TROUBLE IN PARADISE: SHORTFALLS IN HAWAI'I'S CLEAN ENERGY TRANSITION

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I. INTRODUCTION

After nearly eleven years of litigation and adjudication, the Supreme Court of Hawai'i firmly reiterated its view of the agreement between Hu Honua Bioenergy, LLC (Hu Honua) and Hawai'i Electric Light Company (HELCO) to convert the Honua Ola power plant into a biomass plant.[1] On March 13, 2023, the Court affirmed the Hawaii Public Utilities Commission's (PUC) Order Nos. 38395 and 38443 denying approval of the amended power purchase agreement (PPA) between the two energy companies.[2] The Court's decision blocked the thirty-year deal that would allow Hu Honua and HELCO to derive power from burning trees at the plant located on Hawai'i's Big Island.[3]

In doing so, the Court reaffirmed the standard it set in its 2019 decision when it vacated an early PUC decision that approved the PPA.[4] When reviewing renewable energy projects, the PUC must: (1) engage in "public interest-minded balancing," (2) weigh a proposed project's energy costs against the impact of greenhouse gas (GHG) emissions that would result from the project's approval, and (3) protect

1. *In re* Hawai'i Elec. Light Co. (*HELCO III*), 526 P.3d 329, 330 (Haw. 2023).
2. *Id.*
3. *Id*. at 336.
4. *In re* Hawai'i Elec. Light Co. (*HELCO I*), 445 P.3d 673, 677 (Haw. 2019).

the citizen's rights to a "clean and healthful environment."[5] The PUC's first order on remand did not reach the merits of the parties' agreement, rejecting it on grounds that the parties had not secured a waiver of the competitive bidding process.[6] The state's Supreme Court told the PUC that the competitive bidding waiver was not at issue and remanded the case again.[7]

The second time around, the PUC held a new contested proceeding. This time the parties to the agreement argued that a new law — Act 82 — rendered the GHG issue irrelevant because, under that Act, "the PUC could now only consider GHG emissions from fossil fuels. Emissions from other sources, such as biomass burned to produce renewable energy, had to be kept out of the equation."[8] The Court held that the PUC correctly rejected this argument, noting that burning trees, like burning oil or natural gas would, by the applicants' "own numbers . . . produce massive carbon emissions."[9] "Had the legislature truly intended to exempt biomass emissions," the Court reasoned, "it would have listed them with the other exemptions."[10] As to the applicants' promise to offset the carbon emissions with plans to sequester carbon by planting new trees and, where needed, purchasing carbon offsets from unidentified third parties, the PUC found these promises too speculative to justify their claims of carbon neutrality. Finally, the PUC found that the project would not only increase carbon emissions, but it was so large that it would actually "*replace* renewable energy generation."[11] The Court held all these findings to be supported by the record.

At the heart of the Court's decision affirming the PUC's orders was its assertion that "biomass and fossil fuel sources share one important defect — high GHG emissions."[12] The U. S. Energy Information Administration, by contrast, includes wind, solar energy, hydropower geothermal energy *and* "*biomass from plants*" as "the five major renewable energy sources."[13] Biofuels are considered renewable because the carbon released during combustion is the same carbon that was previously absorbed by the plants during growth, thus not contributing to a net increase in atmospheric carbon dioxide (CO2).[14] Indeed, most states, including Hawai'i,[15] also include biofuels as renewable energy sources for purposes of their renewable

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5. *HELCO III,* 526 P.3d at 330.

6. *In re* Hawai`i Elec. Light Co. (*HELCO II*), 487 P.3d 708, 709 (2021).

7. *Id*.

8. *HELCO III*, 526 P.3d at 331-32.

9. *Id.* at 332.

10. *Id*. at 335.

11. *Id*. at 333.

12. *HELCO III,* 526 P.3d at 336.

13. *What is energy?*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/what-is-energy/sources-of-energy.php (last updated Dec. 10, 2024) (emphasis added).

14. *See generally* Harish K. Jeswani et al., *Environmental Sustainability of Biofuels: A Review*, PROC. MATH. PHYS. & ENG. SCI., Nov. 25, 2020.

15. *See* HAW. REV. STAT. § 171-95 (2024) (defining a "renewable energy producer" as any producer of electrical or thermal energy produced by various renewable sources, including "biomass, including municipal solid waste, biofuels or fuels derived from organic sources."). *See also* N.C. CLEAN ENERGY CTR., RENEWABLE PORTFOLIO STANDARD – HAWAII (Nov. 26, 2024), https://programs.dsireusa.org/system/program/detail/606#:~:text=Eligible%20Technologies,produced%20from%20renewable%20energy%20sources.

portfolio standards.[16] This note explores whether equating carbon emissions from biofuels and from traditional fossil fuels may be creating a standard so difficult to meet that it will retard, not advance Hawai'i's stated goal of addressing its declared "climate emergency."[17]

Part II of this case note briefly discusses the State's clean energy goals, including where biomass fits into the mix. Part III is an analysis of the Supreme Court of Hawai'i's decision and its reasoning; this section includes the factual and procedural background of the case, followed by an examination of how the companies failed to submit various items in support of their argument that could have altered the way the Court viewed the PUC record. Even though the State has the goal of being completely carbon neutral by the year 2045, renewable producers should not expect automatic PUC approval and favorable Court rulings for their projects, especially if they involve combustion that produces carbon emissions.

