HCLTech | Supercharging Progress™

Automating consumption and forecast processes for a global utility company

Enhancing productivity and profit by optimizing water resources and demand management

One of the world's most reliable utility companies for water flow and consumption forecasting sought to optimize water resources and demand management, increasing productivity and profit while maximizing commercial value and operational performance. HCLTech helped automate and streamline processes by implementing a "catchment-to-customer" solution, forecasting water flow and consumption and delivering actionable insights.

The Challenge:

Revolutionizing water management with data-driven insights and efficiency

The client faced several challenges in managing water resources and demand, including the absence of daily bottom-up consumption data to establish per-household consumption, difficulty in balancing the water system to comprehend and reduce losses and the lack of a single view of flow and consumption at the DMA/DMZ level.

The Objective:

Streamlining water management with automation

To design and implement an automated, data-driven solution for a leading global utility company that effectively manages water resources, optimizes consumption and demand forecasting, provides a comprehensive view of flow and consumption at the DMA/DMZ level, and enhances operational efficiency while reducing losses and supporting informed decision-making.

The Solution:

Empowering water management with 'catchment-to-customer' solutions

To help our client overcome these challenges and automate their processes, HCLTech developed a comprehensive 'catchment-to-customer' solution to better manage water resources and demand. This solution involved forecasting daily water flow and consumption for the current and next 13 days using Tableau, with monthly accuracy

Technologies Offered:

HCLTech utilized various technologies to address the client's challenges, including Exasol, Oracle and SQL server databases for data storage, dimension modeling with Erwin reports. They created a 360-degree view for analysis and prediction of TDF and consumption, delivering actionable insights from TDF and bottom-up consumption forecasting reports. Additionally, the solution helped the client understand the effects and effectiveness of metering and water-saving campaigns.

for data modeling, Python for ETL processes, Tableau for reporting and custom-built in-house applications.

The Benefits:

Enhancing efficiency with unified water analytics

The implemented solution provided the client with a unified platform for analyzing DMA and DMZ water flow, consumption, demand and leakage. It created an automated and unified reporting system, reducing reliance on manual processes. The client now benefits from real-time dashboards, flow and consumption forecasts, data analysis and the integration of multiple data sources, significantly improving their overall productivity and efficiency.



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