

An IFS Technology Spotlight for Utilities



Optimize Budgets and Increase Productivity within Complex Utility Operations



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Introduction

Operational complexity within the utility sector continues to skyrocket. While most organizations deal with some complexity, utilities face unique challenges, including a rapidly evolving power grid, the urgent need for infrastructure renewal, and unpredictable—and often devastating—weather events.

These are complex and multi-layered challenges.

Utilities already have abundant assets and a large workforce to help manage complex operations. Now, utilities are turning to technology to improve efficiencies across the business.

In this technology spotlight, we examine the industry's current state with proven tips to help you launch initiatives within your utility organization that reduce operational complexity, optimize budgets, and increase productivity.

The Rol Imperative

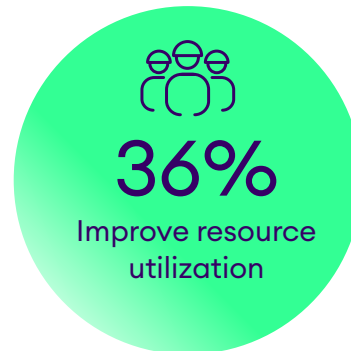
Before taking any action, ensure your project is sound and that it aligns with the goals of the business.

The leveler in all Rol (Return on Investment) calculations boils down to time and money. What is the amount of capital you have to fund the project? What is the desired timeline? And most importantly, do you have the available resources to support the work?

Finally, use quantifiable metrics to measure success. Don't generalize. If your project is meant to improve sustainability, provide hard numbers that reflect the expected impact on emissions, the utility's carbon footprint, and/or efficiencies gained by optimizing assets.

Once your Rol framework is established, you will have the blueprint to deliver a successful project.

Top 3 Critical KPIs for Utilities



As ranked in the [IFS Global Utility Survey 2024](#) of 800+ c-level executives and VPs

Make informed decisions with a **strong capital investment** strategy

Navigating a blended environment that includes aging infrastructure, next-generation assets, and renewables is complex. It's also very unpredictable. Every time you feel like you're gaining momentum, something breaks.

Add climate change to the mix, and you face a never-ending cycle of unexpected failures that are difficult to anticipate and expensive to reconcile. And it's not just aged assets. Today's utility also faces the loss of new assets due to wildfires, floods, and other disasters.

All of these scenarios must factor into the capital investment decision-making process, from the predictable decline of infrastructure to the unexpected weather events that result in losses.



Tip 1:

Work objectively

While previously, it may have been the loudest voice in the room that secured the capital, that model doesn't work anymore. Instead, the process must be objective—and subjective—relying on data from across the utility to help inform decisions.

Every seat at the table has a different stake in the game. The CFO considers the financial implications, the maintenance team wants to manage better and evolve the operation, and the sales and support teams advocate for investment in customer service and new lines of business.

Your capital investment strategy must consider all of these perspectives.

Use data from across the organization to level-set expectations and validate the path forward. Look across your entire portfolio. Weight the perspectives and objectives of each department equally so that all wheels—not just the squeaky ones—are considered for their fair share of the oil.

Tip 2:

Build agility into your strategy

Control is elusive, especially given all of the variables present in the day-to-day operations of a utility.

Capital investment decisions must be agile and capable of change so the operation moves fluidly in response to whatever may happen—from supply chain disruptions to devastating weather events.

Build a strategy that is resilient and road-tested. Draw insights and learnings from lived and anticipated experiences. Perhaps you lost assets due to a wildfire or some other failure, and now your budget is in pieces because all the money earmarked for an important project must be invested in building back. Or building differently, for example, undergrounding lines to protect from future losses.

A resilient capital investment strategy enables you to input new information that reflects the unanticipated, generating viable options that support the new reality.

Tip 3:

Prepare for greater scrutiny by investors and regulators

The regulatory environment is also evolving, with increased oversight of utility performance.

Each time there is a service disruption where people are left in the dark or cold, it's increasingly likely that the operation will be scrutinized and questioned to determine what has been done to improve grid reliability.

Greater focus is placed on previous funding and how it was spent, whether the utility delivered the promised result, and, if so, quantifiable proof that these outcomes were achieved.

Increasingly, utilities must answer for prior investment decisions to justify future spending, so expect these same questions the next time you appeal for new funding.

