

# Smart Metering

Helping you to cut energy costs, eliminate energy waste and reduce carbon emissions

**Presenter – Chris Cakebread**

## Introduction

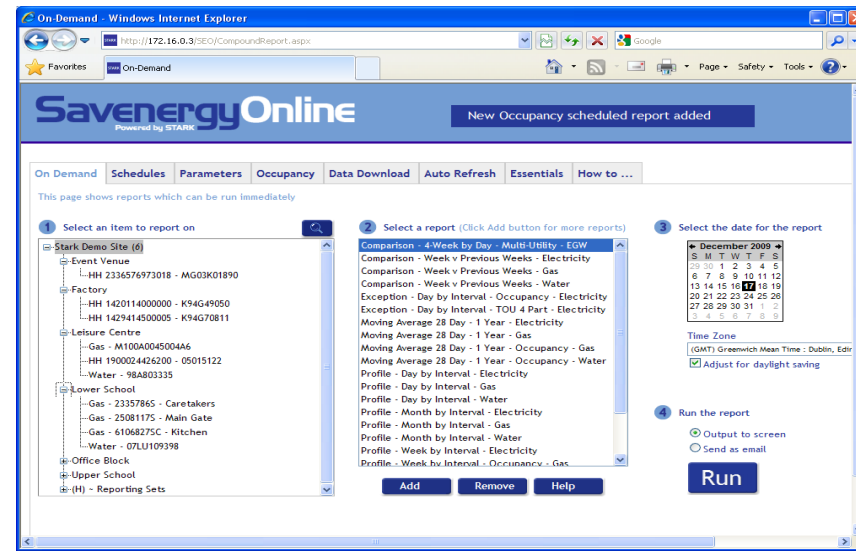
- **What is a Smart Meter?**
- **Reporting & examples**
- **How can AMR help me day to day?**
- **The future**
- **Summary**
- **Questions**

## What is a 'smart' meter?

- **Meter is read remotely**
  - Data by sent by SMS/GPRS
  - No meter reader visits
- **Removes estimated readings on bills**
  - Average over estimation is approx 18 % to 20%
  - Accurate open and close reads
  - Removes supplier data accuracy risk

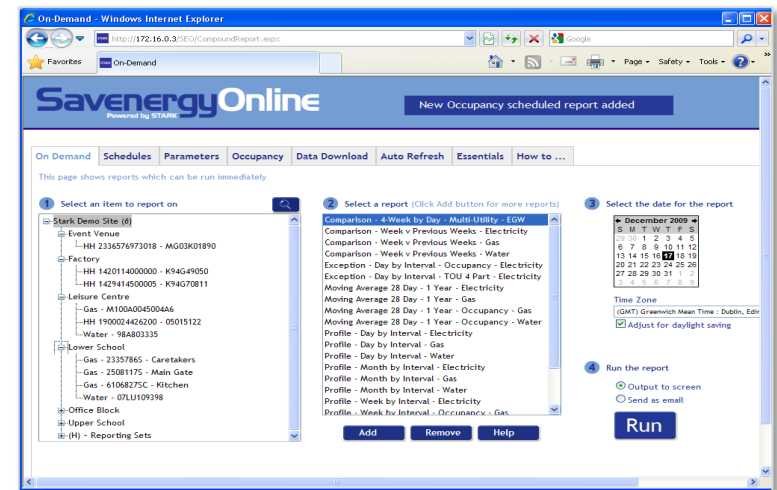
# Using AMR data to monitor usage

- Implement a *M&T* - an automatic energy performance monitoring system
- Need to relate consumption data to:
  - Occupancy
  - Weather
  - Local conditions



