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Powering the water industry AMP8 and beyond:

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Designing AMP8 panels for remote sites

Charter Controls



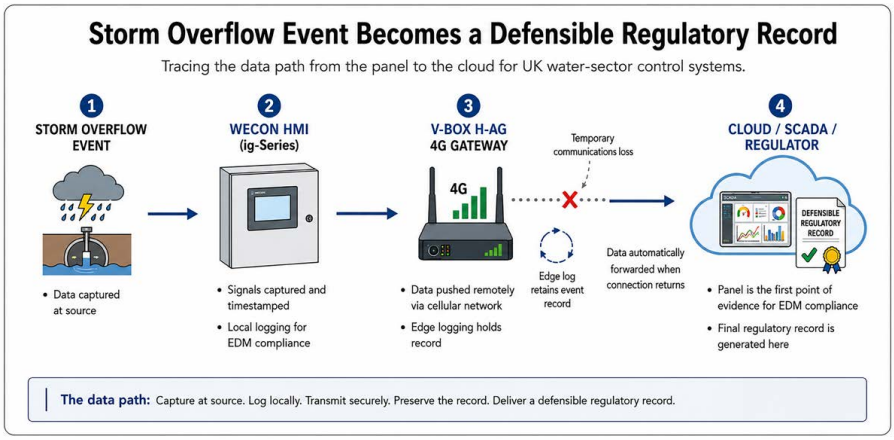
A remote pumping station

Ofwat's PR24 settlement, public EDM data, and the PSTN migration are changing what utilities expect from remote assets. For panel builders, the brief is no longer whether to specify for remote operation, but how.

Running from April 2025 to March 2030, AMP8 (Asset Management Period 8) is the eighth five-year regulatory cycle governing the water and wastewater industry in England and Wales. Ofwat's PR24 final determinations back roughly £104 billion of total expenditure, including a record £44 billion of new infrastructure and resources investment. The pressure that funded it is operational.

The Environment Agency's Environmental Performance Assessment (EPA) for 2024, published in October 2025, gave the nine English water and sewerage companies 19 stars out of a possible 36, the lowest score since the assessment began. Serious pollution incidents rose 60 percent year on year, from 47 to 75. Underneath those numbers sits a largely remote, largely unmanned estate still too often checked by hand. AMP8 outcomes will not come from reactive maintenance, so water-sector panel work now has to be specified for remote operation from the start.

> **"True power monitoring solves the problem. Active power tracks shaft load across the full operating range, so the motor itself becomes the load sensor, with no wet-side instrumentation to maintain."**



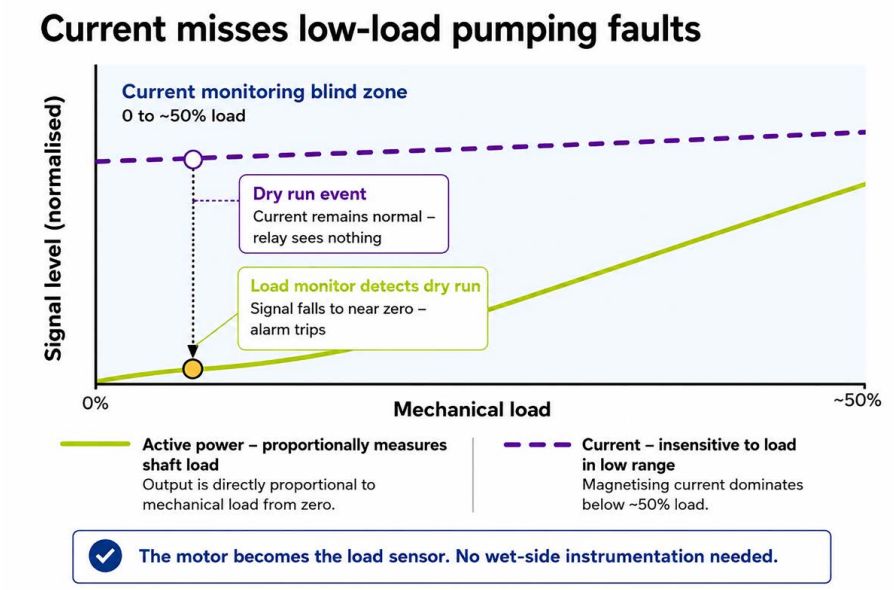
Pumping: protection that catches what current cannot

