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LT. GOVERNOR

DEPT. COMM. NO. 384

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April 7, 2026

The Honorable Ronald D. Kouchi
President and Members of the Senate
Thirty-Third State Legislature
State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Nadine K. Nakamura
Speaker and Members of the House of Representatives
Thirty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawaii 96813

Aloha President Kouchi, Speaker Nakamura, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the **Hawaii Gas 2025 Renewable Energy Report as required by HRS §269-45.**

In accordance with Section 93-16, Hawaii Revised Statutes, I am also informing you that the report may be viewed electronically at https://puc.hawaii.gov/reports/.

Sincerely,

Jon S. Itomura
Chair

Enclosure

Cc: Office of the Governor

March 31, 2026

Via E-Filing

The Honorable Chair and Members of
the Public Utilities Commission of the State of Hawaii
Kekuanaoʻa Building
465 South King Street, Room 103
Honolulu, Hawaii 96813

Re: Hawaii Revised Statutes (HRS) § 269-45, Gas Utility Companies Renewable Energy Report

To the Honorable Public Utilities Commission of the State of Hawaii:

In accordance with HRS § 269-45, The Gas Company, LLC, dba Hawaii Gas hereby submits its Annual Renewable Energy Report for 2025. Portions of this report have been redacted as described in the attached Confidentiality Log.

Sincerely,

/s/ Nicolas Rodier

Nicolas Rodier
Executive Director, Clean Energy & Innovation
The Gas Company, LLC, dba Hawaii Gas

cc: Office of the Consumer Advocate (*via email*)
Hawaii State Energy Office (*via email*)

Hawaii Gas
2025 Renewable Energy Report

Overview

The Gas Company, LLC, doing business as Hawaii Gas (Hawaii Gas), has prepared this Annual Renewable Energy Report for the Hawaii Public Utilities Commission (PUC) in accordance with Hawaii Revised Statutes (HRS) § 269-45.

Hawaii Gas' utility gas operations consist of the purchase, production, transmission, distribution, and sale of utility gas, which includes synthetic natural gas (SNG) (including 10-12% hydrogen by volume), renewable natural gas (RNG), propane, and liquefied natural gas (LNG), which are cleaner-burning fuels that produce significantly lower levels of carbon emissions during combustion than other hydrocarbon fuels, such as oil, diesel, and coal. Hawaii Gas provides a safe, reliable, and economical source of energy to approximately 70,000 residential and commercial customers throughout the State, with almost half of those customers served by the utility system on Oahu.

SNG is produced using naphtha, a byproduct of Par Hawaii's refining process. The production process is approximately 85% efficient, whereas electricity generation from oil-derived fuels is approximately 32% efficient. As a result, natural gas delivers nearly three times more energy to the end-user per barrel of oil as compared to electricity produced from oil. In 2025, an additional 746,471[1] barrels of oil were avoided by the fact that Hawaii Gas customers on Oahu used gas energy instead of electricity, which remains predominantly sourced from oil. This amounts to savings of $67,014,395 based on an average cost of $89.78 per barrel of fuel oil.[2]

Current Non-Petroleum Resources

Hawaii Gas produces SNG using mainly a blend of liquid naphtha, (water) steam, and hydrogen gas, along with other gas feedstocks. Since 2000, approximately 50% of the hydrogen used to produce SNG has been from recycled water from the Honouliuli Wastewater Treatment Plant. Recycled water is combined with methane and other gases to produce hydrogen and additional methane in Hawaii Gas' utility processes. In 2025, the non-

[1] *See* Attachment 1.
[2] *Id.*

petroleum feedstock portion, based upon molar calculations, was 51.7% of the total feedstock used to produce SNG and RNG.[3]

About Renewable Natural Gas

Hawaii Gas is committed to integrating as much cost-effective RNG and renewable hydrogen into its fuel supply mix as possible, and to do its part to help meet climate goals, in an affordable, resilient, and sustainable way for our customers and Hawaii's communities. RNG is chemically equivalent to natural gas and, in the case of wastewater treatment plants ("WWTPs") and landfill ("LF") sites, is produced by capturing and purifying previously flared raw biogas to obtain a methane content of at least 96.4%. Today, raw biogas is produced at several landfills and WWTPs in Hawaii through the anaerobic breakdown of organic matter by microorganisms. The resulting biogas, depending on the source, contains approximately 60% methane and 40% carbon dioxide. According to the Argonne National Laboratory GREET model, RNG made from organic materials is carbon-neutral to carbon-negative. In addition to LFs and WWTPs, RNG can be produced using similar processes from agricultural waste.

