

Hawaii pays America's highest power prices — and still has to reach 100% renewable by 2045.

The state burns imported oil for roughly two-thirds of its electricity, runs the most isolated island grids in the country, and is absorbing a nearly \$2 billion Maui wildfire bill. Every one of those forces reshuffles the projects on your capital list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision.

~38¢¹ Average retail price per kWh in 2024 — the highest of any US state.	~67%² Share of Hawaii's electricity still generated from imported petroleum.	100% by 2045³ The nation's first 100%-renewable electricity mandate.	~\$1.9B⁴ Hawaiian Electric's share of the Maui wildfire settlement, paid over four years.
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THE HAWAII LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

DEMAND — A DIFFERENT LOAD

The load driver here is decarbonization, not data centers

Hawaii's demand story is electrification, not hyperscale campuses. Nearly a third of single-family homes already run rooftop solar, and solar supplied about 19.5% of the state's electricity in 2024.⁵ As cars, buses, and buildings electrify, new load has to be served on grids that still burn imported oil for roughly 67% of generation.²

And every island stands alone — no interconnection to a neighbor or the mainland — so each megawatt of new load is a capacity decision made island by island.¹

RELIABILITY — ISLANDS ON THEIR OWN

No neighbor to lean on when the grid is tight

Hawaii's grids are the most isolated in the country: no island can import a single megawatt when a unit trips or a fuel shipment slips.¹ That makes storage and firm capacity a resilience question, not just a clean-energy one.

Reliability is now inseparable from wildfire risk. A downed line likely sparked the August 2023 Lahaina fire that killed 102 people, and Hawaiian Electric now runs public-safety power shutoffs and a 52-station weather network across the islands.⁶

GENERATION — 100% BY 2045

Retire the oil, hit the mandate, on a capital clock

Hawaii was the first state to require 100% renewable electricity — 30% by 2020, 40% by 2030, 70% by 2040, 100% by 2045.³ Oahu's last coal plant, the 180 MW AES facility, closed in September 2022.⁷ Hawaiian Electric reached about 33% renewable across its islands in 2023 and is still oil-heavy.⁸

Closing that gap means procuring firm and variable renewables at scale — the utility's latest planning RFP alone seeks roughly 1,650 GWh of new renewable energy plus grid-forming and firm capacity.⁴

CAPITAL — HARDEN AND REBUILD

Wildfire, storm, and settlement, all on one balance sheet

Hawaiian Electric is advancing a roughly \$190 million grid-resilience program — about half federally funded — to harden against wildfire, hurricane, and flooding.⁹

On top of that build, the Maui settlement adds four annual payments of \$479 million — nearly \$1.9 billion — and wildfire-mitigation costs the utility now plans to securitize.⁴ New obligations don't replace the backlog; they stack on it, and something on the list has to move.

WHO RUNS HAWAII'S GRID

One dominant investor-owned family of utilities, plus a Kauai cooperative

The Hawaiian Electric utilities serve about 95% of the state's people across three island systems; Kauai runs on a member-owned cooperative. The pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the Hawaii PUC

Hawaiian Electric (HECO) Oahu · largest of the three systems⁸

Maui Electric (MECO) Maui, Lanai & Moloka'i⁸

Hawai'i Electric Light (HELCO) Hawai'i Island (Big Island)⁸

Together the Hawaiian Electric utilities (NYSE: HE) serve about 468,000 customers — roughly 95% of Hawaii's population.^{8,10}

Cooperative & consumer-owned power

Governed by members & an elected board

Kauai Island Utility Cooperative (KIUC) Kauai · ~38,695 member-owners¹¹

KIUC governance Nine-member elected board¹¹

KIUC renewables 100% renewable in daylight on most sunny days¹¹

KIUC is Hawaii's only electric cooperative and the sole consumer-owned utility in the state.¹¹

Every capital dollar has to be defensible

Whether you answer to the PUC or a member board, the question is the same: why this project, why now, why at this cost?

Hawaii Public Utilities Commission (PUC) regulates rates, capital recovery, and integrated grid planning for the Hawaiian Electric utilities.¹²

Performance-Based Regulation — the PUC's Decision & Order No. 37507 (Dec 2020, effective June 2021) sets five-year target revenues with performance incentive mechanisms and an earnings-sharing mechanism.¹²

Wildfire-mitigation cost recovery — Hawaiian Electric plans to securitize wildfire-mitigation costs, subject to PUC approval.⁴

The 100% RPS is a compliance clock, not a goal — 30% by 2020, 40% by 2030, 70% by 2040, 100% by 2045, tracked against every resource decision.³

The money is moving — can your plan absorb it?

Hawaii utilities have more grid and resilience capital available than in a generation. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

~\$190M grid-resilience program — roughly half federally funded, half customer-funded (pending PUC approval), to harden against wildfire, hurricane, and flooding.⁹

52-station weather network across four islands, with roughly half of the project funded through the federal Infrastructure Investment and Jobs Act.⁶

Settlement securitization — Hawaiian Electric is funding four annual \$479M Maui settlement payments and plans to securitize wildfire-mitigation costs to protect ratepayers and its balance sheet.⁴

IRA elective-pay credits put utility-scale solar and storage within reach for cooperatives and public projects — a lever a member-owned utility like KIUC can pull directly.

HAWAII'S GRID, IN BRIEF

Questions Hawaii utility leaders are asking

Short, sourced answers — the same facts we dig into with utilities looking at their capital programs.

Why are Hawaii's electricity prices the highest in the US?

Hawaii's average retail price was about 38 cents/kWh in 2024 — the highest of any state — largely because roughly 67% of its electricity is still generated by burning imported oil, whose price the state can't control¹²

What is Hawaii's renewable-energy mandate?

Hawaii was the first state to require 100% renewable electricity, with interim targets of 30% by 2020, 40% by 2030, and 70% by 2040. Hawaiian Electric reached about 33% renewable across its islands in 2023³⁸

How much is Hawaiian Electric paying for the Maui wildfires?

Hawaiian Electric is paying nearly \$1.9 billion — four annual installments of \$479 million — as its share of a global settlement exceeding \$4 billion tied to the August 2023 Maui fires⁴⁶

Why can't Hawaii just import power when the grid is tight?

It can't. Each island runs an isolated grid with no interconnection to another island or the mainland, so storage and firm capacity — not imports — carry reliability during a shortfall¹

What grid funding is available in Hawaii?

Hawaiian Electric is advancing a roughly \$190 million grid-resilience program, about half federally funded, and its 52-station wildfire weather network is partly funded through the federal Infrastructure Investment and Jobs Act⁹⁶

How does Invizion help Hawaii electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a wildfire-mitigation mandate, a settlement payment, an oil-price swing, or a renewable RFP reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the PUC or your board.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

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ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See how utilities keep capital plans current and defensible with Invizion.

Explore Invizion →