Power, Utilities & Renewables

UNDER THE SPOTLIGHT

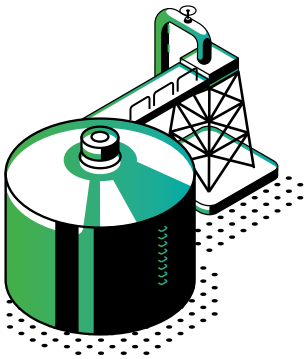
Deloitte.

From Great Resignation
to Great Reimagination

Sector overview and 2022 outlook

The power, utilities, and renewables industry is in a period of extreme transformation as power generation is as the forefront of energy decarbonization.

This seismic transformation of the industry is characterized from a workforce perspective by many forces including a dramatic increase in digital skill needs over the last decade, expected significant job growth due to decarbonization, as well as changes in some core power generation jobs as coal and other fossil-fuel power plants are retired. All this even before we entered the Great Resignation.



These workforce considerations are underpinned by core industry shifts including:

- Decarbonization of electricity generation driving changes in talent needs with 48 of 55 large US Investor-Owned Utilities having plans to reduce carbon emission[1] as evidenced by 86% of new generation capacity in the U.S. added in the first eight months of 2021 coming from wind or solar.[2]
- New grid resiliency strategies and technologies needed due to unprecedented weather events.
- Flexible load programs and digital transformations are on the rise with 5G and Cloud having the potential to expedite the clean energy revolution.
- Building electrification is impacting utility planning.

Drivers of staffing challenges

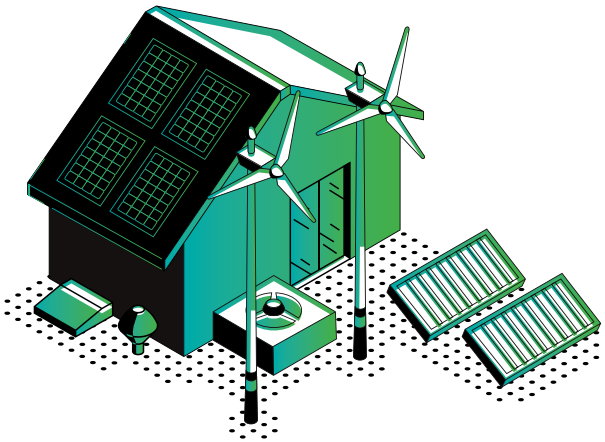
On top of what's required to support and make the utility industry's future possible, there is an on-going battle for talent.

With many companies facing significant hurdles on talent acquisition, employee retention and engagement have been exacerbated over the last two years.

We're seeing the digitization and decarbonization of the utility industry combined with a significant portion of the employee population nearing or at retirement.

The difficulties around acquiring, retaining, and engaging talent has been due to several labor dynamics and employment trends both pre-and-post-pandemic, including:

- Unfavorable reputation on climate change that hurt the overall industry brand and the ability to attract talent, more significantly within the new generations.
- Significant job growth for core electric utilities driven by decarbonization of the power industry (a 2035 decarbonization scenario for electric utilities would result in the growth of 1.4 million job in the core power sector).[3]



- At the same time, the transition away from coal generation is creating a changing workforce need. Of the 79,711 current coal workers in the US, about 17,775 are expected to retire by 2035 providing 61,936 employees (3,871 per year) available to be retrained by utilities.[4]
- Increased demand for seven key digital skill clusters (automation, cloud, cyber, data analysis, data management, connected technologies, and software development) over the past decade. These are the same skill clusters growing in other industries.[5]
- Lower barriers for job switching into other industries, enabled by work from anywhere policies and technologies being massively adopted by all kinds of companies, especially impacting retention of back office and non-engineering workers.

