



# Asset Lifecycle Management: A Strategic Imperative for North American Utilities

# The Case for Change

Utilities are facing a critical convergence of challenges. From decarbonization and electrification to climate volatility and digital disruption, the pressure to modernize is intense. Aging infrastructure, increasing regulatory scrutiny, compounded by increased customer expectations, have stretched existing models. While technologies like IoT, AI, and predictive analytics create new potential to optimize performance and extend asset value, that potential remains largely untapped. North American utilities in particular must confront these issues amid extreme weather events, vegetation management, an aging grid, and a patchwork of regulatory demands at federal, state, and local levels.



According to the **IFS Global Utility Survey**:

- 100% of respondents have initiated digital transformation, but only one-in-five (20%) have completed it.
- 36% of respondents cited asset management as having a key impact on digital transformation.
- 37% identified improved asset lifecycle management as one of the top business drivers for adoption of enterprise software systems across the utilities sector.

Progress on sustainability is equally constrained:

- 46% of C-Suite decision-makers have simply reached the stage of establishing timelines and goals for meeting sustainability targets.
- Less than a third (31%) of respondents overall have hit their first sustainability milestones.

To move forward...

- 43% of respondents say they are primarily improving asset efficiency
- 42% are investing in more energy-efficient assets and infrastructure.

These results highlight a common thread: while the urgency to act is well understood, both strategy and execution are lagging. Many utilities are clear on the outcomes they need to achieve, but lack a detailed roadmap for how and where to invest, and how to build the operational and digital maturity needed to get there. Unlocking progress requires a new operating model for managing assets, risk, performance, and sustainability. **That model is Asset Lifecycle Management.**

# What Asset Lifecycle Management Delivers for Utilities

## **As defined by PwC, Asset Lifecycle**

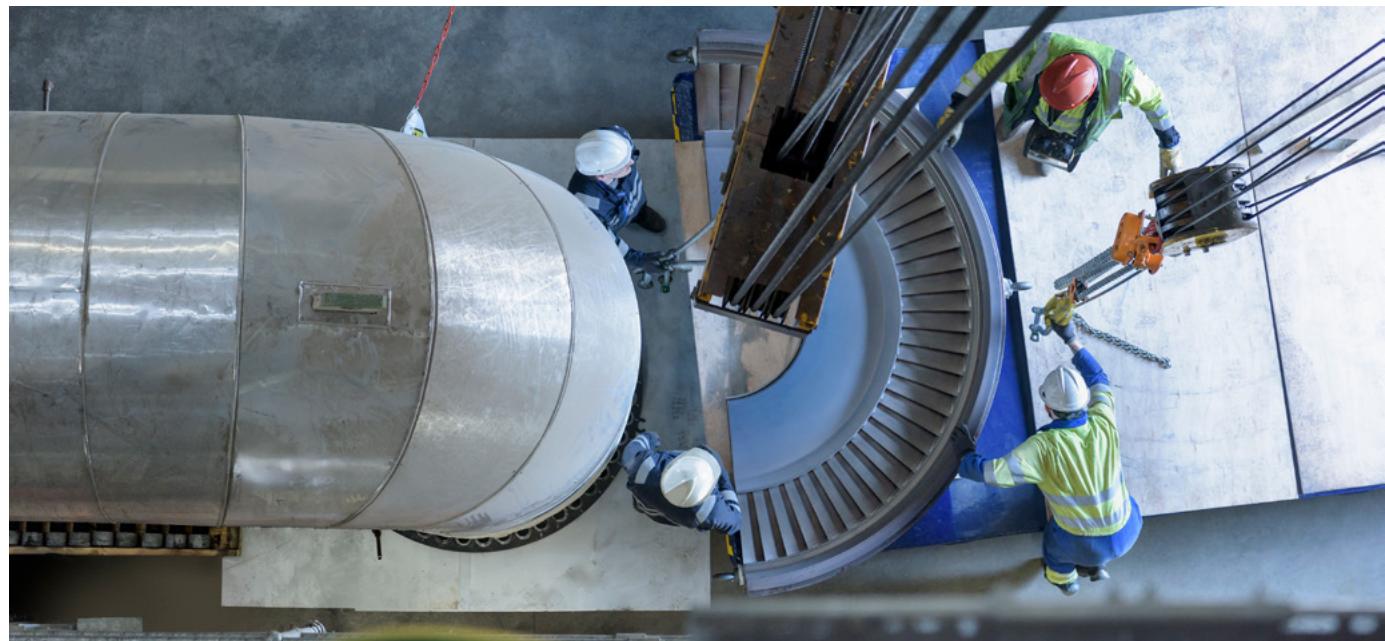
Management (ALM) is the process of optimising the life of an asset and the value gained from it throughout its lifecycle. In context, ALM gives utilities a way to turn transformation goals into measurable outcomes. It provides a structured, data-driven approach to managing physical assets across their full lifecycle - from planning and procurement to commissioning, operation, maintenance, and retirement.