In December 2018, Hawaii Gas commissioned the Honouliuli WWTP Biogas Project in partnership with the City & County of Honolulu, which allows Hawaii Gas to purchase previously flared raw biogas and upgrade it to pipeline quality RNG for direct injection into Hawaii Gas' utility pipeline system. The Honouliuli WWTP Biogas Project was awarded the American Biogas Council's 2019 Project of the Year. In 2025, Hawaii Gas upgraded 90,805 therms of biogas to biomethane from the Honouliuli WWTP Biogas Project. This figure is lower than the volume in 2024 because of a drop in raw gas production. Hawaii Gas has been collaborating with the City & County of Honolulu to address these issues. In 2023, Hawaii Gas and the City & County of Honolulu extended the biogas supply contract from December 31, 2024, to December 31, 2034, thereby ensuring continued RNG production for an additional ten years.

On October 10, 2024, the City & County of Honolulu issued a Request for Proposals for the transfer and processing of landfill gas from Waimanalo Gulch (Waimanalo Gulch Landfill Gas RFP). Hawaii Gas studied several options for the treatment, transportation and use of the gas, and submitted a response on February 14, 2025. The City & County of Honolulu elected to cancel the Waimanalo Gulch Landfill Gas RFP. The City and County of Honolulu held several meetings with Hawaii Gas after the cancellation of the RFP. During those meetings, the parties discussed options for optimizing Honouliuli RNG production during current

[3] *Id.* Estimate based on legacy desktop SNG plant model. A new process model was developed and finalized in 1Q 2025 and will be used going forward. *Id.*

operations, while the City and County of Honolulu undertake upgrades to the wastewater treatment plant. Subsequent to those discussions, the operations teams have initiated discussions on practical solutions to improve production levels and manage through production variability occasioned by works to upgrade the wastewater treatment plant. As of the date of this report, the process to develop solutions is ongoing. Separately, the Hawaii Gas and the City and County of Honolulu initiated discussions about options for the Sand Island WWTP, with the understanding that the target date for any RNG project would be subsequent to the completion of significant modifications to the Sand Island facility.

In addition to biogas from landfills and WWTPs, Hawaii Gas continues to assess the use of energy crops to produce biomethane, which are the only local RNG feedstock sources that are potentially scalable in Hawaii. To minimize the cost of producing biomethane from energy crops, it is key to select an energy crop that: 1) maximizes energy production per acre of land; 2) minimizes water requirements; and 3) utilizes the most efficient pre-treatment, digester, and purification technology available. Hawaii Gas also reviews alternative and emerging sources of RNG on an ongoing basis.

About Hydrogen

As part of Hawaii Gas' recent change of control proceeding (Docket No. 2021-0098), the utility agreed to the following condition of approval (COA):

> SEO COA No. 7. Hydrogen reporting. Hawaii Gas commits to give an annual informal briefing (or supplement to its Renewable Energy Report discussing hydrogen) to the Commission, SEO, and the Consumer Advocate on a confidential basis providing an update on Hawaii Gas' progress on hydrogen and pertinent data from its participation in pilot studies.[4]

Hawaii Gas subsequently notified the Commission that it intended to comply with this COA by filing a supplement to its annual Renewable Energy Report discussing hydrogen.[5] Based on the foregoing, Hawaii Gas offers the following update regarding its progress on hydrogen:

Hawaii Gas is active with hydrogen initiatives both locally and at a national level. Hawaii Gas is also participating in hydrogen blending research and development, which is driven by

[4] *See* Docket No. 2021-0098, Stipulation of Settlement in Lieu of Hawaii Gas' Reply to the Hawaii State Energy Office's Statement of Position, filed on May 3, 2022, at 10-11, 17-20. This COA is referred to as "SEO COA No. 7" in Decision and Order No. 38478 filed on June 29, 2022.

[5] *See* Docket No. 2021-0098, Hawaii Gas' Submittal of Deadlines for Reporting Requirements in Compliance with Ordering Paragraph 4 of Decision and Order No. 38478, filed on August 4, 2022.

nationwide interest in blending hydrogen with utility gas. Because Hawaii Gas has been blending hydrogen with its utility SNG since the early 1970s, there is significant interest in Hawaii Gas' pipeline operations and experience with gas appliances.

