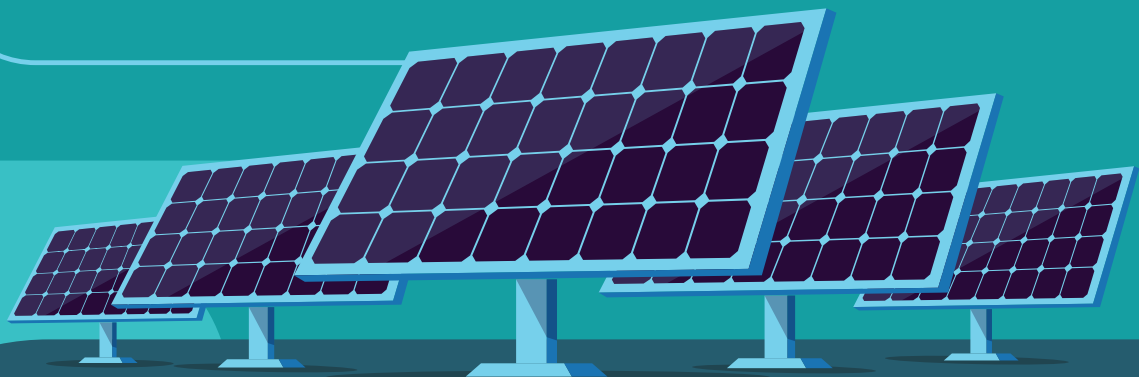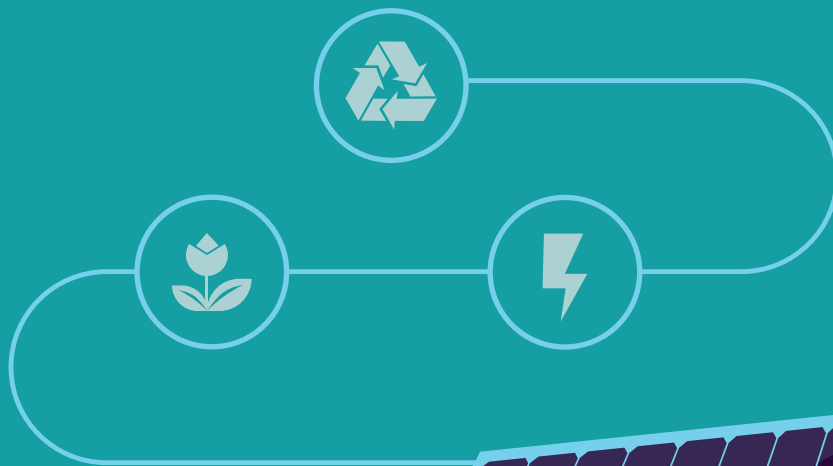# Capgemini

Powering remote management for renewable energy sources

Smart Renewable Energy and Asset Management solution optimizes the power-plant opportunity

The 2019 World Energy Markets Observatory report found that the US is the second-largest market for clean-energy investment, and solar energy captured the largest single recipient share of investor dollars in 2018. In the same period, the contribution of renewable energy sources rose 18%.

Solar generation – both rooftop and utility-scale – rose 25% in 2018 and now meets 2.4% of the US electricity demand. But as solar grows in popularity, it is becoming more competitive as construction costs decrease.

Capgemini's Smart Renewable Energy and Asset Management tool allows energy and utility companies to monitor their photovoltaic power stations remotely to maximize investment and optimize operations.

Capturing more power remotely

Smart Renewable Energy and Asset Management addresses the challenge of managing remote solar farms. It provides a fast response to system failures and real-time visibility to all available assets.

Designed to monitor and improve key performance indicators, the solution determines maximum energy generation and ideal handling of plant operations without the need for onsite personnel. By monitoring KPIs via sensors and gateways, the ability to streamline the operation is significant. Potential benefits are:

up to
6%
increase
in availability

up to
10%
reduction in spare-
part inventory cost.

