



Metering for Smart HVAC

**YOUR
ENERGY
SOLUTIONS
DELIVERED**

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Leverage Metering to Deliver Outcomes

Benefits



Compliance

Building Regs and
Heat Network Regs



Recharging

Mandatory utility
recharging code of
conduct (RICS)



Accountability

Occupiers as the
primary agent for
efficiency



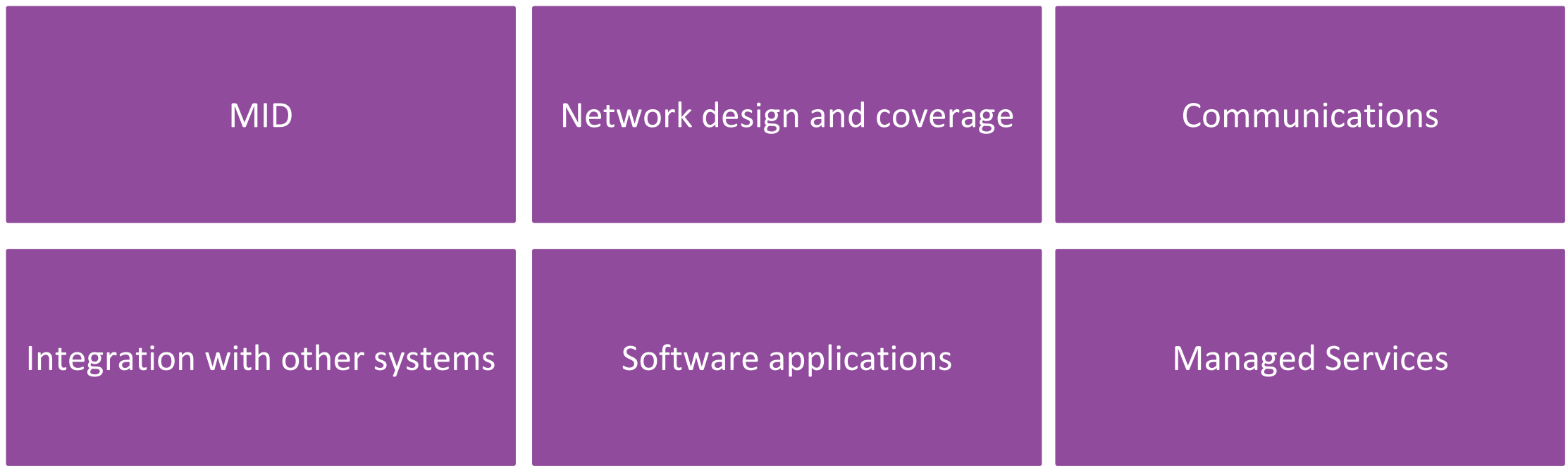
Benchmarking

Building
performance to
drive asset value

Metering enables visibility and accountability in multi-use buildings, and if deployed and managed correctly facilitate elimination of energy waste, driving long term asset value

Metering Strategy Development

Key Considerations



Very few commercial buildings master all 6 elements due to siloed approach to commissioning and handover to building management.