Your capital investment strategy provides all the information you need to manage these scenarios, including the objectives, goals, and quantifiable results of each initiative.

The role of data and technology

Effective capital investment strategies are built upon data-informed decisions. Fortunately, utilities are data-rich, with the industry generating about **100 – 200 exabytes of data each year**.

With the right tool set, these vast stores of intelligence provide you with all of the information you need to build your plan.

Utilities globally rely on IFS to draw operational and business data to support their capital investment strategies, with capabilities that include:

- **Asset Investment Planning (AIP)**
- **Enterprise Resource Planning (ERP)**
- **Enterprise Asset Management (EAM)** which includes end-to-end
- **Asset Lifecycle Management (ALM).**

The IFS solution helps identify those projects under consideration that best support the goals of the business. It also provides the utility with a technology-driven and fact-based business case to present.

Such a concise plan allows regulators to quickly validate the project's efficacy, including the objectives, costs, and success metrics to support the funding request.

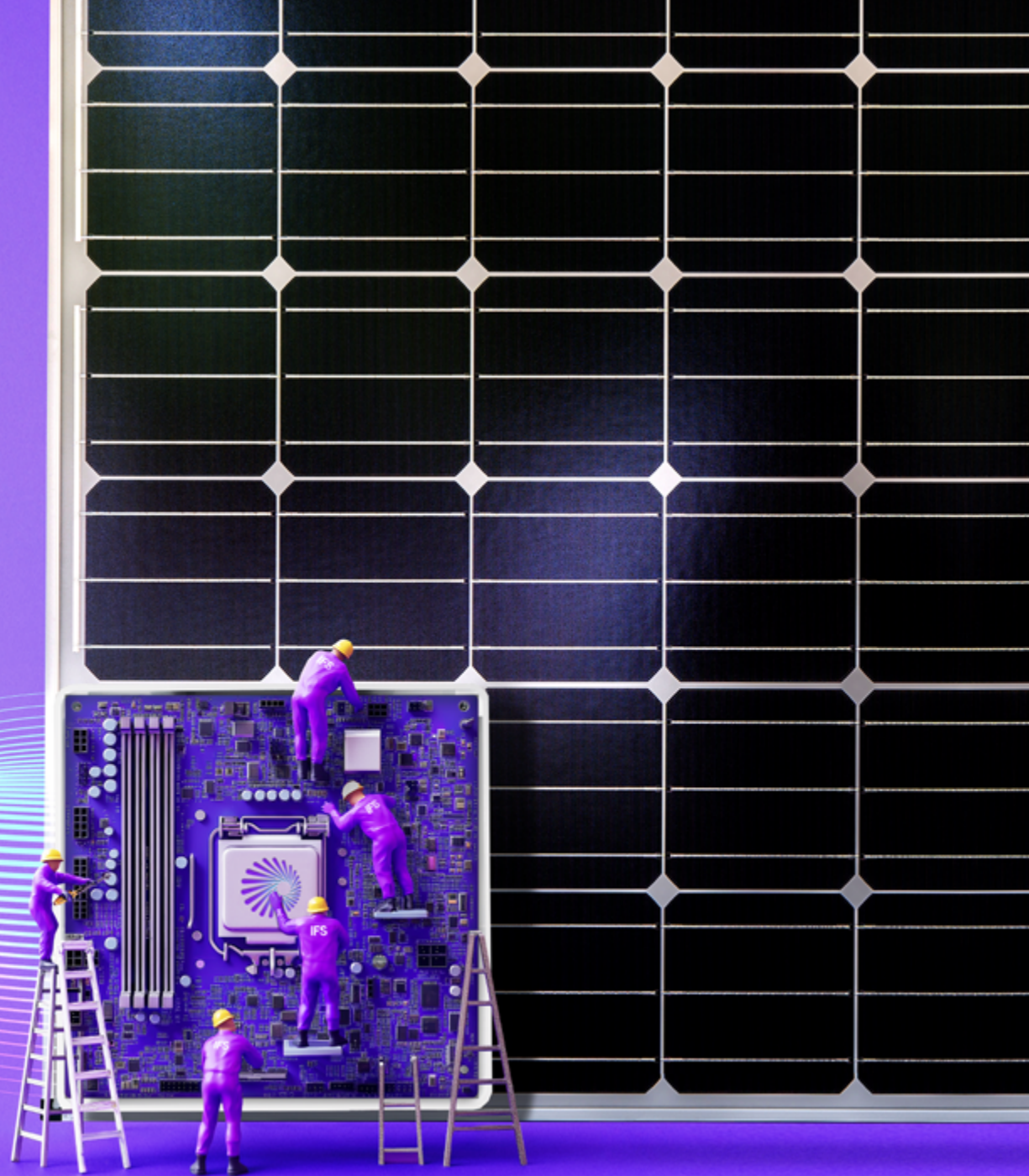
Most importantly, the utility benefits from informed business decisions and investments, optimizing mission-critical infrastructure to meet immediate and future needs.