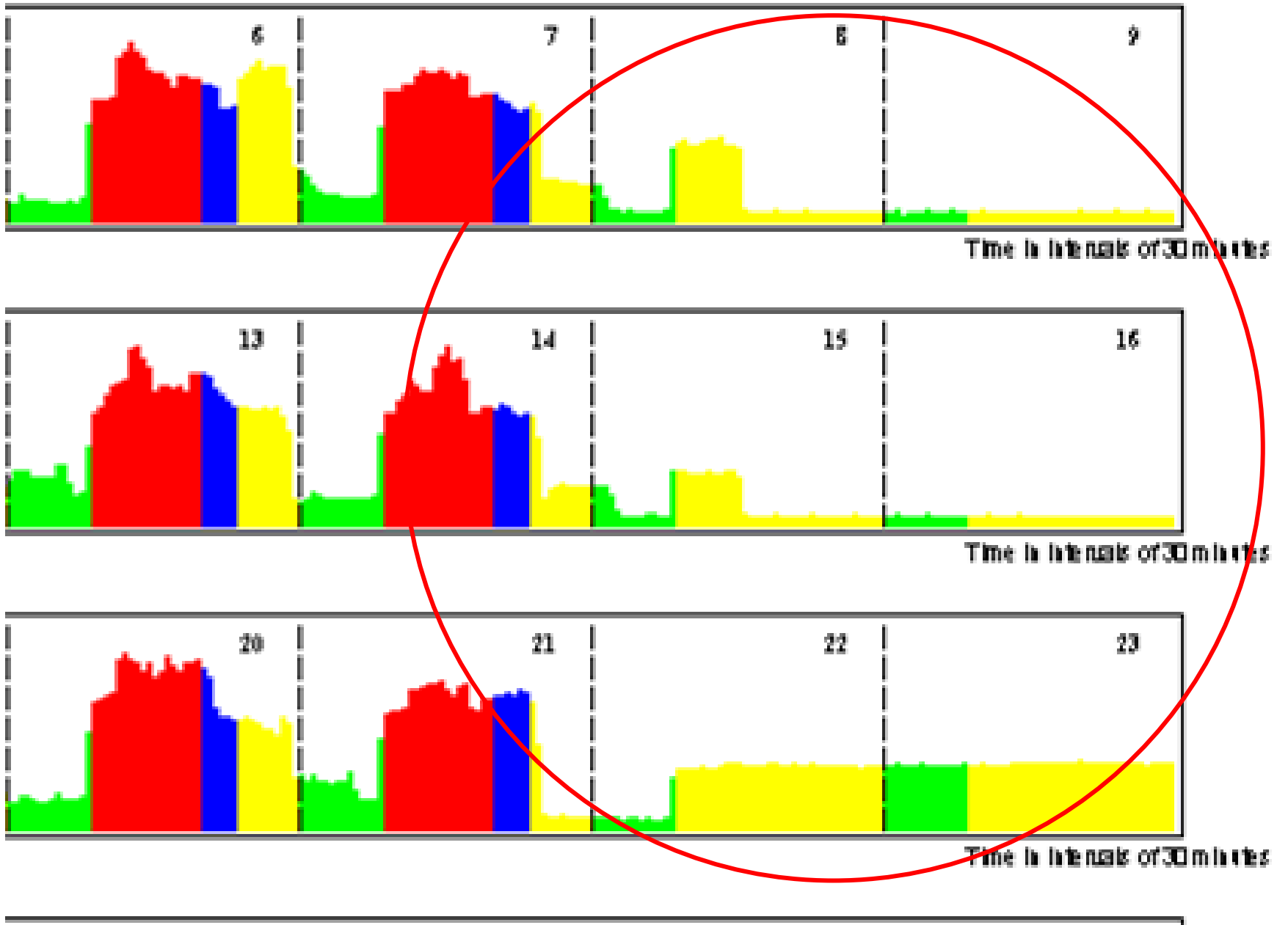
# Using AMR data to monitor usage

- Internet reporting service
- Daily, Weekly, Monthly & Annual Reports
- Carbon Reporting
- Comparisons & targets
- Exception Reporting
- All available Day + 1