One project involved Hawaii Gas partnering with Hawaii-based Oceanit to test pipeline coating with the intent of potentially mitigating the risk of hydrogen embrittlement. Findings from this study were made public by Oceanit at the Offshore Technology Conference in Houston, Texas in May 2024. The study indicated a reduction in the risk of hydrogen embrittlement in a pipeline treated with the Oceanit coating relative to an untreated pipeline. Hawaii Gas, subsequent to the conclusion of the aforementioned research project, supported a follow-up grant application from Oceanit for further studies that may yield a positive impact on Hawaii Gas SNG plant operations. Discussions with Oceanit remain ongoing and Hawaii Gas continues to evaluate potential uses for the aforementioned coating.

Hawaii Gas continues to share its experience with the operation and maintenance of gas transmission, distribution, meters, regulators, and end user equipment with gas distribution companies, gas trade organizations, and research teams to help advance opportunities across the country and Canada to blend hydrogen with gas. This is a unique opportunity for Hawaii to take center stage in the energy arena, particularly with respect to audiences interested in integrating hydrogen with gas. Specifically, since the start of 2025, Hawaii Gas entered into mutual non-disclosure agreements (MNDA) with two California-based utilities and is in discussions with two Canadian-based utilities to enter into MNDAs, in all cases to permit the sharing of hydrogen production and distribution data.

Finally, with a view to promoting a hydrogen economy in the state, in 2025, Hawaii Gas undertook a review of hydrogen transportation and storage options. This review encompassed technical criteria, scale-appropriateness and commercial considerations. Having completed this review, Hawaii Gas entered into a preliminary agreement with a Liquid Organic Hydrogen Carrier (LOHC) developer to undertake a pilot project on Oahu. In 2025, Hawaii Gas entered into a definitive agreement with the LOHC developer to pilot a project on Oahu. The public announcement, issued on May 20, 2025, can be found in Attachment 3 hereinbelow. The pilot project is scheduled to take place in the 2nd half of 2026 although trade pressures and global disruptions may put pressure on the schedule.

Request for Proposals for the Supply of RNG and Renewable Hydrogen

On April 6, 2023, Hawaii Gas issued a Request for Proposals (RFP)[6] for the Supply of RNG and Renewable Hydrogen.

The RFP requested proposals for up to 65,000 therms per day or RNG and 2,300 kg per day of hydrogen.

On May 20, 2024, Hawaii Gas announced the selection of two projects from its 2023 request for proposals (RFP) for renewable hydrogen and renewable natural gas (RNG). The two companies selected are Eurus Energy America (Eurus) for a renewable hydrogen project and Hawaii-based Bana Pacific (Bana) for an RNG project. Both projects will produce gas on Oahu and will enable Hawaii Gas to increase hydrogen and RNG concentrations in its fuel mix.

Eurus' green hydrogen will be produced from a process using solar photovoltaic power and recycled water.

The Bana Pacific project will use locally-grown bana grass as a feedstock to produce RNG. Also known in Hawaii as cane grass, the non-invasive grass is currently used as cattle feed, requires relatively little water to grow, and enhances the soil's ability to naturally sequester carbon. This project has much potential for replication in locations across the state.

These two, significant projects, have long-lead times and the Hawaii Gas Clean Energy group is actively working with both developers, reviewing development schedules and coordinating with operations teams.

With the Eurus and Bana project selections in mind, Hawaii Gas is undertaking multiple engineering studies to evaluate feasibility for increased hydrogen blending (up to 20%) as well as increased SNG plant flexibility to facilitate future renewables integration. In January 2025, a draft report was issued and pre-FEED kicked off in Q2 2025 with expected completion in 2026.

Renewable Gas Tariff

In the 2025 legislative session, Hawaii Gas introduced SB1220 and HB342 that would require Hawaii Gas to introduce a renewable gas tariff by August 31, 2025 and the Commission to establish such tariff no later than nine months later. The intent of the legislation was to support the State's climate goals and reduce ratepayer financial impact from the Company's renewable energy projects. Act 192 was signed into law on June 6, 2025 and Hawaii Gas subsequently filed its renewable tariff on August 28, 2025 in Docket No. 2025-0338.

