

## 2026 Utility Trends: The Race to Rule the Energy Future



### A New Global Energy Arms Race is ON



“Utilities now stand at the center of a global competition - reimagining infrastructure, decarbonizing operations, and integrating next generation technologies at unprecedented speed.”

Carol Johnson, VP, Energy, Utilities and Resources, IFS

## Top Utility Predictions for 2026

### Prediction 1

#### IoT Led Utility Grids Will Become the Industry’s Default Operating Model

The grid of the future is hyperconnected, digital, decentralized, and self optimizing. To succeed, utilities must shift from reactive operations to real time, predictive and autonomous grid management.



**IoT in utilities is projected to reach \$40.87 billion by the end of 2025, growing at a CAGR of 11.3% through 2033.**



### Role of Technology

Utility leaders must navigate a complex landscape where microgrids and decentralization are becoming the norm. Localized energy systems are enhancing resilience and enabling peer-to-peer energy trading, which is a significant departure from traditional centralized grids.

This shift requires a holistic approach to end-to-end asset lifecycle management that spans traditional generation, transmission, distribution and decentralized energy resources (DER).

## Key Technologies Driving Transformation

Industrial AI powered asset lifecycle management, IoT, automation, and grid edge software enables:



**AI and IoT are enabling real-time load forecasting, predictive outage prevention, and automated diagnostics, making grid operations more efficient and reliable.**



**Utilities are shifting from reactive to proactive operations using edge devices, smart sensors, and machine learning algorithms**



**Grid-edge software and DER integration facilitate decentralized control, predictive maintenance, and consumer participation in energy markets**



**Vehicle-to-Grid (V2G) technology is expected to see exponential growth post 2028**

IFS solutions are playing a crucial role in this transformation, providing comprehensive full asset lifecycle management capabilities, predictive maintenance, and real-time data analytics, which are essential for optimizing grid operations and ensuring reliability.



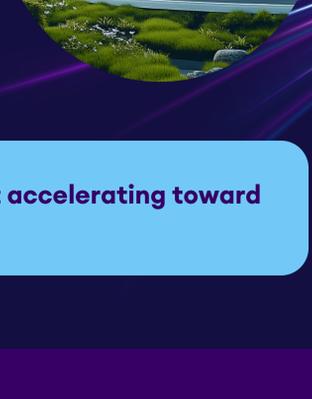
**Explore AI-Powered IFS Solution for Smarter Utility Operations**

[Learn more](#)

### Prediction 2

#### Small Modular Reactors (SMRs) Will Become the Next Big Bet in Firm Clean Power

As utilities face mounting pressure to deliver firm, zero carbon power, SMRs offer a scalable, flexible alternative to aging fossil plants - bringing baseload reliability without massive upfront megaproject risk.



**Global SMR market accelerating toward \$40-50B by 2035**



### Role of Technology

Leveraging technology to enhance operational efficiency, safety, and regulatory compliance for SMR deployments is crucial for success.

## Key Technologies Driving Transformation



**IoT and SCADA integration provides a digital backbone, enabling real-time monitoring of reactor conditions and asset health**



**AI-driven insights forecast equipment failures and optimize maintenance schedule**



**Project lifecycle management solutions provide an end-to-end visibility across engineering, procurement, construction, and commissioning phases**



**IFS Cloud is uniquely positioned to support the complex needs of SMR operators, offering a unified platform for assets, projects, and compliance management.**

[Learn more](#)

### Prediction 3

#### Geothermal Will Emerge from Shadows in the Clean Energy Race

Long overlooked, geothermal is now one of the most scalable and politically viable sources of firm renewable power—offering 24/7 clean energy with a global potential 140x current human electricity need.



**Global geothermal capacity expected to grow 4x by 2050**



### Role of Technology

- Next-generation technologies like Enhanced Geothermal Systems (EGS) and Advanced Closed-Loop Systems (ACLs) are unlocking geothermal potential in places previously deemed unsuitable
- AI optimized drilling and resource mapping
- Predictive analytics for reservoir & equipment performance
- Lifecycle management from drilling to decommissioning

IFS solutions are designed for complex, asset-intensive operations. With world-class Enterprise Asset Management (EAM) for tracking geothermal assets throughout their entire lifecycle from investment planning, through construction, operations, and ultimately decommissioning.

**IFS EAM:** [Learn more](#)

## The World Is Rewriting the Energy Playbook—Utilities Must Lead or Be Left Behind

The energy transition is no longer a policy discussion—it’s a global competition with massive economic, geopolitical, and environmental stakes. Utility leaders who invest now in digitization, autonomous operations, advanced nuclear, and geothermal innovation will define the next era of energy resilience and growth. Those who delay risk falling behind as infrastructure ages, customer expectations shift, and new technologies accelerate.

### Are you ready to lead the transformation?

Explore our expert-led IFS webinar discussing the top utility trends and predictions shaping the global energy landscape in 2026.

[Watch Now](#)