

# People's Republic of China energy storage for microgrids

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In this Special Report, Yang Dechang summarizes current research on and deployment of microgrids in China, including an overview of the history of microgrids in China, two examples of microgrid projects currently operating in China (Dongao Island and Sino Singapore Tianjin Eco-City), progress on regulation and policies related to integration of microgrids with central grids, and key evolving microgrid technologies.

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Banner image: The Dongao Island megawatt-level independent smart microgrid project was China's first megawatt-level microgrid system with complementary wind, solar, diesel, and energy storage, and was also China's first commercial-run island smart microgrid system. The power supply is flexible and especially suitable for island and remote areas. The diesel power generation in the system has been greatly improved by the addition of the other system components, reducing power generation cost and island pollution. Image from [here](#).

At present, the development of domestic microgrids in China is at the stage of building projects as demonstrations for commercial operation. There are still many challenges in the practical application of microgrids in China. Policies, technologies and economics are the three main factors restricting the further development of microgrids.

As technologies mature, the cost of renewable energy is gradually decreasing. The increasing demand for renewable energy, the development of the energy storage industry, and continuous increases in the price of fossil energy will encourage the development of microgrids so that they account for an increasing proportion of electricity production. With these ongoing changes, China's microgrid market will enter a stage of rapid growth.[4]

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