



HARNESSING THE POWER OF ENERGY AND WATER

Overcome challenges and
modernize for a resilient future

Energy powers the world and water sustains life...thanks to utility organizations' relentless work to seek more reliable, affordable, and safe ways to deliver these precious resources to millions.

This can be both a motivating and daunting task as new challenges and opportunities emerge alongside global pressure for rapid energy transition. These challenges include rising supply chain costs, an aging workforce and lack of skilled technicians, an outdated grid infrastructure, struggles to prioritize capital spend, and continuous effort to adapt to evolving grid models.

For example, supply chain pressures have significantly impacted costs for US utility companies, particularly in the procurement of essential equipment. Capital investment in Line Transformers increased by 23% from 2022 to 2023, reaching \$7.5 billion, largely due to supply chain and manufacturing issues.¹

Approximately 25% of utility workers are over the age of 55, with many eligible for retirement within the next decade.² And an evolving demographic shift has led to increased labor costs, as utilities compete to attract and retain qualified personnel. The Associated General Contractors of America notes that capital projects are coming in at least 20% higher than forecasted budgets, primarily due to added labor costs.³

When trying to enhance grid adoption for new energy delivery models and improve resiliency as demand for electrification and electricity increases, 36% of utility company leaders find upgrading and expanding grid infrastructure their biggest challenge while 32% struggle most with meeting peak demand. Addressing these is both critical and expensive: capital expenditures for electric and gas grid modernization

and decarbonization hit a record high of almost \$171 billion in 2023.⁴ These challenges have contributed to rising wholesale electricity prices—projected to increase by 19% on average between 2025 and 2028—and adversely affect energy affordability.⁵ Meanwhile, regulators continue to ask utilities to do more with less, including meeting increasing regulatory and compliance demands.

Water and wastewater utilities face similar trends. With evolving water quality concerns and increased regulatory scrutiny, annual spend for approximately 70,000 US water and wastewater utilities is forecasted to grow to \$223 billion by 2030, encompassing both capital expenditures (CAPEX) and operating expenditures (OPEX).⁶



A SOLUTION DESIGNED FOR UTILITIES PROVIDERS

Transforming key business functions like finance (FIN), supply chain management (SCM), human resources (HR), and their corresponding processes are imperative to solve the above challenges. Modern, cloud-based, modular solutions can help utilities overcome these challenges and refocus on the heart of their work: providing clean,

safe, affordable, and reliable power and/or water to their communities. Deloitte has decades of experience helping power, utilities, and renewables (PU&R) organizations overcome complex challenges to better meet customer, community, and organizational needs. This is

a pivotal moment for organizations to embrace digital transformation, optimize business processes, and replace heterogenous legacy enterprise applications. Deloitte helps PU&R organizations transform their future with a purpose-built solution that integrates the entire enterprise, improves efficiency across departments, and lays a foundation for ongoing improvement and innovation using leading technologies such as cloud, machine learning (ML) and Generative AI (GenAI).

Deloitte's PU&Rpose solution helps utilities maximize automation and gives teams more time to focus on strategic planning, innovative service enhancements, and creative problem-solving. As a unified enterprise solution framework, PU&Rpose brings together leading technologies with proven business processes, implementation tools, digital assets, services, and leading practices, to create a tailored solution specifically for PU&R clients (see Figure 1).



Figure 1: PU&Rpose—a modular and scalable enterprise solution framework

Built on Oracle's industry-leading suite of cloud applications, PU&Rpose helps organizations drive cloud ERP-based digital transformation across end-to-end business processes—including FIN, enterprise performance management (EPM), enterprise project portfolio management (EPPM), SCM, human capital management (HCM), and analytics. PU&R organizations can tailor the solution's energy and water-specific design to fit their unique needs while accelerating their digital transformation journey.

This tailored approach provides PU&R organizations with a suite of solutions that are:

- Ready to use and contextualized for utilities-specific processes
- Experience-driven and proven
- Designed for comprehensive coverage across business functions and processes
- Based on leading practices



PU&RPOSE-BUILT WITH DEEP TECHNOLOGY AND INDUSTRY EXPERIENCE

Deloitte created PU&Rpose to bring together siloed systems and create an integrated, end-to-end solution that helps accelerate digital transformation. The thoughtful, industry-specific solution design reflects our deep experience with:

- Advanced multi-ledger financial solutions to meet multiple statutory reporting frameworks
- Scalable supply chain and services procurement frameworks
- Enterprise planning and budgeting solutions that enhance cost control, reporting, and forecasting, significantly increasing capital project spend certainty and predictability
- Ready-to-deploy integration adapters with industry-standard solutions such as PowerPlan
- Business process coverage for new and evolving business models, such as subscription billing for EV terminals and shared EV charging infrastructure lease business models
- Business process and IT controls
- Tax sensitization and determination

Planned enhancements include:

- Environmental, Social and Governance (ESG) reporting leveraging a dedicated ESG ledger for accurate tracking and reporting
- Energy equity analysis and reporting
- Comprehensive asset maintenance and work order management capabilities
- Field services and personnel deployment capabilities
- Customer care, billing and energy efficiency solutions

The foundation of PU&Rpose includes Oracle's leading solutions for core ERP, Project Management, Procurement, EPM, Supply Chain and Inventory Management, Analytics, and integration with PowerPlan. Capability for Work and Asset Management, Customer Care and Billing, Unifier, and other supporting edge processes are planned for future releases. By overlaying the foundational Oracle core with industry-specific accelerators and advanced capabilities, we empower organizations to improve partner billing, payroll distribution, services procurement, and contract lifecycle management.