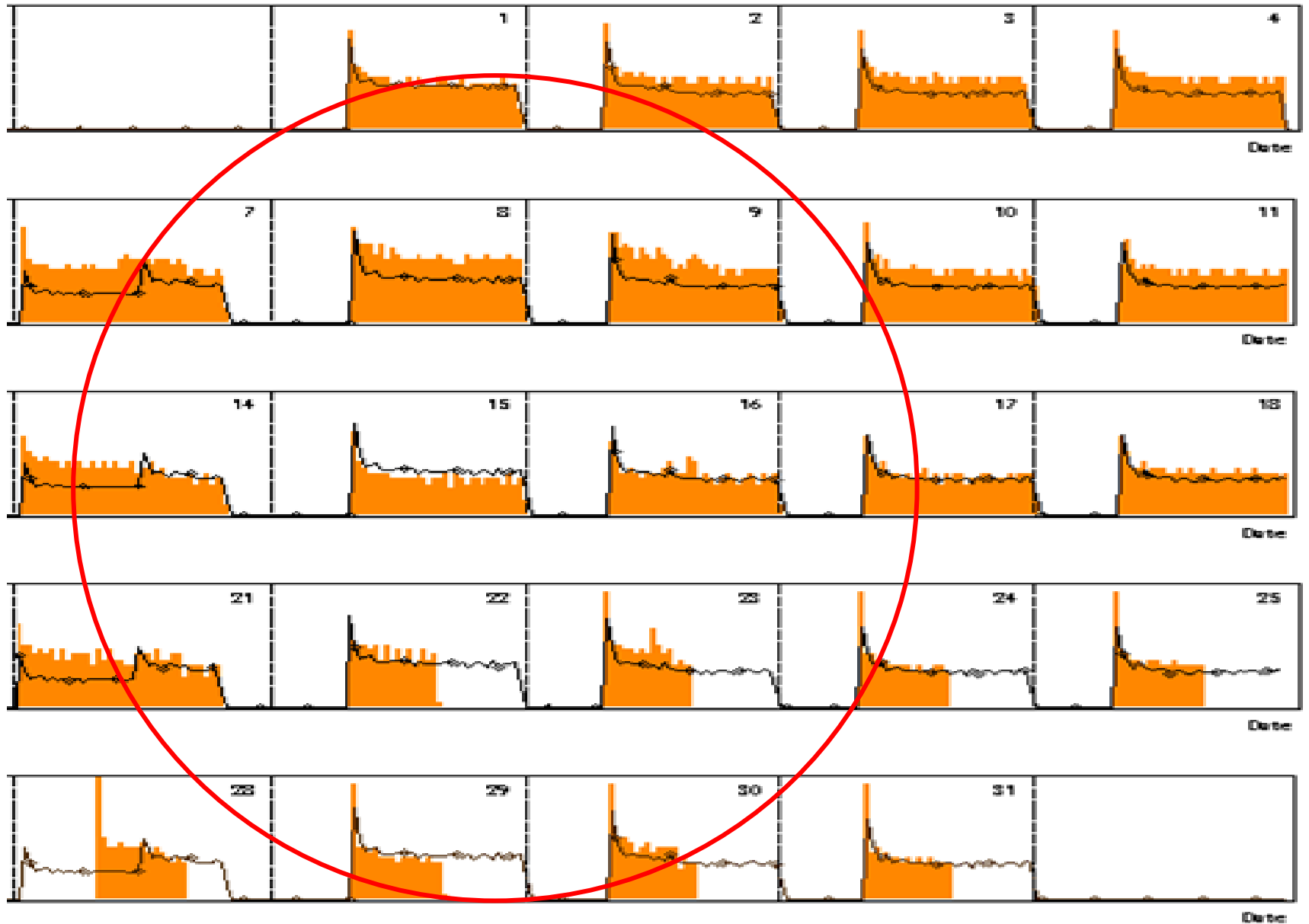


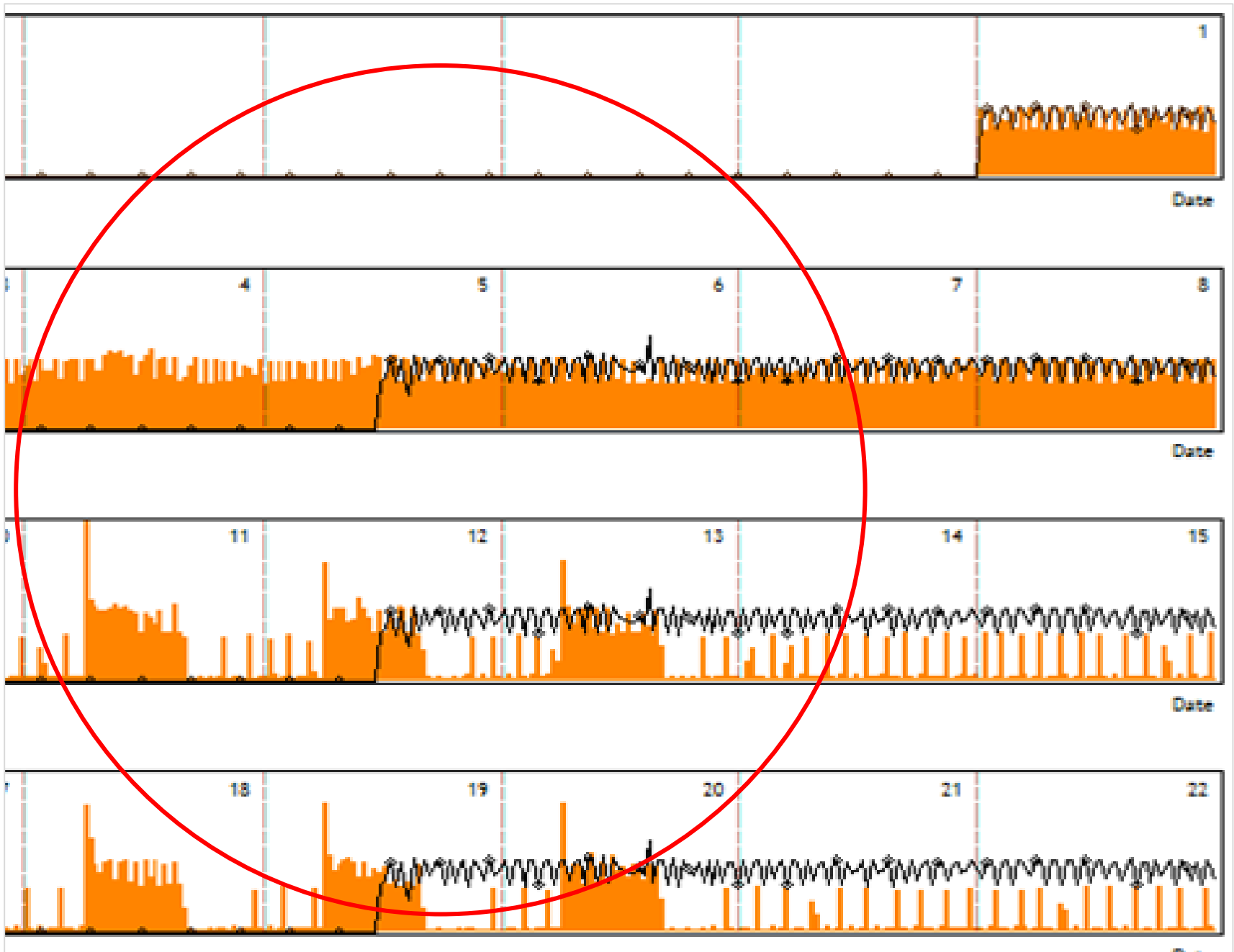
**Examples of issues identified  
using AMR in conjunction  
with an online aM&T  
software package**

