



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.

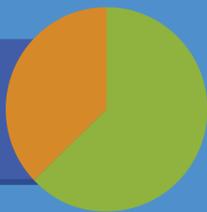
There could be **20 billion** connected devices by 2020.

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

Sources:

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The Autonomous Grid: Machine learning and IoT for utilities: https://www.sas.com/en_au/whitepapers/autonomous-grid-machine-learning-iot-utilities-108227.html