[6] *See* Attachment 3

2025 Key Accomplishments

1) Hawaii Gas upgraded 90,805 therms from raw biogas to biomethane (RNG).
2) Hawaii Gas submitted a formal response to the City and County of Honolulu's Waimanalo Gulch Landfill Gas RFP . Hawaii Gas continues to advocate for and evaluate potential solutions and responses to the capture and upgrading of biogas flared at Sand Island WWTP, should an RFP be issued for that facility. Hawaii Gas continues to work with the City and County of Honolulu to explore RNG opportunities.
3) Hawaii Gas signed a definitive agreement to pilot a Liquid Organic Hydrogen Project in Hawaii. LOHC is a potential option for the storage and transportation of hydrogen in the state.
4) Hawaii Gas expanded its collaboration with North American utilities on the production and distribution of hydrogen resulting in confidential information-sharing agreements with two utilities and ongoing discussions with two additional utilities.

Calculations

In 2025, the Honouliuli WWTP Biogas Project represented approximately 0.4% of Hawaii Gas' total feedstock, produced 90,805 therms, and was 100% non-petroleum. With the inclusion of hydrogen made from recycled water and RNG from Honouliuli, the total supply molar ratio of non-petroleum feedstock in 2024 was 51.2%, and the total supply molar ratio of petroleum feedstock was 48.8%.

With the inclusion of hydrogen made from recycled water and RNG from Honouliuli, the total energy quantity of non-petroleum feedstock in 2025 was [redacted] therms, and the total energy quantity of petroleum feedstock was [redacted] therms.

Calculation of the mole percentage calculations model provided in this report consists of balancing three reactions (gasification, hydrogen reformer, shift converter). In the production of SNG and hydrogen, which are components in Hawaii Gas' final SNG stream, naphtha petroleum feedstock and water from a renewable source are used in the production. As such, the analysis focuses on three elements (C, H, O) and calculates the proportions for each reactant in feedstock (in mole)

For this report, Hawaii Gas used the same material (molar) balances and followed the same methodology used in its 2020, 2021, 2022, 2023 and 2024 Renewable Energy Reports, with modifications to input volumes and compositions to match the 2025 values.

Summary

Throughout its history, Hawaii Gas has been a pioneer in the gas utility industry. In the 1970s, its SNG process was developed to meet the environmental needs of the State at the time, as well as to ensure that the State would have a reliable energy source. Today, Hawaii Gas is again at the leading edge of its industry given its integration of both RNG and hydrogen into its fuel supply mix and distributing it through the utility pipeline system. Hawaii Gas continues to aggressively pursue cost-effective local renewable energy projects to reduce Hawaii's reliance on imported oil, and a key priority for Hawaii Gas is to integrate as much cost-effective RNG and zero carbon hydrogen into its fuel supply mix as possible, in an affordable, resilient, and sustainable way for our customers and Hawaii's communities. Hawaii Gas plays a vital role in Hawaii's energy portfolio by providing clean, reliable and cost-effective energy to commercial and residential customers. We are committed to supporting Hawaii's clean energy and climate goals, and will continue to look toward new, innovative, and economic ways to incorporate renewable energy sources and support the State's clean and renewable energy future, while also reducing greenhouse gas emissions and aiding in waste diversion.

Attachment 1: Renewable Energy Report Summary for Renewable Non-Petroleum Feedstocks

THEGASCOMPANY

The Gas Company, LLC
Suite 1800
745 Fort Street
Honolulu, Hawaii 96813

Date: Mar-26

2025 Renewable Energy Production Report to the Public Utilities Commission

Mole Percentage of total feedstock used to produce natural gas, biogas, biofuels, or biofeedstocks for use by the gas utility in the State that is comprised of petroleum feedstock

48.80% Feedstock used comprised of petroleum feedstock

Mole Percentage of total feedstock used to produce natural gas, biogas, biofuels, or biofeedstocks for use by the gas utility in the State that is comprised of non- petroleum feedstock

51.20% Feedstock used comprised of non-petroleum feedstock [1]

The energy quantity in therms of natural gas, biogas, or gallons of biofuels, or biofeedstocks produced from petroleum feedstock for use by the gas utility within the State

[redacted] Annual Therms

The energy quantity in therms of natural gas, biogas, or gallons of biofuels, or biofeedstocks produced from non-petroleum feedstock for use by the gas utility within the State

[redacted] Annual Therms [2]

