

## i-ALERT Detects Loose Impeller Preventing Long & Costly Downtime

### Background

A seawater desalination plant converts seawater into approximately 140 megalitres of drinking water per day, enough to provide 17% of the water supply to a city of nearly 2 million people. Given the essential nature of the operation to the health and safety of the local population, it's critical that potential equipment failures are detected as soon as possible to avoid any level of disruption in service.

To that end, a company providing desalination technology and equipment installed the i-ALERT remote monitoring solution on the second pass pump, which enables more pure water to be created through reverse osmosis. The second pass pump flow rates are manually or automatically adjusted to target a final permeate conductivity.

### Problem

The i-ALERT system detected characteristics indicating a loose impeller/rotor.

### Solution

Based on the data collected, the severity of the issue was low enough to allow the plant to continue running the pump while resolving the issue through a planned repair and maintenance event. Until then, continuous monitoring of the pump via the i-ALERT system allows for early recognition of further degradation to avoid a failure or breakdown.



### The ITT Impact

i-ALERT provided detail on the issue and severity level, allowing the plant to continue operation with no unplanned downtime while tracking further degradation to schedule repair.