



**AVEVA WORLD**

**ACCELERATE INDUSTRIAL INTELLIGENCE**

Navigating New Energy Management Mandates

Energy:Center The logo icon for Energy:Center, featuring a stylized lightning bolt symbol inside a dark square with dashed lines.

Every PI Tag becomes evidence  
Every SEU becomes a business case

## THE SESSION IN ONE SENTENCE

We treat every **PI tag** - inside the asset structure you already model in **Asset Framework** - as the first step in a regulated, auditable pipeline that ends in a **board-approved investment decision** .

Amitec builds industrial software.  
Energy:Center is our Energy  
Management System.

- HQ in Bergen, Norway
- Offices in Norway, Germany, Finland, Czech Republic, Poland and the UK
- 82 employees, 10 spoken languages



Amitec builds industrial software.  
Energy:Center is our Energy  
Management System.

### Energy Monitoring System

### Energy Controlling System

### Energymanagement System

### Energyoptimisation system

EMS

- Meter data acquisition
  - Metering concepts
  - Media consumption
  - Online visualization
- AVEVA Infrastructure +  
Amitec PiVision Suite**

ECS

- Enterprise model
  - Energy Balance (Reports)
  - Key Figures (EnPIs)
  - Economic Data Validation
- Energy:Center  
Datawarehouse**

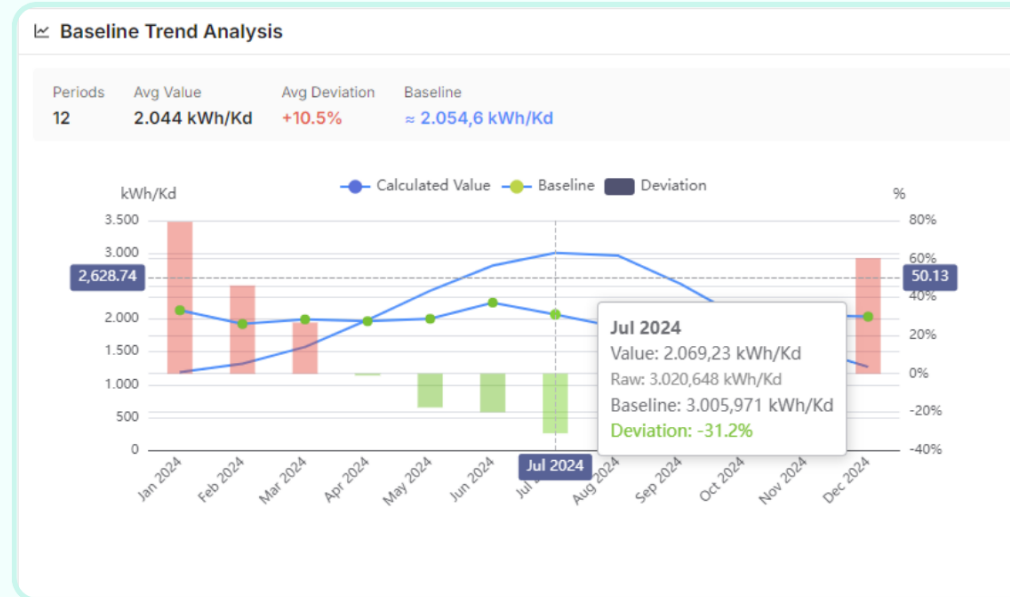
EnMS

- EN 50001 Mapping
  - Audits
  - Catalog of measures
- Energy:Center**

EnCOpts

- Definition of targets
  - Process mining
  - Seeq Data Analytics
  - Action planning
- Energy:Center + Seeq**

Most plants already have the signal. The pipeline to **decision** is what's missing.



PI is already gathering.

Every sensor on your line is broadcasting.  
The data is there, hour by hour, tag by tag.