22,429,701

746,471 Barrels of Oil saved by using SNG instead of electricity [3]

$ 89.78 2020 Avg Cost per Barrel Oil

$ 67,014,395 Savings

Footnote		
	[1]	Plant basis (HHV) - R-hydrogen therm / Plant Feedstock therm
	[2]	RNG produced at Honouliuli WWTP + Hydrogen produced in the reformer and water shift reactor from Water.
	[3]	Calculated from plant conversion efficienies with hot water production

Attachment 2: Methodology Description

Hawaii Gas notes that the Renewable Energy Report format as provided under HRS § 269-45, follows a methodology common for electric utility direct combustion, and heat rate power production applications, which are different than the unique chemical conversions of liquids, gases and catalytic chemical processes, used to produce SNG.

The non-petroleum feedstock calculations for the SNG Plant focused on the chemical reactions associated with the gasification, hydrogen reformer, and shift converter processes used to produce SNG. As provided in this report, the non-petroleum feedstocks used to produce SNG as part of these processes are water, hydrogen (portion), and carbon monoxide (portion). The portion of the hydrogen that is non-petroleum based is made from recycled water. The portion of the carbon monoxide that is non-petroleum based is made from recycled water in the reformer.

Attachment 3: Press Announcement (link)

https://www.hawaiigas.com/posts/hawai-i-gas-announces-pilot-project-with-ayrton-energy

The Gas Company, LLC dba Hawaii Gas – 2025 Renewable Energy Report
CONFIDENTIALITY LOG

Document Name/ Reference	Page Number; Line Number(s) or Section Redacted	Designation	Identification	Basis of Confidentiality	Cognizable Harm
2025 Renewable Energy Report	Two redacted values on page 6	Confidential	Information regarding proprietary energy data	HRS § 269-45(a), provides that ""[d]ue to the proprietary nature of the information required by paragraphs (3) and (4), that information shall be held in confidence by the commission; provided that any information obtained by the commission under this section, including confidential information, shall be made available to the department of business, economic development, and tourism or its authorized representative, which shall safeguard the confidentiality of that information." The redacted information constitutes energy quantity data in therms of natural gas produced from petroleum feedstock and non-petroleum feedstock under HRS §§ 269-45(a)(3) and (a)(4), and therefore qualifies as proprietary under the foregoing confidentiality provision.	Public disclosure of the redacted information could competitively disadvantage Hawaii Gas by providing competitors with confidential information that could be used without expending their own resources to obtain it to the competitive disadvantage of Hawaii Gas. Misuse or unpermitted disclosure of the redacted information could place Hawaii Gas at a competitive disadvantage with respect to industry competitors and would give competitors information useful in making their own investment, financial, business and market decisions, without expending the time, resources, and investment necessary to gather and develop data and/or could provide competitors with insights regarding Hawaii Gas' confidential business operations, practices and decisions that could be used for unfair strategic advantage in the highly competitive energy environment.
Attachment 1, 2025	Two redacted values in Attachment 1	Confidential	Information regarding	HRS § 269-45(a), provides that ""[d]ue to the proprietary nature of the information required by paragraphs (3) and (4), that information shall be held in confidence by the	Public disclosure of the redacted information could competitively

Renewable Energy Report			proprietary energy data	commission; provided that any information obtained by the commission under this section, including confidential information, shall be made available to the department of business, economic development, and tourism or its authorized representative, which shall safeguard the confidentiality of that information." The redacted information constitutes energy quantity data in therms of natural gas produced from petroleum feedstock and non-petroleum feedstock under HRS §§ 269-45(a)(3) and (a)(4), and therefore qualifies as proprietary under the foregoing confidentiality provision.	disadvantage Hawaii Gas by providing competitors with confidential information that could be used without expending their own resources to obtain it to the competitive disadvantage of Hawaii Gas. Misuse or unpermitted disclosure of the redacted information could place Hawaii Gas at a competitive disadvantage with respect to industry competitors and would give competitors information useful in making their own investment, financial, business and market decisions, without expending the time, resources, and investment necessary to gather and develop data and/or could provide competitors with insights regarding Hawaii Gas' confidential business operations, practices and decisions that could be used for unfair strategic advantage in the highly competitive energy environment.

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F-340262

The foregoing document was electronically filed with the State of Hawaii Public Utilities Commission's Case and Document Management System (CDMS).