



Energy Optimization

Use Case

Situation

Chemical and Petrochemical Processing Plants where energy costs are a significant portion of operating expenses.

Challenges

- **High cost, low visibility**
 - › Energy use not mapped to plant activities
 - › Activities run when not needed
- **Operational complexity**
 - › Operations carry many constraints
 - › Manual optimization infeasible
- **Peak usage**
 - › Peak use results in higher charges by utilities and greater environmental impact
- **Dynamic demand**
 - › Conditions constantly change demand
 - › Static algorithm infeasible

Solution - Atomiton Energy Optimization

- Activity-based energy monitoring & profiling in real-time
- Distilling, separating, stirring, mixing, heating, cooling, loading, unloading
- Continuously predict energy load per operational plans and schedules
- Optimize activity schedule using AI based on constraints & priorities
- Automatically identify and minimize unnecessary activities with energy use
- Orchestrate execution of optimal schedules across assets and activities

BENEFITS



Gain visibility of energy consumption and associated costs by asset and activity



Create intelligent activity schedules to reduce peak and overall energy usage



Reduce environmental impact of greenhouse gases and other air pollution

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