II. BACKGROUND

A. Biomass Energy in Hawai'i

In 2008, Hawai'i became the first state in the United States to set the goal of achieving one a hundred percent renewable energy portfolio by the year 2045.[18] Hawai'i's Clean Energy Initiative (HCEI) began when Governor Linda Lingle and the U.S. Department of Energy signed a Memorandum of Understanding, which effectively acted as an agreement between the State and the federal government to collaborate in the pursuit of renewable energy.[19] Before the plan came into motion in the late 1990s, Hawai'i had been almost completely dependent on imported fossil fuels.[20] According to relevant statistics from 2019, fossil fuels accounted for about 75% of the state's electricity production.[21] The Memorandum sought to transform the financial, regulatory, legal, and institutional systems that govern energy planning in Hawai'i, with aims to relinquish the chokehold the coal industry had on the State.[22]

While solar and wind power are the State's most prolific renewable generators, biomass energy, as of 2022, has accounted for 9% of Hawai'i's renewable

16. NAT'L CONF. OF STATE LEGISLATURES, STATE RENEWABLE PORTFOLIO STANDARDS AND GOALS (Aug. 13, 2021), https://www.ncsl.org/energy/state-renewable-portfolio-standards-and-goals.

17. *HELCO III*, 526 P.3d at 336 (Wilson, J., concurring) (citing S. Con. Res. 44, 31st Leg., Reg. Sess. (2021)).

18. *Hawai'i Clean Energy Initiative,* HAW. STATE ENERGY OFF., https://energy.hawaii.gov/Hawaii-clean-energy-initiative/ (last visited Apr. 28, 2025).

19. *U.S. Department of Energy Increases Federal Commitment to Hawaii's Clean Energy Initiative*, HAW. STATE ENERGY OFF. (Mar. 17, 2009), https://web.archive.org/web/20240718023521/https://energy.hawaii.gov/u-s-department-of-energy-increases-federal-commitment-to-hawaiis-clean-energy-initiative/.

20. *Hawai'i's Clean Energy Vision*, HAW. STATE ENERGY OFF., https://energy.hawaii.gov/what-we-do/clean-energy-vision/ (last visited Apr. 28, 2025).

21. HAW. STATE ENERGY OFF., HAWAI'I'S ENERGY FACTS & FIGURES 6 (Nov. 2020), https://energy.hawaii.gov/wp-content/uploads/2022/06/HSEO_FactsAndFigures-2020.pdf.

22. *Hawai'i's Clean Energy Vision, supra* note 20.

generation, and 3% of the State's total generation.[23] Historically, the process included the burning of sugarcane waste, but as many sugar plantations closed, the particular source began to decline.[24] The Hawaiian energy sector was forced to continue the hunt for biomass sources with the lofty goal of a 100% renewable profile.[25] Honolulu houses a 90-megawatt waste-to-energy power plant that uses solid waste from municipalities which generates almost one-tenth of Oahu Island's electricity.[26] Oahu, as of 2010, also has what is believed to be the world's largest biodiesel-powered commercial generator.[27] However, the more rural areas of Hawai'i, in attempts to contribute to the goal of 100% renewability, will likely have to look for alternative power options.[28] One of the most recent methods of biomass energy generation – the generation of electricity from wood[29] - is what the litigation in *HELCO I, II, and III* is concerned with.[30]

III. ANALYSIS

A. Factual Background

Over ten years ago, a Hawaiian energy company, Hu Honua, in pursuit of the State's goal, set out to transition its existing plant from a sugarcane bagasse firing operation to wood-burning power plant which used eucalyptus trees as its primary source.[31] Eucalyptus trees are fast-growing and can be invasive to the native vegetation.[32] Hu Honua has an almost complete 21.5 megawatt biomass plant in Pepe'ekeo, Hawai'i, on the eastern coast of the Big Island.[33] From its founding in

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23. HAWAI'I'S ENERGY FACTS & FIGURES, *supra* note 21, at 6.

24. U.S. ENERGY INFO. ADMIN., HAWAII STATE ENERGY PROFILE (Apr. 18, 2024), https://www.eia.gov/state/print.php?sid=HI.

25. *Id.*

26. *Id*.

27. *Id.*

28. *See* HAWAII STATE ENERGY PROFILE, *supra* note 24.

29. The first power plant to use wood as its primary fuel source was built in 1984 by Burlington Electric Department, a Vermont municipally owned utility. *Our History*, BURLINGTON ELEC. DEP'T, https://www.burlingtonelectric.com/history/ (last visited May 5, 2025). Wood-burning power plants soon began to be incorporated in energy profiles around the world. *The History of Biomass as a Renewable Energy Source*, CABLEVEY CONVEYORS: BLOG, https://cablevey.com/the-history-of-biomass-as-a-renewable-energy-source/ (last visited May 5, 2025). Today, biomass provides about 5% of energy in the United States, with wood and wood-waste accounting for nearly half (43%) of that share. *Biomass Explained*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/biomass/ (last updated July 30, 2024).

30. *See* HAWAII STATE ENERGY PROFILE, *supra* note 24 ("A new biomass facility . . . planned to burn local forest waste to generate electricity, but that project was delayed.")

31. Candace Cheung, *Biomass plant appeals to Hawaii Supreme Court to begin operations*, COURTHOUSE NEWS SERV. (Feb. 1, 2023), https://www.courthousenews.com/biomass-plant-appeals-to-hawaii-supreme-court-to-begin-operations/.

32. Kazi Asadullah Al Emran & Qazi Azizul Mowla, *The Impact of Alien Invasive Plant Eucalyptus in the Settlement Ecology: The Case of Gaibandha*, *Northern Bangladesh* 5 (3rd Int'l Conf. of Plan., Architecture & Civ. Eng'g (IPACE), 2021), https://www.researchgate.net/profile/Qazi-Mowla/publication/354949153_The_Impact_of_Alien_Invasive_Plant_Eucalyptus_in_the_Settlement_Ecology_The_Case_of_Gaibandha/links/615590c8ab3c1324134cc3c7/The-Impact-of-Alien-Invasive-Plant-Eucalyptus-in-the-Settlement-Ecology-The-Case-of-Gaibandha.pdf .