ISO work lives in spreadsheets

SEUs, EnPIs, baselines, review sign-offs:  
Rebuilt every audit cycle, often by hand

## Many modules. One audit trail.

Each module, tenant scoped, fully audit-logged. Monitoring and compliance in the same application

- \* **Asset Management**  
Plant hierarchy, AF-Synced
- \* **Data Warehouse**  
Typed, unit-aware series
- \* **EnergyAssessment**  
ISO 50001 review loop
- \* **Dashboards**  
Shareable, Insights
- \* **Reporting**  
PDF, Excel, CSV

LAYER 00  
TOPOLOGY



PI AF → EC Assets auto-sync

One source of truth for your asset structure

LAYER 01  
SIGNAL



PI Tag Data auto-sync

Automatically import your relevant PI data

LAYER 02  
PERFORMANCE



Energy Assessments

Create Formulas, Baselines, EnPIs, SEUs and more based on your valuable energy data

LAYER 03  
COMPLIANCE



Generate Auditable Insights

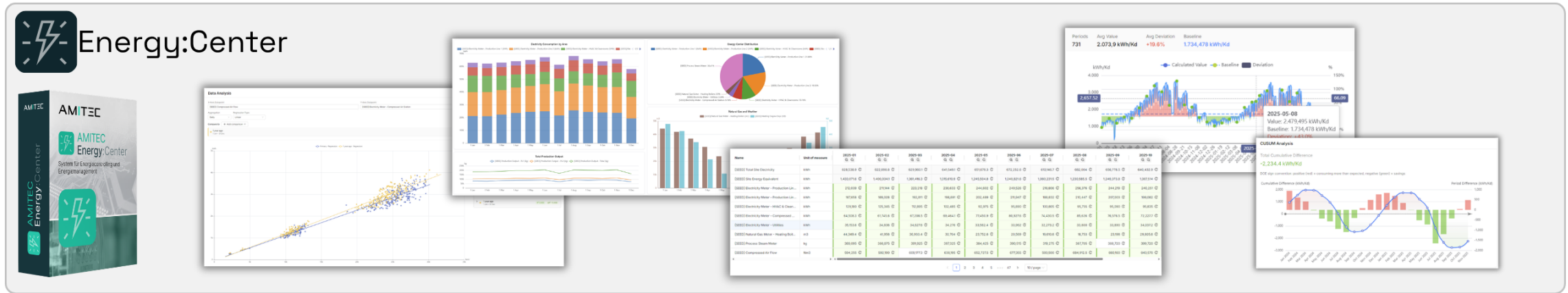
ISO 50001 conform energy management

LAYER 00 - TOPOLOGY

# PI AF → Asset auto-sync

Your plant model shouldn't live in two places. Curate it once in AVEVA AF - Energy:Center mirrors it.

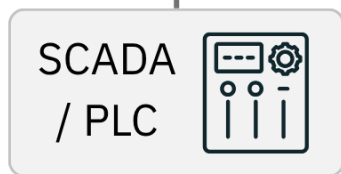
## LAYER 00 - TOPOLOGY



Data Health & Security



CONNECT



Cloud Data	Manufacturing Data	SQL-Based Data	Custom Sources

LAYER 01 - SIGNAL

# PI Tag Data auto-sync

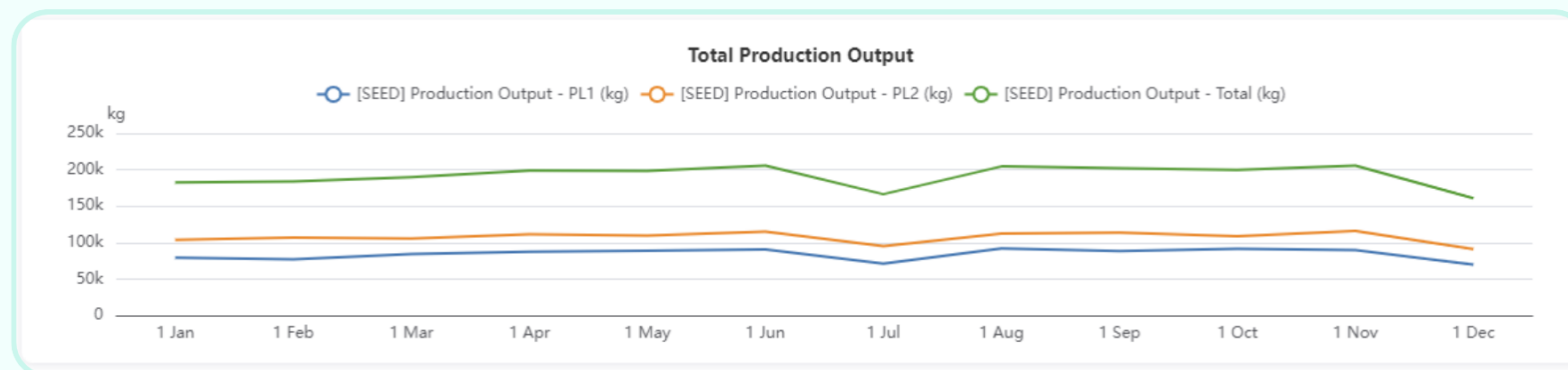
Automatic aggregations of your PI Data are accessible inside the Energy:Center

