



PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

REPORT SUBMITTED TO THE LEGISLATURE PURSUANT TO
SENATE CONCURRENT RESOLUTION NO. 3, S.D. 1
2007 REGULAR SESSION

REQUESTING THE PUBLIC UTILITIES COMMISSION TO STUDY
THE RATE STRUCTURES OF PRIVATE ENTITIES THAT
FURNISH WATER USED FOR AGRICULTURAL PURPOSES

November 2007

PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

Report Submitted to the Legislature Pursuant to
Senate Concurrent Resolution No. 3, S.D.1 (2007 Regular Session)
Requesting the Public Utilities Commission to study the rate structures
of private entities that furnish water used for agricultural purposes.

NOVEMBER 2007

I. **Background**

During the Regular Session of 2007, the Senate and House of Representatives of the Twenty-fourth Legislature of the State of Hawaii adopted Senate Concurrent Resolution No. 3, S.D. 1, which asks the Public Utilities Commission (“Commission”) to:

- Perform an inventory of all privately-owned water systems statewide that are used for agricultural purposes;
- Examine the water rate structures established by the local county boards of water supply;¹
- Examine and distinguish between the rate and fee structures for privately-owned water systems used for agricultural purposes and for residential purposes;
- Determine the factors that distinguish the water rate for agricultural purposes and for residential purposes;
- Seek input, collaboration, and guidance from the Department of Agriculture (“DOA”), the College of Tropical Agriculture and Human Resources at the University of Hawaii (“CTAHR”), the Hawaii Farm Bureau Federation (“HFBF”), and each county board of water supply; and
- Report its findings and recommendations, including any proposed legislation, to the Legislature no later than twenty days before the convening of the Regular Session of 2008.

II. **Inventory of All Privately-owned Water Systems Statewide Used for Agricultural Purposes**

The Commission does not regulate all privately-owned water systems located in the state of Hawaii; only those that are certificated as public utilities, as defined in Hawaii Revised Statutes § 269-1. To establish a list of privately-owned systems for this report, the Commission requested input from the county water boards, the DOA, the CTAHR, and the HFBF.

¹The county water boards are the Honolulu Board of Water Supply, County of Hawaii Department of Water Supply, County of Maui Department of Water Supply, and County of Kauai Department of Water.

The county water boards and the HFBF did not provide information on privately-owned water systems. However, the DOA provided a list of entities to the Commission, and the CTHAR, which appears to be conducting a study of twenty-one (21) privately-owned water systems, also provided a list.

The Commission also requested assistance from other state agencies:

- Safe Drinking Water Branch of the Department of Health (“SDWB”). The SDWB oversees compliance with all state and federal rules, regulations and requirements for all public water systems in the state of Hawaii. The SDWB provided the Commission with its list of private water systems.
- Department of Land and Natural Resources, Commission on Water Resource Management (“CWRM”). The CWRM reported approximately 4,000 wells and 1,200 stream diversions but does not maintain a list of private water companies.

On July 6, 2007, the Commission mailed copies of its request for information to twenty-one (21) Commission-regulated water companies, fifty-seven (57) non-regulated water system owners; the county water boards; and the DOA. Thirteen (13) of the mailings to non-regulated water system owners were returned to sender by the post office. A copy of the Commission’s information request is attached as Exhibit A.

The Commission received responses through November 1, 2007, from eighteen (18) Commission-regulated water companies and twenty-three (23) non-regulated water companies, for a response rate of about 63 per cent. The DOA and the county water boards also responded to the information request. A list of all responding entities is attached as Exhibit B.

Based on the responses, and on tariffs filed by the Commission-regulated companies, the Commission identified the water companies that currently offer agricultural water rates. Those companies are identified in Exhibit B. The following provides a breakdown, by county, of the number of privately-owned water companies currently offering agricultural water rates, as compared with the number that offer residential water rates:

No. of Privately-owned Systems with Agricultural and Residential Rates

| | Hawaii | Honolulu | Kauai | Maui |
|--------------------|--------|----------|-------|------|
| Agricultural Rates | 3 | 3 | 2 | 7 |
| Residential Rates | 10 | 3 | 2 | 9 |

III. Water Rate Structures Established by Local County Boards of Water Supply

As stated above, in addition to surveying private water companies, the Commission requested the county water boards and the DOA to provide responses to the information requests. The rates and rate structure information presented in Exhibit C is based on the responses received and on rate information available through the water boards' websites.

