

NAVIGATING ENERGY DEMANDS: WORKFORCE, TECHNOLOGY, **AND AI SOLUTIONS**

The power industry is under pressure—rising energy demands, workforce shortages, and rapid technological advancements are Engineering surveyed power and utility professionals, including

reshaping the field. To understand these challenges, Doble engineers, technicians, and industry leaders. Here's what they revealed about today's top challenges and future priorities.



The Power Industry's Top Challenges

Grid Pressures are Growing:

73%

say keeping up with energy demand is a top challenge.

63%

report concerns about aging grid infrastructure.

are focused on modernizing operations.

51%

33% are tackling renewable energy integration.

14%

are concerned about extreme weather resilience.



98%

But the workforce crisis is even bigger:

Struggle with hiring & retention.

69%

16%

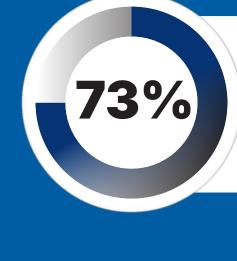
Cite workforce shortages & lack of training.

Say keeping existing talent engaged is a challenge.

are urgent priorities.

Workforce gaps threaten modernization efforts—hiring and upskilling

Al Adoption is Accelerating



role in power infrastructure.

Report leadership pressure to adopt AI, reinforcing its growing

Which Emerging Technologies Hold the Most Promise?

Automation (41%)

Predictive Analytics (33%)

Ranked #1 most impactful technology.

Ranked in the top 2 for efficiency gains.

AI & Machine Learning (22%)

5G & Cloud, Generative AI, and IoT (9%)

Show potential, though rankings suggest they are still in early adoption stages.

Gaining traction, consistently ranking among the most promising technologies.

Power professionals see automation and predictive analytics as the biggest

drivers of efficiency, while AI and emerging tech continue to gain momentum.

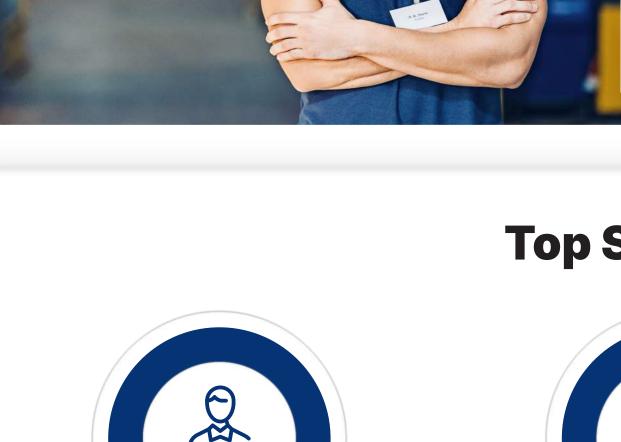
Power professionals report major

Workforce Priorities

workforce challenges, with leadership skills in highest demand and hiring as the #1 priority for 2025.

& Skill Gaps

Top Skill Gaps



41% need more engineering expertise.

Other gaps: 27% Soft Skills



20% lack **data &**

67% say leadership

& management skills

are in highest demand.

29% Theoretical

Addressing these challenges is a major priority for teams in 2025.

2025 Worktorce Priorities

35% are investing in **digital transformation**

and automation initiatives.

41% are working on **grid reliability**.

88% are prioritizing hiring new workers.

47% are focusing on upskilling & reskilling.

Hiring alone isn't enough—companies must invest in workforce development & training to address critical skill gaps and ensure long-term grid reliability.

Who Took This Survey? Industry Professionals Represented in the Survey Electrical Engineer (20%)

Engineering Specialists (10%)

Substation Engineer (18%)

Field Service Technician (15%)

Other roles (24%)

Asset Supervisor (8%)

Test Technician (5%)

14% (66+)

12% (26-35)

4%(18-25)



24% (55-65)