# Hourly. Daily. Monthly. Quarterly. Order-based.

Dynamically Aggregated data based on raw values.  
Our differentiator for batch and discrete manufacturing:  
PI Data split along ISA88/SP88 production-order boundaries → Order based energy insights

### AUFTRAGSBEZOGEN · ORDER-BASED

Order	Window	ΔkWh
#A-4812	03/14 08:12 – 14:47	4,218.6
#A-4813	03/14 14:47 – 22:03	3,977.2
#A-4814	03/14 22:03 – 03:55	2,104.9
#A-4815	03/15 03:55 – 11:18	5,341.0



## LAYER 01 - SIGNAL

# Data health is part of the audit report.

Energy:Center is also capable of monitoring your data health so your audits are not based on guesses.

HOURLY AGGREGATION · COMPRESSOR CS-A.KW

14:00	218.4 kW	● 100%
15:00	224.1 kW	● 100%
16:00	211.7 kW	● 64%
17:00	212.0 kW	● SURROGATE
18:00	203.9 kW	● 100%

The screenshot shows a dashboard interface for Timeseer.AI. At the top, it says 'Dashboard' and 'Goodmorning, Laurens'. Below this is a 'Watchlist - Timeseer.AI detected 2 major incidents' section. The first entry is for 'TSAI Benelux (Default view)' with a location of 'Belgium / Limburg / Hasselt / Pumps'. It lists several metrics: 'Critical > 1', 'At risk > 10', 'Repair > 70%', and '+ 2 more'. The incident details include: 'Detected 4 types of critical issues. A total of 61 issues were found in 7 series.', 'A total of 1 series with 1 at risk issue of 1 type is detected.', 'Data substitutions: There are 129 data substitutions', and 'Validation: No data has been validated.' The second entry is for 'TSAI Spain (Laurens' view)' with a location of 'Spain / Cataloniä / Barcelona / Smart meters'. It lists a 'Reliability < 80%' metric and similar incident details: 'Detected 4 types of critical issues. A total of 61 issues were found in 7 series.', 'A total of 1 series with 1 at risk issue of 1 type is detected.', 'Data substitutions: There are no substitutions.', and 'Validation: No data has been validated.' The dashboard also shows 'Updated: 5 days ago' and a time range '1-8-2025, 00:00:00 → 31-8-2025, 23:59:59'.

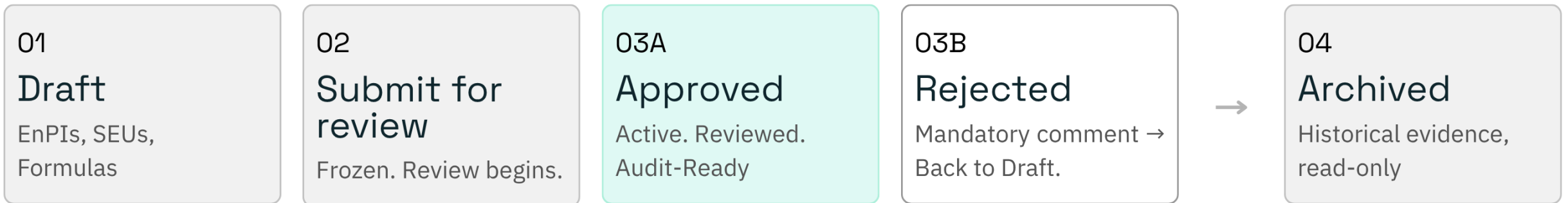
LAYER 02 - PERFORMANCE

# Energy Assessments

From aggregated datapoints to normalized, thresholded, auditable performance indicators.

## LAYER 02 - PERFORMANCE

A formal review gate. Immutable insights.



