Energy Monitoring Data Sheet

The Challenge

⚡ Limited visibility of energy utilization across machine, production lines, etc

⚡ Difficulty in planning energy efficiencies and reporting on sustainability objectives.

📶 Existing energy monitoring solutions can take a one size fits all approach (e.g. sensors that report data every minute do not work for machinery that has 'spikey' usage.)

📄 Mandated reporting on carbon usage to measure environmental impact.

🪪 Employee engagement, with direct visibility of usage and environmental impact, is increasingly important for recruitment and involving staff in efficiency initiatives.

📊 With visibility, the ROI for efficiencies can be measured and business cases built, for instance for replacement of older machinery.

What SiYtE can offer

We are sensor agnostic and employ a phased approach to ensure our customers fully understand which monitoring solution best suits their energy profile and the potential benefits before making a commitment.

Sustainability Reporting Dashboard

o Reporting on energy usage across plant, lines and machines
o Translation of energy usage to daily, weekly and monthly costs and CO2 impact
o Real time energy usage visibility
o Energy usage trending and comparison charts

Energy Utilisation Insights

o Dashboards and visibility to engage staff on energy saving practices
o Insights on which machines, jobs, lines and shifts are the most efficient

Real-time Alerts

o On excessive energy so that staff can address issues quickly
o On factory equipment that has been left on, even when jobs are finished

Phased Approach

SiYtE

Phase 1: Short Term Energy Logging for Energy Visibility & Insights Report

- o Install energy logger to collect real time usage data for 1 week / 1 machine (or multi-week, multi-machine)
- o Develop **Energy Visibility & Insights Report:**
- o Logging frequency requirement to inform sensor and connectivity choice
- o Energy usage patterns
- o Potential for energy insights

Figure 1 – Fluke 1732 and 1724 Three-Phase Electrical Energy Loggers

Phase 2: Energy Monitoring

- o Deploy a sensor and connectivity network
- o Reporting of energy usage per machine over time

Figure 2 – EEM-MA371-2-Measuring instrument

Phase 3: Energy Insights

- o Energy insights displayed in financial and carbon impact terms
- o Integration into job/tasks systems
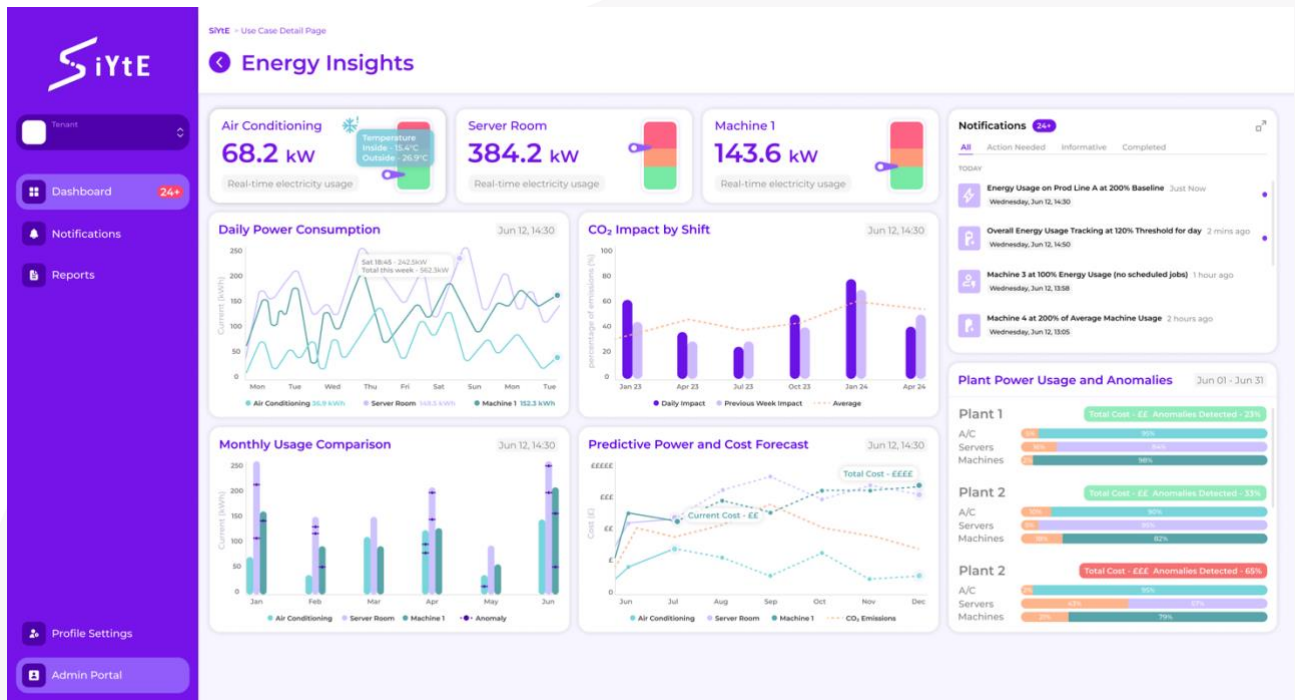- o Energy usage comparison enabled between jobs, machines, lines and teams

Figure 3 – SiYtE dashboard showing energy insights