KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI
MINISTRY OF SCIENCE,TECHNOLOGY AND INNOVATION

NUKLEAR MALAYSIA

TARIKH	KHAMIS, 3 APRIL 2025
AKHBAR	THE STAR
TAJUK ARTIKEL	HANFORD'S SOLAR REVIVAL
M/S	21
BIDANG	ENERGY
KATA KUNCI	HANDFORD, SOLAR

Hanford's solar revival

Tanks that are part of a cesium removal system at the Hanford Nuclear Reservation in Richland, Washington. — Mason Trinca/The New York Times

By KEITH SCHNEIDER

IN the weeks since Donald Trump took office in his second term as US president, he has moved aggressively to expand oil and gas production while signing executive orders halting America's transition to renewable energy.

Yet, in Washington state, a government-led initiative is forging ahead with what is set to be the country's largest solar power station.

The project is advancing at the Hanford Nuclear Reservation, a vast desert expanse that played a crucial role in the nation's weapons programme from 1943 until its closure in 1989.

After decades of radioactive and chemical waste clean-up, large sections of the site are finally deemed safe for redevelopment.

Last year, the US Energy Department brought in solar developer Hecate to convert swathes of the land into a massive solar farm.

Hecate has access to 4,200ha that have been declared safe for use. The company has already begun evaluating 3,200ha – nearly 10 times the size of New York's Central Park – with plans to install 3.45 million photovoltaic panels.

If completed by 2030 as planned, the project will be the largest former nuclear site converted into a renewable energy hub, generating up to 2,000 megawatts of electricity – enough to power Seattle, San Francisco and Denver combined.

An additional 2,000 megawatts will be stored in a battery installation, making it twice as powerful as a conventional nuclear power plant.

The largest existing solar facility in the United States, Copper Mountain in Nevada, produces 802 megawatts.

A political wild card

Despite the project's progress, uncertainty looms over whether the Trump administration will obstruct clean energy initiatives put in place by the Biden administration.

> "We wouldn't have supported just flooding this whole area with solar. But as part of a broader economic strategy, we see real potential."
>
> Sean O'Brien

Former Energy Secretary Jennifer Granholm expressed hope that the project would remain intact.

"These sites were developed to protect our national security," she said. "Letting them go fallow does not align with protecting our energy future."

Dan Reicher, who oversaw energy efficiency and renewables under President Bill Clinton, echoed this sentiment.

The agreement with Hecate is not about government spending, he noted, but rather "having made real progress on cleaning up the site, seeking a private developer, and now moving ahead."

One reason the Trump administration might not interfere is financial: the government will receive revenue from leasing the land.

Neither Hecate nor the Energy Department disclosed the land's market value, but industry experts estimate similar solar leases fetch around US$740 (RM3,273) per hectare annually.

Two Energy Department officials, speaking anonymously, said the administration had yet to intervene, though the project's future remained uncertain.

As of late February, the new energy secretary, former oil executive Chris Wright, had not reviewed the plan.

Strong demand for power

Hecate's director of development, Alex Pugh, said the company is proceeding despite political headwinds.

"The fundamentals of the project are strong regardless of policy direction," he said. "The region needs the project. There is a huge demand for electricity here."

The Pacific Northwest's power needs are growing, driven by the expansion of data centres supporting artificial intelligence.

Business leaders in the nearby tri-cities – Kennewick, Pasco and Richland – have long advocated for clean energy and job creation at Hanford through the Tri-City Development Council.

Hecate, which has developed solar projects in 12 states and is 40% owned by Spanish oil giant Repsol, is treading carefully at Hanford.

"The potential risk at the site is if we find contaminated soil or water – something nobody knew about," Pugh said.

A toxic legacy

Hanford produced two-thirds of the plutonium for America's nuclear weapons, including those used in World War II and the Cold War.

When the site was shut down, 204 million litres of highly radioactive sludge remained in underground tanks.

Contaminated research buildings and vast stretches of poisoned land continued to leak toxic waste towards the Columbia River, just 10km away.

The Energy Department launched a clean-up initiative in 1990, but the effort faced repeated setbacks due to technological challenges and budget cuts.

A US$4bil chemical treatment plant meant to neutralise radioactive sludge was halted in 2012 due to design flaws.

At one point, the government even considered sealing the waste underground permanently.

Since 2017 alone, the US has spent US$20bil on Hanford's clean-up, which is not expected to be completed until late this century.

Economic revival

Initially, local business leaders were sceptical of Hecate's plan.

But as energy demands have surged, the Tri-City Development Council, which leases 660ha from the federal government at Hanford, has embraced the project.

The solar farm's energy output has already attracted major investments, including a US$1bil (RM4.4bil) agricultural fertiliser plant by Atlas Agro.

The facility, designed to reduce greenhouse gas emissions and water pollution, is just one example of how the project is reshaping the region's economy.

"We wouldn't have supported just flooding this whole area with solar," said Sean O'Brien, director of the Energy Forward Alliance, a division of the development council.

"But as part of a broader economic strategy, we see real potential."

From a Cold War relic to a renewable energy powerhouse, Hanford's transformation is poised to redefine the region's future – if politics don't get in the way. — ©2025 The New York Times Company

This article originally appeared in *The New York Times*

DISEDIAKAN OLEH	**1-PN NOR SURIANI BINTI MOHD ZIN (S44), BPM**