

# Maldives Flywheel Energy Storage Project







#### **Overview**

How will aspire and rise help the Maldives' energy transition?

World Bank-financed projects ASPIRE and ARISE support the Maldives' energy transition by installing more than 53.5 megawatts of solar capacity and 50-megawatt hours of battery storage. This will reduce Maldives' annual import bill by about \$30 million, with a project lifetime saving of \$756 million over 25 years.

How will aspire solar projects benefit Maldives?

In general, the projects will benefit the people of Maldives and the government by lowering electricity prices and providing quasi-budgetary support. 2014 –The first 1.5 megawatt (MW) solar project under ASPIRE had four investors' bids, resulting in a high PPA of 21 US cents per unit of electricity.

What are the challenges facing solar projects in Maldives?

Challenges facing such projects include integrating solar with existing power sources on the grid, off-taker risk, weak procurement, and planning capacity. The objective of the ASPIRE project is to increase photo voltaic (PV) generation in Maldives through private-sector investment. Approved in 2020, the ARISE Project scaled up this process.

How has aspire impacted the Maldives economy in 2022?

2022 – ASPIRE has resulted in the mobilization of about \$28.3 million for 17.5 MW PV installations. Maldives' dependence on tourism and fossil fuel imports makes its economy particularly vulnerable to external shocks. In 2020, when COVID-19 hit, real Gross Domestic Product (GDP) contracted by at least 34 percent.



#### **Maldives Flywheel Energy Storage Project**



#### Energy Storage , Falcon Flywheels , England

Grid-Scale Kinetic Energy Storage Falcon Flywheels is an early-stage startup developing flywheel energy storage for electricity grids around the world. The rapid fluctuation of wind and solar ...

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## China Connects 1st Large-scale Flywheel Storage to Grid: ...

A leading example in renewable energy transition, China connects Dinglun Flywheel Energy Storage Power Station to grid. China has

### Maldives re-opens tender for 40 MWh Battery Energy Storage ...

Under the Accelerating Renewable Energy Integration and Sustainable Energy (ARISE) project, supported by the World Bank, Maldives is seeking contractors for installation ...

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### Maldives opens call for up to 150-MW solar project with storage

The proposed solar-plus-storage complex is planned to be installed in the archipelago's Greater Male region, with the project to be developed under a design, build, ...

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successfully connected its 1st large ...

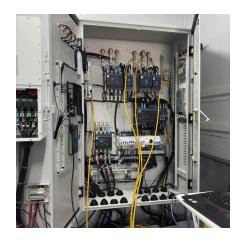
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## Flywheels in renewable energy Systems: An analysis of their role ...

This paper presents an analytical review of the use of flywheel energy storage systems (FESSs) for the integration of intermittent renewable energy sources into electrical ...

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#### Powered by the Sunshine: Achieving Cheaper, Cleaner and ...

World Bank-financed projects ASPIRE and ARISE support the Maldives' energy transition by installing more than 53.5 megawatts of solar capacity and 50-megawatt hours of ...

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# Maldives : Maldives Solar Power Development and Energy ...

Project Summary: The project involves the development of a 36-megawatt (MW) solar power project and 40 megawatt hours (MWh) of battery energy storage solutions across various ...

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#### Powered by the Sunshine: Achieving Cheaper, Cleaner and ...

Small scale storage is already being experienced in smaller islands under POISED Project (Public sector investment), ranging from 50 - 300 kWh, and RE penetration of 15-50%

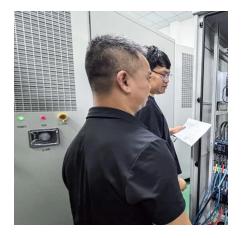
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#### Amber Kinetics Flywheel, Kalvio Inc.

Project Description: Amber Kinetics flywheel systems offer an alternative method of storing electrical energy from traditional batteries. The flywheel system works by converting electrical ...

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#### <u>Maldives Flywheel Energy Storage Market</u> (2025-2031)

Our analysts track relevent industries related to the Maldives Flywheel Energy Storage Market, allowing our clients with actionable intelligence and reliable forecasts tailored to emerging ...

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