- Honolulu Board of Water Supply ("BWS"). The BWS assesses a monthly Billing Charge and a Quantity Charge that is assessed per 1,000 gallons of water drawn each month. The inclining block rate structure of the Quantity Charges is intended to encourage water use efficiency.
- County of Hawaii Department of Water Supply ("Hawaii DWS"). The rate structure of the Hawaii DWS consists of monthly minimum Standby Charges, which apply to all meter connections, and Usage Rates, made up of consumption and power cost components, on a per 1,000 gallon basis.
- County of Maui Department of Water Supply ("Maui DWS"). The Maui DWS provides domestic, potable service to most of its customers, considered its general rate customers. For agricultural customers, it provides domestic, potable water and non-potable water for irrigation purposes, both at reduced rates. Its rate structure includes a monthly Water Service Charge and Water Usage Charges based on consumption and cost of power.
- County of Kauai Department of Water ("KDOW"). The KDOW's rate structure includes monthly Service Charges based on the size of meters and Consumption Charges imposed per 1,000 gallons. These charges apply to general use customers and to agricultural customers who draw water for agriculture, stock raising or dairy farming on a commercial basis.

IV. Rate and Fee Structures for Privately-Owned Water Systems Used for Agricultural Purposes and for Residential Purposes

Based on the responses received, the schedule provided in the attached Exhibit D reflects the range of charges currently assessed by Commission-regulated and non-regulated private water companies for water usage through a 5/8" to 1" meter. As further discussed below, these rates may be established on an individual case basis through negotiations, particularly for agricultural rates, or they may be based on threshold consumption levels. In a few instances, no charges are assessed. The rates charged by the counties are also reflected in Exhibit D.

V. Factors that Distinguish Water Rates for Agricultural Purposes and for Residential Purposes

- Counties' agricultural water rates are discounted through subsidies. All of the counties responded that the revenues generated from agricultural water rates and fees do not support the operating expenses of the agricultural services provided. They explained that the rates offered to agricultural customers are discounted and subsidized by other customers or ratepayers. For example, the Maui DWS stated:

“The county supports local agriculture by offerings its agricultural rate customers and non-potable rate customers water rates lower than the general rate. The revenue shortfall is subsidized by the general rate payers.”

In acknowledging the subsidy built into its current agricultural water rates, the KDOW indicated that its policy behind its agricultural rate development is changing. The KDOW responded, “[the KDOW] is moving towards assessing cost of service rate to our ag customers.”

- Counties' rates are based on large customer bases. With the large number of customers each county serves, the local water boards have the advantage of spreading their operational costs over relatively more users, as compared with privately-owned water companies. For this reason, the impact of rates on individual customers of privately-owned water companies is significant.
- Private water companies may negotiate agricultural rates. As shown in Exhibit D, the agricultural rates of the responding private water companies range from \$0.00 to \$11.00 for lowest levels of consumption. Some of the respondents indicated that the cost of water is included in leases or licenses entered into with users of their lands. Others stated that they provide water service based on negotiated rates. For this reason, the minimum usage rates of these respondents fall both above and below the rates of their respective local water boards. Where the rates are lower than the county rates, it appears that these private water companies may be offering such rates specifically to encourage and promote agricultural production.

- Commission-regulated water companies are subject to public utility ratemaking principles and requirements pursuant to Hawaii Revised Statutes, Chapter 269 and applicable administrative rules.

Water utilities under the Commission's jurisdiction file rate applications proposing specific rates and rate structures for their service area. Generally, a utility proposes rates that cover its reasonably incurred operating expenses and that allow it an opportunity to earn a fair rate of return on its investment in utility property. At the end of the rate proceeding, which generally consists of parties filing testimony, conducting discovery, participating in an evidentiary hearing, and submitting briefs, the Commission may grant a rate increase if it finds, among other things, that the increase is in the public interest.