ALM addresses the barriers surfaced in the IFS Global Utility Survey and across the wider industry. It enables a shift from reactive firefighting to proactive, risk-based asset planning. This allows utilities to proactively manage risk, preventing a future accumulation of risk due to chronic under-investment or suboptimal investment. It also allows capital to be deployed more strategically, ensuring that funding is directed to the projects and infrastructure that offer the greatest operational and financial return, while protecting reliability and service obligations.

Operationally, ALM unifies data and decision-making across finance, operations, maintenance, and the field. It supports predictive maintenance, aligned capital planning, and near real-time visibility into asset performance, cost, and risk. This reduces outages, accelerates regulatory reporting, and strengthens investment governance.

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**In summary, ALM transforms asset management from a cost center into a strategic enabler. It supports financial discipline, regulatory alignment, and long-term resilience, making it foundational for utilities that want to modernize for a more resilient future.**

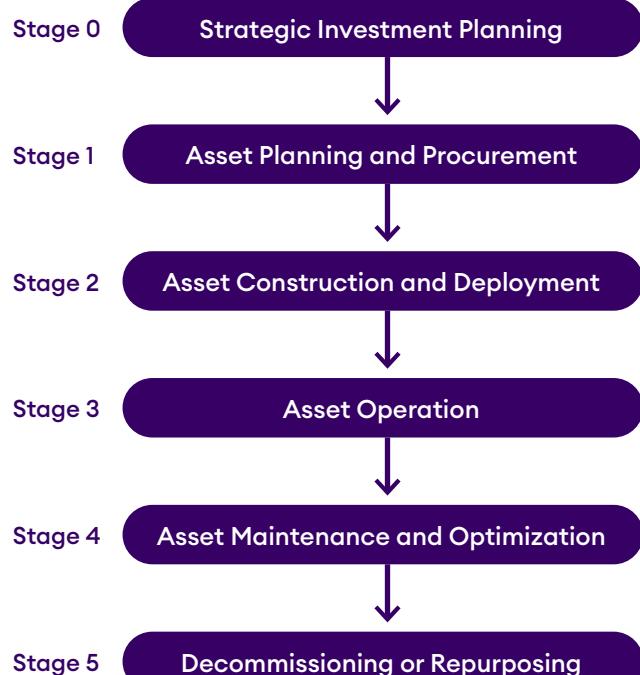


# The Only Complete Asset Lifecycle Management Solution

According to the IFS Global Utility Survey, the most common barriers to digital transformation include difficulties using enterprise software, measuring ROI, and aligning priorities. These challenges reflect a deeper issue: **fragmented systems and disconnected data are slowing progress and limiting returns across utility operations.**

This is particularly evident in North America, where the utility landscape is highly complex. For example, large investor owned utilities (IOUs) may include multiple operating companies spread across regions, each with their own systems and processes. In addition, many utilities manage multiple service lines such as electric, gas, and water within a single organization, which further contributes to data silos between departments and asset classes.

IFS solves this with the only complete ALM solution built for utilities. Our AI-powered platform manages every stage of the asset lifecycle. From long-term strategic planning to daily execution, in a unified environment. This eliminates the silos, manual processes, and integration gaps that undermine performance and delay progress.