Implications for the organization

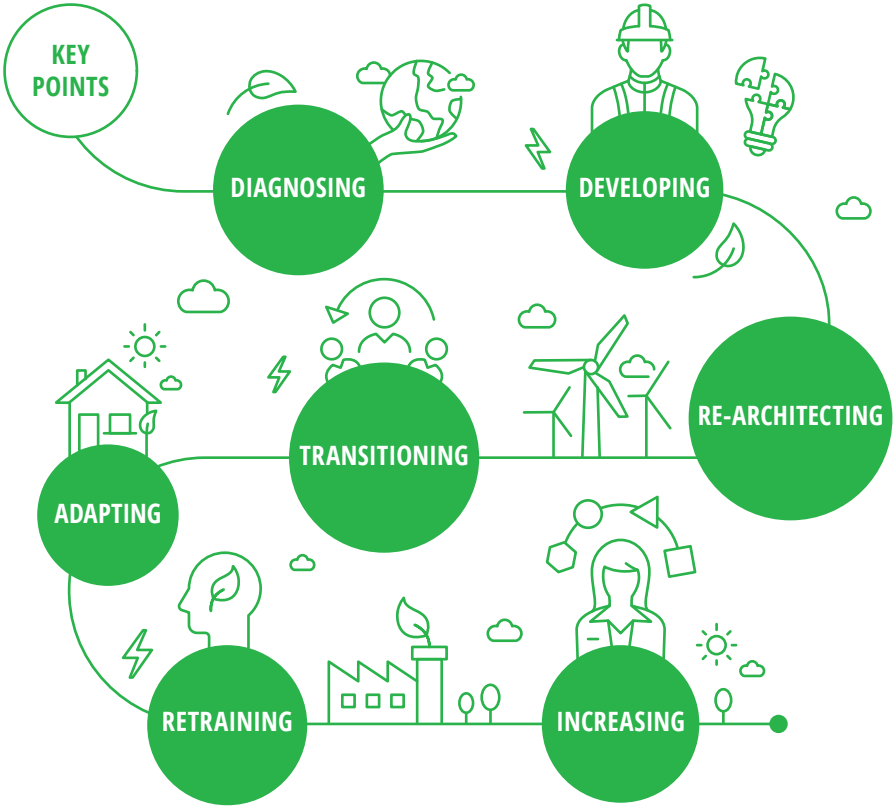
Recognizing the impacts not only on business operations but on the organization and even the entire talent ecosystem will help companies prepare and thrive through the needed transformations.

Key implications and opportunities include:

- Reframing the narrative around low carbon (or zero carbon) power generation efforts to reshape the industry brand by educating and involving diverse groups of employees and stakeholders to mitigate difficulties in employee attraction and retention—especially with younger generations.
- Retaining critical capabilities and digital skills, as well as reskilling to manage new software/technologies to support smart operations and develop a strong understanding of data to interpret system outputs of the digitized grid.
- Retraining portions of the existing workforce (e.g., employees in coal-power generation) and focusing on new talent pools will be key to meet the rising employment needs of the industry.
- Redesigning internal and customer-facing workflows to more tightly integrate hybrid teams composed of employees, contractors, and technologies that will demand new sets of skills and enrich roles.
- Augmenting most roles evolving to incorporate new technologies and processes, leading to a more efficient and effective output, as well as the managing of a collaborative workforce of humans and technologies.

It's time to take action

The power industry is at a truly transformational point in its history. An environment like this leads to unique opportunities to differentiate and improve.



Seven practical actions organizations can focus on to address the dynamics in the industry are:

#1 DIAGNOSING

and developing new employee value propositions to redirect the narrative on the role of the power sector in electrifying the economy, moving toward low/zero carbon power generation, the value of sector to local communities and society, new commitments to sustainability, and the role of power companies in digital innovation.

Recruiting from new pools of talents from groups that have traditionally been under used.

#2 DEVELOPING

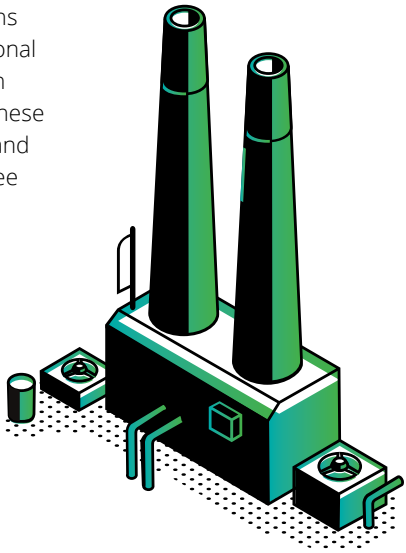
and recruiting from new pools of talents from groups that have traditionally been under used and adapting the workplace accordingly. Examples include remote and/or part-time engineering for qualified people with caretaking responsibilities, creating a remote-to-physical workplace for ex-offender training and reintegration (subject to regulatory approval), and developing more transparent communication protocols and sensory rooms for neurodiverse talent. Apprenticeship programs for each of these groups and other populations who may lack traditional higher education can further strengthen these recruiting channels and retain these employee groups.