Air-con controls set with wrong day and then lights left on all weekend



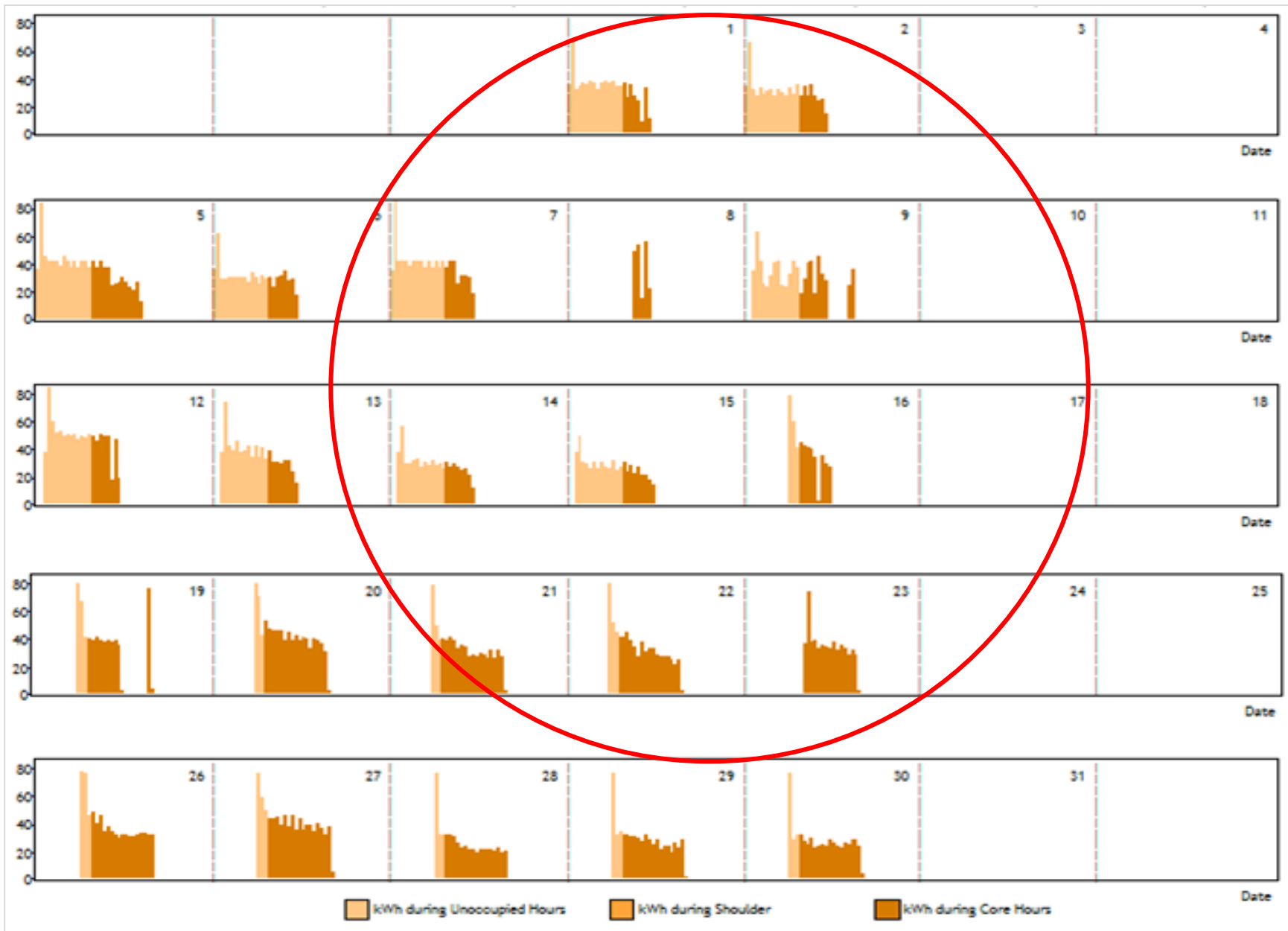
Time clock  
incorrectly  
programmed  
during  
routine  
maintenance  
visit.

