

Vantage Finance & Tech 

Oracle Fusion ERP Architecture for Utilities

Next-Generation Financial Foundations for the Energy & Water Sector



Strategic Context

Modernizing the accounting core to drive operational agility, regulatory compliance, and real-time decision support.

Industry Drivers & Challenges

Asset Intensive Accounting

Utilities manage complex, multi-decade asset lifecycles. Traditional ERPs struggle with construction-in-progress (CWIP) at scale and high-volume depreciation schedules.

High Transaction Volumes

Integrating large-scale Customer Information Systems (CIS) requires a transformation layer to consolidate billing data into clean accounting journals without GL bloat.

Enterprise Structure & Ledgers



The Dual Ledger Strategy

Oracle Fusion enables a multi-ledger architecture to bridge the gap between corporate and regulatory requirements:

-  **Primary Ledger:** Corporate reporting under IFRS or US GAAP.
-  **Secondary Ledger:** Regulatory reporting (FERC) and Tax books.
-  **Legal Entities:** Mapped to operating utility companies for statutory isolation.

Chart of Accounts (COA) Design

- 1 Entity / Company:** Represents the legal utility corporation for independent balance sheets.
- 2 Cost Center / Department:** Distinguishes between Generation, Transmission, and Distribution divisions.
- 3 Natural Account:** Aligned with FERC Uniform System of Accounts for seamless regulatory filing.
- 4 Intercompany:** Automated elimination for multi-utility conglomerate scenarios.
- 5 Geographic Segment:** Tracks revenue and maintenance spend across service territories.

Core Subledger Architecture

Fixed Assets

Automated acquisition to retirement.
Supports units-of-production
depreciation common in heavy
infrastructure.



PPM Cloud

Tracks large capital work-in-progress
(CWIP). Direct integration for
capitalizing project costs to Fixed
Assets.



Procurement

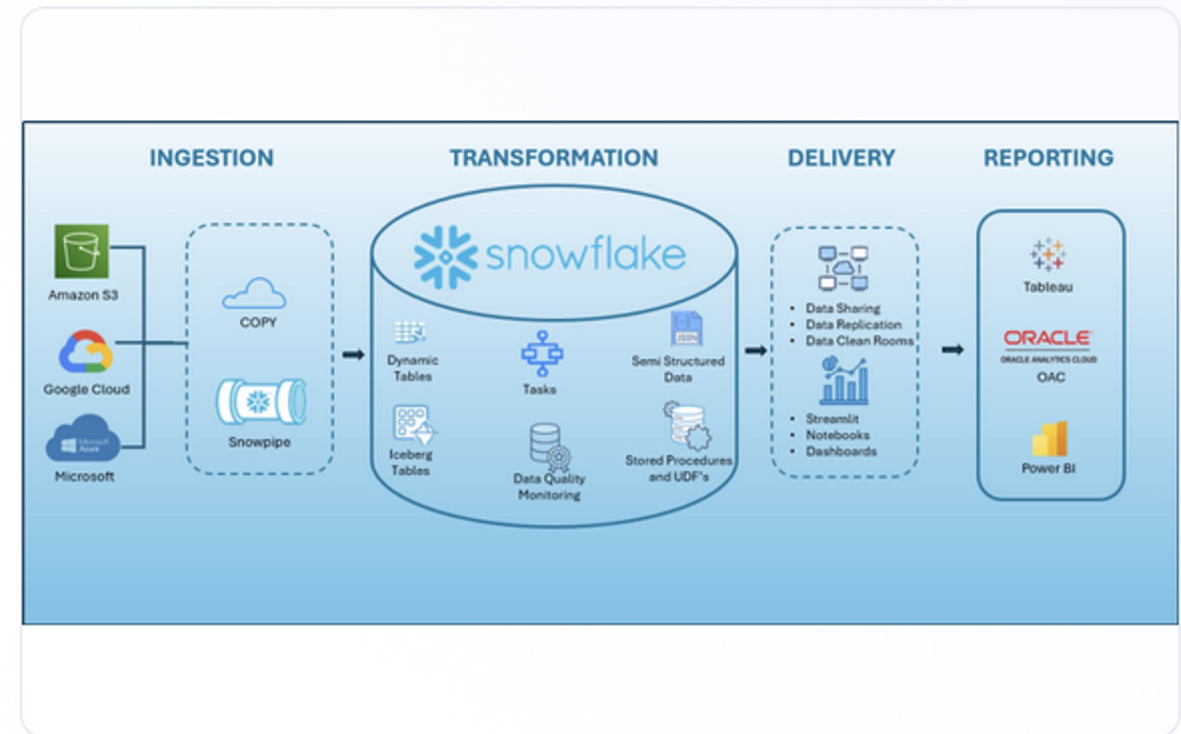
Streamlines supply chain for spare
parts and external maintenance
service providers with automated
matching.