At the start of the lifecycle, IFS' AIP Solution helps utilities evaluate trade-offs, assess risk, and prioritize investments by value, cost, and ESG impact. Approved plans flow seamlessly into integrated workflows for capital project delivery, asset and work management, field operations, and maintenance - right through to end-of-life decisions on decommissioning, replacement, or repurposing based on real-time performance, cost, and risk data.

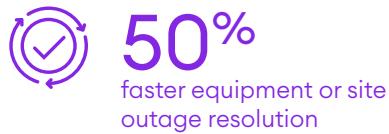
Continuous operational and financial data sharing creates a closed-loop system. [More than 200 embedded AI capabilities](#) maximize capital equipment and workforce utilization, improve procurement efficiency, provide predictive insights, automate routine tasks, and support faster, more confident decisions. This connected, AI-driven approach allows utilities to adapt in real time, improve outcomes, and future-proof operations.

# The Only Complete Asset Lifecycle Management Solution

## Benefits include:

- Improved capital planning and ROI transparency
- Predictive insights that reduce outages and extend asset life
- Smarter scheduling and optimized work bundling that lowers operations and maintenance spend
- Increased efficiency, faster response time, streamlined work order generation and better inventory management
- More accurate and faster ESG, regulatory, and audit reporting
- Faster, more confident decisions across departments
- Preserve institutional knowledge as staff leave and reduced reliance on an aging workforce

## Customers using IFS have achieved:



Unlike other vendors that offer disconnected solutions for asset, project, and service management, IFS offers a more accountable, agile, and future-ready solution for utilities, one equipped to align day-to-day operations with long-term strategic transformation.

We will now explore how ALM, as a strategic framework enabled by IFS, supports transformation across different utility organizations in North America, through two key lenses: **Investor-Owned Utilities (IOUs)** and **Publicly Owned Utilities (POUs)**.



# Investor-Owned Utilities: Modernization and ROI Under Regulatory Oversight

Investor-owned utilities (IOUs) in North America operate under intense regulatory scrutiny and dual accountability to shareholders and commissions. With aging infrastructure, growing customer expectations, and new pressures from electrification, DER integration, and climate risk, modernization is essential, but so is proving prudence, cost recovery, and ROI.

Most operations span multiple operating companies and regulated regions, creating immense complexity in asset planning, maintenance, and reporting. Disparate systems across electric, gas, and water service lines create inefficiencies and weaken the evidentiary record needed for rate cases and board reviews while increasing the risk of regulatory non-compliance.

Asset Lifecycle Management (ALM) gives IOUs a unified, data-driven framework to plan, maintain, and optimize infrastructure across the enterprise. It enables risk- and value-based investment prioritization, standardized asset practices, and real-time performance tracking against KPIs like SAIDI, SAIFI, ROA, and O&M reduction targets.

**IFS enhances this framework with embedded Industrial AI capabilities, allowing IOUs to automate repetitive workflows, generate work orders from contractor documents, and gain predictive insights into asset health, inventory demand, and operational delays.** AI copilots assist teams across planning, maintenance, and service, increasing accuracy and freeing up resources to focus on strategic priorities. With governed, explainable AI and audit trails, utilities strengthen regulator and board trust.

By aligning capital planning with regulatory expectations, IFS helps IOUs improve reliability, reduce outages, and streamline compliance. Predictive maintenance, AI-driven forecasting, and centralized data reduce operational risk and strengthen rate-case evidence. ALM also digitizes institutional knowledge and embeds it into AI-guided workflows, supporting workforce transitions and consistent service quality.

As extreme weather intensifies, ALM integrates resilience into long-term strategies; from wildfire mitigation to storm hardening, enabling IOUs to protect reliability, track ROI, and demonstrate efficient, evidence-based use of funds to both regulators and investors.