In addition to the industry-specific accelerators created as part of PU&Rpose, we also leverage a cross-industry portfolio of additional accelerators within our catalogue to support your unique requirements and leverage the best solutions available from other business models. This combination of leading technology and utilities-specific accelerators, along with guidance from Deloitte's experienced practitioners, helps organizations and

their rate payers maximize the value of their transformation investments.

SCALABLE, FLEXIBLE FRAMEWORK

The scalable and modular framework of PU&Rpose provides a flexible and resilient deployment path, built-in industry-specific reports and analytics, a persona-based experience at its center, and best-in-class industry accelerators. The PU&Rpose solution also leverages GenAI to automate time-consuming, manual tasks such as anomaly detection, financial controls, spend analytics, or detecting deviation from contractual agreements. Rather than taking days or weeks, PU&Rpose users can complete this work in mere hours.

Though PU&Rpose is a complex solution equipped to solve multiple challenges across business functions (see Figure 2), the solution is modular which allows implementation in a logical and phased approach.

PU&Rpose brings together leading technologies with proven business processes, implementation tools, digital assets, services, and leading practices, to create a tailored solution specifically for PU&R clients.

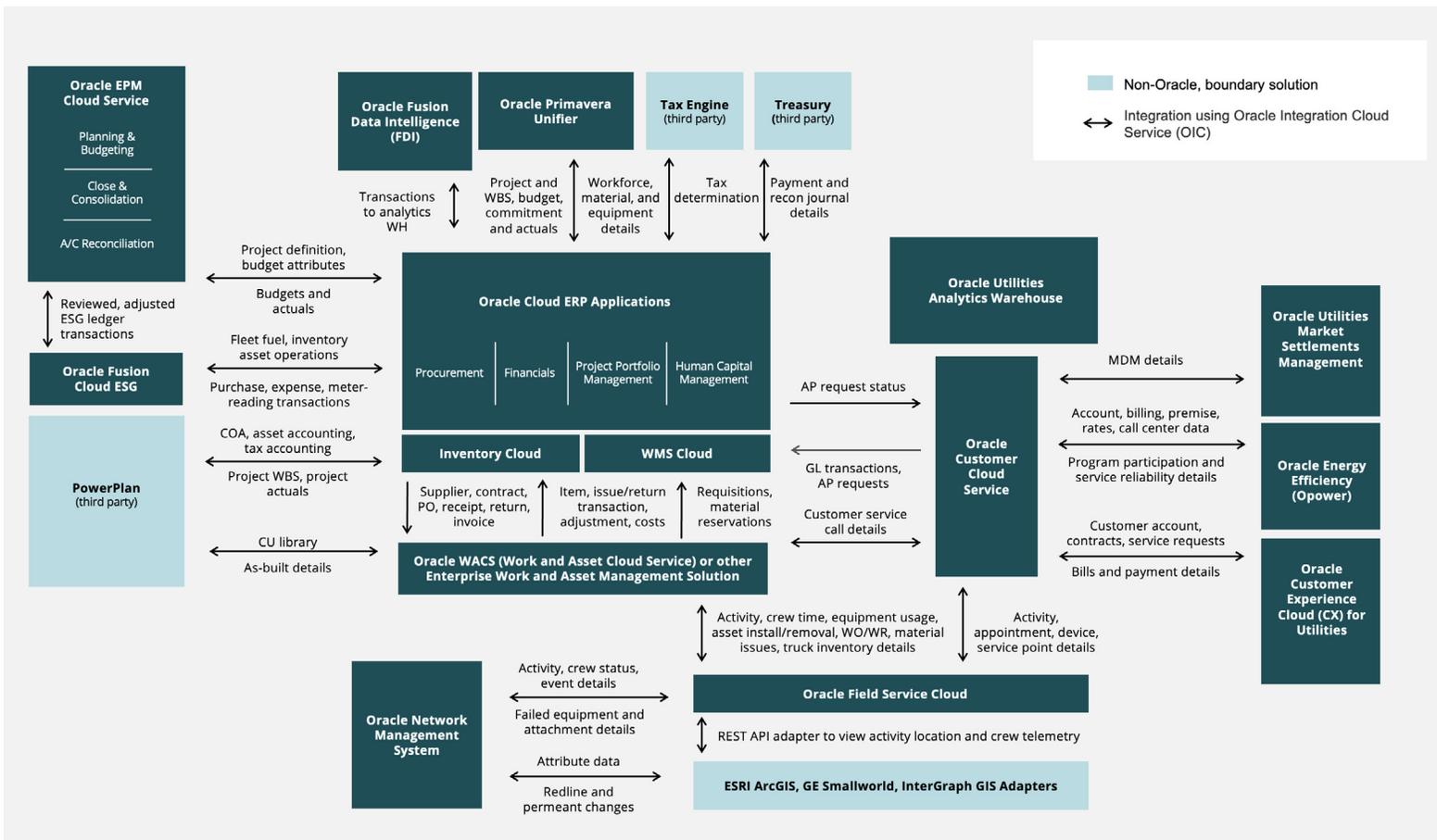


Figure 2: PU&Rpose solution architecture

PU&RPOSE IN ACTION

To help demonstrate the power of PU&Rpose and its integrated suite designed specifically for power, utilities and renewables organizations, let's review two client scenarios.

Partner billing and allocation for two-tiered performance management

Challenge

A large energy enterprise with multiple businesses and geographies has internal sub-contract/partnership mechanisms and ownership mechanisms with many entities. They need to allocate revenue across those entities even though the customer pays only one bill.

This challenge is also an opportunity to 1) enhance available project billing solutions to accommodate the shared-owner model and 2) extend allocation capabilities to support accurate planning and forecasting based on actuals. The organization needs a solution that can automate manual processes and suggest potential corrective measures.



Solution

Leveraging PU&Rpose's modular structure, the organization uses several Oracle ERP and EPM solutions⁷ with PU&Rpose enhancements for traceability and bar chart-enabled narrative reporting. Now, the enterprise can:

- Allocate transactions proportionally to each partner's ownership percentage for the co-owned site
- Track original transaction elements (e.g. expenditure type, account) even after allocating cost across partners
- Maintain accounting integrity throughout the process to create accounting distributions that include the proportional share of each partner
- Enhance recording of actuals across allocations
- Quickly conduct accurate variance analysis without manual calculation



Targeted Benefits

Using PU&Rpose, the energy enterprise can now manage budget, forecast, and plan business expenses at gross and net levels.

Gross level, or enterprise level, management provides clarity of the total revenue generated by the enterprise, which helps leaders make more informed decisions about capacity planning and expansion at the enterprise level. It strengthens financial planning and analysis (FP&A) with visibility into forecasted credits and accounts receivables for co-owned sites.