Financial Accounting Hub (FAH)

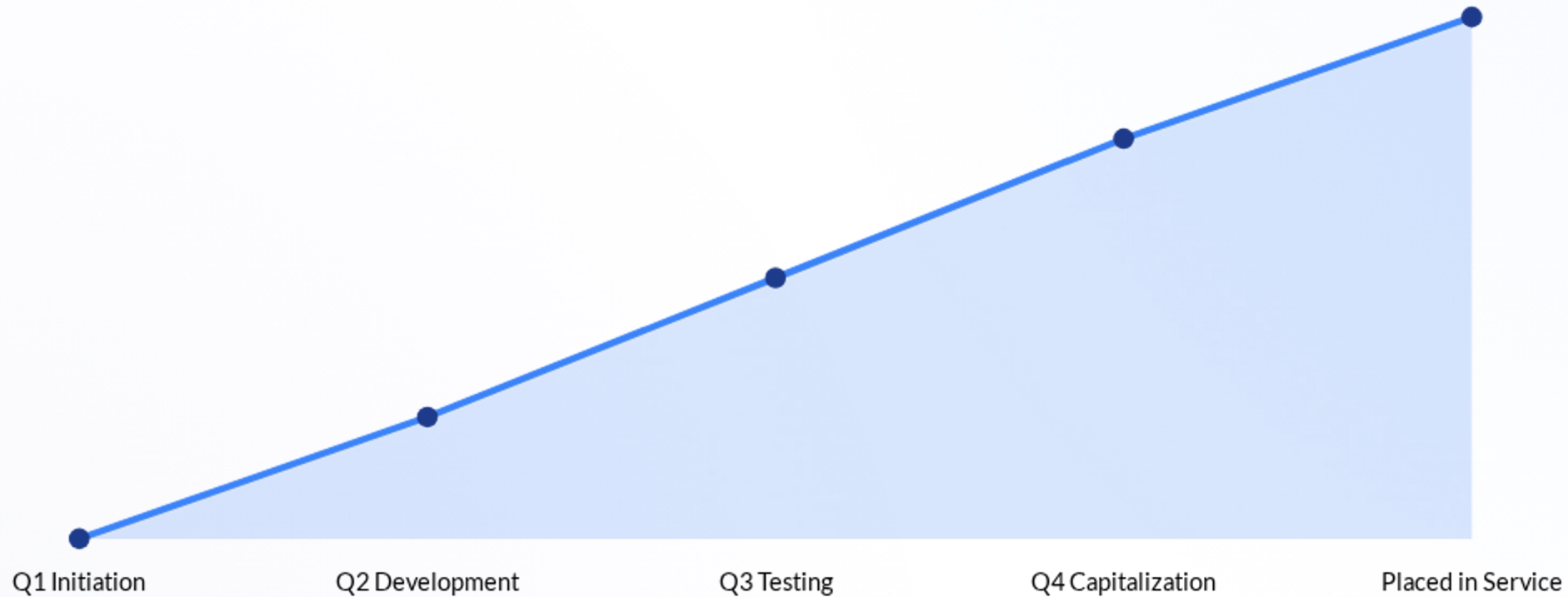
The Data Transformation Engine

For Utilities, FAH is the critical bridge between operational "Billing Events" and financial "Accounting Journals."

- ✓ Ingests daily transaction files from legacy CIS systems.
- ✓ Applies complex utility-specific accounting rules.
- ✓ Provides full drill-back from GL balance to original billing source record.



Lifecycle Transition: CWIP to Assets



Illustrating the automated conversion of Project Spend into depreciable Fixed Assets (Amounts in \$MM)

Integration Matrix

Source System	ERP Receiver	Integration Method	Purpose
Customer Information (CIS)	Accounting Hub (FAH)	REST API / Batch	Billing Revenue Transformation
Work & Asset (WAM)	Procurement / AP	Web Services	Maintenance Spend Control
Meter Data (MDM)	Financials (AR)	OIC (Oracle Integration)	Accounts Receivable Posting
Project Management	PPM Cloud	Native Integration	Capital Expenditure Tracking

Regulatory Compliance

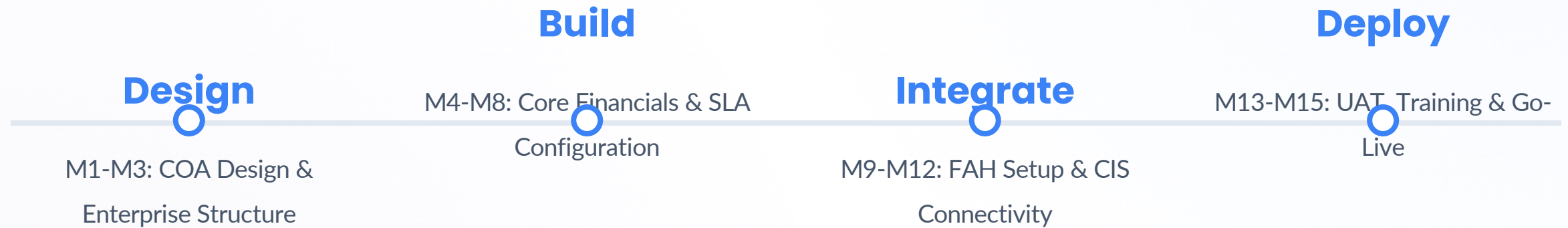
FERC Form 1 Automation

By mapping the COA Natural Account segment directly to the FERC Uniform System of Accounts, utilities can automate up to 80% of their regulatory reporting filings.

Oracle Fusion's Financial Reporting Center provides real-time audit trails, ensuring every balance on a rate-case filing can be traced back to the original operational transaction.



Implementation Roadmap



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Questions?

Scaling Utility Finance for a Sustainable
Future

<https://stefandumitriu30-cloud.github.io/my-website/>

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