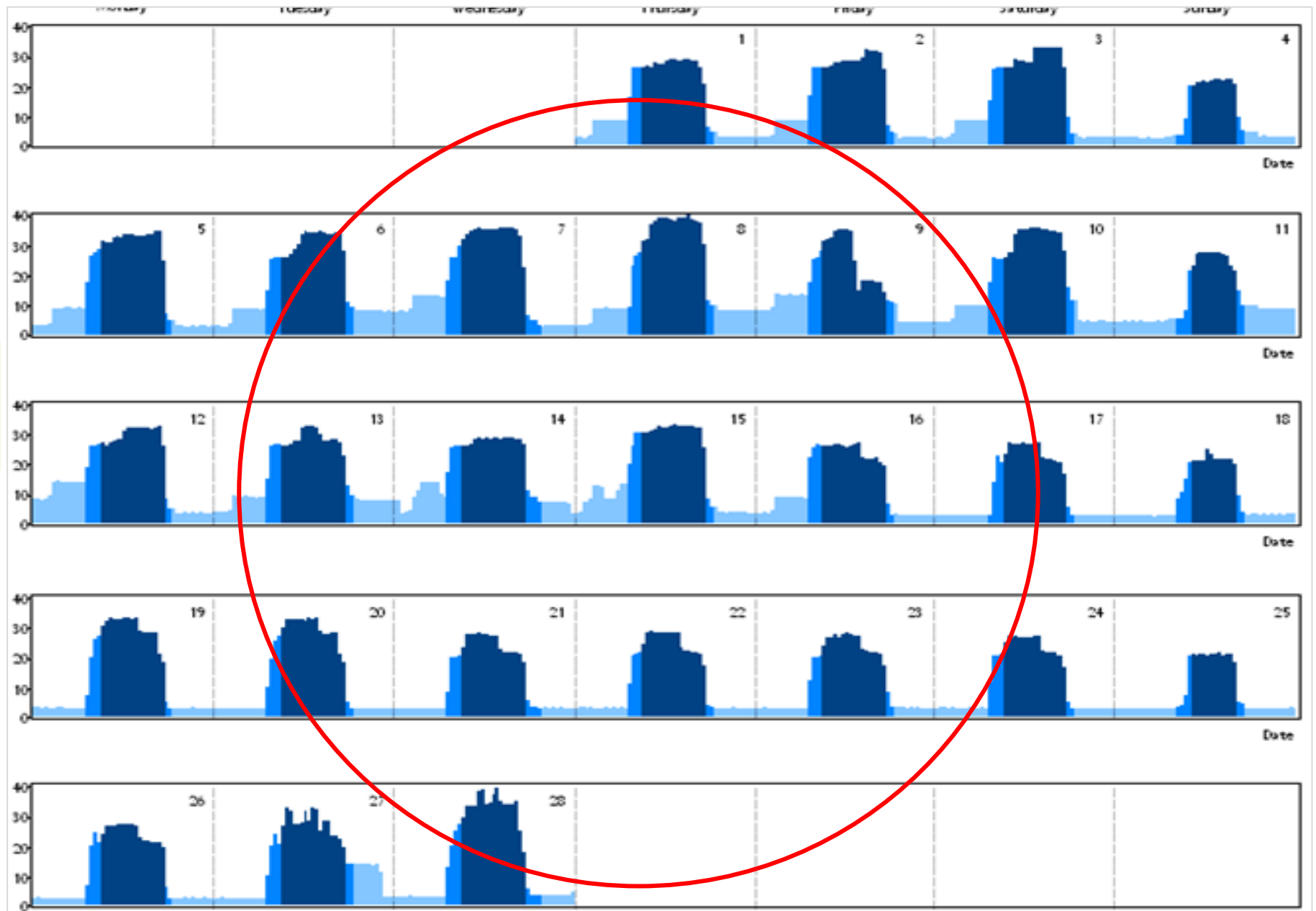




Boiler controls overridden by maintenance team who forgot to reset controls.

