resources exist or are available to aid in this transformation, and which still need to be identified, forged or acquired? To build, encourage and incentivize learning, you can develop recognized accreditations such as learning badge programs and create curricula that curate open-source learning materials that align with on-the-job learning experiences.
- 4 Identify and eliminate roadblocks to change**  
What structural and cultural barriers exist in your organization? These can include a lack of leadership support amid competing priorities, general resistance to change, entrenched values and mindsets, and governance and organizational design elements that hinder flexible, rapid decision-making and innovation.

As utilities implement new technologies and processes to meet consumer needs and decarbonization demands, focusing on workforce and culture issues can make a true transformation possible.

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## Footnotes

1) "Sustainable and Smart Mobility Strategy - putting European transport on track for the future" <https://ec.europa.eu/transport/sites/transport/files/legislation/com20200789.pdf>.

2) EY, "Electrification of road transport promises environmental and commercial gains" [https://www.ey.com/en\\_gl/energy-resources/when-does-reinventing-the-wheel-make-perfect-sense](https://www.ey.com/en_gl/energy-resources/when-does-reinventing-the-wheel-make-perfect-sense).

3) Edison Electric Institute, "EEI celebrates 1 million electric vehicles on U.S. roads" <https://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Celebrates%201%20Million%20Electric%20Vehicles%20on%20U-S-%20Roads.aspx>.

4) EY, "US distribution utilities must find the upside in disruption if they are to orchestrate an intelligent and interconnected electricity system" [https://www.ey.com/en\\_gl/power-utilities/in-an-accelerated-energy-transition-can-us-utilities-fast-track-transformation](https://www.ey.com/en_gl/power-utilities/in-an-accelerated-energy-transition-can-us-utilities-fast-track-transformation).



**Cyntressa Dickey**

EY Global and Americas People Advisory Services - Energy & Resources Leader  
cyntressa.dickey@ey.com



**Ryan Levine**

People Advisory Services Principal  
ryan.levine@ey.com



**Hetal Patel**

People Advisory Services Senior Manager  
hetal.patel@ey.com



**Laura Sciuto**

People Advisory Services Manager  
laura.sciuto@ey.com

 [Learn more on ey.com](#)

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