Several of these regulated water companies submitted responses to the information request that expressed comments and concerns that a requirement to offer a lower rate and fee structure similar to the local water board may not allow them to recover their Commission-authorized revenue requirement, which would ultimately discourage investment in capital improvements in their water systems. However, they may support such a rate structure if they are assured the ability to recover their reasonable expenses and opportunity to earn a fair return on investment. They suggest consideration of either (1) an additional charge on other customers that would spread any losses from agricultural customers over these other customers; or (2) a reimbursement to the utility for lost revenue through government or other funding. They also expressed a concern regarding criteria for qualifying for lower agricultural rates and recommended that standards be very carefully established.

VI. Summary and Recommendation

The rate structures of the county water boards and some privately-owned water companies currently provide for relatively lower agricultural water rates, as compared with residential user rates. According to their responses, these entities have priced agricultural rates low by having other customer segments subsidize the costs to serve the agricultural customers, based on an effort to sustain the local agricultural industry. The counties are able to design their rates in this manner without significant burdens on these other customers by spreading costs over the large numbers of total customers they serve throughout their respective counties, while the private water companies are apparently having their parent companies provide the support.

Those privately-owned companies that have relatively higher rates based on cost have expressed concerns that a requirement to lower those rates to levels comparable to their local county water board may mean others – non-agricultural customers or the companies themselves – would have to make up for the loss in revenues.

If it is the Legislature's objective to encourage and foster growth in the agricultural industry by providing all agricultural water users with more favorable water rates, as compared with rates of other water customers, the Commission recommends that the Legislature establish a state policy expressly calling for such favorable treatment. The policy must include clear direction on (1) how and from whom the providers of water to agricultural users will recover the loss in revenues as a result of discounted agricultural rates (e.g., subsidies from other types of water customers, government or other funding); and (2) the criteria by which water providers will determine whether a customer qualifies for the discounted agricultural rates. Guided by such a clearly-defined state policy, the water service providers and the Commission, in its regulation of water utilities, would then be able act and set rates accordingly.

**Senate Concurrent Resolution No. 3, S.D. 1
Requesting the Public Utilities Commission (“Commission”) to Study the Rate Structures
of Private Entities That Furnish Water Used for Agricultural Purposes.**

Information Requests

- PUC-IR-101 Provide the name of the water service provider on whose behalf you are responding to these Information Requests.
- PUC-IR-102 What type of business entity (i.e., government, not-for-profit corporation, for-profit corporation) owns the water service provider?
- PUC-IR-103 When did the water service provider begin providing water service to its customers?
- PUC-IR-104 Is the water service provider a public utility regulated by the Public Utilities Commission?
a) If yes, when did the water service provider receive approval to operate as a regulated public utility?
b) If not, why not?
- PUC-IR-105 Is the water service provider regulated by a federal, state or county agency other than the Public Utilities Commission?
a) If yes, provide the name of agency and details of the regulations administered by the federal, state or county agency?
- PUC-IR-106 What is the physical address of the water service provider?
- PUC-IR-107 What is the mailing address of the water service provider?
- PUC-IR-108 Provide the name and contact information (i.e., phone number, fax number and e-mail address, as available) of the person responsible for completing this information request.
- PUC-IR-109 Explain the types of water service provided by the water service provider.
a) Provide a copy of the most current rules and regulations relating to the water service provided by the water service provider, including a schedule of water rates and fees.
- PUC-IR-110 How does the water service provider provide water service to its customers? Provide details on water source, plant and distribution lines.
- PUC-IR-111 Provide a listing of all customers serviced by the water service provider, by type of water service provided. If a listing is not available, provide the number of customers by type of water service provided.
a) List (or number) of commercial customers and type of water service provided by water service provider.
b) List (or number) of residential customers and type of water service provided by water service provider.

Senate Concurrent Resolution No. 3, S.D. 1
Requesting the Public Utilities Commission ("Commission") to Study the Rate Structures of Private Entities That Furnish Water Used for Agricultural Purposes.