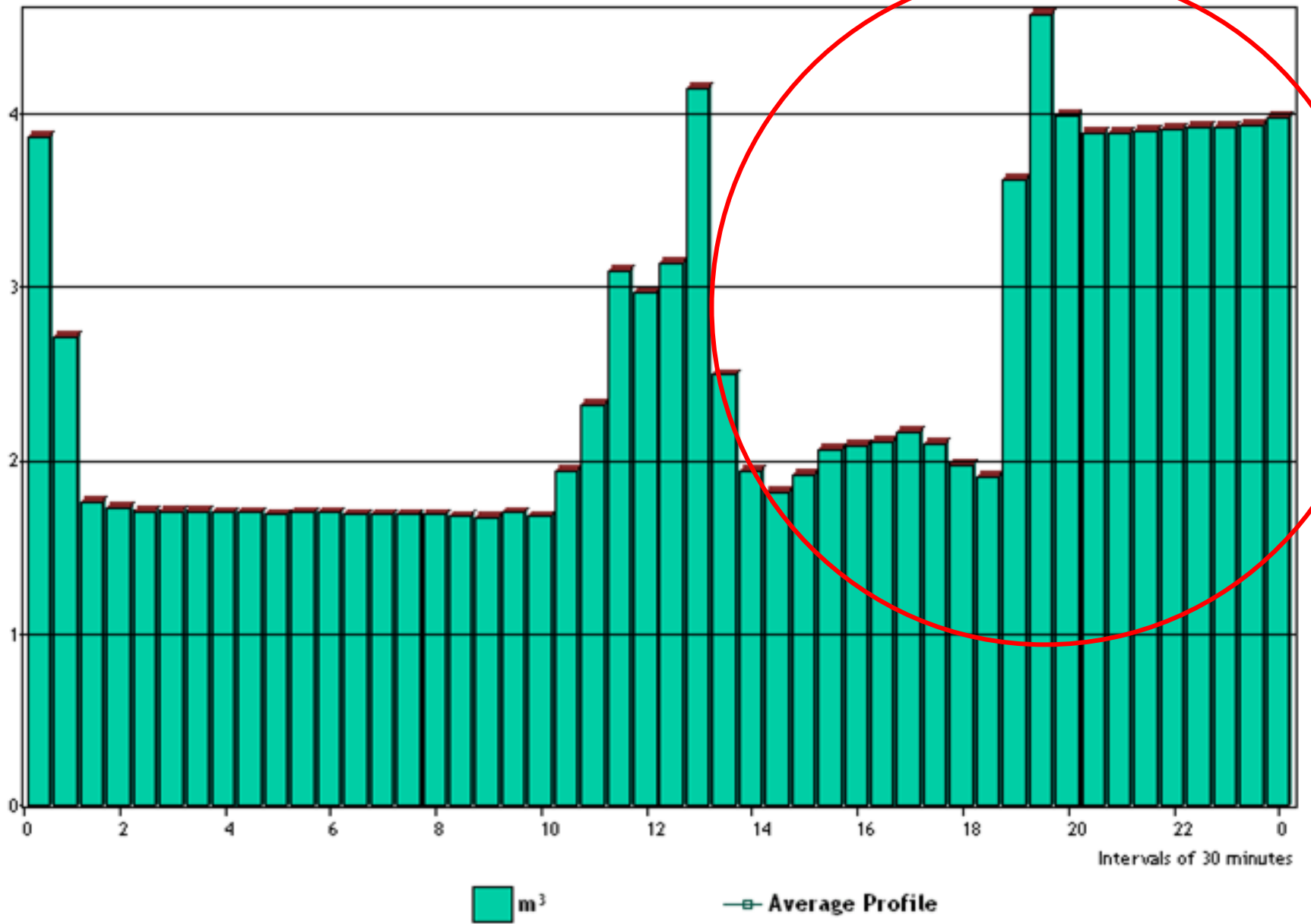
Temp sensors located in unoccupied rooms. They were telling the control system overnight that it's still not warm enough and instead of the heating coming on two hours before staff arrived, it was coming on at midnight.