33. *Id*.

1857 until sugar production ended in 1994, the Hu Honua plant site housed a sugar mill.[34] But soon after Hawai'i passed legislation aiming to increase power production from renewable sources, the site's owner converted the power plant into a biomass plant, which aimed to harness energy by burning locally grown biomass material, including eucalyptus.[35]

Hu Honua, aiming to achieve similar goals of carbon-neutrality, became greatly invested in the concept of 100% renewable energy. It even changed its name to Honua Ola Bioenergy, which translates to "living earth."[36] Hu Honua has invested almost $500 million into the transformation of the old sugar mill into a biomass plant.[37] In 2012, HELCO approached the PUC for administrative authorization to enter into a PPA with Hu Honua.[38] HELCO is one of the four utilities companies regulated by the PUC, known as the "HECO Companies."[39] The HECO Companies are responsible for serving electricity to 95% of the State's population.[40] HELCO's website proclaims to support the state's goal of having carbon emissions reach net zero by 2045.[41] To achieve this goal, HELCO has stated that its focus is on "21st century electric grid" integrating the use of renewable energy such as solar, wind, geothermal, hydro, *biofuel,* and waste-to-energy into its portfolio.[42] HELCO concluded that the PPA with Hu Honua would fit its objectives. The PPA provided that HELCO would buy the energy generated from Hu Honua's biomass plant and use it to service Hawai'i Island's power grid for a twenty-year term.[43] The PUC originally approved the PPA in 2012 over the objections of Life of the Land (LOL), an environmental nonprofit organization,[44] "but HELCO subsequently terminated the agreement,"[45] rendering LOL's objection to the limited participation status it had been granted moot.[46] Years later, Hu Honua and HELCO amended the PPA, after reaching a separate agreement, increasing the term to thirty years.[47] That amendment required PUC approval and it was the PUC proceeding that followed that led the lengthy litigation history culminating in *HELCO III*.

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34. *Id.*

35. *Id*.

36. Al Emran & Mowla, *supra* note 32, at 5.

37. HPR News Staff, *Hawai'i Supreme Court ruling means no energy production for Big Island biomass plant,* HAW. PUB. RADIO (Mar. 14, 2023). https://www.hawaiipublicradio.org/local-news/2023-03-14/hawaii-supreme-court-ruling-honua-ola-hu-honua-biomass-plant/.

38. *HELCO III,* 526 P.3d at 331.

39. *Electric Utilities*, STATE OF HAW. PUB. UTILS. COMM'N, https://puc.hawaii.gov/energy/. (last visited Apr. 24, 2025).

40. *Id.*

41. *Our Vision & Commitment*, HAWAIIAN ELEC., https://www.hawaiianelectric.com/about-us/our-vision-and-commitment (last visited Apr. 29, 2025).

42. *Id.*

43. *HELCO I,* 445 P.3d at 677.

44. *Id*. at 677-78.

45. *Id*. at 678.

46. *HELCO III,* 526 P.3d at 331.

47. *Id*.

B. Procedural History

The Amended PPA was approved by the PUC in 2017, over the objections of LOL,[48] a charitable organization founded in 1970[49] to "preserve and protect the life of the land."[50] LOL, which was allowed limited intervention,[51] had argued that the PUC did not adequately consider the large amount of air pollution that would result from burning biomass and that it should have been allowed full intervention status.[52] LOL won its appeal, but did not get a hearing until some years later, as explained below.

At the hearings that would be held years later, Hu Honua and HELCO admitted that the project would produce rather large carbon emissions, about 8,035,804 metric tons, over the span of the new thirty-year term.[53] However, the two companies maintained that the Amended PPA still served the public interest required of them under HRS section 269-6, and that the majority of these emissions would come from the plant's routine operations.[54] The haul of the trees to the plant site would be carried out via gas-powered trucks, and the "stack emissions," resulting from the burning of the forestry, would release into the atmosphere.[55] Nonetheless, Hu Honua promised these activities would ultimately result in a totally carbon neutral energy project.[56] It did not convince either the PUC or the Supreme Court, however, as discussed below.

1. HELCO I

Ultimately, after allowing limited participation to LOL, but without a hearing, the PUC approved the amended PPA in 2017.[57]

But LOL, unsatisfied with the limited intervention status it had been granted, brought an appeal to Hawai'i's Supreme Court, arguing that it should have been allowed full intervention and that the PUC had not adequately considered its environmental objections.[58]

On appeal, it noted that, despite its limited role, LOL had filed many information requests and reiterated its position that Hu Honua's proposed facility was

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48. *See* Erin Voegele, *Hawaii Law To Require 100 Percent Renewables by 2045*, BIOMASS MAG. (June 8, 2015), https://biomassmagazine.com/articles/hawaii-law-to-require-100-percent-renewables-by-2045-12038.

49. *History*, LIFE OF THE LAND, https://lifeoftheland.org (last visited Apr. 16, 2025).

50. *Id.*

51. LOL's Motion to Intervene explained that its "expertise in biofuels" led it to believe the use of biofuels for energy production can be very harmful to its "unique environmental interests." LOL also expressed several concerns with the fuel source, the comparative cost, and whether the facility would cut into the purchasing utility's purchase of energy from existing and/or planned solar and wind farms. While the PUC found the Motion insufficient to justify a full intervention, it granted LOL limited participant status based on its concerns regarding the project's impact on existing renewable projects on the Big Island, as well as its supply and pricing analysis of the PPA. *See HELCO I*, 445 P.3d at 677.

