

Energy Industry Embracing the Internet



Overview

The report examines the impact of digital technologies on energy demand sectors, looks at how energy suppliers can use digital tools to improve operations, and explores the transformational potential of digitalisation to help create a highly interconnected energy system. In 2025, the energy sector is accelerating its digital transformation to meet ambitious decarbonisation and efficiency goals. Artificial intelligence, digital twins, and IoT are reshaping operations, while cybersecurity and data-driven decision-making are becoming essential enablers of resilience. The energy industry is experiencing a significant transition towards decentralisation, decarbonisation, and digitisation. This transition will provide new opportunities and challenges for investment and growth for both domestic and international players. Energy stakeholders have recognised that. the Energy and Utility (E&U) industry in 2025 and beyond. AI-the #1 AI platform for Connected Experiences across customers, grid, and workforce-it is grounded in real-world insights from over 450+ utility partnerships worldwide. Technology is improving energy management and accelerating the adoption of. From AI and IoT to microgrids and energy management systems, gain insights into emerging trends, market statistics, real-life examples, enabling technologies & more! Global energy consumption is projected to increase by nearly 50% by 2050, primarily driven by economic and population growth in. Digitalisation is helping improve the safety, productivity, accessibility and sustainability of energy systems around the world.



Article Content

10 Important Digital Transformations in Energy & Utilities

Rising energy needs from industrial, manufacturing, and commercial sectors are accelerating overall demand, especially in regions reshoring production and expanding logistics infrastructure.

The internet consumes extraordinary amounts of energy. Here's how we ...

How much energy does the internet use, and - given recent technological advances - could it ever run on renewable

Digital Solutions for the Energy Sector

Introduction The energy industry is experiencing a significant transition towards decentralisation, decarbonisation, and digitisation. This transition will provide new opportunities and challenges for

Emerging information and communication technologies for smart energy ...

To address the challenges, incorporating emerging information and communication technologies can facilitate both the design and operations of future smart energy systems with high

Digital Transformation in The Energy Industry | Diversegy

In today's rapidly evolving technological landscape, the energy sector stands at the forefront of innovation and transformation. This article explores the

What is Energy Internet? Concepts, Technologies, and Future Directions

The climate change crisis, exacerbated by the global dependency of fossil fuels, has brought significant challenges. In the medium to long term, extensive renewable-energy-based

Top 10 Trends and Innovations in Digital Transformation

Discover the top 10 trends and innovations in digital transformation for the energy industry. Learn how technologies like AI, IoT, and blockchain are reshaping

Here are 5 reasons why we need an "Internet of Energy"

With the advent of the Internet of Things, these two revolutions are rapidly converging and will ultimately result in an "Internet of Energy".

Digital Solutions for the Energy Sector

This report looks at challenges shared across the UK energy sector, as well as digital interventions that will enable the UK energy ecosystem to deliver low carbon energy faster and more reliably.

Why AI and energy are the new power couple -

The energy industry will need to compete to recruit the best data scientists and programmers, while firms looking to retain staff that understand

Industrial Internet of Things (IIoT) in the Energy Industry

Industrial Internet of Things (IIoT) in the Energy Industry Jeff Katz CTO, Energy, Environment and Utilities IBM Energy Task Group Co-chair Industrial Internet Consortium

How Hybrid Cloud and Edge Computing are

The energy industry is undergoing a significant transformation, driven by advancements in digital technology and the ever-growing need for real-time

Digitalization: a threat and opportunity for energy

Digitalization represents the challenges from cyber threats, and solutions from digital technology, in delivering energy needs and security. Energy

From traditional to digital: The paradigm shift in the energy sector ...

From Traditional to Smart: Digital Technologies and Green Innovation in Energy Management The energy sector has experienced a significant shift recently due to the use of digital

5 digital trends transforming the energy sector in 2025

Discover five key digital trends transforming the global energy sector in 2025, from AI-driven grids to predictive maintenance and renewable integration.

Digital Transformation: Shaping the Future of the

This article discusses what's driving the energy industry to digitize and embrace renewable sources. We'll also explain the technologies you can

Digital transformation in oil and gas | Deloitte | ER&I

Industries are embracing technology to reshape their operating landscape and reap the benefits of improved productivity, higher efficiency, and

From traditional to digital: The paradigm shift in the energy sector ...

Six key research topics identified to expedite energy sector's digital transition. There has been a sudden transformation in the energy sector driven by the rise of digital technologies and

Digital Transformation of the Energy Industry: How

Discover how digital transformation is reshaping the energy industry. Explore key technologies like AI, IoT, and blockchain, the challenges of modernization, and

The Energy Internet

Integrating renewable energy with Internet connectivity can help to sustain economic development and reduce poverty without fueling a climate catastrophe.

Impact of Digital Transformation on the Energy Sector:

Digital transformation is a phenomenon introduced by the transformative power of digital technologies, and it has become a key driver for

Digitalization and Energy - Analysis

The report examines the impact of digital technologies on energy demand sectors, looks at how energy suppliers can use digital tools to improve operations, and

Energy Sector Embraces Digital Transformation:

Industry 5.0 is a framework for re-imagining the future of energy, manufacturing, mobility, and supply chains that build upon and complement the

Embracing the Digital Future: How Energy Industry

Ultimately, the future of the oil & gas industry will be shaped by the decisions that companies make today. Industry leaders can survive and thrive in

Digital technologies for a net-zero energy future: A comprehensive ...

In conclusion, integrating robotics in the energy industry offers opportunities to optimize energy systems, reduce costs, and enhance sustainability. By automating tasks, deploying

The energy ecosystem should move to make the

Only with such an open energy ecosystem can we adapt to the highly volatile — some might even say unpredictable — market conditions we face in

Digital Transformation in Energy: Top 10 Technologies

Discover how digital transformation in the energy industry - driven by AI, IoT, and more - increases efficiency, sustainability & resilience!

Contact Us

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