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STATE OF HAWAII

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 18, 2025
9:20 AM
State Capitol, Conference Room 325 and Videoconference

Providing Comments on
SB 1588, SD1

RELATING TO NUCLEAR ENERGY.

Chair Lowen, Vice Chair Perruso, and Members of the Committee, the Hawai‘i State Energy Office (HSEO) offers comments on SB 1588, SD1, which requires an interim report to the Legislature prior to the convening of the 2026 legislative session and requires a final report forty days prior to the convening of the 2027 legislative session.

HSEO notes that Article XI, section 8 of the Hawai‘i State Constitution states, “No nuclear fission power plant shall be constructed or radioactive material disposed of in the State without the prior approval by a two-thirds vote in each house of the legislature.”[1]

As a technical matter, advanced Small Modular Reactors (SMRs) would likely better match electricity demand needs given Hawai‘i’s grid size and geography compared to conventional nuclear reactors, which have a longer global operational history but are not likely well suited for Hawai‘i due to a variety of reasons. Nationally, advanced SMRs have emerged as a goal of the U.S. Department of Energy to develop safe, clean, and affordable nuclear power options. SMRs can be built in relatively small physical footprints, can have reduced capital investment over full-scale conventional

[1] [1] Hawai‘i State Constitution. https://lrb.hawaii.gov/constitution/.

nuclear plants, and can provide incremental power generation at sizes ranging from tens of megawatts up to 300 megawatts.

In terms of technical readiness, the Nuclear Energy Agency reported no operational SMRs deployed in the U.S as of 2024. Currently, there are only three SMRs operational worldwide, in China, Russia, and Japan.[2] The development of light water-cooled SMRs undergoes licensing review by the Nuclear Regulatory Commission (NRC), and planned SMRs in the U.S are in the pre-licensing phase with none expected for deployment until 2030 at the earliest for prices that have yet to be determined.[3]

Given the current lack of cost, production, safety, and nuclear waste management information on SMRs, HSEO believes the formation of a nuclear energy task force is premature. However, HSEO will continue to monitor SMR development as the technology advances and achieves higher levels of deployment. Furthermore, Governor Green’s direction to HSEO has been to “conduct a full-scale analysis of every possible energy source, except nuclear, that can accelerate Hawaii’s transition away from fossil fuel dependence.”

Therefore, HSEO requests that the creation of a nuclear task force be set aside until commercial SMR units have been installed successfully elsewhere in the United States, installation and operational costs are available, and waste management systems and processes have been deployed and proven to be safe, reliable and cost-effective. At such time, it would be more appropriate to expend time and resources to evaluate the potential and applicability of nuclear energy for power generation in Hawai‘i.

Thank you for the opportunity to testify.

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[2] NEA (2024), The NEA Small Modular Reactor Dashboard: Second Edition, OECD Publishing, Paris. Retrieved from: https://www.oecd-nea.org/jcms/pl_90816/the-nea-small-modular-reactor-dashboard-second-edition

[3] Id.

SB-1588-SD-1
Submitted on: 3/15/2025 4:02:55 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Christopher Dean	Clean The Pacific, Recycle Hawaii	Oppose	Remotely Via Zoom

Comments:

Why are we looking a nuclear? We can easily power our entire economy with solar. All that is required is the stroke of a pen. Bring back net metering, pay people a fair market rate for the energy they create. Problem solved. No land needs to be developed. No risk of nuclear disaster. No ships coming across the ocean with fissable materials. No mining for radioactive ore. No mining waste and radioactive dust blowing across America. No toxic waste. Minimal extraction of minerals. Lower carbon footprint, cheaper, more reliable, safer, cleaner and totally doable. Just look at China, they're kicking our butt with solar. We could be the showcase for the world. We could be heroes. Or we could stick with the old paradigm, take from the many, give to the few. And when a hurricane, tsunami, earthquake causes the next disaster, how will you feel then? Please, don't do it, you'll regret it down the road. Say no to SB1588.

Comments before
March 18, 2025
House Energy and Environmental Protection Committee

OPPOSING
Senate Bill 1588
Relating to Nuclear Power

Mike Ewall, Esq.
Founder & Director
Energy Justice Network
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www.EnergyJustice.net

Aloha Honorable Committee members. Energy Justice Network is a national organization supporting grassroots groups working to transition their communities from polluting and harmful energy and waste management practices to clean energy and zero waste solutions. In Hawai'i, we've been working with residents who first sought our support in 2015. Since mid-2022, we have supported residents in forming the Hawai'i Clean Power Task Force and Kōkua nā 'Āina to address numerous energy and waste issues in the state.

We urge that you oppose SB 1588.

Nuclear power cannot exist without uranium mining, milling, conversion, enrichment, fuel fabrication, the reactors themselves, and nuclear waste dumps. Every step in this process — plus tangents like depleted uranium use in war, enriched uranium used in nuclear bombs, and reprocessing used to "recycle" nuclear fuel — devastates a different set of communities with radioactive and toxic pollution. Fossil fuels and massive government subsidies make it all possible.

Nuclear power on Hawai'i makes no sense, as it would require dangerous cross-ocean shipments of radioactive fuel and waste. It would stand in the way of the state's Renewable Portfolio Standard requirement of 100% renewable energy by 2045, which means it would only operate for about decade at best, since it would take about a decade to build.

The size is inappropriate, as a conventional 1,000 MW sized reactor would be too large for any island other than O'ahu, and would be so large on O'ahu that relying on it for close to half the island's power would be very risky when that one facility is down for refueling or for any other reason.

Small modular reactors are not wise, either, as they cost more and make more waste per unit of energy, and are still experimental fantasies, not commercialized reality. No designs for "advanced" or small modular reactors (SMRs) have been approved since a now-abandoned design was partially approved five years ago. Even the Hawai'i State Energy Office opposes this bill for that reason, requesting "that the creation of a nuclear task force be set aside until commercial SMR units have been installed elsewhere, and operational data, installation cost, and waste management systems have been developed and can be evaluated for applicability in Hawaii."

Nuclear power is far too expensive, centralized, and dangerous to be considering. Here's a recap of some of the reasons we don't support nuclear power (new or existing):

1. it's totally unnecessary (conservation, efficiency, wind, solar and energy storage can meet all of our electricity needs… much sooner, cleaner, and cheaper)
2. it takes about a decade to license and build a new nuclear reactor… not a good time frame for trying to tackle global warming.
3. it's the most expensive and subsidized form of power there is, sucking up the money needed to do any real transition to clean energy. It's impossible to do nuclear power without billions in public subsidies. Wall Street won't touch it. None have ever been built without massive government subsidies, and even with them, the industry is collapsing under its own financial weight.
4. it's the most dangerous form of power. It's the only one where a single plant can make entire areas of the earth uninhabitable. With fossil fuels, it takes an entire fleet many decades to cause global warming. With nuclear power, it takes hours for one plant to contaminate an entire region (and later, the world).
5. it's notorious for accidents, not to mention terrorism risks.
6. normal operation of nuclear power releases radioactive pollution that contaminates reactor communities and food supplies that travel throughout the country/world.
7. there's no solution for the waste, which lasts effectively forever. All waste dumps in the U.S. have leaked. Fuel pools full of highly irradiated fuel rods are unsafely overpacked.
8. it's incredibly centralized and controlled by giant corporations that corrupt our government.
9. it sucks up massive amounts of cooling water (and sea turtles and fish…)
10. it's not even a solution to global warming, as uranium enrichment is so energy intensive that it takes the output from entire coal plants to power it, not to mention all of the fossil fuels used in mining, milling, conversion, enrichment, fuel fabrication, the reactor itself, waste management, and transportation between all of these steps. The enrichment process alone releases a large portion of the potent global warming-causing and ozone-depleting CFC-114 in the U.S. (which is banned in most other uses).
11. it lays waste to more land than coal mining does, as uranium in its natural form is not very dense, and the U-235 needed is only 0.7% of uranium that is mined, requiring milling, conversion and enrichment to get that fraction up to 4-5% for reactor fuel, creating a lot of "depleted uranium" (U-238) in the process.
12. it's intimately linked to nuclear weapons through the enrichment process. Countries with "peaceful" nuclear programs have the same equipment needed to make nuclear bombs. Nuclear material being around also makes terrorist dirty bombs easy to get.
13. it's one of the most racist of energy industries, in terms of communities impacted by uranium mining, nuclear waste disposal, depleted uranium use, and uranium enrichment, especially regarding Indigenous peoples.
14. there isn't enough uranium to scale up nuclear power. Thorium isn't a feasible alternative. Fusion isn't, either. Molten salt reactors have always been a disaster. Small modular reactors are unproven and uncertified, and are even more expensive than conventional reactors, and produce more waste per megawatt of energy generated.

15. they can't take the heat and sometimes have to shut down in the hottest summer days when their power is needed for air conditioning demand
16. they can't readily turn on or off, so their baseload nature makes them incompatible with deploying a grid primarily on intermittent renewables

How expensive are new nuclear reactors? The new Vogtle reactor in Georgia took 7 years longer than promised and was $17 Billion over budget. These sorts of delays and cost overruns are typical in the industry internationally.

See this summary Table 1-2 from page 24 of the latest Energy Information Administration's latest (Jan 2024) study on power plant costs, "Capital Cost and Performance Characteristics for Utility-Scale Electric Power Generating Technologies," https://www.eia.gov/analysis/studies/powerplants/capitalcost/pdf/capital_cost_AEO2025.pdf

Nuclear power (rows 8 and 9) are among the most expensive power plant technologies to build or operate and maintain (fixed O&M), second only to biomass with 95% carbon capture (which is one reason why Hu Honua is going nowhere).

Case No.	Technology	Description	Net Nominal Capacity (kW)	Net Nominal Heat Rate (Btu/kWh)	Capital Cost ($/kW)	Fixed O&M Cost ($/kW-year)	Variable O&M Cost ($/MWh)	Nitrogen Oxide (NO_x) (lb/MMBtu)	Sulfur Dioxide (SO_2) (lb/MMBtu)	Carbon Dioxide (CO_2) (lb/MMBtu)
1	USC Coal without Carbon Capture – Greenfield	1 x 735 MW Gross	650	8,638	$4,103	$61.60	$6.40	0.06	0.09	206
2	USC Coal 95% Carbon Capture	1 x 819 MW Gross	650	12,293	$7,346	$86.70	$13.73	0.06	0.09	10.3
3	Aeroderivative CTs – Simple Cycle	4 x 54 MW Gross	211	9,447	$1,606	$9.56	$5.70	0.0075	0.00	117
4	CTs – Simple Cycle	1 x H-Class	419	9,142	$836	$6.87	$1.24/ MWh, $23,100/ Start	0.0075	0.00	117
5	CC 2x2x1	2 x 1 H Class	1,227	6,266	$868	$12.12	$3.41	0.0075	0.00	117
6	CC 1x1x1, Single Shaft	1 x 1 H Class SS	627	6,226	$921	$15.51	$3.33	0.0075	0.00	117
7	CC 1x1x1, Single Shaft, with 95% Carbon Capture	1 x 1 H Class SS	543	7,239	$2,365	$24.78	$5.05	0.0075	0.00	6
8	Biomass Plant with 95% Carbon Capture	1 x BFB	50	19,965	$12,631	$261.18	$9.65	0.08	<0.03	10.3
9	Advanced Nuclear (Brownfield)	2 x AP1000	2,156	10,608	$7,861	$156.20	$2.52	0	0	0
10	Small Modular Reactor Nuclear Power Plant	6 x 80 MW Small Modular Reactor	480	10,046	$8,936	$121.99	$3.19	0	0	0
11	Geothermal	Binary Cycle	50	N/A	$3,963	$150.60	$0.00	0	0	0
12	Hydroelectric Power Plant	New Stream Reach Development	100	N/A	$7,073	$33.54	$0.00	0	0	0
13	Onshore Wind – Large Plant Footprint: Great Plains Region	200 MW | 2.8 MW WTG	200	N/A	$1,489	$33.06	$0.00	0	0	0
14	Onshore Wind – Repowering/Retrofit	150 MW | 1.5 - 1.62 MW WTG	150	N/A	$1,386	$38.55	$0.00	0	0	0
15	Fixed-bottom Offshore Wind: Monopile Foundations	900 MW | 15 MW WTG	900	N/A	$3,689	$154.00	$0.00	0	0	0
16	Solar PV with Single-Axis Tracking	150 MW_{AC}	150	N/A	$1,502	$20.23	$0.00	0	0	0
17	Solar PV with Single-Axis Tracking and AC-Coupled Battery Storage	150 MW_{AC} Solar 50 MW | 200 MWh Storage	150	N/A	$2,175	$38.39	$0.00	0	0	0
18	Solar PV with Single-Axis Tracking and DC-Coupled Battery Storage	150 MW_{AC} Solar 50 MW | 200 MWh Storage	150	N/A	$2,561	$39.24	$0.00	0	0	0
19	BESS	Lithium Ion, 150 MW | 600 MWh	150	N/A	$1,744, ($436/kWh)	$40.00	$0.00	0	0	0

Some good materials to review to learn more about how nuclear power is NOT a climate solution, or any sort of solution, are here:

https://www.nrdc.org/experts/ralph-cavanagh/guest-blog-amory-lovins-future-diablo-canyon

https://www.forbes.com/sites/amorylovins/2019/11/18/does-nuclear-power-slow-or-speed-climate-change/

http://archive.beyondnuclear.org/fact-sheets/

https://www.nirs.org/basics-of-nuclear-power/nuclear-power-frequently-asked-questions/

https://climateandcapitalism.com/2021/06/23/10-reasons-why-climate-activists-should-not-support-nuclear/

https://eu.boell.org/en/2021/04/26/7-reasons-why-nuclear-energy-not-answer-solve-climate-change

https://www.ewg.org/news-insights/news/why-small-modular-nuclear-reactors-wont-help-counter-climate-crisis

https://thebulletin.org/2021/08/us-attorney-details-illegal-acts-at-construction-projects-sealing-the-fate-of-the-nuclear-renaissance/

Mahalo for your consideration.