52. *Id*.

53. *HELCO III,* 526 P.3d at 331.

54. *Id*.

55. *Id*.

56. *Id.*

57. *HELCO I*, 445 P.3d at 677, 681.

58. *Id*. at 679-81.

"not in the public interest," and that Hu Honua failed to fully address the environmental impacts.[59] It stated that the plan of chopping down the trees, relying on a rotational system without the discussion of fossil fuels in the mechanization of the growing process, was not carbon neutral, as Hu Honua alleged.[60] In reply, Hu Honua had argued that the biomass facility would make a significant contribution to the State's Renewable Portfolio Standards (RPS), estimating increasing the RPS levels by 11% over the life of the PPA, and would avoid "hundreds of thousands of tons of CO2."[61] Further, Hu Honua stated that biomass plants, like wind and solar plants, were carbon neutral in a reasonable approximation, and are deemed fully renewable by applicable state law.[62]

The PUC, without a hearing, entered its Decision & Order, approving the Amended PPA.[63] In summarizing each of the party's positions, the PUC noted that the reported RPS goals increased levels were impactful and the facility would add to the diversity of HELCO's existing portfolio.[64] Accordingly, the PUC determined that HELCO met its burden of proof in that the costs and arrangements in the Amended PPA were reasonable, prudent, in the public interest, and consistent with HRS chapter 269 in general, and HRS section 269-27.2(c), in particular.[65] The PUC also made clear that the approval was not based solely on pricing, but includes factors such as the State's need to limit its dependence on fossil fuels.[66]

LOL appealed the Decision & Order to the Supreme Court of Hawai'i. The Supreme Court found that LOL had a property interest to which it had a legitimate claim of entitlement, under HRS chapter 269 and article XI, section 9 of the Hawai'i Constitution.[67] Further, the Court held that LOL was not required to request a contested case hearing during the proceedings, as it was an active participant.[68] Accordingly, the Court ruled that LOL's due process rights were violated because it found there was sufficient evidence to demonstrate the approval of the Amended PPA specially, personally, and adversely affected LOL's members, who live work and recreate in Hawai'i and that LOL was not given a meaningful opportunity to be heard.[69]

Lastly, the Court found that the PUC did not "explicitly consider" the quantitative levels and effect of GHG emissions in reaching its Decision because the Decision & Order referenced GHG emissions minimally. The representations

59. *Id*. at 680.

60. *Id*. at 680-81.

61. *HELCO I*, 445 P.3d at 681.

62. *Id*.

63. *Id*.

64. *Id*.

65. *HELCO I*, 445 P.3d at 682

66. *Id*.

67. *Id.* at 688 (citing *In re* Maui Elec. Co., 408 P.3d 1 (Haw. 2017) where this court held that the PUC violated Sierra Club's due process rights by approving a power purchase agreement. There, it was recognized that Sierra Club's interest in its right to a clean and healthful environment is a property interest as defined by HRS Ch. 269 and the State's Constitution.).

68. *Id.* at 692.

69. *HELCO I*, 445 P.3d at 694-95.

made by HELCO that the biomass facility could potentially save around 15,700 barrels of fuel per year and contribute to the State's RPS goals, did not constitute an express consideration of the reduction of GHG emissions by the PUC.[70]

The Court vacated the PUC's 2017 Decision & Order and remanded to the PUC for proceedings consistent with its opinion.[71]

2. HELCO II

In *In re Hawai'i Electric Light Co*., 487 P.3d 708 (Haw. 2021) (*HELCO II*), after the PUC reopened the 2017 docket, following *HELCO I*'s vacatur order and remand, Hu Honua appealed the PUC's Orders denying a competitive bidding waiver to HELCO and denying a request for reconsideration.[72] Hu Honua argued that both Orders are a result of a misreading of the holding in *HELCO I*.[73]

In the original 2017 Decision & Order, the PUC granted HELCO's waiver of competitive bidding for the proposed PPA.[74] Normally, an acquisition of new renewable energy sources occurs through a bidding process, wherein the PUC is only presented with contracts.[75] In granting the waiver, HELCO did not have to participate in the bidding process and the PUC could consider the merits of the Amended PPA in a single decision and order, which it did.[76]

In the events that led to *HELCO II*, the PUC, acting under its instruction from the Supreme Court in *HELCO I*, vacated the 2017 Order in its entirety, including the bidding waiver.[77] This forced HELCO to resubmit a new bidding waiver, which the PUC had denied, declining to hold evidentiary hearings or consider the merits of the Amended PPA.[78] Hu Honua then appealed the Order to the Supreme Court, arguing that the *HELCO I* remand did not require the PUC to re-open the waiver issue.[79]

The Court ultimately agreed with Hu Honua, holding that *HELCO I* did not require the PUC to revisit the threshold waiver issue because there was no mention of the waiver in its 2019 vacate order.[80] Thus, the Court vacated the two PUC Orders, putting the parties to the same position they were in following *HELCO I*. More specifically, the PUC was directed to afford LOL a meaningful opportunity to be heard and was obligated to consider the issue of GHG emissions in reviewing the Amended PPA.[81]

70. *Id.* at 695.
71. *Id*. at 700.
72. *HELCO II,* 487 P.3d at 708.
73. *Id*. at 709.
74. *Id*.
75. *Id*.
76. *HELCO II,* 487 P.3d at 709; *See generally HELCO I*, 445 P.3d 673.
77. *HELCO II*, 487 P.3d at 709.
78. *Id*.
79. *Id*. at 710.
80. *Id*.
81. *HELCO II*, 487 P.3d at 710.

