



STEAM OPTIMIZATION USE CASE

Situation: Petrochemical processing and storage plants where steam is used to heat the process and store products

Challenges

Steam surplus

- » Leads to unnecessary costs
- » Generation or purchase decisions based on manual operator decision
- » Use it or lose it resource
- » Environmental impact & compliance issues
- » Activities run when not needed

Complex planning

- » Different sources have different costs and reliability
- » Short-term (daily) and long-term (capital investments or contracting) decisions are made on experience, not data
- » Shortages lead to plant shutdown or disruptions

Solution

Atomiton Steam Optimization

- » Digitizes and connects steam meters and boilers at the refinery
- » Atomiton IIoT operating stack uses real-time data to profile daily steam demand and analyze various supplies
- » Forecasts steam demand and solves for the most economical combination of steam generation and purchases sources
- » Automatically executes the optimized steam supply decisions by dynamically controlling the necessary boilers and valves.

Benefits



Increase steam utilization and reduce steam costs by up to 20%



Ensure reliability of steam supply and avoid shutdowns



Minimize heat release into the environment to reduce impact

The Atomiton Advantage

- » An end-to-end solution that retrofits or integrates with any sensors, devices, systems
- » Real-time edge computing for continuous profiling of assets and activities
- » Predictive analytics for dynamic optimization of energy consumption