- **Current** Active

Name: Yearly Energy Consumption 2026

Baseline: 135000 kWh/unit

Reference Period: 2026-01-01 - 2026-12-31

Created: 2026-04-23 15:11 by Frederik Weber
- **v2** Superseded

Name: Yearly Energy Consumption 2025

Baseline: 125000 kWh/unit

Reference Period: 2025-01-01 - 2025-12-31

Reason: *Improved Variant*

Created: 2026-04-23 15:11 by Frederik Weber

## LAYER 02 - PERFORMANCE

Instant Insights.  
Always up to date.

### CUSUM Analysis

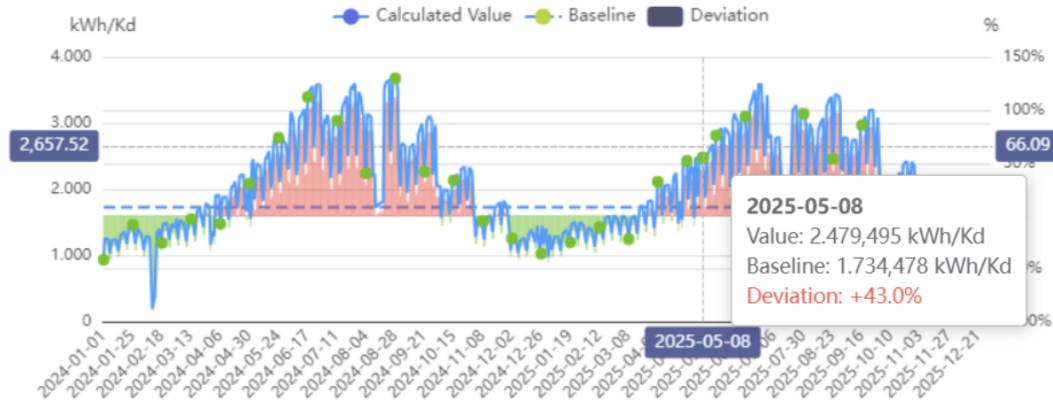
Total Cumulative Difference

**-2,234.4 kWh/Kd**

DOE sign convention: positive (red) = consuming more than expected, negative (green) = savings



Periods	Avg Value	Avg Deviation	Baseline
731	2.073,9 kWh/Kd	+19.6%	1.734,478 kWh/Kd



