Off the Grid

Custom Micro-Hydropower Automation

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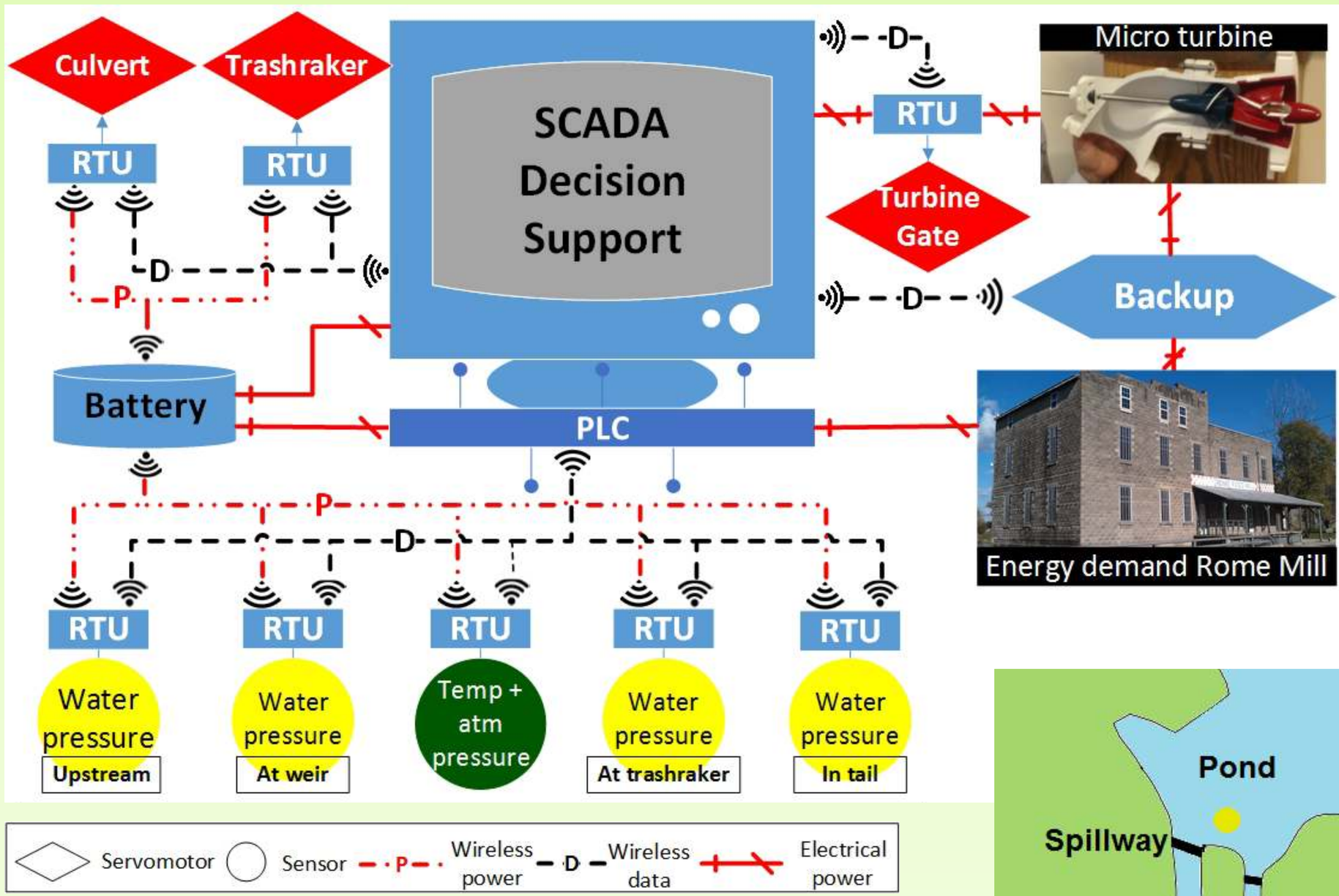
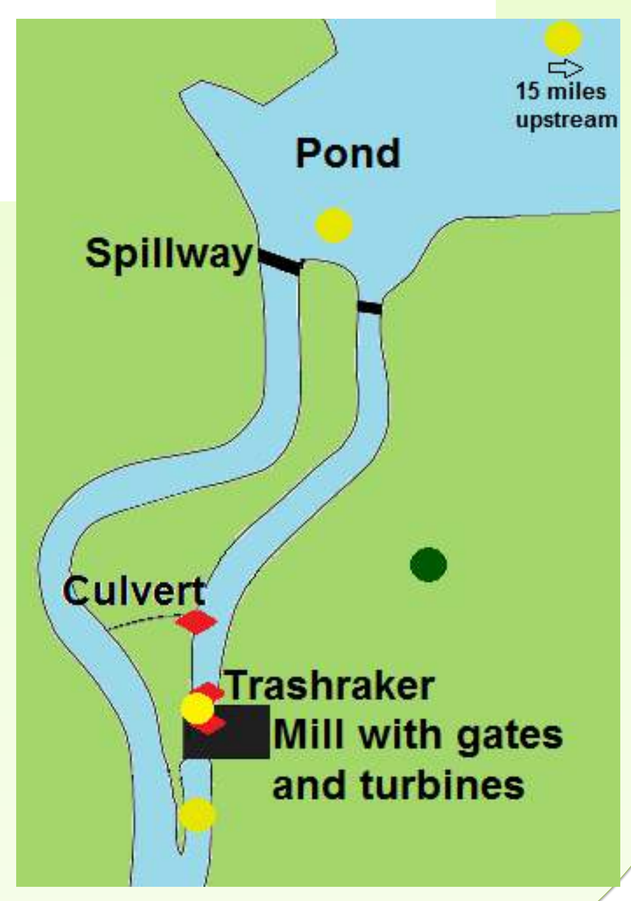
Challenge

Cadens LLC is piloting a multi-turbine micro-hydropower system in Rome, Wisconsin at its Mill facility. The current flow control is a labor-intensive manual operation. No real-time water level measurements are available, leading to high operation costs and inefficient energy production.

Solution

A self-regulating independent system composed of a component map (as below) as well as a decision tree that will drive optimal, automated power generation.





Advantages

1. Operations are monitored remotely
2. Functions during grid-wide outages
3. Saves on average $1000 each year
4. Site specific customization optimizes energy production
5. Compatible with existing SCADA
6. The potential market size is enormous
7. Cheaper and more dependable alternative than other intermittent energy sources

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Study case provided by:

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