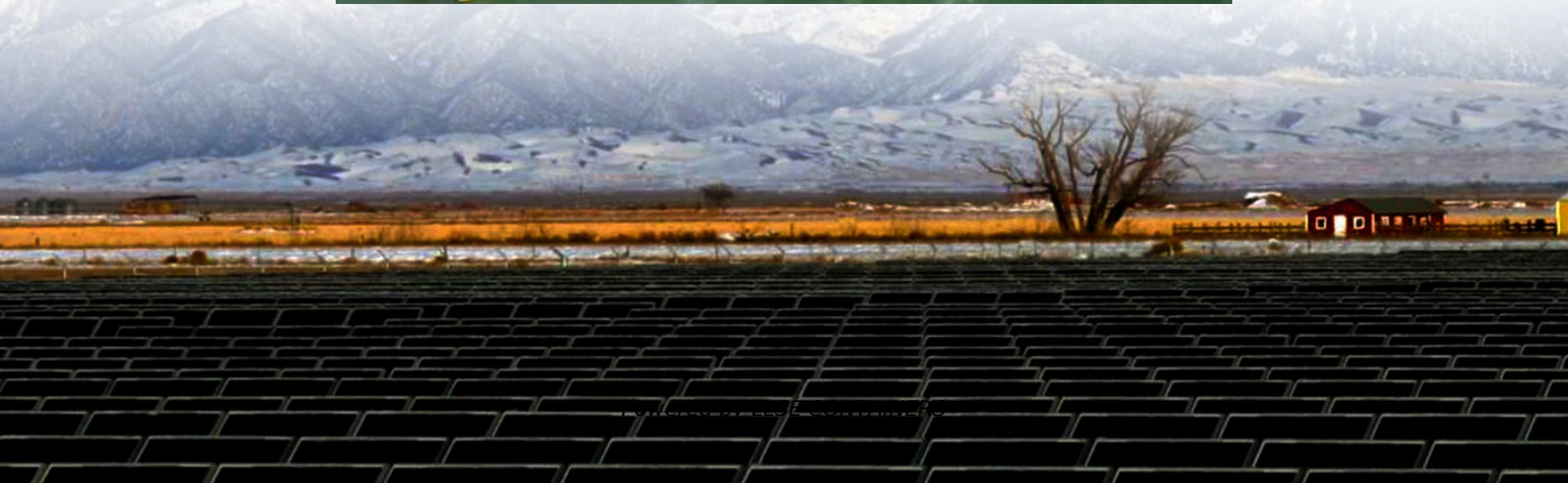


# Palikir Energy Storage Power Station Peak Load Regulation Solution





## Overview

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How is the load supplied by the superior power grid?

The load is supplied by the superior power grid separately from 01:00 to 05:00. During the period from 06:00 to 08:00, the load is transferred by the power flow. Period of 09:00 and during the period 18:00–19:00, the load is jointly supplied by the renewable energy, energy storage or/and power flow transfer.

Do flexible resources support multi-timescale regulation of power systems?

Here, we focused on this subject while conducting our research. The multi-timescale regulation capability of the power system (peak and frequency regulation, etc.) is supported by flexible resources, whose capacity requirements depend on renewable energy sources and load power uncertainty characteristics.

What is es peaking power correction?

4.2.1. Energy storage power correction During peaking, ES will continuously absorb or release a large amount of electric energy. The impact of the ESED on the determination of ES capacity is more obvious. Based on this feature, we established the ES peaking power correction model with the objective of minimizing the ESED and OCGR.

Should energy storage power stations be scaled?

In addition, by leveraging the scaling benefits of power stations, the investment cost per unit of energy storage can be reduced to a value lower than that of the user's investment for the distributed energy storage system, thereby reducing the total construction cost of energy storage power stations and shortening the investment payback period.



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