## Strategic Value for IOUs:

- Predictive insights and risk-based planning improve operational resilience by reducing outages and extending asset life.
- Align capital investments with decarbonization, resilience, and financial goals by improving capital efficiency and optimizing O&M spend to deliver measurable shareholder returns.
- Standardize asset management and processes across operating companies and service lines to improve visibility, coordination, and enterprise accountability.
- Strengthen regulatory confidence with transparent, auditable data that streamlines reporting, supports evidence-based ROI, and simplifies workforce knowledge transfer.

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**Our perspective was not to pick a software company, but to pick the very best technology partner. To have a platform that was cloud-based, ready-to-go, and agile.”**

**Vice President at Exelon**

# Publicly Owned Utilities: Resilience and Affordability in the Community Interest

Publicly-owned utilities (POUs), municipal, cooperative, and other public providers exist to deliver safe, reliable, and affordable service with full public accountability. They face tight budgets, lean crews, aging infrastructure, and rising regulatory and sustainability mandates, all while the communities expects greater transparency, faster response, and visible value for every dollar invested.

Many POUs operate multi-utility portfolios often with disconnected systems and manual processes. The result is limited cross-department visibility, reactive maintenance, and time-consuming board, council, and audit reporting, all barriers to modernization and measurable community ROI.

Asset Lifecycle Management (ALM) unifies planning, operations, maintenance, and finance within a single AI-powered platform. POUs gain single-source asset intelligence, predictive maintenance, and value-based capital planning, so public dollars are invested where they deliver the most community benefit, extending asset life, reducing outages, and simplifying audit-ready reporting.

For electric transmission and distribution networks, integrated grid and capital planning, powered by value-based scenario modeling, aligns O&M and CAPEX with system priorities, regulatory targets, and community outcomes. Leaders can compare tradeoffs, bundle projects, coordinate outages, and sequence work for maximum reliability per dollar with clear line-of-sight from daily work to board-level plans.

Industrial AI built into IFS Cloud accelerates results for lean teams through predictive asset health monitoring, guided work prioritization, crew and route optimization, automated work order generation, inventory forecasting, and copilots for audit and board reporting—all reducing manual effort and improving reliability.

As climate and cybersecurity risks intensify, ALM helps prioritize resilience investments such as storm hardening, vegetation and flood mitigation, and heat stress protection, while maintaining compliance with traceable, role-based controls, audit trails, and repeatable.

A composable, integration-ready platform like IFS allows POUs can modernize without rip-and-replace; adopting capabilities in phases, connecting to GIS and legacy systems via open APIs, and lowering total cost of ownership while meeting public-sector, security, and data-governance standards.

With unified ALM, POUs deliver measurable community ROI, greater reliability, transparency, and faster response, while keeping rates affordable and public trust high.

## Strategic Value for POUs:

- Maximize community ROI by aligning investments for greater reliability and transparency.
- Empower lean teams with AI-driven planning and predictive maintenance.
- Strengthen accountability through audit-ready reporting and resilience planning.
- Modernize without disruption via an integration-ready, low-TCO platform.

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**It was important to select a technology vendor that truly understood the unique challenges faced by a utility organization of our size.”**

**Chief Technology Officer,  
Suffolk County Water Authority**

## Global Spotlight

# How Exelon is Driving Utility Transformation Through Asset Lifecycle Management

### Why Exelon Is Implementing an Asset Lifecycle Management Framework

Exelon, one of North America's largest energy delivery companies, initiated its Asset Lifecycle Management journey to replace its oldest enterprise system. What began as a need to eliminate technical debt quickly evolved into a business-led transformation initiative focused on long-term operational value and customer outcomes.

Rather than treating ALM as a traditional IT upgrade, Exelon positioned it as a strategic enabler of key business goals:

- Strengthening the core systems that support asset and work management
- Improving capital project planning and execution
- Transitioning from time-based to condition-based maintenance
- Enhancing reliability with an audacious goal of “perfect blue sky” performance
- Enabling faster adoption of advanced analytics, AI, and data-driven decision-making

Exelon made it clear that delivering improved service to customers was the guiding principle behind every objective, and that modernizing the enterprise required more than just new technology.

### Why IFS Was Selected as Exelon's ALM Partner

IFS was selected as the platform to power Exelon's ALM transformation based on both technical capability and strategic fit. The company sought a partner that could deliver speed to value, process standardization, and future readiness.

