ISO50001 energy management with PEAK

A ten-step guide to ISO50001 for your organisation



## ISO50001:2018 – Energy Management Standard

ISO50001 is the international standard for energy management systems. It is designed to *"enable organisations to establish systems and processes necessary to improve energy performance, including energy efficiency, use and consumption"*.

#### ISO50001 requires organisations to:

- Develop a policy for more efficient energy use
- Establish energy targets and objectives
- Make data-driven decisions about energy use
- Measure results and continually improve energy management

#### How CIM can help:

CIM integrates energy management into business practice, making it easier for you to continually improve the energy performance of your assets, reduce CO2 emissions and meet your climate change targets. Our PEAK platform is built around the same PLAN-DO-CHECK-ACT Demmings cycle philosophy used as the ISO50001 framework.





### **STEP ONE**

ISO50001 recommends that organisations establish an accurate baseline of their energy consumption.

[Section 4.4.4 of ISO50001]

#### PEAK

PEAK automatically collects, monitors and analyses all live building data from your building management system (BMS), energy management systems.

PEAK provides a uniform data set across all buildings giving you visibility into asset performance.





#### **STEP TWO**

ISO50001 recommends that organisations track consumption of energy sources such as electricity and gas and determine significant energy users (SEUs).

[Section 3.27 of ISO50001]

#### PEAK

PEAK collects the main meter data in real-time directly from your utility company. It combines this metered data with other data sources in your building to give you transparency, uniformity and visibility across all your significant energy users.





### **STEP THREE**

ISO50001 recommends that organisations develop and track their energy performance indicators (EnPIs) in realtime.

[Section 4.4.5 of ISO50001]

#### PEAK

PEAK enables you to set and track your own targets with a clear understanding of industry benchmarks.

PEAK will identify when SEUs are operating outside specific parameters.





### **STEP FOUR**

ISO50001 recommends that organisations project future energy consumption based on historical energy data , capital investment plans, heating degree day (HDD) and cooling degree day (CDD).

[Section 4.4 of ISO50001]

#### PEAK

PEAK uses historical main meter data to project the what future energy consumption would be if optimisation measures are not implemented.





#### **STEP FIVE**

Certification against ISO50001 is significantly improved when evidence is demonstrated of a proactive system used to identify 'opportunities for improvement'.

#### PEAK

PEAK uses live building data to pinpoint, highlight and prioritise inefficiencies in realtime, providing actionable insights.

It was the only platform awarded 'best in class' by the CSIRO in an international study of automated FDD tools for commercial building energy efficiency.

CIM's customer success team helps you simplify and accelerate the end-to-end process of fault detection, diagnosis and problem resolution.





#### **STEP SIX**

ISO50001 recommends that organisations improve operational control of their SEUs.

[Section 4.5.5 of IS050001]

#### PEAK

PEAK optimises how large HVAC plant and equipment is performing, giving you real time control of your energy consumption.

It allows you to measure the impact of operational improvements with PEAK and improve your operational decisions based on a clear understanding of the facts.





### **STEP SEVEN**

ISO50001 recommends that organisations use a platform to record savings achieved from energy conservation measures (ECM) and ensure savings do not degrade over time.

#### PEAK

PEAK tracks OPEX savings and CO2 reductions achieved against the target for buildings and portfolios.





### **STEP EIGHT**

ISO50001 recommends that organisations perform smarter capital planning with respect to energy design improvements.

[Section 4.5.6 of ISO50001]

#### PEAK

PEAK's data-driven insights help you to proactively make smart capital investments that provide a measurable increase in equipment efficiency.





#### **STEP NINE**

A good monitoring and verification (M&V) methodology is a key element of ISO50001 certification.

#### PEAK

Continuous intelligent monitoring of your building equipment and systems with PEAK's data analytics will ensure your asset continues to run optimally and the benefits of the ECM are maintained.

PEAK aligns with Option A of the IPMVP methodology which is used in several M&V procedures.





#### **STEP TEN**

ISO50001 recommends that energy teams are established, and there is effective communication and awareness of the energy management program on site.

[Section 4.5.3 of ISO50001]

#### PEAK

The PEAK dashboard makes it easy for all stakeholders to see and understand normalised vs actual energy consumption, emission reductions, thermal comfort levels, costs saved and peak energy periods.





## **The PEAK platform**

CIM's award-winning PEAK platform integrates building intelligence, machine learning and technical engineering support to improve efficiency, sustainability and comfort across property portfolios.



#### **Building analytics**

PEAK unleashes the power of existing building data, machine learning and automation to give property owners and operators more visibility and control over assets.



#### **Machine learning**

Our data science team augments existing technology and human intelligence through advanced analysis of PEAK's historical and live building data, finding actionable insights





#### Technical engineering support

Our mechanical, mechatronic and electrical engineers provide customers with dedicated expert support across every site and portfolio to quickly resolve issues and run better buildings.



## **Customer outcomes**





Contact CIM to learn how we can help you achieve more from your BMS and technical systems.



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