#3 RE-ARCHITECTING

the work, career paths, and incorporating greener jobs, together with creating differentiated benefits and talent management programs can help secure the return and retention of the workforce.

#4 TRANSITIONING

one-size-fits-all rewards strategies to flexible and more customized by employee personas that will help reimagine the employee–employer relationship by designing new employee experiences.



#5 ADAPTING

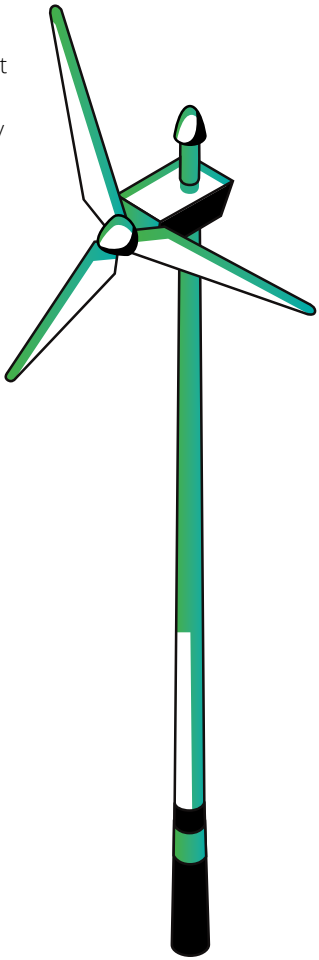
the workplace, policies, and methods to create new physical, digital, and organizational environments to support hybrid work where possible.

#6 RETRAINING

the workforce from fossil-fuel power generation plants to meet the increased employment needs in the power sector driven by decarbonization and to meet the needs of repurposed fossil-fuel power generation plants (e.g., renewable energy, manufacturing/logistics hubs, data centers, etc).

#7 INCREASING

flexibility and employee preference on internal mobility through transparent job marketplaces that will help secure complementary skills and experiences for a more dynamic and adaptable workforce.



READY TO REIMAGINE WHAT'S NEXT?

[1] Smart Electric Power Alliance, "Utility Carbon-Reduction Tracker™," accessed November 2021.

[2] Federal Energy Regulatory Commission, Office of Energy Projects, "Energy Infrastructure Update—New generation in-service (New build and expansion)," August 2021 and December 2020, 2019, 2018, 2017, and 2016.

[3] Deloitte analysis; Energy Information Administration (EIA): US energy & employment reports 2016-2020; Princeton, *The net-zero America report*; Wood Mackenzie.

[4] Deloitte analysis; US BLS; US energy & employment report; Sustainable Development Solutions Network (SDSN).

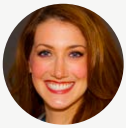
[5] Deloitte analysis of data from Burning Glass Technologies.

CONTACTS

BRAD DENNY
DC PRINCIPAL
braddenny@deloitte.com

ANDREA KNABE
DC PRINCIPAL
aknabe@deloitte.com

DEBBIE MEROVITZ
MANAGING DIRECTOR
dmerovitz@deloitte.com



KAREN CUNNINGHAM
MANAGING DIRECTOR
kcunningham@deloitte.com

CONTRIBUTORS AND ACKNOWLEDGEMENTS
CARLOS LARRACILLA, DELOITTE ENERGY, RESOURCES & INDUSTRIALS MARKET INSIGHTS TEAM.

Deloitte.

This publication contains general information and predictions only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional adviser. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

About Deloitte
Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our global network of member firms and related entities in more than 150 countries and territories (collectively, the "Deloitte organisation") serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 312,000 people make an impact that matters at www.deloitte.com.

Liability limited by a scheme approved under Professional Standards Legislation.

© 2022 Deloitte Touche Tohmatsu

20220119_THEAGENCY_05/22