Net level management provides a more accurate representation of the financial performance of each partner at site levels and the ability to forecast and plan at ownership levels. This can increase transparency and trust among partners as each is able to see their share of business profits and losses, and the enterprise can track their accounts receivables.

Seamless transactions and automated services procurement using a unified supplier timecard, contract milestones, and expense management solution

Challenge

A multi-state energy company has many suppliers submitting weekly invoices. The company's current Oracle procurement solution doesn't offer out-of-the-box functionality to create receipts based on supplier timesheets or to break down timesheets by cost types.

The organization needs a seamless process that simplifies weekly invoice submissions from suppliers, associating work orders to timesheets and splitting percentages across different cost types, and invoicing with a holistic view to track purchase orders (POs) and invoice creation.



Solution

Deloitte's PU&Rpose solution enhances Oracle's procurement tool to help suppliers enter time and costs for labor, material, equipment, and expense and links them to work orders or POs created from third-party applications.

The energy company can now allocate time across different projects and tasks to account for costs based on work orders, and send costs and hours spent to third-party systems. Suppliers also benefit from the PU&Rpose supplier portal where they can view entries, adjust timecards, create credit memos, and more.



Targeted Benefits

With PU&Rpose, the energy company has facilitated seamless transactions between suppliers and Oracle ERP cloud and replaced manual processes with automated procurement and source-to-pay activities, including:

- Timely supplier tracking prior to releasing payments
- Easier invoicing and reconciliation against purchase orders and receipts
- Conveniently sending costs and hours to third-party systems
- Splitting charges on different accounts based on work orders and cost types
- Empowering suppliers to bulk upload timecards for multiple POs and week-ending dates

TAKE THE NEXT STEP WITH PU&RPOSE

It's never too late for utility leaders to reinforce the critical mission of delivering safe, clean, reliable, and affordable energy and water. Digital transformation holds the key to helping PU&R organizations do more with less.

Deloitte combines decades of PU&R industry sector experience with Oracle's leading cloud applications to shape PU&Rpose into more than just a solution—it's a strategic enabler in your digital transformation journey. And the journey doesn't stop there. As the energy and water landscape continues to evolve, PU&Rpose will adapt and grow with your organization, providing the tools, insights, and support you need to meet tomorrow's demands head-on.

Let's take the next step together. Contact us to learn how Deloitte's PU&Rpose solution can help renew your purpose, overcome your challenges, and transform your organization for a resilient future ahead.

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7. Oracle solutions include Project Portfolio Management (PPM) Cloud, Enterprise Profitability and Cost Management Cloud Services (EPCMCS) Calculations, and Enterprise Planning and Budgeting Cloud Service (EPBCS) Reporting

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