- PUC-IR-112 How does the water service provider determine water rates for its customers?
a) Explain the methodology used to determine each water rate.
b) Provide the work papers that reflect the calculations for each water rate currently in effect.
- PUC-IR-113 Does the water service provider provide water service to customers for agricultural purposes located on agricultural zoned parcels?
a) If yes,
 i. When did the water service provider begin providing water services to customers for agricultural purposes located on agricultural zoned parcels?
 ii. Explain how the water service provider qualifies its customers for water service for agricultural purposes located on agricultural zoned parcels.
 iii. Provide the rates and fees charged to customers who request water service for agricultural purposes located on agricultural zoned parcels?
b) If not, why not?
- PUC-IR-114 Do the revenues generated from all water rates and fees support the total operating expenses of the water services provided by the company?
a) If not, why not?
- PUC-IR-115 Do the revenues generated from agricultural water rates and fees support the operating expenses of the agricultural water services provided by the company?
a) If not, why not?
b) If not, how does the water company support the shortfall?
- PUC-IR-116 Does the water service provider receive funding from other sources (i.e., private, city, state or federal government) to operate the water system?
a) If yes, please explain.
- PUC-IR-117 In addition to its current water rates, is the water service provider willing and able to offer a rate and fee structure comparable to the water rate structure used by the board of water supply of your respective county, for the purpose of allowing farmers to continue to maintain agricultural production in Hawaii?
a) If not, why not?

Public Utilities Commission
Information Request
Dated July 6, 2007
Relating to Senate Concurrent Resolution No. 3, S.D. 1

List of Respondents

| <u>COMMISSION-REGULATED</u> | <u>NON-REGULATED</u> |
|--|--|
| Hana Water Company, Inc. | Anahola Ditch Irrigation System |
| Hana Water Resources, Inc. | Dillingham Ranch Aina LLC |
| Hawaii Water Service Company | East Maui Irrigation Company * |
| Hawaiian Beaches Water Company | Grove Farm Company, Inc. |
| Kapalua Water Company, Ltd. | Hawaii Country Club LLC |
| Kealia Water Company Holdings, LLC | Kamehameha Schools, Kapalama Campus |
| KRWC Corporation, dba Kohala Ranch Water Company | Kipapa Acres CPR Water System * |
| Kukio Utility Company & WB Kukio Resorts LLC | Koloa and Kahilo Water Systems (submitted by Grove Farm) |
| Laie Water Company | Kona Village Resort |
| Lanai Water Company, Inc. * | Lanai Holdings Inc. |
| Launiupoko Irrigation Co., LLC * | Lawai Irrigation System (submitted by A&B Properties, Inc.) * |
| Launiupoko Water Company, LLC | McBryde Sugar Company and Kauai Coffee Company, Inc. |
| Molokai Public Utilities, Inc. * | Mililani Memorial Park |
| Olowalu Water Company, LLC * | Napu'u Water Inc. * |
| Princeville Utilities Company, Inc, | North Shore Water Company, LLC * |
| Waikoloa Resort Utilities, Inc dba West Hawaii Utility Company | Ookala (submitted by Ookala Community Association) |
| Waikoloa Water Company, Inc. dba West Hawaii Water Company | Poamoho Venture, L.P. * |
| Wai'ola O Molokai, Inc. * | Queen's Medical Center |
| | St. Stephen Diocesan Center |
| | Waiki'i Ranch Homeowners' Association |
| | Wailuku Water Company, LLC, dba Wailuku Water Company * |
| | West Maui Irrigation System (submitted by Hawaiian Commercial & Sugar Company) |
| | Wood Valley Water System (submitted by Wood Valley Water and Farm Cooperative) * |

* Water companies that offer agricultural water rates, based on responses to information requests. Kilauea Irrigation and Punaluu Water & Sanitation Corp., both of which did not respond to the Commission's information request by the requested deadline, also offer agricultural rates according to their tariffs.