LAYER 03 - COMPLIANCE

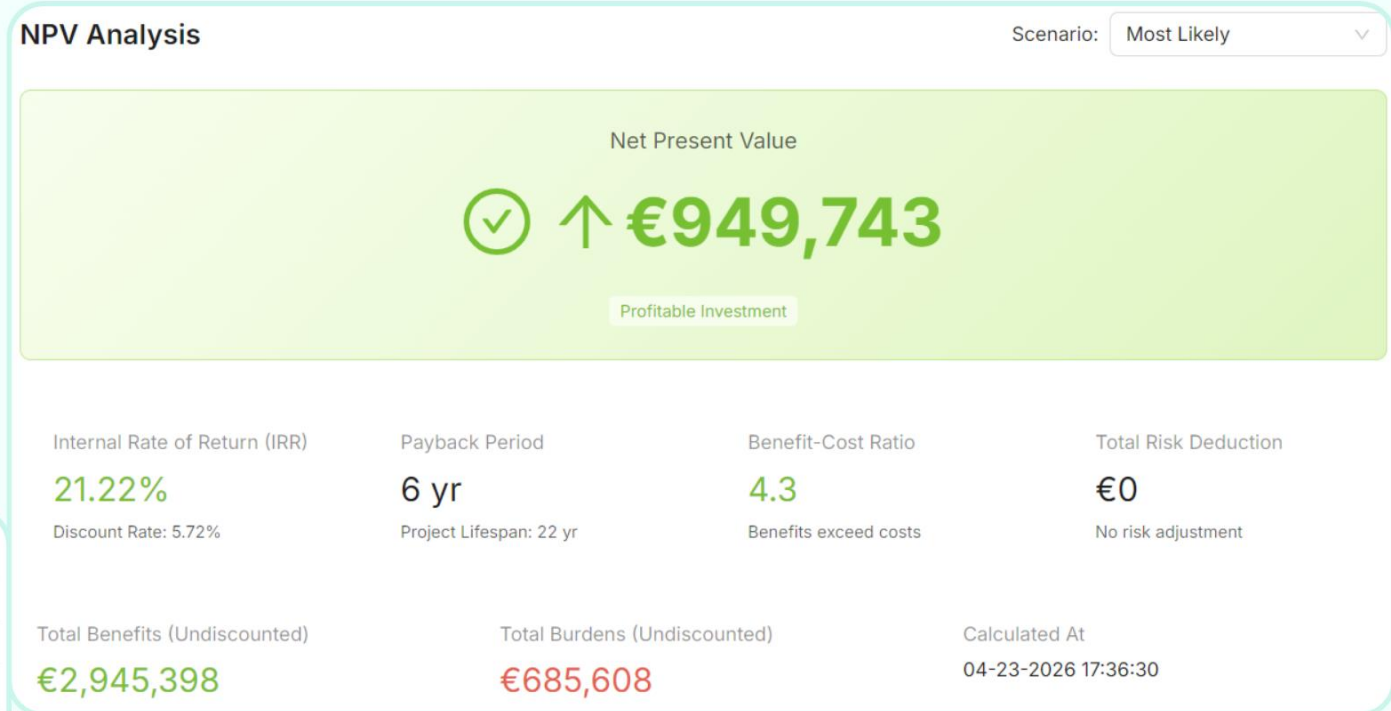
# Auditable Insights

Your Energy Managers now have access to ISO50001 conform Energy Management tools.

## LAYER 03 - COMPLIANCE

From Plans to Actions  
in the same System per  
DIN 17463 VALERI Norm.

Year	Benefits	Burdens	Net Cash Flow	Risk Deduction	Adjusted	Cumulative NPV
+ Initial	€0	-€463,600	-€463,600	-	-€463,600	-€463,600
+ Year 1	€93,004	-€5,874	€87,131	-	€87,131	-€381,183
+ Year 2	€95,895	-€6,013	€89,882	-	€89,882	-€300,764
+ Year 3	€98,902	-€6,155	€92,747	-	€92,747	-€222,271
+ Year 4	€102,032	-€6,301	€95,731	-	€95,731	-€145,637
+ Year 5	€105,290	-€6,451	€98,839	-	€98,839	-€70,795
+ Year 6	€108,683	-€6,604	€102,079	-	€102,079	€2,317
+ Year 7	€112,216	-€6,761	€105,456	-	€105,456	€73,762
+ Year 8	€115,899	-€6,921	€108,978	-	€108,978	€143,598
+ Year 9	€119,737	-€7,085	€112,651	-	€112,651	€211,883
+ Year 10	€123,739	-€62,108	€61,630	-	€61,630	€247,219
+ Year 11	€127,913	-€7,426	€120,487	-	€120,487	€312,564
+ Year 12	€132,269	-€7,602	€124,667	-	€124,667	€376,517



## LAYER 03 - COMPLIANCE

Reporting where it matters.

### [SEED] Production Line 2 - Formulation & Packaging

Formulation, blending, and packaging operations consuming electricity, steam, and compressed air.


Report Period: 2025-01-01 - 2025-12-31

✓ All EnPIs Normal  
Generated: 2026-04-23 17:41 Complete

#### Summary

Total Consumption (kg)	Total Consumption (kWh)	Total Consumption (Nm3)
1.381.419,007 kg	1.841.949,88 kWh	2.937.944,015 Nm3

#### Energy Consumption Breakdown



PL2_Air	2.937.944,015 kWh
PL2_Elec	1.841.949,88 kWh
PL2_Steam	1.381.419,007 kWh

↑ 12.9% (prev: 2.601.785,354)  
↑ 12.0% (prev: 1.644.606,805)  
↑ 12.2% (prev: 1.230.784,648)

#### EnPI Performance

Name	Current Value	Baseline	Deviation	Performance	Status	Trend
[SEED] Specific Energy Consumption - PL2	2,452 kWh/kg	-	+487.5%	<div style="width: 100%;"></div>	Critical	↑

05 - RECAP

Thank you

See the loop, live.

Energy:Center



Booth • S5

Email • [frederik.weber@amitec.eu](mailto:frederik.weber@amitec.eu)

Web • [Amitec.eu](http://Amitec.eu)



AVEVA

AMITEC