March 18, 2025

In strong opposition to SB1588 SD1

Aloha members of the House Committee on Energy & Environmental Protection,

We, the undersigned organizations, are **strongly opposed to SB1588 SD1** that establishes the Nuclear Energy Task Force within the Hawai'i State Energy Office. Nuclear power is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment.

Eight Reasons Why Nuclear Power is Not the Answer for Hawaii

Nuclear power isn't "zero emission." The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity." However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii's pristine marine environment and tourism-dependent economy.

Nuclear waste. The waste generated by nuclear reactors remains radioactive for thousands of years and needs to be kept contained throughout that time. Currently, there are no long-term storage solutions for radioactive waste, and most is stored in temporary, above-ground facilities.

Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other “advanced” nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called “new” types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide ‘firm’ power as has been touted. Just like today’s nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii’s clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii’s constitution, a

sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.

Mahalo,

Signed:

Sherry Pollack, Co-Founder, 350Hawaii

Lynda Williams, Physicist, Bitches Against Nukes (BAN)

Melodie Aduja & Alan Burdick, Co-Chairs, Environmental Caucus of the Democratic Party

Dave Mulinix, Co-Founder, Greenpeace Hawaii

Healani Sonoda-Pale, Ka Lahui Hawai'i

Laurel Brier, Kauai Women’s Caucus

Mele Stokesberry, President, Maui Peace Action

Don May, Our Revolution Hawaii

Rob Brower, Chair, Surfrider Foundation, Kauai Chapter

Ann Wright, Chapter Co-Cordinator, Veterans for Peace Chapter 113 Hawaii

To: The House Committee on Energy and Environmental Protection (EEP)
From: Sherry Pollack, Co-Founder, 350Hawaii.org
Date: Tuesday, March 18, 2025, 9:20 am

In strong opposition to SB1588 SD1

Aloha Chair Lowen, Vice Chair Perruso, and members of the EEP committee,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org is in **strong opposition to SB1588 SD1** that establishes the Nuclear Energy Task Force within the Hawai'i State Energy Office. 350Hawaii is extremely concerned about SB1588 SD1 and the economic and environmental harms it would lead to should it be passed.

We realize that this measure would just establish a taskforce, but **why throw away money on something that the Energy Office has already indicated would be an expensive form of energy**, let alone the environmental risks? Ratepayers and taxpayers do not need this type of wastefulness.

The bill text in SB1588 SD1 is rife with factually inaccurate information, including the statement that nuclear energy is "carbon-free electricity". In fact, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor. Essentially, this measure is straight from the false narrative talking points being promoted by the nuclear industry. Unfortunately, for those unfamiliar with this technology, it sounds like the panacea Hawaii has been waiting for.

Bottom line, if we are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and ***funded*** for at least 200,000 years? And the more nuclear waste that accumulates, the greater the risk of radioactive leaks, which can damage water supply, crops, animals, and humans. And even if proponents of this measure suggest we can just send the waste off somewhere else, why would we want to pollute somebody else with the radioactive waste for 200,000 years? This is not a pono plan.

As for the "next-generation nuclear solutions" small modular reactors (SMRs), and the promise of "safer and more flexible deployment options with lower risks associated with waste" that nuclear proponents claim, this is nothing but hype promoted by the nuclear industry and is not backed by evidence. The truth is, SMRs simply are not viable. In a nutshell, SMRs are unproven, too expensive, too slow to build, have unresolved safety risks, and are too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years. Case in point, researchers at Stanford's Center for International Security and

Cooperation showed that SMRs exacerbate the challenges of nuclear waste management and disposal and that most SMR designs will increase the volume of nuclear waste in need of management and disposal by a factor of 2 to 30 compared with traditional reactors in the case study.

Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

This bill is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment. Invest our resources in clean energy— renewables and energy efficiency, ***not boondoggles***.

We strongly urge the Committee to OPPOSE and not advance this misguided and harmful measure. Nuclear energy has no place in Hawaii's clean energy future.

Mahalo,

Sherry Pollack, 350Hawaii

Aloha EEP Chair Lowen, Vice Chair Perruso, and Committee Members Kahaloa, Kusch, Quinlan, Ward,

My name is Dave Mulinix, Representative of Greenpeace Hawaii. On behalf of our thousands of members and supporters in the state of Hawaii we have great concern and stand in STRONG OPPOSITION to SB1588 that establishes the Nuclear Energy Task Force within the Hawaii State Energy Office.

The goal of this bill is to research various so called new advanced nuclear technologies to see if they are a viable option for Hawaii. The reality is that the nuclear industry is constantly coming up with "new ideas" to repackage and sell their expensive dirty nuclear energy to the public. The truth is, nuclear energy has serious safety issues, is highly toxic for 200,000 years, and the most expensive source of energy on the planet.

Nuclear proponents advocate using new, supposedly safer, reactor designs as a climate solution. These untested designs, such as the Integral Fast Reactor, Pebble Bed Modular Reactor, Thorium Fueled Reactors, Molten Salt Reactors, and others, including Small Modular Reactors are all still in the experimental stage. The designs—all of which have been around for decades, would take decades to bring them to commercial operation. To achieve even that would require utilities to want to build them, but none do. Their costs would be even higher than current reactor designs, which is one reason utilities aren't interested. Safety-wise, the designs are unproven and would require extensive and time consuming testing before the federal Nuclear Regulatory Commission could license them. Waiting for such reactors to materialize would forestall much faster and cheaper climate solutions.

Five additional points that already clearly demonstrate, without the need for expending resources for a nuclear energy task force, that nuclear energy is not, and has never been, a viable option for Hawaii:

1) Hawaii's constitution explicitly prohibits nuclear fission power plants without legislative approval (Article XI, Section 8). This critical provision protects the health and safety of Hawaii's residents and reflects long-standing public opposition to nuclear energy.

2) Creating a Nuclear Energy Task Force is unnecessary. Hawaii's constitution, existing laws, and community values have already rejected nuclear power as a viable option. Establishing this task force would be a waste of taxpayer money and distracts attention away from actual viable clean energy technologies that have proven to cut climate-killing carbon emissions.

3) The Three Mile Island, Chernobyl, and Fukushima nuclear power plant disasters have cost millions of dollars in an attempt to clean them up but have permanently contaminated their regions, proving that nuclear power is not safe, clean, or cheap.

4) For some 70 years the US government has searched the entire Earth and so far has found no safe place to store nuclear waste. So the waste from nuclear power plants are currently stored on site until a viable way to permanently store the waste can be found. If we can't find a safe place on Oahu to build a new waste dumb, then how are we going to find a place to store nuclear waste that will remain toxic for some 200,000 years?

5) According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water

contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

This idea to bring nuclear power to Hawaii is a fool's errand, not unlike the project from the Gulliver's Travels story where Professors at the Lagado Academy of Projects were trying to produce cheap energy by attempting to extract sunbeams out of cucumbers, then enclose the sunbeams in hermetically sealed vials to produce heat and light at a reasonable rate! Forming this task force is a very similar endeavor and will also be a wasted effort. It is clear that nuclear energy in Hawaii is not a viable option. Why should we waste our time, taxpayer money, and precious resources on something we already know the answer to?

Please vote no on SB1588 that will waste taxpayer money and distract attention away from actual viable clean energy technologies that have proven to cut climate-killing carbon emissions.

Mahalo
Dave Mulinix, CoFounder and Hawaii State Representative
Greenpeace Hawaii

References:

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Molten salt reactors were trouble in the 1960s—and they remain trouble today
https://thebulletin.org/2022/06/molten-salt-reactors-were-trouble-in-the-1960s-and-they-remain-trouble-today/

Union of Concerned Scientists Statement on Thorium-Fueled Reactors
https://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/thorium-reactors-statement.pdf

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A small modular reactor's demise calls for big change in Energy Department policy
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Small Nuclear Reactor Contract Fails, Signaling Larger Issues with Nuclear Energy Development in U.S.
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https://www.ucsusa.org/resources/small-modular-reactors

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https://www.gutenberg.org/files/829/829-h/829-h.htm

Environmental Caucus of
The Democratic Party of Hawai‘i

March 14, 2025

TESTIMONY IN OPPOSITION TO SB1588 SD1 RELATING TO NUCLEAR ENERGY

TO: Chair Nicole E. Lowen, Vice Chair Amy A. Perruso, and Members of the Committee on Energy & Environmental Protection

DATE: Tuesday, March 18, 2025, **TIME:** 9:20 AM

PLACE: Conference Room 325 & Videoconference

Aloha Chair Lowen, Vice Chair Perruso, and Members of the Committee,

On behalf of the Environmental Caucus of the Democratic Party of Hawaii, we submit this testimony in strong opposition to SB1588 SD1, which seeks to establish a Nuclear Energy Task Force within the Hawaii State Energy Office.

- **Hawaii State Constitution and Nuclear Policies**:
    - Article XI, Section 8, of the Hawaii State Constitution prohibits the construction of nuclear fission power plants or the disposal of radioactive material in the state without a two-thirds vote in each house of the legislature.
    - This constitutional safeguard reflects Hawaii’s intent to protect public health and prioritize sustainability over the risks of nuclear energy.
- **Hawaii's Renewable Energy Goals**:
    - Hawaii’s goal of achieving 100% renewable energy by 2045 focuses on clean, sustainable, and safe options, including solar, wind, and geothermal energy.
    - Nuclear energy is not classified as renewable, as it relies on finite uranium resources and generates radioactive waste that poses long-term disposal challenges.
    - Introducing nuclear energy would divert resources and attention away from achieving Hawaii’s renewable energy objectives.
- **Hawaii is Not Suitable for Nuclear Energy**:
    - **Transportation of Nuclear Fuel**: Hawaii’s isolated location makes transporting nuclear fuel and related materials challenging, risky, and expensive. Shipments through vast oceanic distances introduce the potential for accidents or spills, jeopardizing marine ecosystems.

- **Storage of Nuclear Waste**: Hawaii lacks suitable geologic formations for the long-term storage of radioactive waste. The state's volcanic and seismic activity further increases the risks associated with safely managing nuclear waste.
- **Small Modular Reactors (SMRs)**: While often promoted as a safer and more efficient nuclear technology, SMRs face significant challenges, including high costs, limited operational history, and unresolved issues surrounding waste disposal. SMRs are not a viable option for Hawaii given these uncertainties and the state's renewable energy focus.

- **Historical Nuclear Disasters**:
  - **Chernobyl (1986)**: This disaster caused widespread radioactive contamination, displacement, and long-term health impacts, underscoring the catastrophic risks of nuclear energy.
  - **Fukushima (2011)**: The earthquake and tsunami triggered a meltdown, releasing radioactive materials into the Pacific Ocean. Contaminated water continues to impact marine ecosystems, including Hawaii's oceanways.
  - **Three Mile Island (1979)**: A partial meltdown caused significant public fear and led to regulatory changes, demonstrating the risks even in a lower-severity event.
- **Global Nuclear Accidents**:
  - Since 1952, at least 99 nuclear power plant accidents worldwide have been recorded, resulting in over $20.5 billion in damages.
  - Both Chernobyl and Fukushima were rated at Level 7 on the International Nuclear Event Scale (INES)—the highest level—highlighting the potential consequences of nuclear energy failures.
- **Impact of Fukushima on Hawaii**:
  - Radioactive outfall from Fukushima has reached Hawaii's oceanways, traveling through Pacific currents. This contamination raises concerns about marine ecosystems and public health, as radioactive isotopes like cesium accumulate in fish and other marine life.
  - Hawaii's residents, who rely on the ocean for sustenance, recreation, and cultural practices, face ongoing risks from this contamination.
- **Nuclear Energy is Inconsistent with Hawaii's Vision**:
  - Hawaii has made remarkable strides in embracing renewable energy, prioritizing clean and sustainable energy sources. Nuclear energy, with its prohibitive costs, high risks, and waste management challenges, is fundamentally incompatible with Hawaii's goals for sustainability and resilience.

For these reasons, we respectfully urge the Committee to oppose SB1588 SD1. Thank you for the opportunity to testify to this critical issue.

Mahalo,

Melodie Aduja and Alan Burdick
Co-Chairs, Environmental Caucus of the Democratic Party of Hawaii

SB-1588-SD-1
Submitted on: 3/15/2025 2:02:29 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Susan B Roberts Emery	Green Party of Hawai’i	Oppose	Written Testimony Only

Comments:

Aloha Chair Lowen, Vice Chair Perruso, and Members of Committee,

My name is Susan RobertsEmery, I am Co-chair of the Green Party of Hawai'i. We take the formation of a Task force for Nuclear energy very seriously and we stand in Strong Opposition to SB1588 SD1. It seems absurd to think Nuclear energy is a good idea on our Volcanic Islands! I live on Hawai'i Island and this Island still growing, the number of earthquakes on our Island rule out any form of Nuclear power. How is this safe for our communities, or even the plant ? Why are we discussing this, if the Energy Office has indicated it would an expensive form of energy, riddled with environmental risks? Who is behind this, is the real question ! Follow the money, comes to mind. There is always a money trail.

We are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and funded for at least 200,000 years?

Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's energy future! Green Party of Hawaii stands in strong opposition to SB1588 SD1.