County Water Rates and Rate Structures

Honolulu Board of Water Supply

| | |
|---|--------|
| Billing Charge (each time a bill is rendered) | \$4.68 |
| Quantity Charge (per 1,000 gals) | |
| Residential (Single-family) | |
| Block 1 (first 13,000 gals) | 2.24 |
| Block 2 (13,001-30,000 gals) | 2.69 |
| Block 3 (over 30,000 gals) | 4.02 |
| Residential (Multi-family) | |
| Block 1 (first 9,000 gals) | 2.24 |
| Block 2 (9,001-22,000 gals) | 2.69 |
| Block 3 (over 22,000 gals) | 4.02 |
| Non-residential | |
| All usage | 2.51 |
| Agricultural | |
| Block 1 (first 13,000 gals) | 2.24 |
| Block 2 (over 13,000 gals) | 0.95 |
| Non-potable | |
| All usage | 1.25 |

Other charges and fees, such as a power cost adjustment, may apply.

County of Hawaii Department of Water Supply ("Hawaii DWS")

Standby Charges (based on meter size)

| | |
|--------|---------|
| 5/8" | \$12.00 |
| 1" | 23.00 |
| 1-1/2" | 40.00 |
| 2" | 65.00 |
| 3" | 115.00 |
| 4" | 180.00 |
| 6" | 370.00 |
| 8" | 740.00 |
| 10" | 1090.00 |
| 12" | 1955.00 |

Usage Rates

General Use Rates (per 1,000 gals)¹

| | |
|-------------------|------|
| 1st Block | 0.75 |
| 2nd Block | 1.55 |
| 3rd Block | 2.75 |
| 4th Block | 3.65 |
| Power Cost Charge | 1.60 |

Agricultural Use Rates (per 1,000 gals)

| | |
|-------------------|------|
| All usage | 0.85 |
| Power Cost Charge | 1.60 |

¹Hawaii DWS's rate blocks (gallons) for General Use Rates are categorized by meter size as follows:

| Meter size | 1st Block | 2nd Block | 3rd Block | 4th Block |
|------------|-----------|--------------------|--------------------------|---------------|
| 5/8" | 5,000 | 5,001 - 15,000 | 15,001 - 40,000 | > 40,000 |
| 1" | 5,000 | 5,001 - 100,000 | 100,001 - 300,000 | > 300,000 |
| 1-1/2" | 5,000 | 5,001 - 400,000 | 400,001 - 1,000,000 | > 1,000,000 |
| 2" | 5,000 | 5,001 - 900,000 | 900,001 - 2,000,000 | > 2,000,000 |
| 3" | 5,000 | 5,001 - 2,000,000 | 2,000,001 - 5,000,000 | > 5,000,000 |
| 4" | 5,000 | 5,001 - 4,700,000 | 4,700,001 - 10,000,000 | > 10,000,000 |
| 6" | 5,000 | 5,001 - 10,000,000 | 10,000,001 - 25,000,000 | > 25,000,000 |
| 8" | 5,000 | 5,001 - 20,000,000 | 20,000,001 - 50,000,000 | > 50,000,000 |
| 10" | 5,000 | 5,001 - 40,000,000 | 40,000,001 - 100,000,000 | > 100,000,000 |
| 12" | 5,000 | 5,001 - 60,000,000 | 60,000,001 - 150,000,000 | > 150,000,000 |

County of Maui Department of Water Supply

Water Service Charge (based on meter size)

| | |
|--------|--------|
| 5/8" | \$7.50 |
| 3/4" | 11.00 |
| 1" | 18.00 |
| 1-1/2" | 37.00 |
| 2" | 50.00 |
| 3" | 95.00 |
| 4" | 190.00 |
| 6" | 330.00 |
| 8" | |

Waster Usage Charge (per 1,000 gals)

General Rates

| | |
|----------------------|------|
| 0 - 10,000 gals | 1.55 |
| 10,001 - 30,000 gals | 2.60 |
| Over 30,000 gals | 3.50 |

Agricultural Rate

| | |
|------------------|------|
| Over 30,000 gals | 0.90 |
|------------------|------|

Non-potable Agricultural Rate

| | |
|-------------|------|
| Over 0 gals | 0.90 |
|-------------|------|

County of Kauai Department of Water ("KDOW")