3. Present Case (HELCO III)

In accordance with the Court's remands in *HELCO I* and *II*, and reviewing HELCO testimony, estimated carbon calculations, and estimates presented by Consumer Advocate (statutorily-mandated party to the proceeding), the PUC reversed its original approval of the Amended PPA, declining it again on May 23, 2022.[82] The PUC found the project would produce "massive GHG emissions," Hu Honua's promise of carbon neutrality was speculative, and that Hu Honua had no firm plans for leasing the land to plant trees that would offset the plant's GHG emissions.[83] In a quantitative analysis, the PUC calculated the difference between the estimated metric tons of carbon emissions of the facility and the company's pledge to offsetting the emissions not covered by tree planting with the purchase of offsetting GHG credits.[84] The calculation resulted in the project becoming carbon neutral in 2047, which is two years after the target year of 2045 for zero emissions.[85] Essentially, the PUC reasoned that because the first twenty-five years of the project would not be carbon neutral, that the damage could not be easily overcome.[86]

The PUC also found that the costs imputed to ratepayers, as a result of the project, would be significantly increased.[87] With an expected spike of 15% six years into operations, the PUC estimated, in combination with other pricing terms and adjustments for inflation, that the costs would continue to rise.[88] On average, the PUC calculated, the consumer bill would increase by $10.97 per month, throughout the thirty-year term of the Amended PPA.[89]

The PUC further noted that the project would not accelerate the retirement of fossil fuels, and that it would displace other more "environmentally friendly" sources.[90] In reaching this conclusion, the PUC cited to HELCO's own testimony that it would be "impossible" to avoid displacing other renewable sources, and the Consumer Advocate's estimate that 60% of Hu Honua's generation would replace other renewable energy generation.[91]

Finally, the PUC rejected the company's argument that Act 82, which amended the language of HRS section 269-6(b) required that the PUC should only consider the GHG emissions from fossil fuels, and not the emissions from renewable sources, like biomass.[92] Act 82, it concluded, did not materially alter its statutory obligations and in particular did not require the PUC to treat GHG emissions from biofuels differently from such emissions from fossil fuels.[93]

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82. *HELCO III,* 526 P.3d at 333.
83. *Id*. at 332.
84. *Id*. at 333.
85. *Id*.
86. *HELCO III,* 526 P.3d at 333.
87. *Id.*
88. *Id*.
89. *Id.*
90. *HELCO III,* 526 P.3d at 333.
91. *Id*.
92. *Id.* at 331-32.
93. *Id.*

Hu Honua appealed to the Supreme Court the PUC Decision & Order No. 38,395 that declined to accept the Amended PPA, following *HELCO I* and *II*'s remand instructions. It argued that (1) the PUC's order exceeded the scope of the original *HELCO I* remand by considering energy prices, (2) the PUC improperly applied the controlling statute of HRS section 269-6(b) by not limiting its comparison of the project to only fossil fuel alternatives, and (3) the PUC violated Hu Honua's due process rights by finding facts not in the record, applying an incorrect evidentiary standard.[94]

C. Supreme Court of Hawai'i's Decision of HELCO III

The first argument that the Supreme Court of Hawai'i considered was Hu Honua's assertion the PUC has exceeded the scope of the *HELCO I* remand which confined the PUC to only review one issue, the GHG emissions, and that consideration of pricing impacts was "off limits."[95] The Court stated Hu Honua was mistaken, and that there was language in the Court's prior order that the hearing *must* include express consideration of GHG emissions, not that the PUC was limited to consideration of that issue.[96] On the contrary, it ruled, the critical aspect of the Court's remand in *HELCO I*, in relation to this first argument, was that the Court instructed the PUC to ascertain whether the terms of the Amended PPA are in the public interest and whether the cost of energy under the Amended PPA is "reasonable in light of the potential for GHG emissions."[97]

As an alternative, Hu Honua argued that since the PUC found the pricing reasonable in its approval of the PPA in 2017, reconsideration of that ruling was precluded. But, the Court noted, "the PUC was not only at liberty to consider pricing, it was *required* to consider the reasonability of the project's pricing in light of its GHG emissions."[98] Even absent the remand's "straightforward language," it added, "the PUC has a duty to act in the public interest," and that "protecting rate-payers" is one of its public interest obligations.[99]

Next, the Court opined that neither the language of HRS section 269-6(b) nor the legislative intent behind it supported Hu Honua's assertion that the PUC could only consider GHG emissions if they came from fossil-fueled plants, not from burning wood.[100] The Court disagreed and stated that, if Hu Honua was correct the only relevant question for the PUC to answer would have been *is burning plant life better than burning coal?*[101] The Court reiterated that this was not the task required of the PUC, by order of the Court's remand, nor the statutory language

94. *HELCO III,* 526 P.3d at 331-32.

95. *Id.* at 334.

96. *Id.*

97. *Id.*

98. *HELCO III,* 526 P.3d at 334 (emphasis in original).

99. *Id.*; *See* Haw. Const. art. XI, § 1, (stating that "For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.")

100. *HELCO III,* 526 P.3d at 334.