Sincerely,

Susan RobertsEmery
Green Party Hawai'i
Paauilo

SB-1588-SD-1
Submitted on: 3/15/2025 8:53:28 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Kauai Women's Caucus	Oppose	Written Testimony Only

Comments:

Strong opposition to establishing a nuclear task force, or future exploration of nuclear power for Hawaii. Exploring nuclear power is a waste of resources and money .

Hawaii took a stand decades ago against nuclear power with a constitutional ban. Primarily because Hawaii's geological instability make it a dangerous location for storing nuclear waste and there are nonviable long-term solutions to containing radioactive materials. The transportation of nuclear to or from Hawaii is extremely dangerous. An 'accident' would have dire, long term consequences on our marine environment at the very least. The new technologies are unproven and costs for any nuclear option are prohibitive. Why this distraction or redirection of funds from Hawaii achieving its clean energy goals that we are clearly on our way to achieving with proven and appropriate technologies? Nuclear is not renewable nor is it carbon free considering the mining and refining process for uranium. Reputable climate action /environmental organization do Not support nuclear power. Please honor the will of the people and uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean, renewable energy future.

SB-1588-SD-1
Submitted on: 3/15/2025 10:13:51 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Hawai‘i Reef and Ocean Coalition	Oppose	Written Testimony Only

Comments:

Hawai‘i Reef and Ocean Coalition respectfully **OPPOSES** spending taxpayer money and agency time on what will be a futile exercise. Hawaii's Constitution, our remote islands' location, the risks of transporting nuclear fuel, the difficulty of evacuation in case of an accident, and the lack of solutions to the radioactive waste produced are all overwhelming reasons not to pursue this study or pass this bill.

Mahalo!

Hawai‘i Reef and Ocean Coalition (by Ted Bohlen)

SB-1588-SD-1
Submitted on: 3/16/2025 2:39:48 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Jim Albertini	Malu 'Aina Center for Non-violent Education & Action	Oppose	Written Testimony Only

Comments:

Aloha Senators,

Our organization **is strongly opposed to SB1588 SD1** that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Nuclear power is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment.

In addition, Hawaii County has a Nuclear-Free Law since 1981 and the State Constitution of 1978 prohibits any nuclear power related actions without first a 2/3 vote of both houses of the State Legislature. I was directly involved in getting that in the State Constitution.

Who is behind this push for n-power in Hawaii? Expose them!!!! I suspect it is the the Billionaire high tech oligarchs that have replaced the Big 5 Sugar barons. These Hi tech AI Billionaires need massive amounts of power for their data storage mass warehouses. It's the new global plantation destroying the earth and the environment. Say NO to AI domination and NO to nuclear power.

Mahalo.

Jim Albertini, president of Malu 'Aina March 16, 2025

Jim Albertini Malu 'Aina Center For Non-violent Education & Action P.O. Box 489 Ola'a (Kurtistown) Hawai'i 96760
Phone 808-966-7622 Email ja@malu-aina.org Visit us on the web at www.malu-aina.org

PS I also support the points below.

Nuclear power isn’t “zero emission.” The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity.” However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii's pristine marine environment and tourism-dependent economy.

Nuclear waste. The waste generated by nuclear reactors remains radioactive for thousands of years and needs to be kept contained throughout that time. Currently, there are no long-term storage solutions for radioactive waste, and most is stored in temporary, above-ground facilities.

Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires

looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.

SB-1588-SD-1
Submitted on: 3/17/2025 1:13:05 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Colonel Ann Wright	Veterans For Peace-Chapter 113-Hawaii	Oppose	Written Testimony Only

Comments:

Aloha Hawaii State Legislators,

Veterans For Peace Chapter 113-Hawaii is strongly opposed to SB1588 SD1 that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office.

Nuclear power poses serious harms to our health and environment, as well is a distraction from Hawaii achieving our clean energy goals.

Artificial Intelligence tech billionaires that live in Hawaii need massive amounts of power for their data storage mass warehouses.

We must say NO to a technology energy power source that can pollute our islands for the next many centuries.

Mahalo,

Colonel (Retired) Ann Wright, Coordinator, Veterans For Peace, Chapter 113-Hawaii

March 16, 2025

SB-1588-SD-1
Submitted on: 3/17/2025 8:52:44 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Henry Curtis	Life of the Land	Oppose	Written Testimony Only

Comments:

Please hold the bill.

Even if Small Nuclear Reactors are eventually viable, they are years away from commercialization. There is no need to waste the state`s financial resources.

SB-1588-SD-1
Submitted on: 3/17/2025 9:19:09 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Nancy Redfeather	Ka Ohana O Na Pua	Oppose	Written Testimony Only

Comments:

Aloha Chair, Vice-Chair and Members of the Committee,

Our organization **is strongly opposed to SB1588 SD1** that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Nuclear power is not the direction Hawaii should take to achieve our clean energy goals, it would pose serious harms to our health and environment.

In addition, Hawaii County has a Nuclear-Free Law since 1981 and the State Constitution of 1978 prohibits any nuclear power related actions without first a 2/3 vote of both houses of the State Legislature. These are the reasons I oppose this direction.

Nuclear power isn't "zero emission." The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity." However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii's pristine marine environment and tourism-dependent economy.

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Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for

generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations.

Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.

Mahalo and Aloha,

Nancy Refeather - Kawanui, Hawai'i Island

NUCLEAR ENERGY INSTITUTE
1201 F Street NW • Suite 1100
Washington, DC 20004
nei.org

Hawaii House Energy and Environmental Protection Committee
Nuclear Energy Institute
Public Testimony in Support of SB 1588

March 17, 2025

Please submit this statement as part of the record in support of SB 1588. The Nuclear Energy Institute (NEI) applauds Hawaii's consideration of SB 1588, which allows the state to explore nuclear energy technology.

The energy sector in the United States has undergone significant transformation over the last decade and that transformation will continue. NEI recently conducted a survey of its member utilities and found that these utilities anticipated needing more than 100 gigawatts, (equivalent to more than 300 advanced reactors) of new nuclear power by 2050 in order to guarantee reliable access to clean energy. Non-electric sectors such as industrial heat and transportation are also considering nuclear energy to transition to a reliable, clean and affordable energy supply. Ensuring that state energy policies are in place that enable commercial deployment of advanced reactors by the early 2030s is essential to ensuring an affordable, secure, and resilient energy sector well into the future.

Nuclear energy is the single largest carbon-free electric generating source in both the United States and around the world. In the United States, our 94 nuclear reactors produced about half of all carbon-free energy. Nuclear plants operating in economically sustainable electricity markets can expect to safely and reliably produce clean electricity for up to 80 years.

SB 1588 will help spur safe deployment of the next generation of nuclear. While the United States once led the world in nuclear energy technology exports, we are no longer the leading supplier of nuclear reactors; we are in a race against other countries to capture a growing international market share, and by creating a pathway to commercial deployment here at home, we will unlock markets for U.S. technology across the globe.

Nuclear power is vital to the energy system

New advanced reactor designs are being developed by entrepreneurial U.S. companies seeking to expand the value of nuclear technology to our energy system. These designs will be commercially operational this decade and will be ready for large-scale deployment by the early 2030s to meet domestic and global clean energy needs. Enacting state policies that encourage

the use of these new nuclear technologies is particularly timely, as the U.S. Energy Information Administration forecasts the retirement of 140 gigawatts of capacity by 2040 across the U.S.A. key focus of the energy sector will be to replace this retired generation with sources that are clean, reliable, and affordable.

In a recent study[1], Vibrant Clean Energy found that pairing nuclear with wind and solar is the most cost-effective means to decarbonize electricity generation. This lowest cost scenario projects nuclear energy could provide nearly 43% of all generation in 2050 with wind and solar producing almost 50%. A significant portion of the anticipated 300 GWe of advanced nuclear capacity that is needed could repurpose hundreds of retired fossil generation sites. A second scenario where solar and wind generate 77% of all generation in 2050 and the use of nuclear energy declines would result in over $400 billion in higher costs to consumers.

Focusing only on the need for additional electricity in the U.S. in the upcoming decades would mistakenly overlook the likelihood of, and the need for, more energy in other sectors, such as transportation, industrial heat and hydrogen. Nuclear is the only clean, reliable and affordable energy source that can produce heat and steam that is needed for many of these processes.

Nuclear energy is poised to expand in the U.S.

NEI believes our nuclear energy future will include safe long-term operation of our existing nuclear power reactors through subsequent license renewals to allow operation out to eighty years or more.

The existing domestic nuclear fleet is a central part of our nation's critical infrastructure and should not be taken for granted. Nuclear energy in the state powers 1.9 million homes and accounts of 1,500 high-paying and reliable jobs. Policymakers in state capitals and Washington DC have taken action to preserve twenty-two reactors that were at risk of closing prematurely, by valuing those reactors for their emissions-free generation. These actions have had the added benefit of preserving more than ten thousand jobs with family-sustaining wages.

Most recently, the U.S. Congress passed two consequential pieces of legislation, the Bipartisan Infrastructure Law and Inflation Reduction Act, that explicitly recognize advanced nuclear as a critical solution to our energy needs and provide significant financial incentives for the deployment of advanced reactors.[2] States are also taking action to pass policies to support advanced reactors, similar to the options identified in a recent NEI report.[3]

The United States, fueled by private capital and innovation, has recently experienced a surge in advanced reactor technologies with dozens of projects worth billions of dollars being announced

[1] https://www.vibrantcleanenergy.com/wp-content/uploads/2022/06/VCE-NEI-17June2022.pdf

[2] https://www.nei.org/CorporateSite/media/filefolder/advantages/Current-Policy-Tools-to-Support-New-Nuclear.pdf

[3] https://www.nei.org/CorporateSite/media/filefolder/resources/reports-and-briefs/State-Policy-Options-to-Support-New-Nuclear-Energy_NEI.pdf

over the last year. One thing is clear, states that have policies that support and encourage the deployment of advanced reactors, also have companies planning projects, which lead to future jobs and economic growth, in addition to the reliable, clean, and affordable energy.

Advanced reactors are an economic powerhouse

The electric utility sector in the United States is rapidly evolving. NEI believes it is in the best interest of the U.S. that nuclear power remains a significant and growing supply of clean energy as this evolution continues. Therefore, it is imperative that the commercial nuclear industry in the U.S. continue to rapidly innovate new products and designs so that these products are available when the market needs them.

According to an SMR Start report[4], advanced reactors can be a cost competitive and highly valuable part of our future energy system. The report also outlines the tremendous benefits to jobs and the economy, stating:

“Construction and operation of a 600 megawatt SMR plant with multiple reactors is estimated to employ about 900 manufacturing and construction workers for about 4 years and about 300 permanent positions for the 60+ years the SMR operates.” The data shows that each permanent position creates a multiplier effect resulting in 1.66 additional jobs in the local community and 2.36 additional jobs in the rest of the state. Nuclear jobs pay 36 percent more than average salaries in the local area.

“Based upon experience with a 1,000 MWe nuclear facility, a 600 MWe SMR plant is expected to generate over $500M in direct and indirect economic output annually. This includes over $270M in the plant’s electricity sales and induced spending at the local, state and national levels of $10M, $48M, and $236M, respectively. The SMR plant is expected to pay about $10M in state and local taxes and $40M in federal taxes annually.” The advanced reactor supply chain could also create thousands of jobs to support a domestic and international market.”

According to a recent NEI report[5], micro-reactors can also be a cost competitive and highly valuable part of our future energy system. These micro-reactors are highly resilient and reliable, clean and environmentally friendly, simple and safe, and are capable of producing electricity and heat through flexible on-demand operations.

Likewise, other reports, such as the aforementioned SMR Start report, similarly conclude that slightly larger advanced reactors can be a cost competitive and highly valuable part of our future energy system. The report also outlines the tremendous benefits to jobs and the economy that an advanced reactor can bring.

[4] https://smrstart.org/wp-content/uploads/2021/03/SMR-Start-Economic-Analysis-2021-APPROVED-2021-03-22.pdf

[5] https://www.nei.org/CorporateSite/media/filefolder/resources/reports-and-briefs/Report-Cost-Competitiveness-of-Micro-Reactors-for-Remote-Markets.pdf

Conclusion

We appreciate and applaud Hawaii's support for nuclear energy. With this continued support and the dedication of the industry, NEI is confident that the U.S. will regain its leadership role in advanced nuclear technology and generation.
Last year 25 state took action to support nuclear. States that have passed legislation similar to Hawaii's include Connecticut, Indiana, Kentucky, Louisiana, Maryland, Michigan, Ohio, Tennessee, New Hampshire, Nebraska, Montana, Pennsylvania, Florida, Virginia and Texas.

On behalf of NEI and its members, we thank you for considering SB 1588. By approving the expansion of nuclear, the Legislature will also ensure that these economic engines continue to be a cornerstone of the nation's electric infrastructure.

Christine Csizmadia
Senior Director, State Government Affairs & Advocacy
Nuclear Energy Institute
1201 F Street, Suite 1100
Washington, DC 20004
P: (202) 739-8000 E: cmc@nei.org

SB-1588-SD-1
Submitted on: 3/17/2025 1:08:11 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
TERRY SHINTANI	Kupuna Council of Traditional Hawaiian Healers	Oppose	Written Testimony Only

Comments:

Dear Honorable Legislators

Re: Testimony in opposition of SB 1588

We the Kupuna Council of Traditioal Healers of the Dr. Agnes Kalanihookaha Cope Traditional Hawaiian Healing Center do hereby express our strong opposition to SB 1588. The main reason for our opposition is that the half-life of the radio-isotopes used in nuclear reactors have extremely long half-lives (U-235 has a half life of 700 million years) that if there is an accident or a terrorist attack or a power outage, there is no cleaning up of the radioactivity. This would mean Hawaii or parts of Hawaii affected would be uninhabitable essentially forever. In addition, the used nuclear material has to be stored somewhere and there are no vessels that can safely last a million years. Think Red Hill. We were assured that it was safe and would not contaminate our water sources - but it failed in around 80 years. We should catagorically oppose nuclear in Hawaii and do our duty to protect the Aina.

