# Energy storage market peru

Energy storage market peru

One look at the enigmatic Mesa Laboratory and you could never forget it. Situated in the outskirts of Boulder, Colorado and designed by the much celebrated architect I. M. Pei for the US National Center for Atmospheric Research (NCAR) in the 1960s, the research center focuses on meteorology and climate sciences with environmental and societal impact. This breakout building of concrete and geometric shapes changed the course of the career for Pei, who went on to design his more famous works including The Louvre Pyramid in Paris and Bank of China Tower in Hong Kong.

The world is using more electricity, and more of it is coming from solar and wind. With continued electric vehicle adoption and rapid AI proliferation across industries driving up demand, energy storage makes for a perfect complement to solar and wind and is critical in balancing a renewables-heavy grid.

Transition towards decarbonization will span decades, but now is an interesting time for energy storage. Battery technologies are scaling quickly, making energy storage commercially lucrative in more and more markets. The overall energy storage market is projected to grow more than 35% annually through the end of this decade. In the US alone, it is expected to grow 20 times over from 2020 to 2030.1 The path solar has taken in its growth to where it is today is one we believe storage will follow.

As part of the value-maximization strategy we secured projects at the beginning of their life cycle, taking advantage of good locations. Our team"s credibility in the industry brought us bilateral opportunities, avoiding auction processes or sales that were widely marketed, and before traditional infrastructure investors stepped in.

Battery projects need to be optimized across multiple variables, and therefore the alignment of the size and duration of the battery with the specific market and its price characteristics is a key part of a project"s path to commercial operation. Will the operation be sustainable and profitable? Is it capital efficient? These are the type of questions we ask ourselves, and the answers along the way inform our design and configuration for a project. The design needs to be precise; it must work on both the technical and economical level.

The obsession with details is also evident with building the Mesa Laboratory; one example was a then-new technique called bush hammering. Purposefully combing the dry concrete with bush hammers creates vertical ridges and grooves, giving the building exterior a softer, more textured corduroy-like appearance. And to match the Flatirons in color and tone, the same sandstone along with a local pinkish aggregate were blended into the poured concrete of the building as part of a rock treatment process.

In the end, the first four Texan projects located in Lamesa, Nevada, Alvin and Crosby with a total output of 730 megawatts will be operational by end of this year. Together they will make up one of the five largest fleets of operating energy storage projects in Texas.2

I. M. Pei said that building the Mesa Laboratory made him feel more connected to the ground, to nature. "You can"t dominate nature; you join it. How can you dominate nature?" Working in harmony with sandstones and mountains was nuanced and easier said than done, but hard work and dedication to his craft got Pei there. We try to do the same with the sun and the wind; energy storage will help pave the way for decarbonization.

In 2022, a flurry of green hydrogen projects were announced in the Middle East and North Africa (MENA) region, coinciding with the COP27 climate conference in Egypt. Many of these projects in Egypt - powered by solar PV either alone or co-located with wind - are expected to be at the gigawatt-scale, such as Australian mining company Fortescue Metals Group‘s 9.2GW or independent power producer Globeleq"s 9GW green hydrogen hub. Yet, many of these projects are not expected to be operational for many years to come.