Enabled by the cloud, the solution allows for monitoring and optimization from any location. It also recognizes trends and makes action recommendations based on the data. It provides real-time visibility into assets combined with plant-operation optimization.
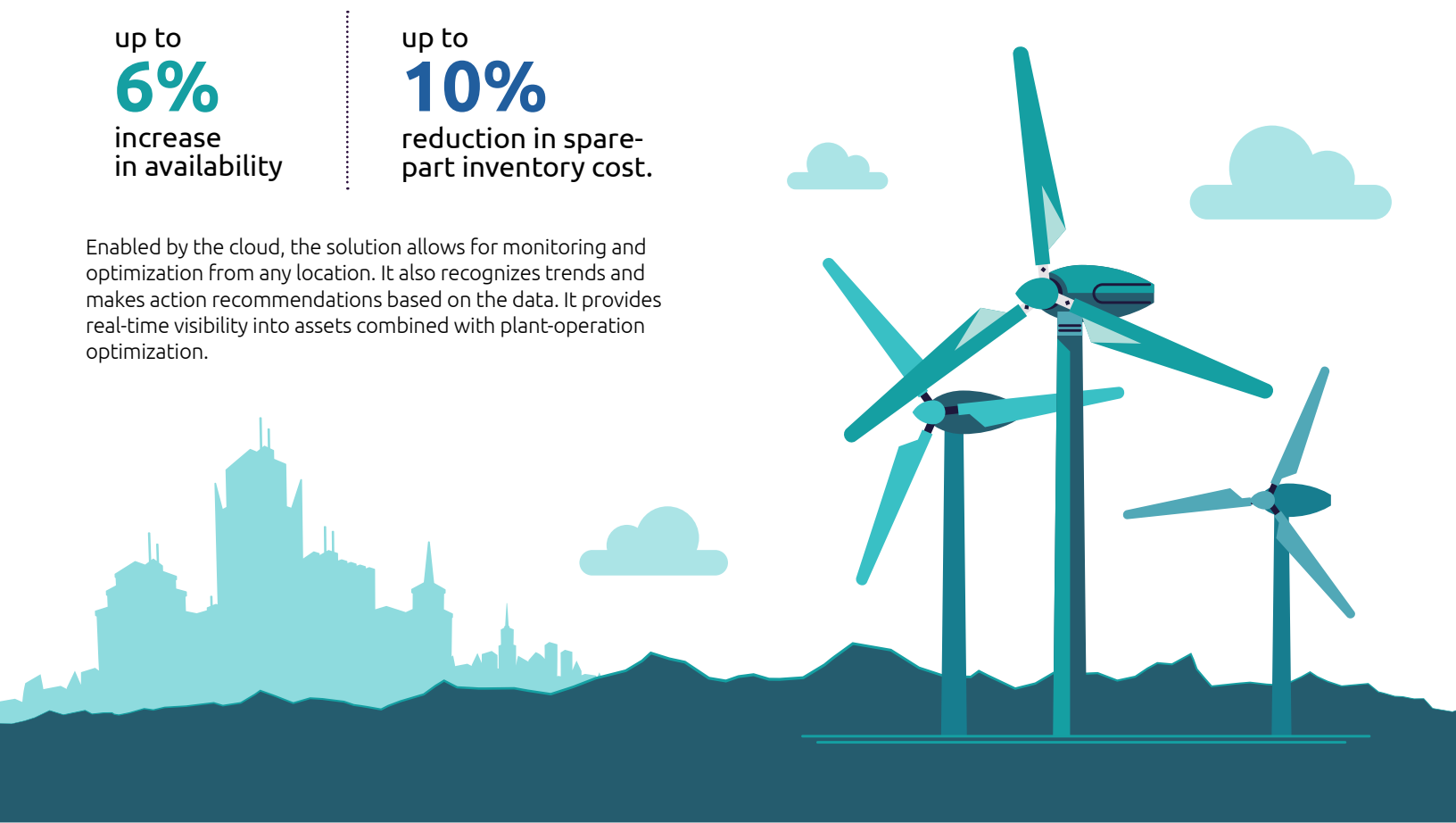
Powering up with real-time data

With Smart Renewable Energy and Asset Management, the most important information is provided in customized dashboards, so energy generation can be maximized. It means utilities can have:

- **Better monitoring:** companies can collect data from equipment via IoT sensors and gain a real-time view into data and plants through tailor-made dashboards

- **Fewer equipment failures:** IoT-based sensors allow utilities to gain real-time insight into equipment behavior, detect anomalies before they impact operations, and allow users to take corrective action and plan maintenance activity as needed

- **Improved plant yield:** companies can leverage data-driven insights to optimize their maintenance schedules. Plant energy-generation forecasting means users can take advantage of advanced artificial-intelligence and machine-learning capabilities to improve revenue and reduce penalties.

The reduction in incidents also leads to a decrease in inventory costs, increased availability, and better employee productivity.

This solution also works very well with other renewable energy sources, such as wind.

Capgemini plugs in optimization

Capgemini has the capabilities to deliver a complete end-to-end solution, including the IoT integration of solar equipment. Our experience and expertise mean utilities can easily implement a ready-to-deploy solution for monitoring asset performance and predicting maintenance of solar plants.

We have experts in cloud and application technologies and bring one of the largest teams of professionally certified digital and cloud experts to our work. We are consistently recognized for our capabilities and vision.

Deep expertise across industries enables us to frame and realize your business ambitions from digital and cloud strategy to day-to-day operations. We speed time to value with best practices, proprietary methodologies, pre-built code, and accelerators including eAPM, our proprietary application assessment tool, and Digital Cloud Platform, our cloud-native accelerator.

We have a talent force of over 215,000 people, backed by state-of-the-art on-shore and off-shore centers of expertise in more than 40 countries. At Capgemini, we believe the business value of technology comes from and through people. It starts with experts working together to get to the heart of the challenge and develop the right solutions to fit those requirements.

About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of $18.5billion.

Learn more about us at

www.capgemini.com

Note: current conversion is €1 to $1.09 (4/1/20)

For more information, please contact:

Chiranth Ramaswamy
Senior Director
chiranth.ramaswamy@capgemini.com

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