Sincerely, Kupuna Council of Traditional Hawaiian Healers

Terry Kalani Shintani, MD, JD, MPH, Vice Chair.

drshintani@gmail.com, 808 255-1696.

SIERRA CLUB OF HAWAIʻI

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

March 18, 2025 9:20 AM Conference Room 325

In OPPOSITION to SB1588 SD1: RELATING TO NUCLEAR ENERGY

Aloha Chair Lowen, Vice Chair Perruso, and Members of the Committee,

On behalf of our over 20,000 members and supporters, the Sierra Club **OPPOSES** SB1588 SD1, which seeks to uplift nuclear energy as a potential alternative energy source for our islands.

Last year, the National Sierra Club Board of Directors reaffirmed its position to oppose

> the licensing, construction, and operation of new nuclear reactors utilizing the fission process, pending:1) Resolution of the significant safety problems inherent in reactor operation, disposal of spent fuels, and possible diversion of nuclear materials capable of use in weapons manufacture. 2) Establishment of adequate regulatory machinery to guarantee adherence to the foregoing conditions.

The concerns underlying this opposition to nuclear energy are exponentially exacerbated in an island setting such as our own. As illustrated by tragedies across the planet, a catastrophic failure or failures of a nuclear reactor, during the import or storage of nuclear fuel, or during the storage and disposition of nuclear waste - whether due to human error, natural disasters, sabotage, or other cause(s) - could render entire sections of an island - or entire islands - uninhabitable for generations, if not indefinitely. The movement of ocean currents and/or wildlife could also spread radioactive fallout from such an event or events far and wide across our island chain. Any proposal that could lead to this occurring, no matter how small the risk, must be rejected outright.

The time and energy that would be invested in implementing this measure would be wasted at best, and a step towards existential disaster for our Hawaiʻi nei at worst.

Accordingly, the Sierra Club urges the Committee to **HOLD** SB1588 SD1. Mahalo nui for the opportunity to testify.

THIRD WAY

March 18th, 2025

Hawaii State Legislature
Hawaii House Energy and Environmental Protection Committee
415 South Beretania St.
Honolulu, HI 96813

Written Testimony from Third Way in Support for SB 1588

Chairwoman Lowen and Esteemed Members of the Committee,

My name is Alan Ahn, Deputy Director for the Climate and Energy Program at Third Way. Third Way[1] is a national think tank based in Washington, DC that champions modern center-left ideas and policies. I am submitting this written testimony on behalf of Third Way in support of SB 1588, which would establish the Nuclear Energy Task Force within the Hawaii State Energy Office.

One of the fundamental positions of Third Way's Climate and Energy Program is that we will need a diverse set of clean energy technologies and solutions to reach our climate goals, and Third Way has been at the forefront of highlighting nuclear energy as an increasingly indispensable part of our climate toolkit.[2] Nuclear energy had historically been a partisan issue in Washington, but working closely with Democratic allies and champions, Third Way has played a central role in building the overwhelming bipartisan support for nuclear energy at the federal level over the last decade. This bipartisan support has resulted in the passage of legislation supporting nuclear energy deployment and licensing, and billions of dollars in federal investments towards nuclear R&D, advanced reactor demonstrations, and nuclear-eligible grants and incentives.

Third Way was a pioneer in creating awareness[3] among policymakers about a growing ecosystem of private developers in the US that were commercializing next-generation advanced reactors—innovative technologies that address many of the traditional objections to nuclear energy through enhanced passive safety profiles, smaller footprints, reduced construction and project risks, and more sustainable fuel cycles, including some that have the ability to use recycled nuclear waste as fuel.[4] Thanks to unprecedented bipartisan support that has led to significant federal investments, we are now on track to building our first commercial advanced reactor projects in the US within the next several years.

The emergence of advanced nuclear technologies could not have come at a better time, with soaring energy demand across the American economy and the revitalization of the US industrial sector, which has created opportunities for economic growth and new, well-paying jobs. Without consistent, reliable, and emissions-free energy sources like nuclear that can operate around the clock and does not fluctuate with weather conditions,[5] decarbonizing growing industrial and

[1] For more information, please visit https://www.thirdway.org/.
[2] Jackie Toth and Jackie Kempfer, "How Advanced Nuclear Got on the Map," Third Way, April 8, 2021, available at: https://www.thirdway.org/memo/how-advanced-nuclear-got-on-the-map.
[3] Todd Allen, Ryan Fitzpatrick, and John Milko, "The Advanced Nuclear Industry: 2016 Update," Third Way, December 12, 2016, available at: https://www.thirdway.org/infographic/the-advanced-nuclear-industry-2016-update.
[4] "Advanced Nuclear Energy," 20x35.org, available at: https://www.20x35.org/advanced-nuclear-energy.
[5] Alan Ahn, "Nuclear energy in places such as Iowa supports the green transition we need," Des Moines Register, February 16, 2025, available at:

manufacturing activity will be virtually impossible—an assertion that bears out in Third Way's analyses on energy systems and pathways to net zero, both home[6] and abroad.[7] For Hawaii in particular, nuclear could be an especially attractive energy option that is clean and reliable, given the challenges and costs associated with securing energy supply for island geographies.

We cannot allow outdated assumptions and preconceived notions of nuclear technology to impede the advancement and deployment of this crucial energy source. Today's challenges are immense—as we try to meet escalating power needs, fall behind and play catch-up on climate action,[8] and ensure equitable access to clean air and energy,[9] nuclear energy will become even more important. And with the new era[10] in nuclear technology that is currently unfolding, we will now have the solutions to meet these challenges.

Respectfully,

Alan Ahn
Deputy Director for Nuclear
Climate and Energy Program
Third Way
aahn@thirdway.org

https://www.desmoinesregister.com/story/opinion/columnists/2025/02/16/iowa-energy-future-nuclear-power-duane-arnold-palo/78481572007/.

[6] Decarb America Research Initiative, see more at: https://decarbamerica.org/.

[7] Carbon-Free Europe, see more at: https://www.carbonfreeeurope.org/.

[8] Alan Ahn et al., "The Increasing Value of Nuclear to Catch Up on Climate," Third Way, April 23, 2024, available at: https://www.thirdway.org/blog/the-increasing-value-of-nuclear-to-catch-up-on-climate.

[9] Alan Ahn, "Importance of Preserving Existing Nuclear," Third Way, September 10, 2021, available at: https://www.thirdway.org/memo/importance-of-preserving-existing-nuclear.

[10] Alan Ahn, "Dawn of a Nuclear Era," Third Way, October 18, 2024, available at: https://www.thirdway.org/blog/dawn-of-a-nuclear-era.

SB-1588-SD-1
Submitted on: 3/14/2025 4:51:54 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Lynda Williams	Individual	Oppose	Remotely Via Zoom

Comments:

Aloha,

It is unconscionable that you are considering SB1588. An island in the middle of Pacific is nowhere for nuclear power to be. It is a waste of our time and resources to have a workgroup or research done by UH. Listen to the testimony of Aloha Aina environmental experts - Hawaii is nowhere for nuclear power. All of the reasons are given below. If you don't understand it, I'll be happy to come and give you a lesson and answer all your questions with compassion and honesty. I have 25 years experience as a physics professor.

This bill was written by a nuclear lobby. Nuclear power has no place in Hawaii. Listen to the Aloha Aina environmentalist and kill this bill.

Eight Reasons Why Nuclear Power is Not the Answer for Hawaii

Nuclear power isn't "zero emission." The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity." However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii's pristine marine environment and tourism-dependent economy.

Nuclear waste. The waste generated by nuclear reactors remains radioactive for thousands of years and needs to be kept contained throughout that time. Currently, there are no long-term storage solutions for radioactive waste, and most is stored in temporary, above-ground facilities.

Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, and honor the voices of its people by opposing the use of nuclear power in Hawaii.

Mahalo,

Lynda Williams

Physicist, Hilo

UNIVERSITY OF HAWAI'I AT MANOA
Kewalo Marine Laboratory
Pacific Biosciences Research Center
41 Ahui Street, Honolulu, HI 96744

March 17, 2025

Hawaii State House of Representatives
The Thirty- Third Legislature
Committee on Energy and Environmental Protection
Regarding SB 1588 SD1

Dear Chairwoman Lowen and Committee Members,

I am submitting this testimony to express my concern with SB 1588 SD1 and its implications for Hawaii. Specifically, in my opinion, any plans to site a modular nuclear power plant in Hawaii is ill-advised, based on human and environmental safety, ocean health, costs and more viable and appropriate alternatives.

I am a Research Professor and Director of the Kewalo Marine Laboratory, University of Hawaii at Manoa, and recently served as a lead scientist on the Pacific Islands Forum Expert Scientific Panel for evaluating the now initiated discharge of radioactively contaminated wastewater from the damaged Fukushima Daiichi Nuclear Power Plant into the Pacific Ocean. I also spent two years on Enewetak Atoll, a site of nuclear testing, where I performed my doctoral dissertation research. These experiences and others related to studies of radiation biology and the effects of nuclear waste on living systems convince me that Hawaii should not pursue a nuclear power plant for our islands, as the risks are far too great for present and future generations.

A recent publication in the Bulletin of Atomic Scientists summarizes some key concerns, as quoted below:

BULLETIN OF THE ATOMIC SCIENTISTS 2025, VOL. 81, NO. 1, 43–47
https://doi.org/10.1080/00963402.2024.2441046

But obscured beneath these exciting prospects—and not easily discerned from the glossy marketing material of many reactor vendors - is how the radioactive waste generated from these reactors will be managed and ultimately disposed of. All nuclear fission reactors generate radioactive waste, some of which will be highly hazardous for many generations (up to hundreds of thousands of years). This is true even for those reactor technologies that claim to use radioactive waste as fuel.

An additional problem for novel advanced modular reactors is that the fuels they use are often novel too, meaning that spent fuel waste from these reactors is poorly understood - completely unknown in some instances, because none has ever been available for research—and so the solutions to manage it safely in the long-term are yet to be developed (IAEA2019).

In general, detailed reactor specifications do not yet exist, so it is difficult to undertake quantitative analysis to determine how much waste, and of what type, will be generated from a given reactor, and what the associated fuel cycle costs will be. The US National Academies of Sciences, Engineering and Medicine estimated that the costs of developing advanced reactor technology and fuel cycles could range from at least several billion up to hundreds of billions of dollars, depending on the current maturity of the technology (NAS 2023)

They concluded that small modular reactors and advanced modular reactors will increase the volume and complexity of intermediate-level waste and spent nuclear fuel when compared to a large light water

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reactor, leading to additional burden and cost related to decommissioning, waste storage, packing, and disposal.

Unfortunately, there are too many examples of nuclear sites storing radioactive waste that are now suffering from the lack of such foresight when, decades ago, decisions were taken about nuclear energy without thinking through the consequences for waste management. Such decisions have resulted in staggeringly high and unconstrained costs, of the type that might make investors wary.

Having visited the Fukushima disaster site as a member of the Pacific Islands Forum mission to Japan in 2022, my concerns were heightened when I saw the poor quality of the planning, implementation of protective measures and present disregard for established scientific standards for assessment and monitoring tied to a nuclear power plant effort and parallels to what might occur in Hawaii. There is no safe place to store nuclear waste in Hawaii, and the U.S. has yet to approve a final site for such a national repository. Of additional concern is each year numerous incidents of unauthorized activities involving nuclear and other radioactive materials are reported (https://www.iaea.org/newscenter/pressreleases/more-than-145-reports-added-to-iaea-incident-and-trafficking-database-in-2024). Imagine if such material were to be distributed in downtown Honolulu by individuals with malintent. Movement of reactor fuel and waste is an easy target and would not only threaten the health of Hawaii residents but destroy our tourist-based economy.

Hawaii's energy needs could be more effectively and appropriately met through existing and rapidly improving alternate energy sources such as solar and wind power.

Respectfully submitted,

Robert H, Richmond, Ph.D.
Research Professor and Director.

SB-1588-SD-1
Submitted on: 3/14/2025 10:10:54 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
B.A. McClintock	Individual	Oppose	Written Testimony Only

Comments:

Why are we even entertaining the idea of Nuclear Energy on such a small land area? Please stop this foolishness. Please oppose this bill. Mahalo.

SB-1588-SD-1
Submitted on: 3/15/2025 11:57:21 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
David Hunt	Individual	Oppose	Written Testimony Only

Comments:

EEP Members:

Have you not been paying attention for the past 50 years?

We do NOT want nuclear energy in Hawaii..!

A nuclear energy task force is an insult, and a waste of taxpayers' time and money.

Show respect for your constituent taxpayers - concerned for our children's and grandchildren's safety, and sustainable future. Vote NO on SB 1588 and any amendments / SD edits.

The expansion of the Vogtle nuclear power plant in Burke County near Augusta, Georgia, stands as the only new atomic reactors built in the US in the last 30 years – and the most expensive power plant ever built on Earth. The story is one of chaos, broken promises, cost overruns and blown deadlines. So off the rails is this fiasco, it is most probably the last large-scale pressurized water reactor that will ever come online in the US – when it finally does. Indeed, no others are currently planned. Paul Hockenos reports.