101. *Id.*

and intent.[102] The Court stated that Hu Honua could not draw such a hard line between renewable energy and fossil fuels because doing so fails to acknowledge that producing biofuel emits substantial amounts of GHG emissions.[103] The Court concluded that other kinds of renewable energy, specifically wind and solar, are "unlike" biomass energy because creating biofuel still emits GHG emissions by way of combustion.[104] Since energy sources like wind and solar do not involve the combustion of carbon-emitting materials, biofuel appears looks substantially more harmful, by comparison.[105] The Court continued, if the PUC could not consider the relative impacts and likelihood of replacing other renewable projects in the pending determination of the Amended PPA, then the PUC must treat this project the same way it treats another renewable project likely to produce significantly less GHG emissions (i.e. wind and solar).[106]

Further, the Court stated, the legislative intent behind HRS section 269-6 was to enable the PUC to consider the potential of "harmful climate change" via GHG emissions.[107] The Court then notes that the relevant statute cannot be read in isolation to another statute concerning environmental quality wherein the State's policy mandates the reduction of emissions "now," before the damage is irreversible.[108]

The Court also dismissed the argument that Act 82's amendments to section 269-6(b), permitted PUC consideration of GHG emissions solely from fossil fuel sources.[109] Act 82, according to the Court, has the primary purpose to exempt minor actions from section 269-6(b).[110] Ultimately, the Court proclaimed that Act 82 made no substantive changes to the relevant statute, only a typographical change that did not materially alter the analysis of the application of the statute.[111] All other portions of the amendment were small and immaterial to the present case.[112] Hu Honua also pointed out that "[d]uring the law-making process, language explicitly including biomass was added and then removed from the amendment."[113] This, the company argued, was proof of "a legislative intent to entirely exempt biomass emissions from consideration."[114] The Court rejected that argument, too, reasoning that adding the reference to biomass would have been "superfluous" given the legislature's overall purpose to preserve the statute's original language and interpretation.[115]

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102. *Id.* at 334-35.
103. *Id.* at 334-35.
104. *HELCO III,* 526 P.3d at 335.
105. *See id*.
106. *Id*.
107. *Id*.
108. *HELCO III,* 526 P.3d at 335; *see also* HAW. REV. STAT. § 225P-5 (2024).
109. *HELCO III,* 526 P.3d at 332.
110. *Id.* at 335.
111. *Id*.
112. *Id.*
113. *HELCO III*, 526 P.3d at 335.
114. *Id*.
115. *Id.* (stating that "during the law-making process, language explicitly including biomass was added and then removed from the amendment.").

Finally, citing Emissions Gap Report 2022, "The Closing Window: Climate crisis calls for rapid transformation of societies," the Court reasoned that the impacts of climate change "amplify" each year.[116] "*Yesterday's good enough cannot be acceptable today*," it quoted, in concluding that "the PUC was under no obligation to evaluate an energy project conceived of in 2012 the same way in 2022. Indeed, doing so would have betrayed its constitutional duty."[117] Essentially, the difference of a decade, in terms of climate change, allows the PUC to consider the existential threat in stricter terms. What was once a seemingly progressive step today may be detrimental to the environment tomorrow. The effect of the Court's ruling affirming the PUC's Orders discontinued operations at the Hu Honua plant indefinitely.[118]

D. Examination of the Court's Interpretation of Act 82

The Court maintains that nothing in Act 82's legislative history indicates and intent to ignore that some biofuels, though renewable, produce GHG emissions. "If the PUC couldn't consider Hu Honua's relative impacts and the likelihood that it would supplant other renewable projects," the Court reasoned, "it would be forced to treat a project expected to emit millions of metric tons of carbon as no different from a project expected to emit almost no carbon, merely because both draw on renewable energy sources," a deliberate decision to not include biomass exclusions.[119]

Such an isolated reading of Act 82 limits review of the broader statutory context. There are many other examples of the Hawaiian legislature treating biomass differently from fossil fuels.[120] Perhaps the inclusion of these examples in this argument would have compelled a different judicial conclusion. Hu Honua could have fortified its argument by citing the full array of statutory distinctions — both explicit and implicit — between renewable and non-renewable energy sources. A more holistic examination of legislative intent across related statutes may have provided the PUC, and subsequently the Court, with a more comprehensive framework for evaluating the argument, rather than dismissing the absence of language explicitly requiring the PUC to consider GHG emissions from biofuel as merely "superfluous."[121] Likewise, treating biomass, which the Court acknowledges is a renewable source; the same way as fossil fuels is inconsistent with Hawaiian law.[122] Where statutes are designed to restrict fossil fuel use, the Legislature often refrains from listing each exempt renewable energy source individually. Conversely, in statutes intended to incentivize renewable energy, biomass is routinely

116. *Id.* at 336.

117. *HELCO III,* 526 P.3d at 336.

118. Hu Honua Bioenergy, *Honua Ola Workers Fight for a Career and Way of Life They Cherish*, YOUTUBE (Dec. 17, 2020), https://www.youtube.com/watch?v=aLJ1z4TG-VQ&t=1s.

119. *HELCO III*, 526 P.3d at 335.

120. *See* HAW. REV. STAT. § 235-110.32 (2024); HAW. REV. STAT. § 269-91 (2024); HAW. REV. STAT. § 243-3.5 (2024).

121. *See HELCO III*, 526 P.3d at 335.

122. *See* HAW. REV. STAT. § 269-91.

included, while fossil fuels are expressly excluded — further reinforcing the legal distinction between the two.

For instance, Hawai'i tax laws explicitly gives a twenty-cent credit to taxpayers producing renewable fuels, per British thermal unit.[123] HRS section 235-110.32 requires the application for the credit to include a description of how the GHG emissions "are lower than that of fossil fuels."[124] The statute also specifically defines renewable fuel and feedstocks as "biomass crops and other renewable organic material," and "biodiesel or renewable diesel, biogas, and other biofuels."[125] In defining terms within the context of Hawaii's renewable portfolio standard, in HRS section 269-91, biomass and biofuels are also listed next to the wind and the sun in the definition of "renewable energy."[126] The same statute includes language "excluding fossil-fueled . . . facilities" from the "renewable electrical energy" definition, whereas biomass is explicitly included in the list.[127]

