Smart Homes & Cleanpower
2013 Conference www.hvm-uk.com/smarthomes
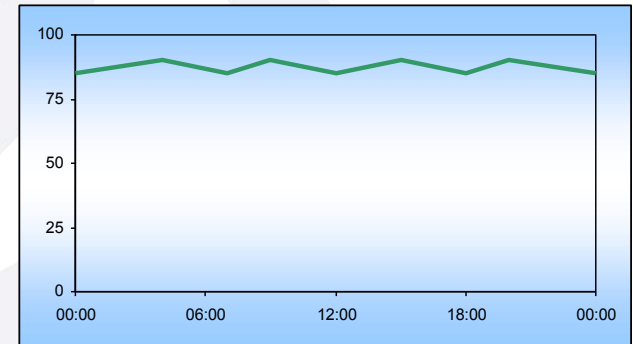5 November 2013 Cambridge
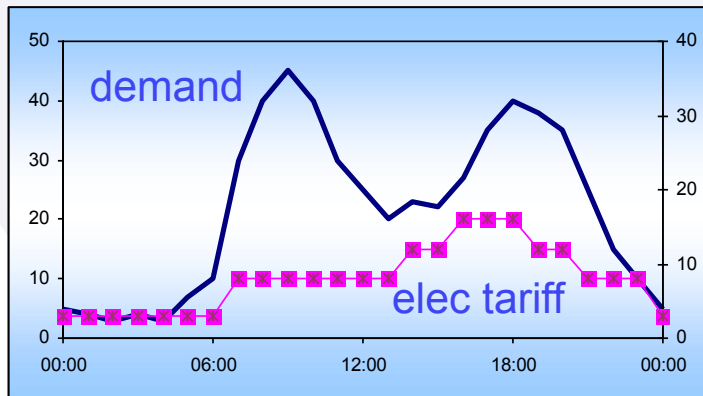
Hands to the pump: total control software

Marcus Fowler

Associate Director, Tynemarch Systems

- Water Companies have to operate their water supply network to meet customer demand at lowest cost.

- How to ensure security of supply?

- How to minimise operating cost?

Keep reservoirs full at all times?