Future-proof your operation

Transformation within the industry is well underway, with many utilities leveraging data, analytics, and emerging technology to tackle the work ahead.

And it's a heavy load, with most utilities contending with disruptions due to legacy infrastructure, the rapid evolution of the grid to support a decentralized, renewable energy model, and unexpected climate events that can devastate the community and the business.

By harnessing technology, utilities enhance operational efficiency while evolving into an agile and resilient infrastructure capable of supporting whatever lies ahead.



Tip 1:

Embrace new and emerging tech

The exponential growth of technology is staggering. Consider AI with a computational power that doubles, on average, every six months. Instead of waiting for the next big thing, utilities must hustle to keep up.

One emerging trend within the industry is Agentic AI, a technology supported by Industrial AI, that generates digital agents to perform specific tasks. For example, supply chain management, with the digital agent overseeing and performing all related functions through the entire cycle—from placing orders to the adjustment of production schedules to optimize inventory levels.

By leveraging advances in AI for supply chain management, the utility shortens processing time, removes human error, and reduces costs. Most importantly, it eliminates manual and time-consuming tasks, allowing the human team to focus on higher-value work.

Agentic AI is one example of utilities embracing technological advances to future-proof the business while reducing operational complexity and driving greater workforce efficiencies.

Tip 2:

Hire and retain tech-curious people

Investing in new and emerging technology is a critical first step towards modernizing the organization. However, of equal importance is a workforce willing and able to explore the potential of new technology to serve the business.

The utility benefits when employees are encouraged to ideate and discover new use cases for emerging technology. For example, someone with a background in the supply chain likely conceived offloading management cycles with Agentic AI. Access to new technology is also a way to engage with next-generation workers.

As technology steps up to support the workforce, it's also retaining process and role-based knowledge when the existing employee base is aging out—especially important for utilities with so many unique roles and domain knowledge.

The shift to a more tech-focused workforce extends to the C-suite, where we see new titles such as Chief Sustainability Officers (CSOs) and Artificial Intelligence Officers (AIOs), roles that prioritize technology and data to benefit the business.

Tip 3:

Automate, automate, automate

AI is vital in powering the industry's future, especially in automating operational efficiencies.

Automation enables a more personal and positive customer experience. For example, AI analyzes inbound meter data, determines that a customer's energy bill has been trending higher for several months, and automatically sends a free energy audit offer to determine the cause and potential options for lower consumption.

Another example is field service, where AI automates the workflows needed to resolve a customer service or maintenance issue, helping to determine the most qualified worker closest to the site, the necessary parts and tools required, and even the shortest drive time to attend.

Automation is a critical part of the AI efficiency paradigm, allowing utilities to offload intense, time-consuming work from the backs of humans while expediting timelines and outcomes.



The role of data and technology

IFS solutions are underpinned by **Industrial AI**, which delivers actionable insights that support automation, innovation, and a healthier operation.

Industrial AI uses machine learning and historical/real-time trends based on data collected across the operation. IFS customers use it to drive data-informed decisions, optimize processes, and consistently achieve production and sustainability goals.

With AI, utilities more effectively manage and extend asset management, lifecycles, and infrastructure, driving meaningful savings in resources and time.

Compose and collaborate in the cloud

The cloud is transforming the industry, enabling the rapid adoption of game-changing services and emerging technologies to offset operational complexity. Instead of implementing a monolithic on-premises initiative, utilities pay on-demand, foregoing any significant upfront capital investment with a much shorter time to value.