Recharging Methodologies

How to Minimise Service Charge through HVAC Metering

Focused Metering Strategy

'Real-time' Reliable Data Feed

Real-time Dynamic Apportionment

Occupier Visibility / Engagement

Methodology backed by lease agreement

Mains Fiscal Meters

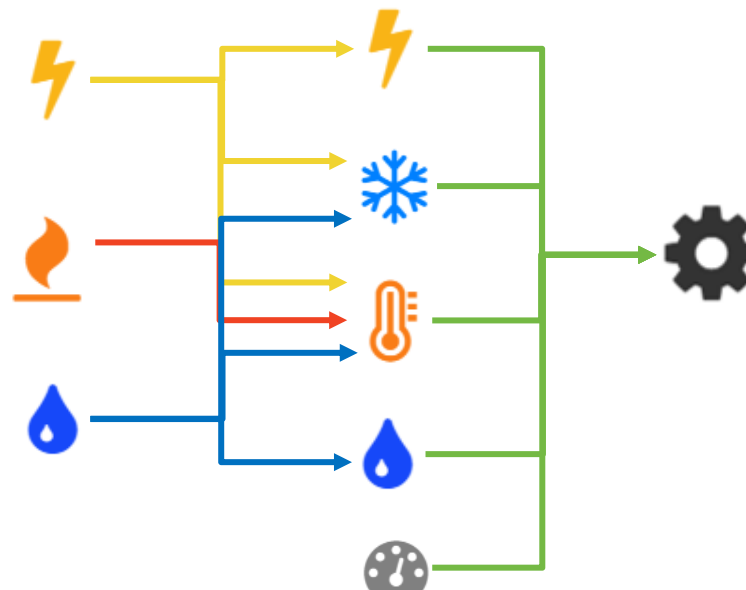
Sub-meters

- Electricity
- Heating
- Cooling
- Water

BMS Points

- Air flow
- Valve Positions
- BMS Schedules

Billing Engine

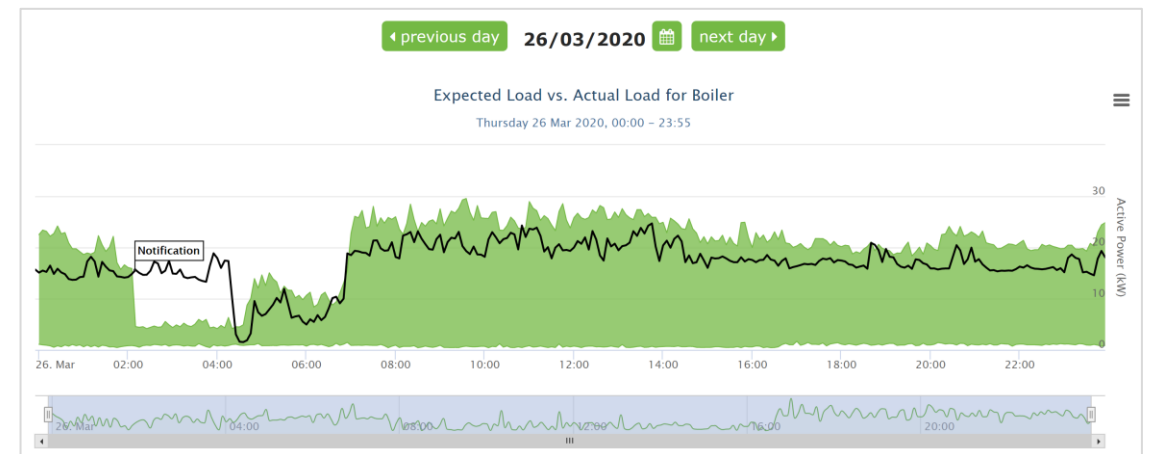
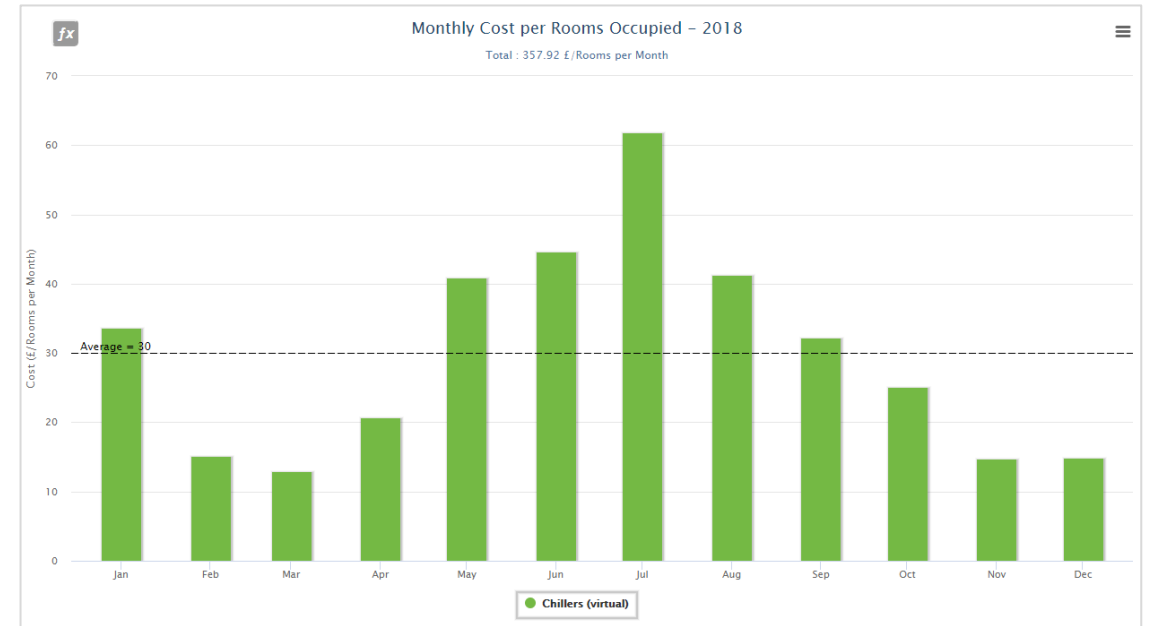
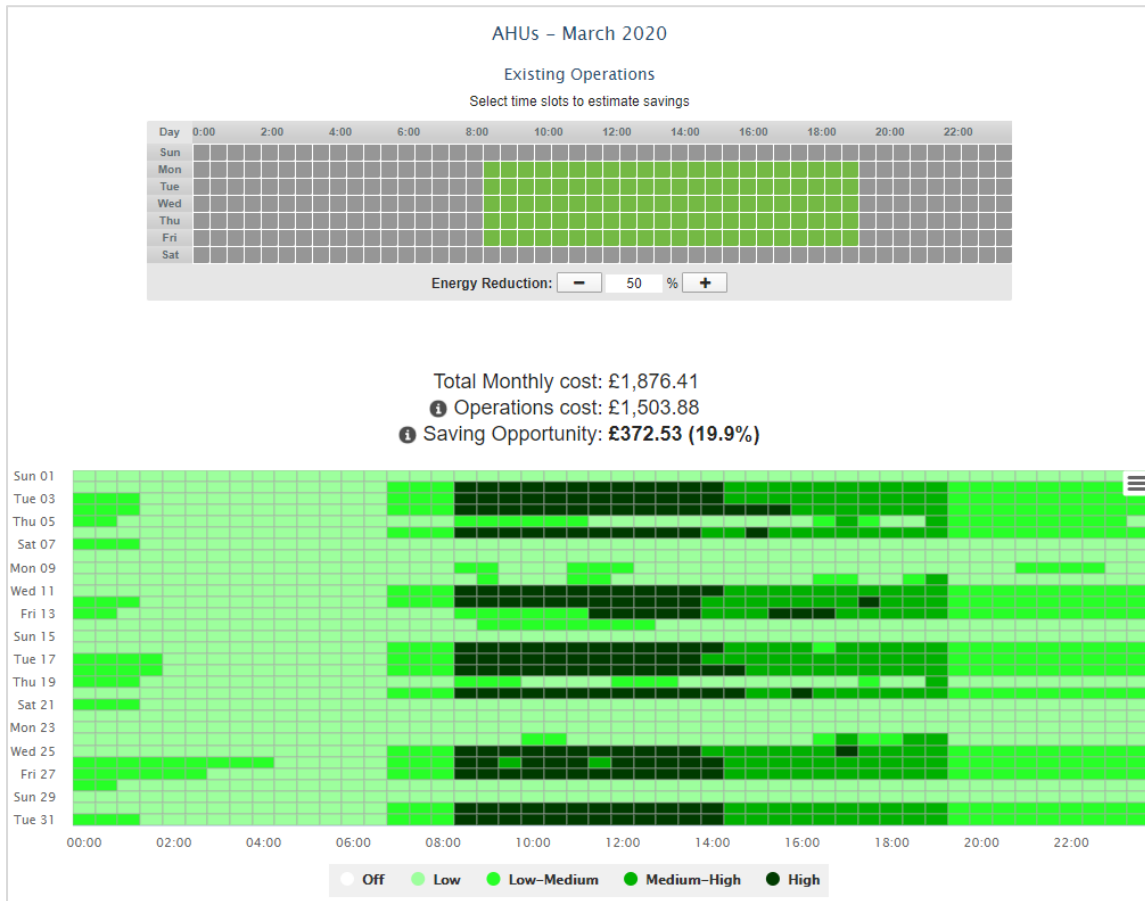


Occupier Recharge

Utility	Service	Sub-Service
Electricity	Lighting / Power	Direct
		Common Parts
	Heating	LTHW
		Heated Air
		DHW
	Cooling	CHW
Cooled Air		
Gas	Heating	LTHW
		Heated Air
		DHW
		Common Parts
Water	Water	Direct
		Common Parts
	Heating	LTHW
		DHW
	Cooling	CHW

Tools

Combining Utility Recharging with Energy Analytics



Key Outputs

Metering's contribution to Smart HVAC

Energy Management & Benchmarking

Ability to combine datasets (energy, BMS, weather) and apply rules to identify exceptions

Automated Notification Engine and Anomaly Reporting feeding into CAFM

Efficiency Benchmarking of Central Plant and Entire Building

Measurement & Verification to prove results of energy conservation measures

Occupier Engagement & Billing

Occupier engagement leading to more efficient building

Combining energy and BMS data to apply demand driven, transparent recharging



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