When, in 2009, Georgia Power and Westinghouse Electric received approval to build the third and fourth reactors of the Alvin W. Vogtle Electric Generating Plant, it was the first contract for new nuclear development in the US since the 1979 Three Mile Island accident. The upgrade, adding 2.5 GW capacity to Vogtle, would make it the largest nuclear generator in the country. The owners pledged that the units would begin producing electricity in 2016 – at a cost of $14 billion – pushing the share of nuclear energy in the nation's electricity mix to 19%, which is about 8% of US total energy use.

But those initial figures evaporated quickly. Delays, cost recalculations, ownership battles and technical problems – typical of the industry over previous decades, whether in North America or Europe – propelled the starting date to 2023, and then 2024, and costs ballooned to almost $35 billion. Today, local consumers are angry. It is they who will encounter extra costs in their electricity bills, and regional utilities under contract to buy Vogtle's power are up in arms and fighting legal battles to release them of obligation.

Vogtle: The final nail in the coffin of US nuclear power

From the very beginning, it was clear that Georgia Power ratepayers would be paying a nuclear construction cost recovery tariff on their bills; the other co-owners – Oglethorpe Power Corp., Municipal Electric Authority of Georgia and Dalton Utilities – and their customers would pick up the rest. But as the delays, increases in costs (bureaucratic hurdles, wiring mistakes, redesign of the containment building, investor errors, switching of construction firms and safety issues) and cost recalculations began, this tariff doubled.

This shouldn't have come as too much of a shock because during the construction of Vogtle's first two units, the capital investment jumped from an initial estimate of $660 million to $8.9 billion. Moreover, safety issues loomed large, as evidenced in 1990, when the power system of the first two reactors went out and the backup power system failed, leading the plant's officials to declare a site area emergency. No one was injured, and no radiation escaped.

Originally, Westinghouse, the contractor, agreed to cover most of the cost overruns – a crucial bit of protection for the utilities financing the project. But Bechtel, which took over from the bankrupt Westinghouse, declined to cover cost overruns, leaving the four co-owners and their customers exposed.

JEA (Jacksonville, FL.), one of the regional utilities who contracted to buy power from the new reactors, tried to flee the uncapped purchase-power agreement, contesting it in court. Studies showed that terminating the contract and investing in replacement (renewable) energy sources would save it between $345 million and $727 million. JEA would have been on the hook for construction costs even if the project was never finished. JEA, however, agreed in a settlement that it would pay $3.369 billionin capital costs – and no more.

According to one estimate, if all construction costs for Vogtle are moved into the rate base, Georgia Power bills will increase 20% over 60 years.

The Florida Times Union bemoaned that: 'The nuclear industry has gone through a dramatic reversal in fortunes over the past decade, and JEA is not alone in dealing with the fallout. Flattening demand for electricity across the industry, the low price of natural gas, the increasing affordability of renewable fuels like solar power and the 2011 disaster at the Fukushima Daiichi Nuclear Power Plant in Japan all to some degree played a role in this decline.'

Nevertheless, the US Department of Energy (DOE) seems blind to the writing on the wall. With the passage of the Infrastructure Act, the Inflation Reduction Act, and the CHIPS and Science Act, the DOE is planning to invest in a large-scale demonstration and deployment of nuclear energy technologies over the next decade. Why the DOE continues to cling to the myth that nuclear energy is clean energy, as well as financially feasible, is difficult to fathom. Still, a March 2023 report, much like those issued previously by both Democratic and Republican administrations, claims that nuclear is clean, uses land efficiently, requires less transmission buildout, provides regional economic benefits, and has additional use cases and benefits compared to traditional electricity generation. All untrue.

SB-1588-SD-1
Submitted on: 3/15/2025 12:18:28 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
William South	Individual	Oppose	Written Testimony Only

Comments:

Aloha legislators,

While nuclear energy can greatly reduce electricity costs, it comes with two major drawbacks that could devastate the islands. The first is the possible island wide danger if there was a major meltdown of the nuclear facility. The second is the ultimate requirement of removal of radioactive waste to somewhere else. Nuclear energy is not worth the price of initial construction and maintenance, especially when we have inexpensive, solar, wind and geothermal power to allow us to transition from fossil fuels.

SB-1588-SD-1
Submitted on: 3/15/2025 12:40:47 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Patricia Blair	Individual	Oppose	Written Testimony Only

Comments:

Kill this bill. Nuclear power is very unhealthy for Hawaii.

SB-1588-SD-1
Submitted on: 3/15/2025 12:42:59 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Elizabeth Colwill	Individual	Oppose	Written Testimony Only

Comments:

Nuclear power is dangerous and expensive, and has no place in Hawaii's energy future.

SB-1588-SD-1
Submitted on: 3/15/2025 12:50:51 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Audrey Enseki-Tom	Individual	Oppose	Written Testimony Only

Comments:

I oppose any steps toward exploring the use of nuclear energy in Hawaii.

SB-1588-SD-1
Submitted on: 3/15/2025 12:51:49 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Cynthia Turner-de Vries	Individual	Oppose	Written Testimony Only

Comments:

I strongly oppose SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is SO WRONG -- it is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents. Nuclear power is not renewable, nor is it "carbon-free electricity.” Nuclear power is dirty, dangerous, and expensive and has no place in Hawaii's clean energy future.

Our legislature should be promoting clean, environmentally safe energy generated by wind, solar, and wave sources only!!!

Mahalo.

SB-1588-SD-1
Submitted on: 3/15/2025 1:30:40 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Kathy Shimata	Individual	Oppose	Written Testimony Only

Comments:

Aloha Senators,

My nname is Kathy Shimata & I live in Honolulu.

- I am in strong opposition to SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

--**The Energy Office has already stated nuclear energy would be too expensive.** Allowing SB1588 SD1 to move forward would waste our tax dollars, and risk steering our state away from its sustainable energy goals.

--We are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and **funded** for at least 200,000 years?

--Nuclear power is not renewable, nor is it "carbon-free electricity." Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's clean energy future. I urge you to oppose this bill.

Mahalo,

Kathy Shimata

Honolulu. 96822

SB-1588-SD-1
Submitted on: 3/15/2025 1:40:28 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Georgia L Hoopes	Individual	Oppose	Written Testimony Only

Comments:

Aloha Members of the Committee.

I am in strong opposition to SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

I don't know how a bill like this got so far in the first place, but one thing I do know is:

--**The Energy Office has already stated nuclear energy would be too expensive.** Allowing SB1588 SD1 to move forward would waste our tax dollars, and risk steering our state away from its sustainable energy goals.

--We are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and **funded** for at least 200,000 years?

I keep coming back to the cost. The money could be better spent, when this bill diverts attention away from immediate environmental problems, and is a waste of time and money. I strongly oppose it and I hope you do too.

Mahalo for your consideration.

Georgia Hoopes, Kalaheo

SB-1588-SD-1
Submitted on: 3/15/2025 1:42:46 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Mele Stokesberry	Individual	Oppose	Written Testimony Only

Comments:

I am strongly opposed to SB1588 SD1 that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Nuclear power is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment.

Eight Reasons Why Nuclear Power is Not the Answer for Hawaii

Nuclear power isn’t “zero emission.” The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity.” However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii’s pristine marine environment and tourism-dependent economy.

Nuclear waste. The waste generated by nuclear reactors remains radioactive for thousands of years and needs to be kept contained throughout that time. Currently, there are no long-term storage solutions for radioactive waste, and most is stored in temporary, above-ground facilities.

Hawaii’s geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.

Mele Stokesberry, 51 Mano Dr., Kula, HI 96790

SB-1588-SD-1
Submitted on: 3/15/2025 2:21:26 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
David Dinner	Individual	Oppose	Written Testimony Only

Comments:

Should I just say Fukushima? Or waste storage? Or bad idea. Please oppose.

SB-1588-SD-1
Submitted on: 3/15/2025 3:51:34 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
helen raine	Individual	Oppose	Written Testimony Only

Comments:

Let‘s not waste taxpayers dollars on this nonsense.... it will never go through in Hawaii, the opposition will be immense.

SB-1588-SD-1
Submitted on: 3/15/2025 4:25:32 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Diane Ware	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair and Committee Members,

My name is Diane Ware and I believe Nuclear Power is Not the Answer for Hawaii

Nuclear power isn't "zero emission." The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is "carbon-free electricity." However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii's pristine marine environment and tourism-dependent economy.

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Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations. According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

1. **on Local Communities and Ecosystems.** In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down. Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.

Mahalo for this opportunity to comment and please Malama pono

Diane Ware Volcano

SB-1588-SD-1
Submitted on: 3/15/2025 4:44:54 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Kaui Lucas	Individual	Oppose	Written Testimony Only

Comments:

Dear EEP Committee Chair, Vice Chair and Members:
Fukushima, Japan

Chernobyl, Ukraine

Three Mile Island, USA

Three excellent reasons not to invest in nuclear power in Hawai‘i.
Instead, please consider funding a task force for smaller scale, distributed renewable energy like SMALL wind, pumped storage hydroelectricity, and geothermal power especially on O‘ahu.
mahalo,
Kaui Lucas

SB-1588-SD-1
Submitted on: 3/15/2025 6:45:30 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ruth Robison	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair Nicole E. Lowen, Amy A. Perruso, Vice Chair, and members Kirstin Kahaloa, Sean Quinlan, Matthias Kusch, and Gene Ward,

I am a voter who lives in Hilo. I strongly oppose SB1588.

When we are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and funded for at least 200,000 years?

Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's energy future.

Thank you for the opportunity to submit testimony and thank you for your service to the people of Hawai`i.

SB-1588-SD-1
Submitted on: 3/15/2025 8:27:35 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Nadine Ferraro	Individual	Support	Written Testimony Only

Comments:

No, no, NO! I strongly oppose SB1588

SB-1588-SD-1
Submitted on: 3/16/2025 6:57:39 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Keoni Shizuma	Individual	Oppose	Written Testimony Only

Comments:

Aloha Senate members of the Committee on Energy & Environmental Protection,

I am testifying in opposition to SB1588.

There are obvious concerns that the public has about radiation and its effect on the health of the community, as well concerns of radioactive waste on the environment (i.e. where would waste products be stored? Hawaii is such a small land-base, no matter where it is stored, it has the potential to negatively impact our communities and/or key elements within our environment - water (aquifers, drinking water), air, and land (where our food is grown)).

The concern that I have and am testifying in opposition to this bill however, is that any nuclear energy facility that is built will mean that our energy dependence is still a centralized one. The energy will be created in one central location, will then need to be distributed via high-voltage powerlines to communities across the island (or island chain). Centralized energy production results in the dependence on infrastructure that threatens our way of life in Hawaii, and we must move away from that system to protect our future.

In the early 2000s when there was a large earthquake in Hawaii, HECO was hit hard and had to shut off the power to the entire island of Oahu for an extended period of time. If our communities had their own local power grid, or depended less on a central grid and had smaller scale energy production within them, the entire island of Oahu would not have had to be without power for an extended period of time.

The recent fires in Lahaina have been attributed to issues with powerlines sparking a fire in the grass under its transmission lines, which is again, an infrastructure dependence that comes with a centralized energy production system.

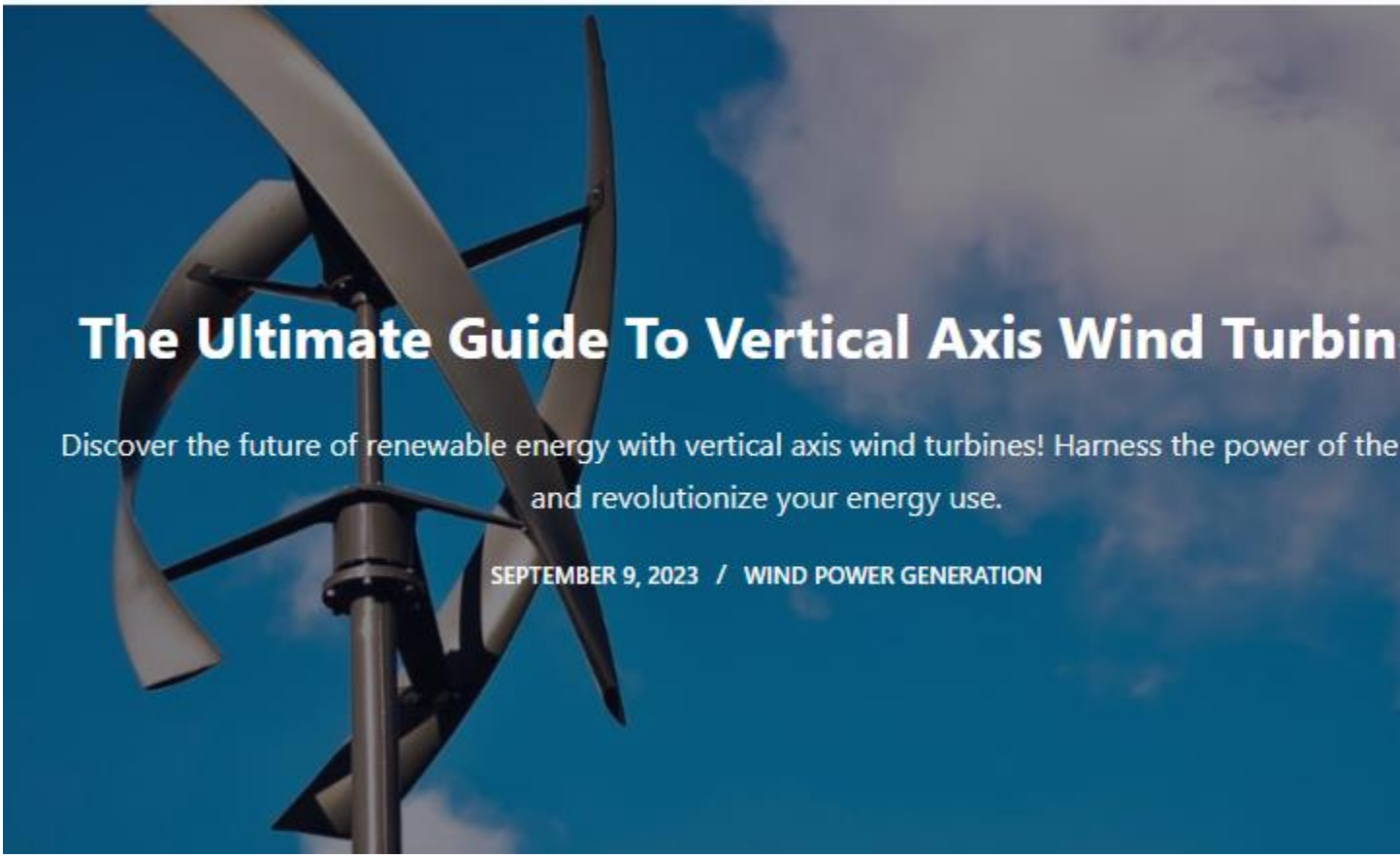
Being the Committee on Energy & Environmental Protection, please push Hawaii to become a leader in the innovative green energy creation industry, as it would serve as an economic and technological driver, as well as protect our environment and generate energy. With nearly-perfect weather year-round, we have the opportunity to develop new technologies that the world can use.