Agility is another upside, allowing the operation to respond swiftly to market changes and technological advances. Instead of waiting for the next system-wide upgrade to introduce new solutions, point solutions are integrated for immediate returns.

Most importantly, the cloud unifies the operation, supporting better organizational communication and collaboration.



Tip 1:

Enable cloud-based composability

A composable IT ecosystem supports the rapid integration of new and industry-specific technologies, allowing the utility to adapt to changing grid conditions and unanticipated events in a timely and cost-effective manner.

Composable environments support a mix of new and existing applications. The change is cyclical versus wholesale, with old solutions replaced by new ones over time.

A real-life example of the value of composability was the emergence of AI. While initially cautious, the industry quickly got on board, eager to enable the new technology. Composable IT environments streamlined the integration of AI-enabled point solutions, allowing utilities to rapidly leverage AI and all of its efficiencies.

Such a flexible and modular IT ecosystem allows you to respond quickly to changing requirements while enabling the seamless integration of industry-specific applications, services, and functionalities to serve the operation better.

Tip 2:

Build a collaborative OT/IT dynamic

Operational technology (OT) and information technology (IT) often have conflicting priorities. IT emphasizes function and security (cloud systems, networking, processing, data centers, etc.), while OT focuses on a stable and productive operation (equipment, production output, worker safety, etc.). While this yin-yang dynamic occasionally results in tension, it also encourages collaboration.

Aided by a flexible cloud-based ecosystem, the lines are blurring, and today, we see a much better alignment between OT and IT.

For example, IT supports the operational side of the business by examining how a potential OT asset investment will integrate within the existing system. A task made more manageable within a composable cloud environment where integrations are streamlined. IT shares its technical perspective, including whether additional configuration is required and, if so, for how much and for how long.

Leverage your cloud-based environment to encourage collaboration between IT and OT, where both teams work together to support the business's goals.

Tip 3:

Elevate the role of IT

IT has expanded beyond its traditional role of acquiring, deploying, maintaining, patching, and securing software. While this work remains critical to a functioning utility, the focus of IT has shifted to efficiency and scale, just like the business.

For example, IT provides an essential perspective in the short-listing of industry-specific solutions within a capital investment strategy. These technical insights ensure new solutions are tailored to the needs of the utility. Instead of investing in technology that forces the business to adapt, the technology is purpose-built to adapt to the business.

IT contributes deep domain knowledge and expertise to ensure technological applications and assets—whether new or existing—integrate easily into the cloud ecosystem while also aligning with the goals and objectives of the utility.

The role of data and technology

IFS Cloud is built on the **Microsoft Azure** tech stack, providing our clients with unrivaled scalability, flexibility, and security for their cloud-based ecosystem.

The platform is tailored to grow with your business, leveraging the computational power of Azure. Modular solutions—both third-party and Microsoft applications—integrate seamlessly within the system. Azure’s enterprise-grade security and compliance capabilities ensure utilities punch well above their weight.

IT teams leverage [IFS Cloud Services](#) for monitoring, 24/7/365 operations, and change management—reducing complexity and providing a single engagement point for software, support, consulting, and operations.

IFS Cloud and the entire IFS utility tool set are optimized with Azure’s AI, internet-of-things, and advanced analytics.

Next steps

Every success story ends with a positive RoI, and the IFS solution for the utility sector is no exception. Clients globally experience tangible returns with IFS, strengthening relationships with customers, increasing safety, and enhancing the reliability of the operation.



33%

Improved customer experience



31%

Worker and community safety



30%

Asset resiliency & reliability

If operational complexity impacts your utility, **visit our website**, explore the success stories of **IFS utility customers**, or **contact us** for more information.



Download the Executive guide: Top 5 recommendations for utility leaders in 2025, where we discuss key findings from the global utility survey and share guidance for utility leaders to consider when navigating through the utility industry transition and looking for ways to succeed on this journey to become the future utility.

About IFS

IFS develops and delivers cloud enterprise software for companies around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers—at the Moment of Service™. The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector.

Our global team of over 6,000 employees every day live our values of agility, trustworthiness, and collaboration in how we support thousands of customers. Learn more about how our enterprise software solutions can help your business today.

