

## It's time for Alaska to reconsider the Susitna-Watana Hydroelectric Project

Why the assumptions that once sidelined the project may no longer hold true for a resource large enough to meet about 60% of the current Railbelt electric demand

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📷 An artist's rendition of the proposed Watana Dam on the Susitna River. (Image courtesy Alaska Energy Authority)

For decades, the Susitna–Watana Hydroelectric Project has occupied a liminal space in Alaska's energy conversations – too large, expensive and controversial to move forward, yet too potentially transformative to fully dismiss. In many ways, it has become shorthand for the state's uneasy relationship with mega-projects that promise to reshape Alaska's future but struggle under the weight of their scale and cost.

If built, the project would primarily serve the Railbelt electric grid stretching from Homer to Fairbanks – home to roughly three-quarters of Alaska's population and the majority of the state's electricity demand – and could ultimately supply a substantial share of that system's power needs for generations.

Historically, momentum behind the project has tended to parallel moments of energy insecurity, including the energy shocks of the 1970s and the fuel price spike in 2008. Today, similar pressures are beginning to re-emerge, particularly around the adequacy, affordability and long-term security of the Railbelt's natural gas supply.

I will admit that in the past, my view of the Susitna project has been ambivalent at best, and at times skeptical. But over the last several years, the broader landscape surrounding the project has shifted significantly. Given those changes, I believe the project deserves one last serious reconsideration before Alaska closes the door on it – likely for good.

## Why we walked away twice

In the 1970s and early 1980s, the original Susitna project progressed through years of study and design before ultimately stalling out in the mid-1980s as economic conditions changed. With low-cost Cook Inlet natural gas readily available, the need for a project of Susitna's scale diminished, and the Railbelt instead embarked on a path centered on gas-fired generation.

At the time, this shift arguably made sense. Gas was abundant, relatively inexpensive and well-matched to the scale and structure of the Railbelt grid. That made hydroelectric projects like Susitna – and even the much smaller Bradley Lake Hydroelectric Project – among the more expensive options available. Bradley was ultimately constructed, but only after narrowly securing legislative approval by a single vote, reflecting just how difficult the economics were to justify at the time. In 1980s dollars, natural gas cost on the order of 2 cents per kilowatt-hour, while power from Bradley Lake was roughly double that.

This history also helps explain why Bradley Lake was developed outside the conventional utility regulatory model overseen by the Regulatory Commission of Alaska. The project was pursued as a long-term infrastructure investment rather than through traditional least-cost planning processes.

While Bradley Lake squeaked by, those same economics ultimately doomed the much larger Susitna project during that era. But that calculus has not withstood the test of time. Hydropower prices have remained relatively stable, while natural gas prices have increased significantly and are expected to continue rising.

The same dynamics that have defined Cook Inlet gas over the past half century would apply to North Slope gas as well, just on a larger scale. The moment we turn on that tap, we begin drawing down a finite resource – one whose cost and availability will inevitably change over time as supplies diminish and prices remain tied to broader market forces.

Against that backdrop, it is not surprising that the Alaska LNG gas line and Susitna have often been seen as competing priorities, vying for the same pool of state resources and political

bandwidth. But they are not, in fact, competing choices. These projects operate on different tracks and could be complementary.

Susitna is, at its core, an in-state investment – tied to Railbelt demand, local economic development and long-term price stability. Alaska LNG, by contrast, is driven largely by access to external markets, with in-state benefits a byproduct of that. Both may have a role to play, but they are not solving the same problem.

## The case for reconsideration

At the beginning of this legislative session in January, the Alaska Energy Authority quietly delivered its required annual update to the Legislature on the Susitna–Watana Hydroelectric Project. The [update](#) was just two pages long. In it, Executive Director Curtis Thayer described how AEA has ceased active efforts on the project, focusing instead on archiving the extensive body of work completed to date and effectively placing it on the shelf alongside the more than [3,000 reports](#) compiled during the original Susitna licensing effort in the 1980s. This is the directive the Authority has been given, and it is complying.

However, the broader energy landscape facing the Railbelt today looks very different from the one that existed when the project was last seriously pursued. Over the past decade, three major shifts have materially changed the conversation.

First, the Railbelt today can no longer rely on Cook Inlet gas. This resource – which accounts for the vast majority of heating in Southcentral Alaska and roughly 70 percent of electricity generation on the Railbelt – is not disappearing overnight, but it is steadily declining. Production from existing fields is expected to taper year by year, and utilities have been put on notice that Hilcorp Energy, the basin’s primary producer, is not interested in entering into new long-term supply commitments. That places growing pressure on utilities to secure alternative sources. The urgency of this challenge cannot be overstated; it is sucking up a great deal of the oxygen in boardrooms and halls of Juneau right now.

Second, the federal policy landscape has changed in ways that could be a game-changer for Susitna’s economics. The clean energy tax credit framework created under the Inflation Reduction Act, and since partially preserved on a bipartisan basis, now provides technology-neutral incentives for large hydropower projects. Perhaps most significantly for Alaska, where much of the energy system is owned by public and cooperative utilities, these entities can now – for the first time – access the credits directly through a cash-equivalent “direct pay” mechanism.

In practical terms, these incentives could offset on the order of 50 percent of total capital costs. For a project like Susitna, that could amount to several billion dollars and substantially alter the financial outlook. Although the up-front costs would still be significant, reducing the capital burden could materially lower rates – especially during the initial financing period.