Innovations in wind technology in Denmark, where smaller scale wind turbines designed for communities and/or personal use can help to **decentralize our energy grids, helping**

communities to become more sustainable and resilient to natural disasters. Exploring the use of these technologies would also diminish the need for high-voltage powerlines to carry centrally created electricity across long-distances, which creates a risk for wildfires, as we all know now. **Decentralized energy solutions would also lessen the need to bury thousands of miles of existing powerlines into the ground to prevent fire disasters from occurring in high-wind scenarios.**

Let's look to future innovations that allow for decentralization, that are culturally sensitive, more efficient, less disruptive, easily accepted by the people it may affect, and strengthen our communities' resilience.

Attached are some examples of smaller scale wind energy technologies that should be explored here in Hawaii, as well as a link to learn more about it: Youtube link




Why you haven't seen these wind turbines around (yet)
DW
The future of wind power?
Watch on YouTube

SB-1588-SD-1
Submitted on: 3/16/2025 7:31:00 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Jeff Haun	Individual	Oppose	Written Testimony Only

Comments:

Please do not pass this legislation. It is clear that nuclear power is dangerous and creates toxic waste. Solar and wind power (ocean based) should be our complete focus.

SB-1588-SD-1
Submitted on: 3/16/2025 7:36:31 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Robert Culbertson	Individual	Oppose	Written Testimony Only

Comments:

Aloha legislators!

SB 1588 is just plain dumb and likely unconstitutional.

We've moved on. Who didn't get the memo?

Why aren't you pushing roof top solar hard? Its the people's choice and distributes power at the most local level and is cheaper to boot!

Sincerely,

R A Culbertson

SB-1588-SD-1
Submitted on: 3/16/2025 8:43:04 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Oppose	Written Testimony Only

Comments:

Honorable Members,

I am writing to ask that you please vote NO on SB1588 SD1 which establishes a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

Thank you,

Melissa Barker

Kapaa, HI

SB-1588-SD-1
Submitted on: 3/16/2025 8:35:59 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Michael Goodwin	Individual	Oppose	Written Testimony Only

Comments:

Why waste tax dollars on this task force when the technology isn't off the drawing board? Stay focused on clean energy from Hawaii's abundant sun and wind, and conservation measures to reduce electricity usage.

SB-1588-SD-1
Submitted on: 3/16/2025 9:14:29 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ann Pitcaithley	Individual	Oppose	Written Testimony Only

Comments:

I am a 36-year-old resident of Hawaii. I vehemently oppose SB1588 which establishes the Nuclear Energy Task Force within the Hawaii State Energy Office.

The Nuclear Industry would have you believe the following about nuclear power that:

1. **It Is risk free**
2. **It is sustainable**
3. **It has zero emissions**
4. **Transporting nuclear fuel across the ocean is without any hazards**
5. **Long term storage for nuclear waste with sufficient institutional controls**
6. **It poses no risk of cancer associated with workers, or nearby residents or with disaster fallouts**
7. **It Is affordable**

This is all propaganda disseminated by the Nuclear Industry to promote their agenda that is biased, and factually incorrect.

Resources should instead focus on carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade. Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind which are safe proven technologies.

Hawaii is the most geographically isolated landmass in the world. Nuclear power in Hawaii would put an even larger risk on our isolated population and environment and tourism if there is a disaster from nuclear power.

I urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future. If you care about the community who oppose this, please do not pass this measure.

Thank you for the opportunity to provide testimony on this critical issue.

SB-1588-SD-1
Submitted on: 3/16/2025 10:13:35 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Nanea Lo	Individual	Oppose	Written Testimony Only

Comments:

Hello,

My name is Nanea Lo, and **I stand in firm opposition to SB1588 SD1,** which seeks to establish a Nuclear Energy Task Force. This bill is unnecessary, misaligned with Hawai‘i’s constitution, and in direct conflict with our state’s commitment to renewable energy and the values of our people.

The Hawai‘i State Energy Office has already determined that nuclear energy would be far too expensive. Moving forward with SB1588 SD1 would not only waste our taxpayer dollars but also risk diverting our focus from sustainable and responsible energy solutions.

We are already struggling with the basic challenge of siting a landfill on O‘ahu—how could we possibly accommodate a nuclear waste facility capable of safely storing lethal radioactive waste for the next 200,000 years? The reality is that nuclear waste remains an unresolved global crisis, and Hawai‘i cannot and should not bear this burden.

Small Modular Reactors (SMRs) are not a viable solution. These so-called “new” reactors have unproven technology, unresolved safety risks, and are not economically feasible. Just like conventional nuclear plants, SMRs remain vulnerable to extreme weather and disasters—something we cannot afford to risk in our island home.

Let’s be clear: nuclear power is neither renewable nor “carbon-free electricity.” It is dirty, dangerous, and expensive. Hawai‘i must remain committed to a truly clean energy future—one that protects our ‘āina, our people, and the next generations to come.

I urge our leaders to reject SB1588 SD1 and keep Hawai‘i nuclear-free.

me ke aloha ‘āina,
Nanea Lo
Mō‘ili‘ili, HI 96826
Sierra Club of Hawai‘i Executive Committee Member
Board Member, Hawai‘i Workers Center
Kanaka Maoli/Lineal Descendant of the Hawaiian Kingdom

SB-1588-SD-1
Submitted on: 3/16/2025 11:00:05 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Karin Hoida	Individual	Oppose	Written Testimony Only

Comments:

While this measure would just establish a taskforce, **why waste the money on something that the Energy Office has already indicated would be an expensive form of energy, let alone the environmental risks?**

Please do not advance this dangerous energy option and instead focus on the safer, cheaper, greener options.

Mahalo!

SB-1588-SD-1
Submitted on: 3/16/2025 11:15:26 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Gordon Lange	Individual	Oppose	Written Testimony Only

Comments:

I am in strong opposition to SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

Nuclear power is not renewable, nor is it "carbon-free electricity." Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's clean energy future

it s a waste of money to pursue nuclear energy n the islands, expensive, risk with long term waste problems. When the private sector insures the liability issues, not the federal government, might fonsider nuclear.

Hawaii is in ideal location for renewable energy, wind, solar, geothermal and the ocean. A task force to explore energy options exploiting ocean currents, tides is in order. Hawaii should be leading the nation/world in renewable energy development.ending reliance on fossil fuel.

SB-1588-SD-1
Submitted on: 3/16/2025 1:56:06 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Mary True	Individual	Oppose	Written Testimony Only

Comments:

I strongly oppose SB1588 SD1. Chernobyl and Fukushima are reminders of the inherent and long lasting dangers of nuclear energy. Hawaii is as prone to earthquakes as Japan which should make this an automatic and loud "no" to nuclear power.

SB-1588-SD-1
Submitted on: 3/16/2025 2:32:23 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Cynthia Rezentes	Individual	Oppose	Written Testimony Only

Comments:

Aloha,

I am testifying in opposition to utilizing nuclear energy as a "clean" source of power for O`ahu.

Many people forget or never was made aware (including my own senator who supported this bill) that when the Kahe Power plant was designed and built on the Westside of O`ahu, it was purposely located to take advantage of a "bowl shaped" valley. The power plant was supposed to be able to handle both fossil fuels and potentially nuclear fuels in the "future" and if an "accident" happened the fallout was expected to be blown to sea.

At this time, I **STRONGLY OPPOSE** furthering any activity which would consider placing a nuclear energy fueled plant on the Westside of O`ahu. We have enough burdens for our community of locals and Native Hawaiians and to further burden this community is injust to say the least.

We should be **EXCLUDED from any studies to locate a facility of this type on the** Westside of O`ahu. Knowing that opinion and past injustices hardly are ever considered, I would request that this bill be deferred indefinitely.

Mahalo,

Cynthia Rezentes

Wai`anae resident

SB-1588-SD-1
Submitted on: 3/16/2025 3:28:14 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Terri R Markovich	Individual	Oppose	Written Testimony Only

Comments:

Honorable Rep. Nicole Lowen,

I am writing in opposition to this bill considering nuclear energy. We have a problem with toxic waste/hazardous waste we are not addressing efficiently now, and considering the environmental impact toxic/hazardous waste has we need to keep our investment in clean energy, wind and solar development.

Mahalo for this consideration,

Terri Markovich-Honokaa, Hawai‘i

SB-1588-SD-1
Submitted on: 3/16/2025 4:10:55 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Johnnie-Mae L. Perry	Individual	Oppose	Written Testimony Only

Comments:

PRACTICING REDUCING WASTE!

SB-1588-SD-1
Submitted on: 3/16/2025 4:18:28 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Daniela Escontrela	Individual	Oppose	Written Testimony Only

Comments:

I am in strong opposition to SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

SB-1588-SD-1
Submitted on: 3/16/2025 5:30:44 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
pamela burrell	Individual	Oppose	Written Testimony Only

Comments:

Aloha Senators,

I strongly oppose SB1588 SD1

This BAD bill is not only a distraction from Hawaii achieving our clean energy goals, it could pose serious harms to our health and environment.
what a waste of money.

Thank you for considering the downside of Atomic energy.. our water supply, oceans,etc etc etc.
pamela burrell, Kalihiwai,Kaua'i, 96754

SB-1588-SD-1
Submitted on: 3/16/2025 6:28:03 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ruta Jordans	Individual	Oppose	Written Testimony Only

Comments:

Please be realistic. We can't even site a landfill... how are we going to site a nuclear waste facility?

SB-1588-SD-1
Submitted on: 3/16/2025 9:55:41 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Brodie Lockard	Individual	Oppose	Written Testimony Only

Comments:

WHY IS THIS SUCH A TERRIBLE IDEA? This BAD bill is not only a distraction from Hawaii achieving our clean energy goals, it could pose serious harms to our health and environment. There was a lot of buzz in the media about nuclear power being a climate solution, but this is pure propaganda filled with misleading and factually inaccurate claims, and is serving as a distraction that is syphoning taxpayer dollars from real climate solutions.

SB1588 SD1 establishes the Nuclear Energy Task Force within the Hawaii State Energy Office. While this measure would just establish a taskforce, **why waste the money on something that the Energy Office has already indicated would be an expensive form of energy, let alone the environmental risks?**

Bottom line, if we are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and funded for at least 200,000 years?

Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's energy future.

Brodie Lockard
Kailua

SB-1588-SD-1
Submitted on: 3/16/2025 11:38:19 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Cheryl Ho	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair, Vice Chair, and Members of the EEP Committee:

I am strongly opposed to the formation of a Nuclear Energy Task Force for Hawai‘i. Nuclear energy should by no means be part of this state‘s approach to meeting our sustainable energy goals. This choice could lead to very dangerous, destructive impacts on the environment, and to us as human beings.

Being of Japanese descent, I have a personal awareness and intense aversion to the dangers posed by radiation. Having heard all my life (born 1943) of the long-term health effects of the nuclear bomb testing on the residents of the islands of Micronesia, and being only too aware of the devastation wrought by the atomic bombs on Hiroshima and Nagasaki, I would hate to see Hawai‘i set foot on a path that might lead to such tragedy. Even in peacetime, the worrisome, long-term risks posed by the Fukuoka power plant breakdown point to reasons not to employ nuclear energy.

I urge you to vote *AGAINST* SB1588 relating to Nuclear Energy!!

Mahalo nui loa!!

Cheryl Ho, Nu‘uanu

SB-1588-SD-1
Submitted on: 3/17/2025 12:17:12 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Katherine Fryer	Individual	Oppose	Written Testimony Only

Comments:

I strongly oppose SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is in conflict both with Hawaii's constitution, which explicitly prohibits nuclear fission power plants without legislative approval (Article XI, Section 8), and with the nuclear energy ban enacted by the County of Hawaii. These laws reflect strong public opposition to nuclear power, which would endanger our fragile island environment and everyone who lives here.