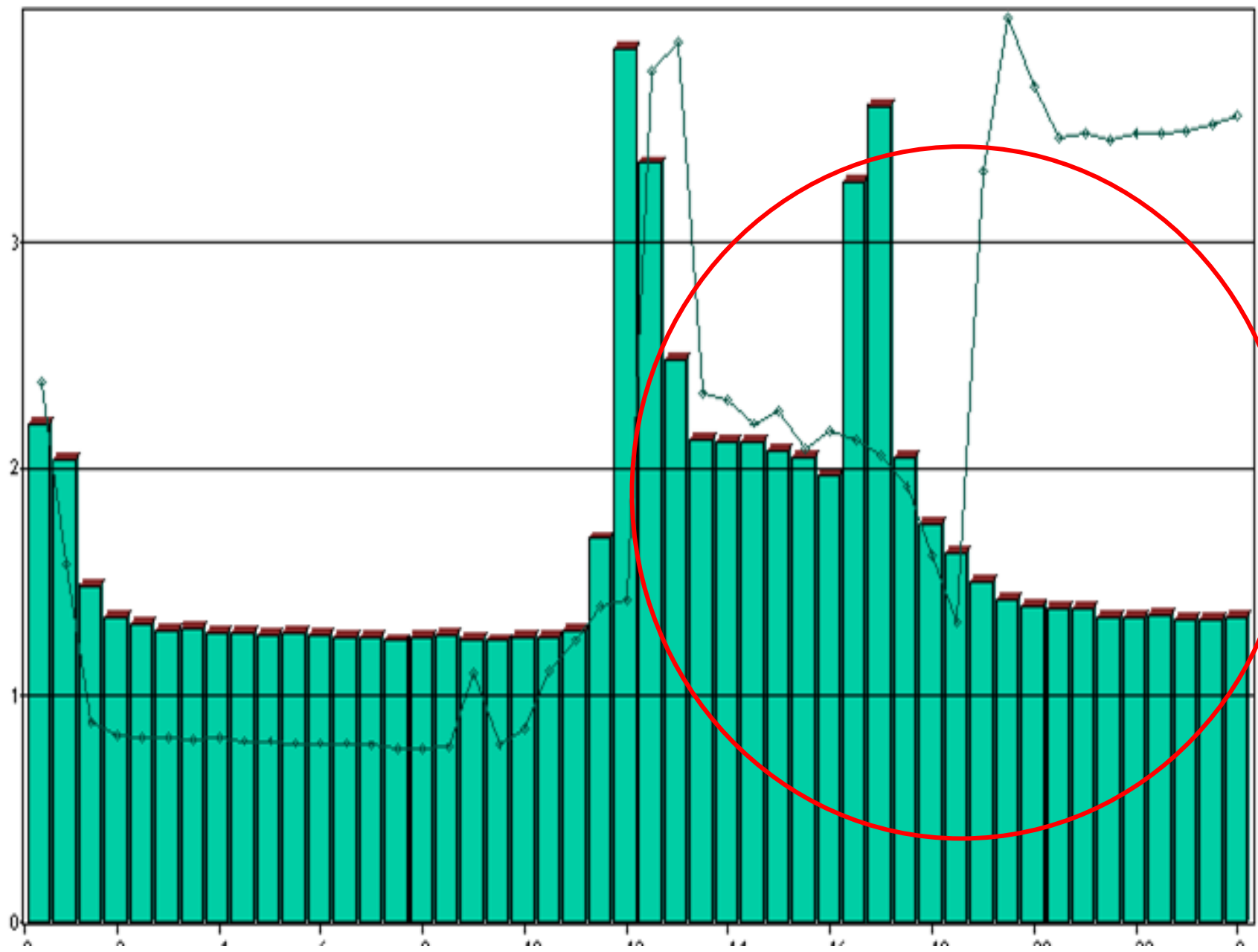


The lights were left on all night - in error.

Automatic fume cupboard Scrubber valves incorrectly programmed .



Scrubber valves re-programmed. Reducing water consumption by over 35%



## How can AMR info help me day to day?

- **Analyse and control consumption**
  - **Baseline demand**
  - **Occupied vs. Unoccupied**
  - **Day vs. Night**
  - **Weekday vs. Weekend**
- **Prove your 'Green Credentials'**
  - **Publish data for parents and pupils**
- **Use as a teaching aid**
  - **Individual logins for key staff**
  - **Energy champions**



## Summary

- **Smart meters in them selves don't save money!**
  - Analysis & corrective action
  - Exception reporting
- **The key objectives of any smart metering system are:**
  - Help cut your energy costs,
  - Help eliminate energy waste
  - Help reduce carbon emissions
- **Other benefits include**
  - Consumption info can be used as a teaching aid
  - Accurate bills and budgeting

# Thank you for time

For more information on AMR, aM&T or

Energy Management support services

please contact Chris Cakebread on

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