Pumping is where the operational risk concentrates, and where the regulatory cost of failure has changed most. A pump that runs dry, cavitates, suffers ragging on the impeller, or dead-heads against a closed valve, can put an overflow or a process trip onto the Environment Agency's pollution incident count.

Current-only overload protection misses those failure modes. Below half of rated mechanical load, the current drawn by an induction motor flattens out, dominated by magnetising current. A current-sensing relay cannot tell a 40 percent-loaded pump from a fully unloaded one. A dry run is the textbook case: the motor draws normal current, the relay sees nothing, and the impeller and bearings take the damage.

True power monitoring solves the problem. Active power tracks shaft load across the full operating range, so the motor itself becomes the load sensor, with no wet-side instrumentation to maintain. That matters at a remote pumping station, where every extra sensor is another

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thing to fail, and another site visit to fix.

The Unipower HPL500 fits fixed-speed pump protection on a DIN rail. For VFD-driven duty, the Unipower APM382 reads PWM waveforms from 10Hz to 1kHz, tracks asymmetric load, and carries a configurable shock-load trip for blockage events. Where flow has to follow demand, the Veichi AC310 vector-control drive covers fractional kW up to 110kW of pump duty from UK stock, with built-in PID and RS-485 Modbus. Specify the protection and the drive together, and the pump skid arrives as one coherent package, not three line items from three sources.

Storm overflow and EDM: the panel is the first point of evidence

Storm overflow performance and event duration monitoring (EDM) are now public data, reported asset by asset. Compliance has moved off the paperwork pile and into daily operations. Storm tanks, screens, screened overflows and combined sewer overflow chambers all need real, dated, defensible records of what happened, when, and for how long.

A storm overflow control panel is the first point of evidence for that record. The data has to leave the site reliably enough for the regulator and the operations team to act on it the same day. Take the signals at source, log them locally, push them remotely. A late or missing record is a number the regulator publishes.

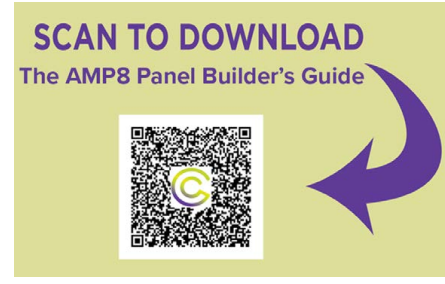
Here, the WECON ig-Series HMI can capture and process data at the panel through Ethernet and serial-connected devices, with broad industrial protocol support. On supported ig models, Lua scripting and MQTT/User MQTT functions allow selected tag, data-record and alarm information to be filtered, enriched, and published to cloud or third-party systems before it leaves the enclosure.

For sites without wired communications, or where PSTN-based copper telemetry is being replaced, the WECON V-BOX H-AG carries the same data over 4G LTE, and its edge logging holds the record on the gateway when the link drops. The discharge that puts an overflow on the regulator’s counter is the same event the panel timestamps and stores, so the evidence and the alarm come from one source.

One source for the AMP8 panel stack

Charter Controls is the UK manufacturers’ agent and stocking distributor for the brands behind this specification: Unipower, Veichi, WECON, GIC, Linkwell, and Connectwell. That means: UK stock, UK technical support, and engineers who can answer a specification question by phone. On AMP8 work, where lead-time discipline matters more than usual, single-source panel content shortens the procurement overhead and keeps the bill of materials consistent across a fleet of near-identical remote sites. For the full AMP8 Panel Builders’ Guide, with specification detail across pumping, storm overflow, treatment, dosing, telemetry, and remote sites, scan the QR code on this spread.

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