Service Charge (based on meter size)

| | General Use | Agricultural |
|--------|-------------|--------------|
| 5/8" | \$9.00 | \$12.00 |
| 3/4" | 12.00 | 16.00 |
| 1" | 18.00 | 24.00 |
| 1-1/2" | 35.00 | 46.00 |
| 2" | 55.00 | 72.00 |
| 3" | 100.00 | 130.00 |
| 4" | 165.00 | 210.00 |
| 6" | 325.00 | 400.00 |
| 8" | 520.00 | 640.00 |

Use Charge (per 1,000 gals)²

| | | |
|-----------|------|------|
| 1st Block | 2.45 | --- |
| 2nd Block | 3.10 | --- |
| 3rd Block | 4.40 | --- |
| All Use | | 1.20 |

²KDOW's rate blocks (gallons) for General Use Rates are categorized by meter size as follows:

| Meter size | 1st Block | 2nd Block | 3rd Block |
|------------|------------------|-------------------------|--------------|
| 5/8" | First 20,000 | 20,001 - 40,000 | > 40,000 |
| 3/4" | First 70,000 | 70,001 - 140,000 | > 140,000 |
| 1" | First 200,000 | 200,001 - 400,000 | > 400,000 |
| 1-1/2" | First 500,000 | 500,001 - 1,000,000 | > 1,000,000 |
| 2" | First 1,000,000 | 1,000,001 - 2,000,000 | > 2,000,000 |
| 3" | First 2,000,000 | 2,000,001 - 4,000,000 | > 4,000,000 |
| 4" | First 4,000,000 | 4,000,001 - 8,000,000 | > 8,000,000 |
| 6" | First 10,000,000 | 10,000,001 - 20,000,000 | > 20,000,000 |
| 8" | First 20,000,000 | 20,000,001 - 40,000,000 | > 40,000,000 |

Water Rates Identified Through Study
Pursuant to Senate Concurrent Resolution No. 3, S.D. 1 (2007)

| | Counties | | | |
|---------------------------------------|--------------------------|-----------------------|--------------------------|-----------------------------|
| | Hawaii | Honolulu | Kauai | Maui |
| Commission-regulated companies | | | | |
| Agricultural | | | | |
| Rate per 1,000 gals | \$0.35 | --- | \$0.77 | \$0.76 - \$3.08 |
| Svc chg (per billing cycle) | \$5.00 | --- | \$6.00 | \$11.25 - \$500.00 |
| Other charges | --- | --- | Fuel Oil Adjustment | Tap In Charge |
| Residential | | | | |
| Rate per 1,000 gals | \$0.75 - \$5.635 | \$2.00 | \$1.517 - \$5.00 | \$1.10 - \$3.53 |
| Other charges | Power Cost Adjustment | --- | Post Cost Adjustment | Power Cost Adjustment |
| Non-regulated water companies | | | | |
| Agricultural | | | | |
| Rate per 1,000 gals | \$0.92 - \$11.00 | \$2.00 - \$2.24 | \$0.30 | \$0.00 - \$0.80 |
| Svc chg (per billing cycle) | \$30.00 - \$75.75 | \$4.18 | --- | --- |
| Other charges | --- | --- | --- | --- |
| Residential | | | | |
| Rate per 1,000 gals | \$0.92 - \$11.00 | \$2.00 | --- | --- |
| Other charges | --- | \$200.00/mo | --- | --- |
| County water boards | | | | |
| Agricultural | | | | |
| Rate per 1,000 gals | \$0.85 | \$2.24 | \$1.20 | \$0.65 |
| Svc chg (per billing cycle) | \$12 | \$4.68 | \$12.00 | \$7.50 |
| Other charges | \$1.60 Power Cost Charge | Power Cost Adjustment | Cost of Power Adjustment | \$0.90 Cost of Power Charge |
| Residential | | | | |
| Rate per 1,000 gals | \$0.75 | \$2.24 | \$2.45 | \$0.65 |
| Other charges | \$1.60 Power Cost Charge | Power Cost Adjustment | Cost of Power Adjustment | \$0.90 Cost of Power Charge |

* Rates currently assessed for water usage through a 5/8" to 1" meter.