In contrast, fossil fuels are subject to different regulatory and tax structures, evidenced by HRS section 243-3.5.[128] The purpose of this Act is to target fossil fuel producers with taxes to "establish a clean energy initiative to transition to a clean energy economy" and to "help Hawaii's natural resources and population adapt and be resilient to the inevitable challenges brought on by climate change caused by carbon dioxide and other GHG emissions from burning *fossil fuels*."[129] In a side-by-side reading of HRS section 235-110.32 and HRS section 243-3.5, a reasonable interpretation might highlight an intent to regulate fossil fuels more stringently, through taxation, while incentivizing the adoption of renewable energy sources of which biomass is included. If these statutes were brought with Act 82's amendments to HRS section 269-6(b), Hu Honua's argument that biomass was meant to be excluded from an emissions consideration might have been more easily recognizable because HRS section 269-91 categorically identifies biomass and biofuel as renewable sources.[130]

Consequently, if Hu Honua included additional examples where the legislature, in one Act, allowed tax credits for biofuel producers, as a renewable source, while levying additional taxes on fossil fuels in another Act, their argument may have been more persuasive to the PUC and the Court. A reading these laws together would more favorably illustrate how treating a biomass energy plant, in terms of GHG emissions, the same way a fossil fuel plant is treated is inconsistent with the legislative intent to simultaneously uplift renewable projects and extinguish the use of fossil fuels. In an analysis of Act 82's amendment, alone, it is no wonder the Court saw the failure to add language expressly identifying GHG emissions from biofuels as an intentional gesture. An allusion to the fact that legisla-

123. HAW. REV. STAT. § 235-110.32(a).

124. *Id.* § 235-110.32(d)(3).

125. HAW. REV. STAT. § 235-110.32(o)(1), (2)(C)-(E).

126. HAW. REV. STAT. § 269-91 (defining "Renewable energy").

127. *Id.* (defining "Renewable electrical energy").

128. *See* HAW. REV. STAT. § 243-3.5.

129. H.B. 2421, 25th Leg., Reg. Sess. (Haw. 2010).

130. *See* HAW. REV. STAT. § 269-91 (defining "Renewable energy").

ture sometimes includes specific language and sometimes excludes specific language, could have allowed an opportunity for the PUC and the Court to see the broader legislative intent to fully incorporate biomass into the category of protected renewables and not lumped with strictures applied to fossil fuels.[131]

E. Evidence of Emission-Mitigating Advances in Transport

The Court draws a distinction between two non-combustion-based energy producers and ones that involve a release of GHG emissions.[132] The Court's analysis relies, in part, on the portion of Hu Honua's reported GHG emissions includes the transit of the material to the plant, in combination with the actual production's emissions.[133] However, the science of motor-vehicles is rapidly advancing. Especially over a thirty-year period, this portion of an emissions evaluation might soon be a non-factor.[134] This was potentially crucial evidence that HELCO and Hu Honua should have presented to the PUC and that the Court could then have considered on review. As fully electric trucks have already hit the roads, all electric vehicles capable of hauling lumber may also become more widely deployed. One truck manufacturer has already unveiled its electric timber-transport commercial vehicle.[135] According to one 2012 study, electric commercial delivery trucks have the potential to substantially reduce GHG emissions.[136] Since Hawaiian legislators are taking strides in committing to the goal of 100% carbon-neutrality, it is reasonable to assume electric trucking would be incorporated. As of July of 2023, the State is already anticipating a fleet of electric motor coaches to hit the streets.[137] Hu Honua did not attempt to admit any evidence regarding increased use of electric vehicles to the PUC hearings. The failure to do so required the PUC and Court to only account for Hu Honua's carbon offset pledge against the emissions of both the plant itself, as well as those estimated to be a result of gas-powered trucking.[138] Had Hu Honua included a commitment to integrate electric vehicles alongside its carbon offset strategy, the case for mitigating GHG emissions could have been even more compelling.[139]

Additionally, after potential progress, biomass could also be converted into liquid fuel, or biofuel, to meet the transportation requirements necessary.[140] If the

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131. *See generally* HAW. REV. STAT. § 243-3.5(a)-(h).

132. *HELCO III,* 526 P.3d at 335.

133. *Id*. at 332.

134. *See* Scooter Doll, *The world's first electric timber truck has been delivered in Sweden, and it can haul 80 tons*, ELECTREK (July 7, 2022), https://electrek.co/2022/07/07/electric-timber-truck-sweden/.

135. *Id*.

136. Wei Feng & Miguel A. Figliozzi, *Conventional vs electric commercial vehicle fleets: A case study of economic and technological factors affecting the competitiveness of electric commercial vehicles in the USA*, 39 PROCEDIA – SOC. & BEHAV. SCIS 702 (2012).

137. Skip Descant, *A New Class of Heavy-Duty Vehicle Goes Electric in Hawaii*, GOV'T TECH. (July 27, 2023), https://www.govtech.com/fs/a-new-class-of-heavy-duty-vehicle-goes-electric-in-hawaii.

138. *See HELCO III*, 526 P.3d at 333 (when mitigating evidence of electric transportation was not introduced, "the PUC found that the project would produce massive GHG emissions, and that Hu Honua's promise of carbon neutrality rested on speculative, uncertain assumptions.").

139. *See id.*

140. *Biomass Energy Basics*, NAT'L RENEWABLE ENERGY LAB'Y, https://www.nrel.gov/research/re-biomass.html (last updated Mar. 27, 2025).

Court would have reversed the PUC Order, in light of this information, the Honua Ola plant would have had an opportunity to become a totally self-sufficient plant, operating with its own biofuel, in due time, regardless of the introduction of fully electric transport.