Third, the demand outlook is beginning to change. For much of the past decade, utilities across the country, including those on the Railbelt, have operated in an environment of flat or declining demand. That trend is now reversing. Electrification of heating and transportation, along with the rapid growth of power-intensive data centers, is creating the first credible expectation of sustained load growth in years – and with it, the potential to fully utilize the project’s output. For large, capital-intensive resources, that expanded revenue base matters.

Taken together, these developments do not guarantee that Susitna makes sense. But they do suggest that many of the assumptions underlying earlier decisions to shelve the project warrant reconsideration.

## A project of consequence

What would the Susitna project mean for the Railbelt? It would not be a marginal addition. At full buildout, it could generate on the order of 2.5 to 3 million megawatt-hours annually – enough to displace roughly 60 to 80 percent of gas-fired electricity generation on the Railbelt, depending on system growth and future demand.

Building out Susitna and its associated transmission infrastructure would also provide an important new anchor for the Railbelt’s long and relatively fragile grid, strengthening reliability and improving the ability to move power between regions. In many ways, this reflects the project as originally envisioned – a foundational asset around which a more interconnected Railbelt system could evolve.

But today, there are additional benefits not necessarily envisioned half a century ago. Susitna could place the Railbelt in a much stronger position to integrate variable renewable energy sources like wind and solar at scale, both by enabling greater interregional movement of power and because the reservoir itself could function much like a large energy storage system – allowing water to be held back when renewable generation is abundant and converted into electricity when the wind is not blowing or the sun is not shining.

It could also begin to reshape heating demand. If electricity prices fall while natural gas prices continue to rise, consumers may increasingly shift toward electric heating technologies such as heat pumps. That, in turn, could increase electricity sales, spread fixed system costs across a larger base of consumption, and potentially reinforce a virtuous cycle of higher system utilization and lower rates – even without the addition of large new industrial loads such as a data center.

Of course, we cannot pretend there are no trade-offs. No energy source is entirely environmentally benign. Fossil fuels require extraction, transport and combustion, with associated emissions and exposure to volatile global markets. Wind and solar carry their own challenges related to land use, materials sourcing, intermittency and project lifespan.

Hydropower is no different, and its environmental and social impacts must be weighed carefully.

In particular, the legacy of major dam projects constructed during the early and mid-20th century still shapes public perceptions today. Many of those projects fundamentally altered landscapes and ecosystems, often with profound consequences for both communities and the environment. That history continues to influence how many Alaskans – especially environmentally-minded residents – view projects like Susitna.

But much has changed since the era of large dam construction in the United States. Modern licensing requirements are far more rigorous, and advances in hydropower design – from fish passage technologies to flow management and environmental mitigation – have meaningfully reduced many of the impacts associated with earlier projects.

Canada, in particular, has continued to build out large-scale hydropower, with many newer projects incorporating Indigenous ownership, revenue-sharing and long-term partnership structures. For example, the Site C Dam on the Peace River in British Columbia entered full commercial operation in 2025. It is substantially larger than the proposed Susitna project and is a good example of both Canada's continued investment in large hydro and a more modern approach to structured, negotiated forms of community participation and benefit-sharing.

The question, then, is not whether Susitna would be impact-free. It is whether the trade-offs it presents look different today than they did in the past, especially given modern environmental standards and evolving approaches to collaboration and mitigation. Could Alaska Native landowners, resource agencies, utilities and conservation organizations work together to shape a project that minimizes environmental impacts and potentially even improves aspects of the salmon fishery? I believe that is possible, given the growing urgency of the Railbelt's long-term energy challenges – issues that ultimately transcend the traditional sides of this debate. After all, there is some truth to the old adage about never wasting a good crisis.

## So what next?

Sometimes, decisions are made through inaction – and this could be one of those moments. There is a clearly defined timeline to take advantage of federal tax credits for hydropower, and given how long it takes to develop projects of this scale there is little time to lose. Delay, even by a year or two, could place the project beyond the reach of those incentives.

Susitna has always been envisioned as a project requiring significant state investment. It is simply too large for any single Railbelt utility – or even all of them collectively – to finance on their own. But there may be a different path forward. Historically, projects of this scale were built by governments. Today, they are increasingly advanced through public-private partnerships, and that model may be worth exploring in Alaska as well.

Ideally, the next step would be to finalize the licensing process so the project could be positioned for development under whatever funding mechanism is ultimately pursued. That is the clear and logical next step. But doing so would require tens of millions of dollars, and at least for now, no funding for that effort has been included in the FY27 state budget.

But even absent state funding, the Alaska Energy Authority is already well-positioned to take a more modest next step. The state has invested heavily in dozens of studies to understand the resource, the engineering and the environmental considerations. That work has value – and we own it. Rather than placing those studies on a shelf, AEA could package that body of work and test the market through a request for information or proposals aimed at gauging private-sector interest in moving the project forward.

This would not be a commitment to build. Any concrete next step on the project would require continued public input through well-established permitting processes. But it would be a way to learn. The private sector is, by necessity, disciplined – if the project can be structured in a way that makes sense, there will be interest. If not, that is also valuable information. Either way, it would provide clarity that Alaska does not currently have.

There is an obvious recent precedent for this approach. The Alaska LNG Project has relied on a similar model of testing commercial interest and allowing that response to help guide next steps. A comparable approach for Susitna could allow the state to keep the project in play without committing to full-scale development.

At a minimum, this is about preserving optionality. The immediate decision before us is not whether to build Susitna, but whether to take reasonable incremental steps to keep the project viable while Alaska evaluates its long-term energy future. That seems like a prudent course of action – before the opportunity slips away for good.