#### Key reasons for choosing IFS included:

- A cloud-native, composable platform aligned with Exelon's broader IT architecture
- Preconfigured, out-of-the-box functionality that reduces complexity and customization
- Seamless integration with existing tools such as Azure, Boomi, and Microsoft 365
- An agile implementation model that enabled Exelon to go live with initial users within months
- A collaborative, utility-savvy team that demonstrated deep understanding of the industry

IFS provided not just a robust enterprise solution but a trusted partnership to help Exelon continuously evolve its operations and support strategic objectives. The result has been a transformation program that delivered rapid progress, built internal confidence, and established a strong foundation for future innovation.

#### [Listen to how Exelon is transforming Asset Lifecycle Management with IFS here](#)



# Conclusion: Asset Lifecycle Management as a Board-Level Catalyst for Utility Transformation

Asset Lifecycle Management is not a single software solution, but a strategic and composable operating model that drives enterprise-wide transformation. But to succeed, that strategy must be enabled by a technology foundation built for the unique complexity presented by Utility Organizations.

IFS provides the only complete ALM solution built to support every stage of the asset lifecycle in a single, AI-powered platform. For North American utilities, this directly addresses the barriers surfaced in the IFS Global Utility Survey and magnified across the region:

**Closing the strategy and execution gap:** By connecting strategic investment planning with operations, maintenance, and finance, IFS ensures that transformation goals translate into measurable outcomes rather than stalled initiatives.

**Turning sustainability goals into progress:** ALM embeds ESG constraints into planning and operations, enabling utilities to invest in energy-efficient assets, track emissions, and deliver regulatory-ready reporting. This moves utilities from setting targets to achieving milestones.

**Managing regulatory and operational complexity:** For IOUs navigating multi-state regulation and POUs balancing limited resources with community needs, ALM provides a unified framework that standardizes practices, streamlines reporting, and strengthens compliance.

Building resilience against aging infrastructure and climate threats: Predictive insights and AI copilots help utilities prioritize investment, mitigate risks from extreme weather and vegetation management, and extend the life of critical assets while easing reliance on an aging workforce.

North American utilities adopting ALM with IFS are already achieving tangible results: greater reliability, lower operations and maintenance costs, faster outage response, improved sustainability performance, and stronger evidence for rate cases and funding requests. Just as importantly, they are equipping their organizations to adapt quickly to future pressures, whether grid modernization, evolving regulations, or generational workforce transition.

**The utilities that lead the future will be those that move beyond transformation plans and put AI-driven ALM into action, unlocking a new level of productivity, responsiveness, and strategic alignment.** With an ALM approach powered by IFS, a utility can turn its asset strategy into a driver of enterprise-wide transformation, ensuring that it not only keeps the lights on and the water flowing but does so in smarter, more sustainable, and more accountable ways.

## About IFS

IFS is the world's leading provider of Industrial AI and enterprise software for hardcore businesses that make, service, and power our planet. Our technology enables businesses which manufacture goods, maintain complex assets, and manage service-focused operations to unlock the transformative power of Industrial AI™ to enhance productivity, efficiency, and sustainability.

IFS Cloud is a fully composable AI-powered platform, designed for ultimate flexibility and adaptability to our customers' specific requirements and business evolution. It spans the needs of Enterprise Resource Planning (ERP), Enterprise Asset Management (EAM), Supply Chain Management (SCM), and Field Service Management (FSM). IFS technology leverages AI, machine learning, real-time data and analytics to empower our customers to make informed strategic decisions and excel at their Moment of Service™.

IFS was founded in 1983 by five university friends who pitched a tent outside our first customer's site to ensure they would be available 24/7 and the needs of the customer would come first. Since then, IFS has grown into a global leader with over 7,000 employees in 80 countries. Driven by those foundational values of agility, customer-centricity, and trust, IFS is recognized worldwide for delivering value and supporting strategic transformations. We are the most recommended supplier in our sector. Visit [ifs.com](http://ifs.com) to learn why.