F. The Appellants Fail to Submit Agroecological Evidence of the Benefits of Biomass Energy, as Opposed to Fossil Fuels

Hu Honua and HELCO failed to present scientific evidence supporting the future benefits of biomass energy. Because of this failure, the Court had no choice but to interpret and adhere only to the reported GHG emissions of the biomass project which purports to exhibit similar harmful effects on the environment as the GHG that is emitted when burning fossil fuels.[141] The most compelling evidence, which was submitted to the PUC, is that biomass-related GHG emissions are not introducing new GHG to the atmosphere.[142] According to NREL, biomass combustion released the same amount of carbon dioxide as burning fossil fuels, but this CO2 emission is balanced.[143] Whereas, fossil fuel carbon dioxide introduces "new" GHG to the atmosphere due to the photosynthesis of the material being captured millions of years ago. The plant-life, which would be burned at the Honua Ola plant, is balanced by the CO2 retained by its own growth.[144] The Court, if reviewing a record that included this evidence, would have had the chance to implement an innovative source of renewable energy that in due time, would serve benefits to the environment.[145] When biomass is curated and combusted carefully, it can be designed to reintroduce a favorable effect to surrounding ecosystems.[146] The products biomass energy produces are environmentally-compatible as they can be naturally reintroduced into the environment after their use.[147]

Further, biomass projects promote the action of plant growth immensely.[148] The cycle process of planting and harvesting improves soil, provides new places for wildlife to inhabit, supplies a chemically harmless work environment, and many more beneficial ecoservices.[149] Additionally, the project proposes the use of eucalyptus trees, which are an invasive species that are harmful to surrounding vegetation. The burning of which would presumably maintain the article XI provision of conserving the State's natural beauty and the right to a clean and healthful environment that the Court afforded to LOL.[150] In the long-term, biomass and the work involved in it is favorable to the environment than synthetics, like fossil

141. *See HELCO III*, 526 P.3d at 333.

142. *Biomass Energy Basics*, *supra* note 140.

143. *Id*.

144. *Id*.

145. *See* Emma Gosalvez, *Biomass: A Sustainable Energy Source for the Future?*, NC STATE UNIV. COLL. OF NAT. RES. NEWS (Jan. 15, 2021), https://cnr.ncsu.edu/news/2021/01/biomass-sustainable-energy-future/#:~:text=Biomass%20has%20many%20benefits%2C%20the,sustainable%20alternative%20to%20fossil%20fuels.

146. *Id.*

147. *Id.*

148. *Id*.

149. Gosalvez, *supra* note 145.

150. *See* HAW. CONST. art. XI, § 1; *HELCO III*, 526 P.3d at 334.

fuel.[151] These facts were not presented to the PUC, so the Court could not incorporate them into its consideration of GHG emissions. This constitutes yet another potentially costly procedural error by Hu Honua and HELCO, which may have reinforced the argument that biomass should not be evaluated under the same analysis that compares fossil fuel emissions to renewable source emissions, because biomass is renewable in Hawai'i.[152]

IV. CONCLUSION

Hu Honua and HELCO's failure to present sufficient evidence distinguishing biomass energy from fossil fuels ultimately resulted in the Court's affirmation of the PUC Order denying approval of the project.[153] In doing so, the companies failed to adequately address the statutory mandate under HRS section 269, which requires consideration of GHG emissions and the broader public interest in environmental and economic factors.[154] A lesson may be learned for future applicants in the renewable sector; energy companies should anticipate how the Court interprets and applies this standard to combustion-based projects, and proactively develop a record that more effectively supports their position.[155] A more strategic approach would have involved demonstrating how both Hawai'i law and scientific studies distinguish biomass from fossil fuels, and implementing concrete, measurable methods to mitigate GHG emissions. Instead, here, the applicants relied on speculative carbon offset projections, rather than submitting scientifically grounded evidence.[156] This evidentiary shortfall left the Court with little more than the uncontested fact that the project would emit substantially higher levels of CO2 than other renewable energy sources, such as wind or solar — an omission that significantly weakened their case.[157]

Hu Honua and HELCO failed to utilize the PUC hearings as a method to present a more robust evidentiary record, thereby leaving the reviewing Court with insufficient support and underdeveloped arguments. In Hawai'i, where legislative policy favors a transition away from fossil fuels, proponents of biomass and other renewable energy projects should not presume automatic approval. Absent clear legislative authorization expressly endorsing a particular class of projects, applicants must still meet the burden of producing substantial evidence sufficient to satisfy the applicable regulatory standards. In this case, the parties failed to bring

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151. *See* Gosalvez, *supra* note 145; *see* H.B. 2390, 32d Leg., Reg. Sess. (Haw. 2024) (A post-*HELCO III* amendment which added the term "lifecycle" to GHG emissions consideration of HAW. REV. STAT. § 269-6(b)(4), requiring the commission to "consider the long-term costs of the State's reliance on fossil fuels," and "an evaluation of the potential GHG over the course of . . . a project's lifetime.")

152. *See* HAW. REV. STAT. § 269-91 (defining "Renewable energy").

153. *See HELCO III*, 526 P.3d at 333.

154. *See* HAW. REV. STAT. § 269-6(b), (e).

155. *See generally HELCO I*, 445 P.3d 673; *HELCO II*, 487 P.3d 708.

156. *See HELCO III*, 526 P.3d at 333 ("Hu Honua's promise of carbon neutrality rested on . . . uncertain assumptions . . . HELCO stated there was no realistic modeling assumptions under which the project could product a net savings to the system or customer.").

157. *See generally id*. at 336 (where the court affirmed the PUC denial, it stated, "biomass and fossil fuel sources share one important defect – high GHG emissions.").

additional evidence supporting the notion that biomass energy is substantially better for the environment than energy from fossil fuels, and that it should not be held to the same restrictive standard simply because it involves combustion.

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