Periods of high demand coincide with highest electricity costs

- Forecast the demand – know what needs to be supplied and when

- Plan when to refill – pro-actively manage service reservoir levels

- Optimise the operation – use the most efficient pumps at the cheapest sources at the most cost-effective times
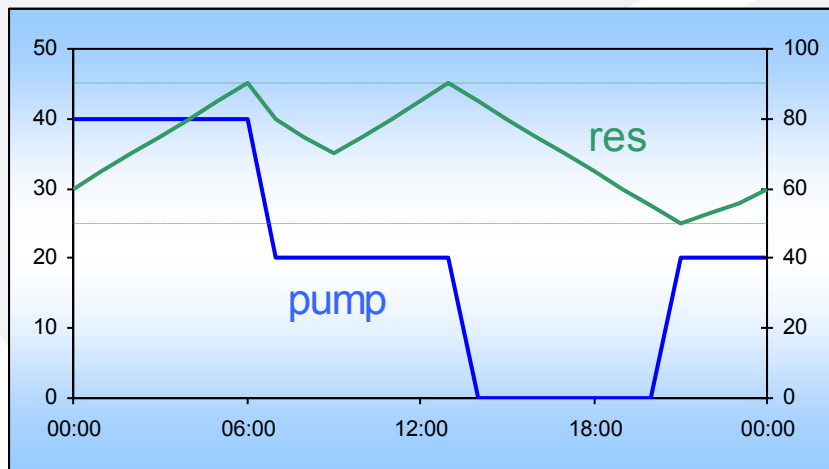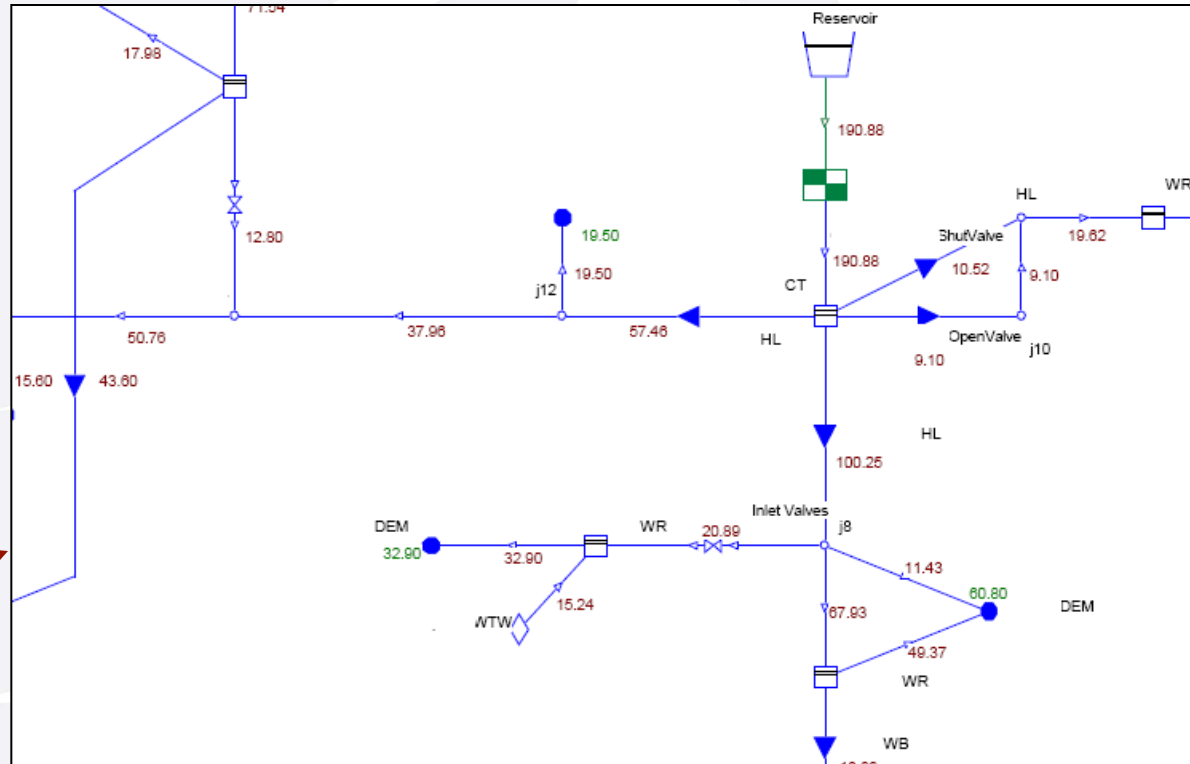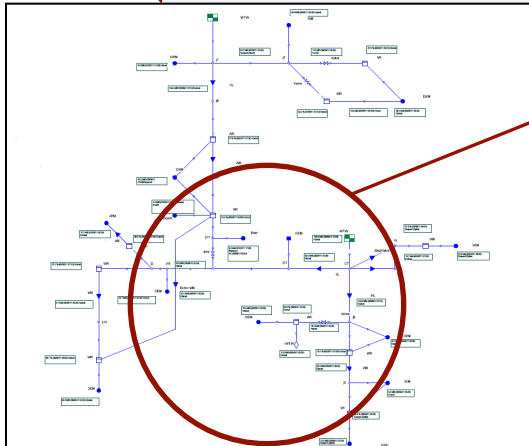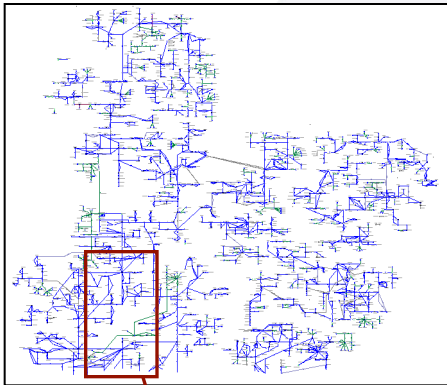

