



# HOW CAN IOT AND MACHINE LEARNING BE USED IN UTILITIES?

The Internet of Things and machine learning are the hottest up and coming tech for utilities, and they are having a massive impact on the industry.

But how exactly do they work and where are they being used?



## WHAT ARE THEY?

### Internet of Things (IoT)

A network of objects embedded with computer devices and sensors that can exchange and react to information.

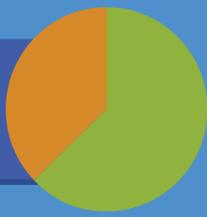
There could be **20 billion** connected devices by 2020.

More than **55%** of utilities companies already use IoT for meter data management (MDM).

### Machine Learning

An application of AI where computers can "learn" from data patterns without being explicitly programmed to do so.

63% of utilities companies believe machine learning is critical to their company's future success.



## THE KEY BENEFITS OF IOT & MACHINE LEARNING IN UTILITIES

### ASSET OPTIMISATION

Create algorithms that use data and industry intelligence to predict failure probability in machinery and wider systems.

### CUSTOMER ENGAGEMENT

Collect data patterns from consumer IoT devices to better understand customer behaviour. Allows for personalised service and more accurate matching to utility demands.

### OUTAGE MANAGEMENT

Forecast and detect outages, allowing better resource management and decreased downtime.

### DISTRIBUTED GENERATION MANAGEMENT

Cope with energy grid diversification, where excess energy from private renewable sources can be absorbed to make a more reliable overall service.

## A SMART GRID PARTNERSHIP



IoT and machine learning work together in a partnership: one collects and collates data and the other is the "mind", which uses the information to produce useful insights.

Cumulatively, Australia and New Zealand will invest \$6.1 billion in smart grid infrastructure over the next decade.

The smart grid is the next generation of energy system - a grid that uses IoT technology to detect and react to local changes in usage.



For more information on Machine Learning and IoT for Utilities read our whitepaper:

[https://www.sas.com/en\\_au/whitepapers/autonomous-grid-machine-learning-iot-utilities-108227.html](https://www.sas.com/en_au/whitepapers/autonomous-grid-machine-learning-iot-utilities-108227.html)

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