Nuclear power requires a huge investment of time and money, both in reactors and in waste containment. Spent fuel rods remain dangerously radioactive and require consistent management for at least 250,000 years. How could the state fulfill such a commitment, and where would facilities be built? Shipping waste out of state would be a high risk operation with potential to contaminate our nearshore waters and our fisheries at sea. Storing it here until the isotopes decay would impact our next 10,000 generations.

Nuclear facilities must remain undamaged and undisrupted even by our most severe natural disasters. This means we must anticipate and plan for conditions far into the future, when climate-related hazards such as hurricanes and wildfires could significantly threaten nuclear power operations.

Sea level rise must be considered to ensure that nuclear facilities are built above the highest possible tsunami run-up altitude. This might mean building reactors on uneven terrain rather than in our state's flat, open regions, many of which are inundation zones.

Seismic activity poses further risks. Hawaii Island frequently experiences significant seismic events such as the 2006 Kīholo Bay earthquake, which damaged structures as far away as Oahu. The Ka'u earthquake of 1868 had an estimated magnitude of 7.7 and damaged every building in Honolulu. During a nuclear facility's lifetime, events of this magnitude will strike again.

The reality is that we cannot predict or safeguard against every hazard. Hawaii is vulnerable to storms and tsunamis. Every main island has the potential for landslides and volcanic eruptions. In this environment, long term containment of nuclear fuel is impossible. In the short term, our greatest danger may be that humans make mistakes, and radiation has no sympathy for human error.

The Chernobyl disaster is one of my earliest memories. I remember the news coverage and the constant weather updates. I remember being afraid for my family in Europe, whose safety

depended on the direction of the wind. The younger generation has similar memories of Fukushima Daiichi, while kupuna remember the nuclear explosion at Johnston Atoll. 825 miles away in Honolulu, my mother mistook its red glare for the end of the world. Chernobyl now stands empty in an exclusion zone almost twice the size of Oahu. We must commit to safer options such as wind farms, solar cells and improved energy efficiency. Nuclear power has a history of devastating crises with inconcievably long term consequences. Pursuing it is indefensible.

SB-1588-SD-1
Submitted on: 3/17/2025 1:32:57 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ben Robinson	Individual	Oppose	Written Testimony Only

Comments:

Aloha!

I am writing in OPPOSITION of this bill. While nuclear energy may make sense in many places, Hawai'i and it's unique environment and logistics challenges is not really the place for it. The funds and resources would be better focused elsewhere.

Mahalo!

Ben Robinson

SB-1588-SD-1
Submitted on: 3/17/2025 4:37:36 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Elizabeth Nelson	Individual	Oppose	Written Testimony Only

Comments:

I strongly oppose SB1588. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

We are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and funded for at lease 200,000 years? Please think about this very carefully and remember nuclear accidents that have occured. Thank you.

Elizabeth Nelson

Kaneohe

SB-1588-SD-1
Submitted on: 3/17/2025 6:20:45 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Barbara Barry	Individual	Oppose	Written Testimony Only

Comments:

Aloha Chair, Vice Chair and committee members

I am strongly opposed to any type of nuclear power in these islands.
Have you learned nothing?
The history of nuclear development is a horrific story and if you have any doubts about the permanent damage the plutonium mining has caused to the planet as well as those miners and downwinders there are many excellent books on the topic.
one being "Downwind" A Peoples History of the Nuclear West by Sarah Fox. Published in 2014.
Look at Fukishima and the permanent damage the disaster has caused.
our oceans are poisoned by this devastating accident.
Look at 3 Mile Island and Chernoble. The death, poisoning and centuries of disease and barren land should make this frightening Bill obsolete.
Hawai'i is sacred land and must be treated as such.
No Nuclear Power plants, ever!
We are blessed with the sun, wind and tidal action, all proven energy creators.
Please ignore the nuclear lobby employees who have nothing but greed in their hearts.
The last thing Hawai'i needs is their nuclear waste poisoning the 'āina.
It's bad enough we have the military poisoning the water on Oahu with jet fuel.
When will that mess get cleaned up?

No, No , NO on SB 1588 SD1!
Mahalo,

SB-1588-SD-1
Submitted on: 3/17/2025 7:15:37 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Will Caron	Individual	Oppose	Written Testimony Only

Comments:

I oppose this bill. There is simply no such thing as safe, clean nuclear energy. I wish there were, but there isn't. The risks dramatically outweigh the benefits, especially given that solar power and other truely renewable and green energy can already outperform fossil fuel energy generation for cheaper.

Transporting Nuclear Fuel is a Hazard
As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii’s pristine marine environment and tourism-dependent economy.

Nuclear Waste Storage is Infeasible
Hawaii's geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Hawaii's Renewable Energy Goals Hawaii is already on the path to achieving 100% renewable energy by 2045 through Act 97 (2015). Nuclear power is not renewable, it is not "zero-emissions," and pursuing it would divert attention and resources from proven, sustainable solutions like solar, wind, and geothermal power.

Please kill this dangeeous bill.

SB-1588-SD-1
Submitted on: 3/17/2025 7:28:54 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Glen Kagamida	Individual	Oppose	Written Testimony Only

Comments:

THIS IS A POTENTIAL RED HILL ON STEROIDS.

Safety and security should always be first priority, and this is neither. With so many other available energy sources, nuclear should not even be considered for Hawaii.

STRONG OPPOSE!

SB-1588-SD-1
Submitted on: 3/17/2025 9:19:45 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Lana Brodziak	Individual	Oppose	Written Testimony Only

Comments:

NO NUCLEAR ENERGY IN HAWAII!!

NO NEED to RISK Human and Environmental Health with nuclear energy.

Please be thoughtful of spending taxpayer dollars on establishing a task force for developing nuclear energy when the State Energy Office previously indicated that it would be an expensive form of energy to develop.

We have the resources we need to meet our clean energy goals. We need to focus our support on actions, previously studied and established, that we know will meet our renewable energy goals.

Mahalo!

SB-1588-SD-1
Submitted on: 3/17/2025 9:24:34 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
P Noel Bobilin	Individual	Oppose	Written Testimony Only

Comments:

Dear Committee Members,

I am in strong opposition to SB1588 SD1 to establish a Nuclear Energy Task Force. This bill is unnecessary and misaligned with Hawaii's constitution, its commitment to renewable energy, and the values of its residents.

The Energy Office has already stated nuclear energy would be too expensive. Allowing SB1588 SD1 to move forward would waste our tax dollars, and risk steering our state away from its sustainable energy goals.

We are already having such an immense challenge just being able to site a landfill on Oahu, how would we ever be able to site a nuclear waste facility that would contain lethal radioactive waste, that according to scientists, must be maintained and **funded** for at least 200,000 years?

-**Small Modular Reactors (SMRs) are not viable.** SMRs and these other so-called “new” types of reactors fail to address their unproven nature, unresolved safety risks, and economic inefficiency. Moreover, SMRs cannot be counted on to provide ‘firm’ power as has been touted. Just like today’s nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down.

-Nuclear power is not renewable, nor is it "carbon-free electricity.” Nuclear power is dirty, dangerous, and expensive, and has no place in Hawaii's clean energy future.

Kind Regards

Noel Bobilin

SB-1588-SD-1
Submitted on: 3/17/2025 10:02:31 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Regina Gregory	Individual	Oppose	Written Testimony Only

Comments:

oppose

SB-1588-SD-1
Submitted on: 3/17/2025 3:31:51 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
JACK SHRIVER	Individual	Support	Written Testimony Only

Comments:

Aloha, my name is Jack Shriver. I have been a resident of Hawai‘i for about 22 years, and involved in the energy field for 35 years. Like all of us, I hope that my children can afford to live here if they choose to, and the availability and cost of energy is one of the key underpinnings of our economic viability. Over the course of my career I have served 22 years as a trained and certified nuclear engineer in the United States Navy, 10 years as a Hawaiian Electric utility employee and energy project developer (building renewable solar and power plants), and I am curently employed with a major engineering firm that focuses on the design of electrical infrastructure.

I fully support all of Hawai‘i's efforts to transition to a modern, clean, reliable, resilient, affordable, and locally produced energy economy. All of my experience leads me to the conclusion that these goals cannot be accomplished using the technologies and plans that are currently under consideration with a reasonable expectation of grid reliability, and at a reasonable cost to Hawai‘i residents. Nuclear power may or may not be a critical element to our energy future, but any plans that do not evaluate the viability of modern nuclear technology are incomplete, and a fair evalutation of the current technologies is essential to our state's energy future. Prior decisions on the potential use of nuclear power in Hawai‘i were made over 45 years ago, and were based on old technology and influenced by a fear-mongering campaign conducted by the oil industry to reduce competition in the energy field. The citizens of Hawai‘i deserve a fresh look at all available energy generating technologies that could contribute to our goals and our economic and environmental survival.

Major strides in the nuclear energy field have been made in the last decade that warrant a thorough review, especially in comparison side-by-side against other technologies currently under consideration. It is clear that there is no one silver bullet that will achieve our goals, and that a portfolio of energy resources will be needed to meet our needs. We deserve a complete review of nuclear power based on today's facts and forecasts, not on yesteryear's fears and failures.

I fully support the initiative to form a task force to review this technology and whether it would be beneficial to our lives here in Hawai‘i, and I look forward to participating and seeing the results!

Very Respectfully, Jack Shriver

SB-1588-SD-1
Submitted on: 3/14/2025 4:45:53 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Jacob Wiencek	Individual	Support	Written Testimony Only

Comments:

Aloha Committee Members,

I am extremely pleased to see this bill continue to advance through our legislative process. Nuclear energy is a safe, efficient and clean form power generation. France invested early and heavily in nuclear power and now has one of the lowest pollution rates by energy sector of any country in the world.

While Hawaii faces unique geogroahic challenges, we should absolutely study and plan for nuclear energy here. We are already falling behind on our clean energy goals and the last several years of supply chain disruption reveal how vulnerable we are.

I strongly urge this Committee to SUPPORT nuclear energy!

SB-1588-SD-1
Submitted on: 3/14/2025 5:06:17 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Michael I Rice	Individual	Support	Written Testimony Only

Comments:

I stand in SUPPORT of this bill, all options must be looked at when it comes to power generation within the state, and I do not feel we can meet Hawaii's energy needs and remain 'green' solely with Solar and Wind (although they should not be tossed aside either.) Waste-to-Power, Pumped Hydro Storage, Geothermal, and Tidal generation must be explored along with Nuclear.

While I have serious concerns when it comes to building a standard fission reactor here given Hawaii's lackadaisical attitude towards maintenance and work ethic, there are other options available which I'm sure the task force will come to find are tenable solutions. These would include Small Modular Reactors, which can be built out of state by professionals and transported to Hawaii for final installation or be permanently installed inside a ship or barge and be transported when needed, including being relocated or evacuated in times of emergency.

Such a method would not require extensive facilities ashore, simply requiring a dock and infrastructure in place to connect the output from the ship to the grid. Need I remind you we have numerous nuclear reactors floating in and around Pearl Harbor currently.

Long term Storage and disposal of waste would not be tenable here in Hawaii, but there are facilities on the mainland whose sole purpose is such and would have to be utilized, and we would only need to store enough waste to make transport worthwhile.

But these are all things the Task Force must research and report on and give final recommendations on, which is why we must give them the chance.

March 15, 2025

Dear Chair Lowen, Vice Chair Perruso, and Committee members.

I'm testifying in support of SB1588 SD1, which 'Establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Requires reports to the Legislature.'

To ensure that Hawaii is truly sustainable and resilient, we must explore all solutions that have the potential to help address our energy needs in the distant future. Traditional clean energy solutions like solar, storage, and wind are helping us transition to renewables. However, a more robust effort is needed, especially as we aim to electrify our economy. It's become apparent that we cannot rely exclusively on solar, wind, and storage. This is especially true for Oahu, where most of Hawaii's energy demand exists.

SB1588 SD1 will ensure we evaluate all viable, clean energy solutions, including advanced nuclear technologies. The measure's proposed Nuclear Energy Task Force will help us understand the technology's risks and benefits, feasibility, and role in our energy portfolio.

Nuclear power technology has evolved and may present features that mitigate the risks associated with legacy water-cooled plants. For example, small modular reactors (SMRs) and advanced nuclear reactors (AMRs) might offer us a significant amount of clean baseload power, distributed deployment, and lower risks associated with waste.

On the other hand, they may present us with unacceptable and unmitigable risks.

SB1588 SD1 allows us to understand the technology to make the right decisions about advanced nuclear energy options.

Thank you for this opportunity to testify.

Sincerely,
Noel Morin
Hilo, Hawaii

SB-1588-SD-1
Submitted on: 3/15/2025 11:22:36 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ramon Maui Quizon	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Lowen, Vice Chair Perruso, members of the Committee on Energy & Environmental Protection. I am writing in support of SB 1588, SD1 (SSCR682) Relating to nuclear energy, by establishing the Nuclear Energy Task Force within the Hawaii State Energy Office.

Hawaii is at a pivotal moment in its energy policy. As the state grapples with the pressing challenges of climate change, energy security, and the high costs of imported fossil fuels, it is imperative to consider all viable options to meet our energy needs sustainably. This testimony advocates for the adoption of nuclear energy and the exploration of developing nuclear power plants in Hawaii as a critical component of our transition to a cleaner, more reliable energy system.

Hawaii's unique geographic isolation and reliance on imported fossil fuels leave it vulnerable to price volatility and supply disruptions. While the state has made commendable progress in integrating renewable energy sources like solar, wind, and geothermal, these technologies alone may not be sufficient to provide the consistent and reliable energy needed to power our islands. Nuclear energy offers a low-carbon, reliable, and scalable solution that can complement our renewable energy portfolio.