Use storage in the system to offset pumping during the peak electricity tariff periods
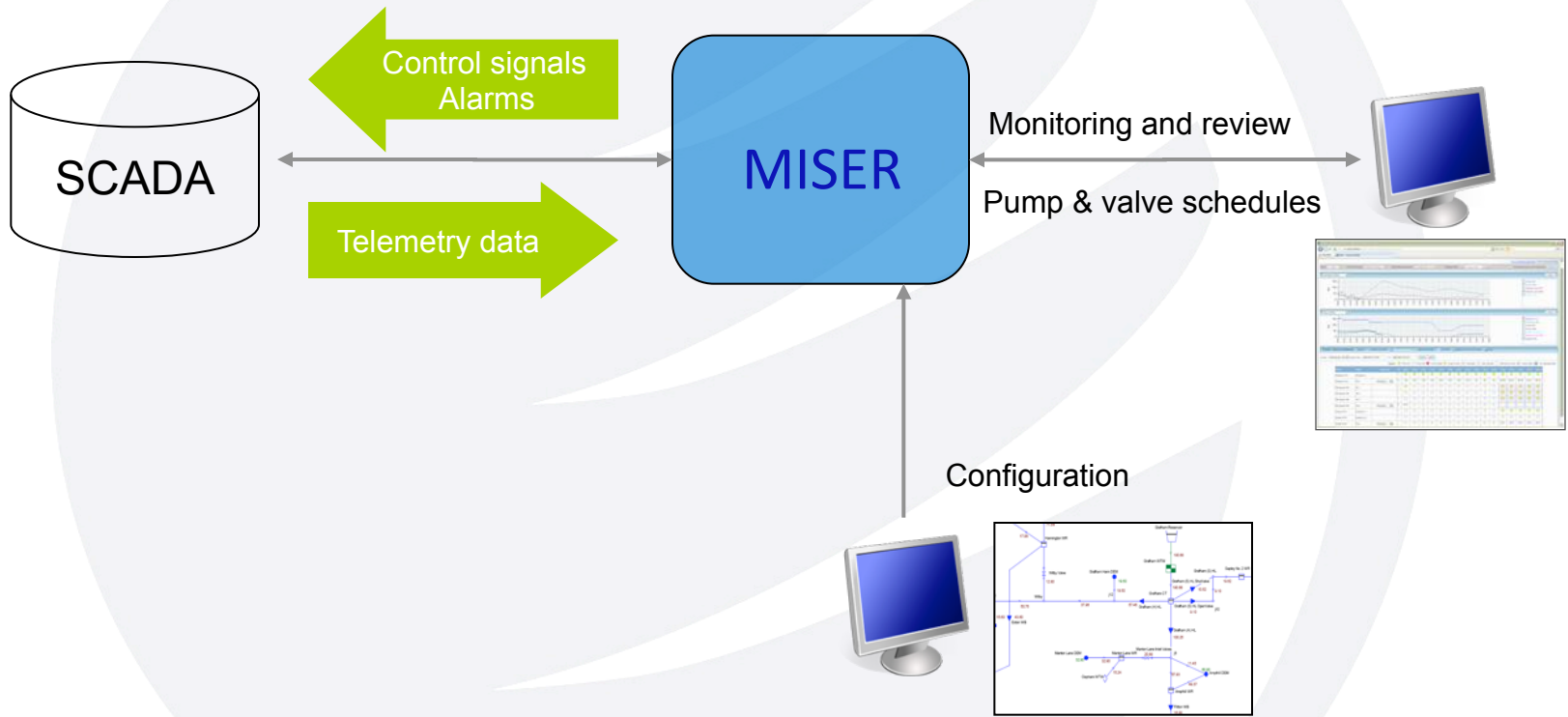
- Anglian Water Regional model
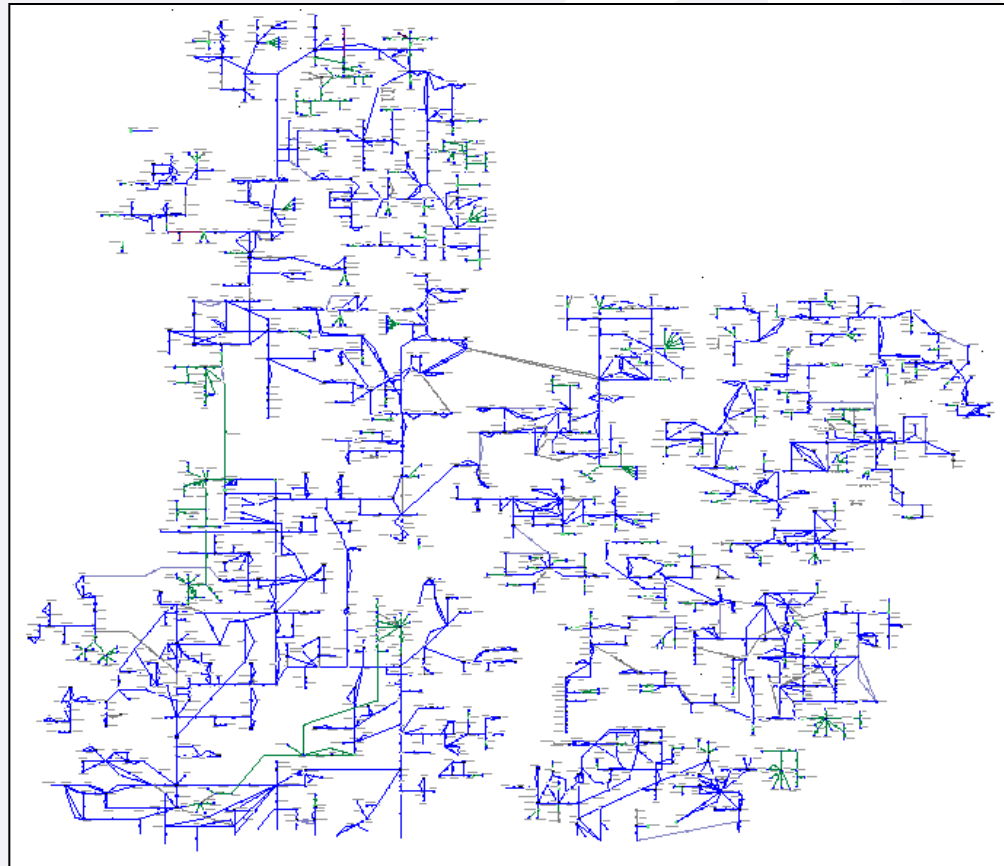
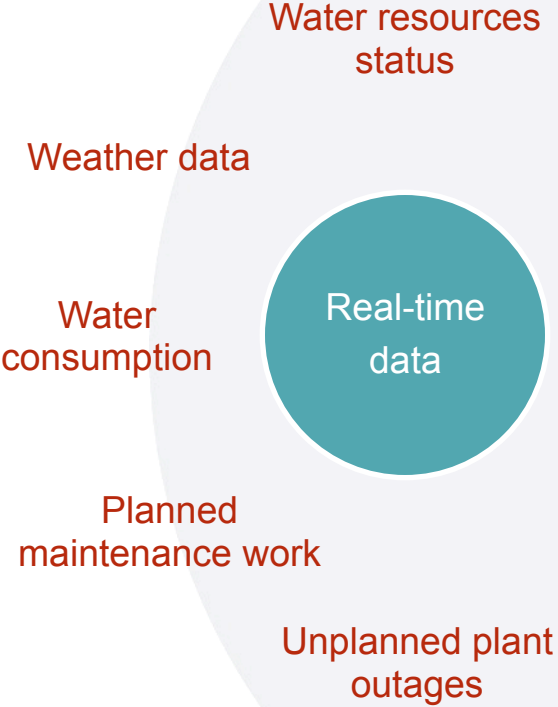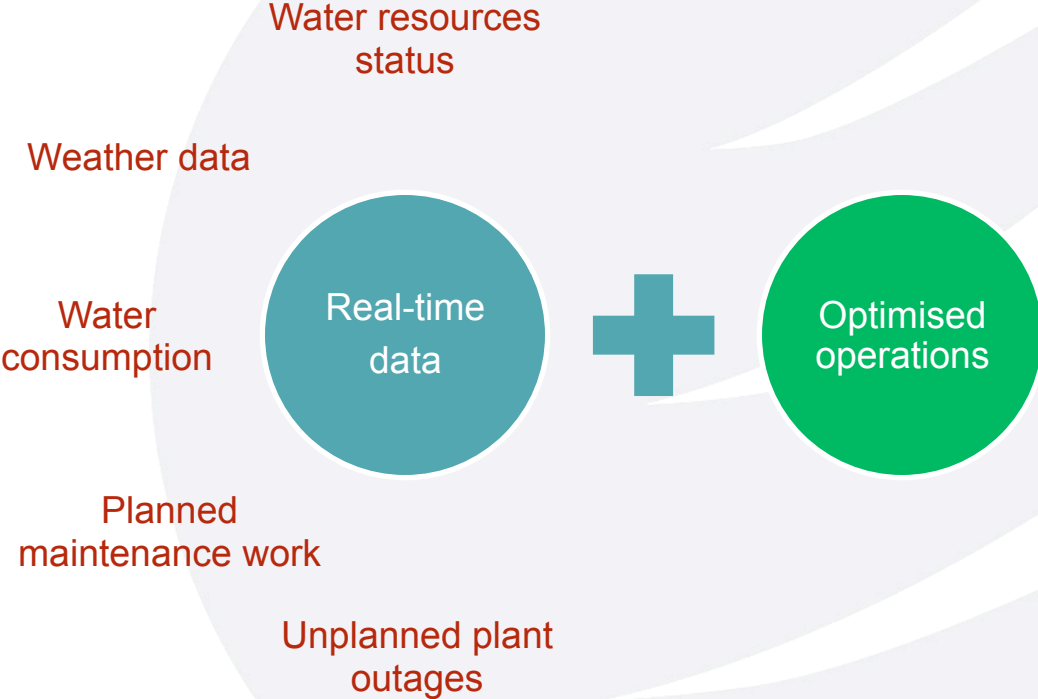- Since 2011, Ruthamford area network optimisation – Grafham and Wing (Rutland) supplies to Northampton, Milton Keynes and Bedford

SCADA

Control signals
Alarms

Telemetry data

MISER

Monitoring and review

Pump & valve schedules

Configuration

CSE TynemarchSystems

Water resources
status

Weather data

Water
consumption

Real-time
data

Planned
maintenance work

Unplanned plant
outages

CSE TynemarchSystems

Water resources
status

Weather data

Water
consumption

Real-time
data

+

Optimised
operations

Planned
maintenance work

Unplanned plant
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CSE TynemarchSystems

Water resources status

Weather data

Water consumption

Planned maintenance work

Unplanned plant outages

Real-time data

+

Optimised operations

=

Benefits to customers

Increase reliability of supply

Longer asset lives

Reduced carbon emissions

Assured water quality

Reduced operating costs

Thank you for listening
Any questions?