Nuclear energy is one of the most efficient and low-emission sources of electricity generation. Unlike fossil fuels, nuclear power plants produce minimal greenhouse gas emissions during operation. By investing in nuclear energy, Hawaii can significantly reduce its carbon footprint, helping to combat climate change and protect the natural beauty of our islands for future generations. Additionally, nuclear plants require less land compared to solar or wind farms, preserving valuable land resources for agriculture and conservation.

Modern nuclear technology has made significant advancements in safety and efficiency. New reactor designs, such as Small Modular Reactors (SMRs), offer enhanced safety features and can be deployed more flexibly than traditional large reactors. These innovations reduce the risk of accidents and address public concerns regarding nuclear safety. Furthermore, robust regulatory frameworks and oversight can ensure that any nuclear facilities in Hawaii operate safely and transparently.

Developing nuclear energy in Hawaii can stimulate job creation and economic growth. The construction and operation of nuclear power plants would create a range of high-skilled jobs, from engineers and technicians to support staff.

Additionally, the presence of a nuclear facility could attract investment in related industries, such as research, development, and education, further diversifying the state's economy. By leading in nuclear energy, Hawaii could position itself as a pioneer in clean energy technology and innovation.

To successfully explore nuclear energy, it is essential to engage the community in meaningful dialogues about its benefits and address concerns transparently.

Public education campaigns that demystify nuclear technology and emphasize its potential for clean energy generation can help build public trust. Involving local stakeholders in the decision-making process will be crucial to ensuring that any nuclear initiative reflects the needs and values of Hawaii's communities.

As Hawaii continues its journey toward a sustainable energy future, it is vital to consider nuclear energy as a viable option. By adopting nuclear power, Hawaii can enhance its energy security, reduce greenhouse gas emissions, and stimulate economic growth. This legislative body has the opportunity to lead the state toward a diversified and resilient energy portfolio that includes nuclear energy.

I urge the Hawaii State Legislature's Committee on Energy & Environmental Protection to prioritize the exploration of nuclear energy development and to take bold steps toward a sustainable future for all residents of Hawaii.

Should SB 1588, SD1 (SSCR682) relating to nuclear energy, by establishing the Nuclear Energy Task Force within the Hawaii State Energy Office, be passed into law, I hope its aim will be to study the feasibility of nuclear energy in Hawaii, engage with experts in the field, and conduct public consultations to foster understanding and support. Moreover together, we can pave the way for a cleaner, more sustainable energy future that honors our commitment to the environment and the well-being of our communities.

//signed//

R.MAUI QUIZON, SMSgt (Retired), US Air Force-Hawaii ANG

SB-1588-SD-1
Submitted on: 3/16/2025 7:47:50 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Caroline Azelski	Individual	Support	Written Testimony Only

Comments:

Support.

This is such an emotional issue that a task force is exactly what is needed to objectively determine the pros and cons.

Peter Sternlicht. An Individual Resident of Hawai'i Island
Statement in Support of SB1588_SD1

HOUSE OF REPRESENTATIVES
THE THIRTY-THIRD LEGISLATURE
REGULAR SESSION OF 2025
COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole E. Lowen, Chair, Rep. Amy A. Perruso, Vice Chair

Committee Members:
Rep. Kirstin Kahaloa, Rep. Sean Quinlan, Rep. Matthias Kusch, Rep. Gene War

Dear Chairman Lowen, Vice Chairman Perruso and members of the Committee,

Energy is the master resource. All economic activity depends upon its availability and its affordability. For these reasons and more, I strongly support SB1588_SD1.

We now know that firm, dispatchable and baseload power is needed to effectively decarbonize Hawaii's electrical grid. There are only two technologies that are suited to provide that type of energy: Geothermal and nuclear. We need both if we truly expect to decarbonize our economic activity.

This bill is an opportunity to gather the critical data needed to further Hawaii's energy sovereignty. I encourage characterizing nuclear technology, especially within the current categories of Gen III and Gen IV nuclear and for them to be studied in detail to obtain a broad spectrum of comparative knowledge.

Within the latter category, Gen IV, Molten Salt Reactor (MSR) technology is reported to be a very promising, safe technology and able to operate within an extremely small footprint.

Knowledge is a powerful tool to use when crafting public policy. I wholeheartedly support passage of SB1588 which wisely strives to achieve that end.

Respectfully,

Peter Sternlicht
Pepeekeo, HI 96783

SB-1588-SD-1
Submitted on: 3/17/2025 11:23:33 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Steve Parsons	Individual	Oppose	Written Testimony Only

Comments:

No to Nukes, Renewable is cheaper and less dangerous and faster to deploy and keeps getting cheaper!

steve parsons

SB-1588-SD-1
Submitted on: 3/17/2025 1:34:41 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Glenn Choy	Individual	Oppose	Written Testimony Only

Comments:

I strongly oppose this bill. Thank you.

SB-1588-SD-1
Submitted on: 3/17/2025 1:59:45 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Janice Palma-Glennie	Individual	Oppose	Written Testimony Only

Comments:

aloha,

please vote NO on this bill. what hawai`i doesnt' need is a task force to study --or even contemplate -- the use of nuclear fuel as an alternative energy source.

mahalo for voting "NO" on SB1588 SD1

sincerely,

janice palma-glennie

kailua-kona

LATE *Testimony submitted late may not be considered by the Committee for decision making purposes.

SB-1588-SD-1
Submitted on: 3/17/2025 11:56:18 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Shannon Rudolph	Individual	Oppose	Written Testimony Only

Comments:

OPPOSE!
We don't need a taskforce because we don't want nuclear facilities!
Not gonna happen, don't waste our money.

SB-1588-SD-1
Submitted on: 3/17/2025 2:57:32 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Aya Kimura	Individual	Oppose	Written Testimony Only

Comments:

Nuclear energy takes much longer to develop and we don't have enough time. Solar and wind and other renewable energy projects would be much more suitable for the state. Nuclear energy if one looks at the total lifecycle of it it is highly polluting energy. Mining uranium causes counselor among minors And during the normal operation of that power plant, workers need to expose your bodies to radiation. It should also be noted that Disposal of nuclear energy is a problem that is not resolved. In the case of accident, however, he does not have far away places to evacuate people too. In Japan, there are still places that are off limits for long-term human residency within 20 to 30 miles from the Fukushima nuclear reactors. Nuclear power plants would also be a security risk for the residence of Hawaii.

SB-1588-SD-1
Submitted on: 3/17/2025 3:26:15 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Jessie L Gonsalves	Individual	Oppose	Written Testimony Only

Comments:

Aloha Legislators,
Our organization is strongly opposed to SB1588 SD1 that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Nuclear power is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment. In addition, Hawaii County has a Nuclear-Free Law since 1981 and the State Constitution of 1978 prohibits any nuclear power related actions without first a 2/3 vote of both houses of the State Legislature.
I was directly involved in getting that in the State Constitution.

Who is behind this push for n-power in Hawaii? Expose them!!! I suspect it is the Billionaire high tech oligarchs that have replaced the Big 5 Sugar barons.

These Hi tech AI Billionaires need massive amounts of power for their data storage mass warehouses. It’s the new global plantation destroying the earth and the environment. Say NO to AI domination and NO to nuclear power.

Nuclear power isn’t “zero emission.” The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is “carbon-free electricity.” However, this could not be further from the truth. To be clear, there is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

Transporting nuclear fuel is a hazard. As an isolated island chain, Hawaii faces unique and significant risks in transporting nuclear fuel over vast ocean distances. Any accidents during transport, be it from bringing fuel here or shipping waste back, could have catastrophic consequences for Hawaii’s pristine marine environment and tourism-dependent economy.

Nuclear waste. The waste generated by nuclear reactors remains radioactive for thousands of years and needs to be kept contained throughout that time. Currently, there are no long-term storage solutions for radioactive waste, and most is stored in temporary, above-ground facilities.

Hawaii’s geological instability, including frequent earthquakes, volcanic activity, and tsunami risks, makes it an unsafe location for storing nuclear waste. There are no viable long-term solutions for safely containing radioactive materials in such a volatile environment.

Accidents. Human error and natural disasters can lead to dangerous and immensely costly accidents. Think Red Hill but multiply that exponentially. Direct costs would include cleanup operations, property damage, and evacuation efforts, as well as significant indirect costs including long-term health consequences, economic disruption due to lost productivity and tourism, and severe psychological impacts on affected populations, often lasting for generations.

According to the Nuclear Regulatory Commission (NRC), the emergency planning zone around a nuclear power plant typically extends to a 10-mile radius for immediate radiation exposure concerns, while a broader "ingestion pathway" zone reaches out to a 50-mile radius where food and water contamination could occur in the event of an incident. This would make safely siting a power plant, particularly on Oahu, impossible.

Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

SB-1588-SD-1
Submitted on: 3/17/2025 4:56:12 PM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Kimmer Horsen	Individual	Oppose	Written Testimony Only

Comments:

TESTIFY TODAY! ~ OPPOSE NUCLEAR TASKFORCE ~ SB1588

*HERE:
https://www.capitol.hawaii.gov/session/measure_indiv.aspx?billtype=SB&billnumber=1588&year=2025
(capitol.hawaii.gov) Hearing: 3/18, 9:20 am

Aloha Legislators,
My name is Kimmer Horsen and our organization is strongly opposed to SB1588 SD1 that establishes the Nuclear Energy Task Force within the Hawai‘i State Energy Office. Nuclear power is not only a distraction from Hawaii achieving our clean energy goals, it would pose serious harms to our health and environment. In addition, Hawaii County has a Nuclear-Free Law since 1981 and the State Constitution of 1978 prohibits any nuclear power related actions without first a 2/3 vote of both houses of the State Legislature.
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These Hi tech AI Billionaires need massive amounts of power for their data storage mass warehouses. It’s the new global plantation destroying the earth and the environment. Say NO to AI domination and NO to nuclear power.

Mahalo.

Kimmer Horsen

PS I also support the points below.

Nuclear power isn’t “zero emission.” The nuclear industry has conducted a propaganda campaign rife with factually inaccurate information, including that nuclear power is “carbon-free electricity.” However, this could not be further from the truth. To be clear, there is no such

thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor.

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Impacts on Local Communities and Ecosystems. In addition to the significant risk of cancer associated with fallout from nuclear disasters, studies also show increased risk for those who reside near a nuclear power plant, especially for childhood cancers such as leukemia. Workers in the nuclear industry are also exposed to higher-than-normal levels of radiation, and as a result are at a higher risk of death from cancer.

Nuclear energy is too expensive. To protect the climate, we must reduce the most carbon at the least cost and in the least time. Nuclear power does none of this. A report by the Institute for Energy Economics and Financial Analysis found that even small modular reactors (SMRs) are expensive, too slow to build, and too risky to play a significant role in transitioning from fossil fuels in the coming 10-15 years.

Integral Fast Reactors, Pebble Bed Modular Reactors, Thorium Fueled Reactors, Molten Salt Reactors, and Small Modular Reactors (SMRs) are not viable. Nuclear power advocates promote small modular nuclear reactors (SMRs) and other "advanced" nuclear technologies as the only real solution for the climate crisis. However, proponents of SMRs and these other so called "new" types of reactors fail to address their unproven nature, unresolved safety risks, and

economic inefficiency. Moreover, SMRs cannot be counted on to provide 'firm' power as has been touted. Just like today's nuclear plants, SMRs will be vulnerable to extreme weather events or other disasters that could cause a loss of offsite power and force them to shut down.

Additionally, the push for SMRs often serves the private interests of billionaires looking to power AI data centers rather than benefiting the people of Hawaii. Bottom line, SMRs are wishful thinking rooted in misinformation.

Nuclear power is an expensive distraction undermining our ability to achieve our clean energy goals. Investment in nuclear power, including SMRs, will take resources away from carbon-free and lower-cost renewable technologies that are available today and can push the transition from fossil fuels forward significantly in the coming decade.

Hawaii is already on the path to achieving 100% renewable energy by 2045. Nuclear power is not renewable, requires costly infrastructure, and pursuing it would divert attention and resources from proven, sustainable solutions like solar, and wind.

Nuclear power has NO place in Hawaii's clean energy future. Nuclear power is too dirty, too dangerous, and too expensive. It is environmentally harmful and produces waste that will be a burden on future generations. Accordingly, we urge the legislature to commit to uphold Hawaii's constitution, a sustainable future, prioritize investing our resources in a clean renewable energy future, honor the voices of its people by opposing the use of nuclear power in Hawaii, and HOLD this measure.
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SB-1588-SD-1
Submitted on: 3/18/2025 12:30:45 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Patty Takahashi	Individual	Oppose	Written Testimony Only

Comments:

Oppose

Nuclear doesn't sound safe and is not!!

Hawai'i does not need anything nuclear! Not acceptable on our islands. We can't even find an area suitable for burying trash!!!

SB-1588-SD-1
Submitted on: 3/18/2025 7:55:39 AM
Testimony for EEP on 3/18/2025 9:20:00 AM

Submitted By	Organization	Testifier Position	Testify
Ramona Hussey	Individual	Oppose	Written Testimony Only

Comments:

Committee Chair and Members,

I urge you to vote NO on the proposed bill. Nuclear energy has been promoted for decades as a cheap and reliable source of energy. However, it has shown itself to be problematic and neither safe nor cheap. In my experience, there are three HUGE examples of how dangerous and unreliable nuclear plants are: Three Mile Island (USA), Cherynobel (Russia), and Fukushima (Japan). There are many more examples of the dangerous situations using nuclear energy. In no case should Hawaii even consider the use of nuclear power for our islands. Please protect the people and land of this special place. Thank you,

Ramona Hussey