UTILITY ALLOWANCE STUDY

MARCH 2017

SECTION 8 HOUSING CHOICE VOUCHER PROGRAM

HAWAII PUBLIC HOUSING AUTHORITY

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PREPARED BY: NATIONAL FACILITY CONSULTANTS, INC.
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NFC, INC.
THE PHA PROFESSIONALS™

NFC, INC.
THE PHA PROFESSIONALS™

March 28, 2017

Ms. Stephanie L. Fo
Chief, Section 8 Subsidy Programs Branch
Hawaii Public Housing Authority
1002 North School Street, Building H
Honolulu, Hawaii 96817

Dear Ms. Fo:

Enclosed, please find the report of the Section 8 Utility Allowance Update for the Hawaii Public Housing Authority for your review and consideration. This report is provided in accordance with Purchase Order #17K01524 dated March 9, 2017.

The enclosed report includes a summary of the methodology utilized in the establishment of the consumption allowances including any assumptions that were made. The cost allowances utilize current rates and adjustments averaged over the period from January 1, 2016 through December 31, 2016, consistent with the current Public Housing allowance methodology. A Form HUD-52667 is provided for each housing type and the backup calculations are provided under the tab for each housing type.

As you are aware, the field office must be provided a copy of the allowances, along with the backup information. We will forward an electronic copy of the report for this purpose to expedite HUD's review. Once reviewed, the allowances can be implemented.

As always, we appreciate this opportunity to work with you and the Hawaii Public Housing Authority. If you should have any questions or concerns regarding the allowances or need additional information or clarification of any kind, please don't hesitate to contact me at (770) 977-4134.

Sincerely,

W. Sawyer Shirley
President
NFC, Inc.

WSS/mp

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Utility Allowance Update Report

HOUSING CHOICE VOUCHER UTILITY ALLOWANCES

FOR THE

HAWAII PUBLIC HOUSING AUTHORITY

March 28, 2017

INTRODUCTION

The Hawaii Public Housing Authority (HPHA) contracted with National Facility Consultants, Inc. (NFC) to update allowances for tenant-purchased utilities for units under the U. S. Department of HUD's Section 8 Housing Choice Voucher program. NFC has assisted the HPHA with the development and update of utility allowances for the Low-Income Public Housing Program and we utilized a similar approach to develop the Section 8 allowances.

The Section 8 allowances were developed in accordance with the requirements set forth at 24 CFR Part 982.517 Utility Allowance Schedule utilizing the methodology employed by the HPHA under the Public Housing Program regarding the application of rates and associated adjustments. Allowances were established for each type of housing to reflect the actual *reasonable* utility consumption for an energy conservative household.

Allowances for each type of housing are provided on Form HUD-52667 under the next tab. The backup calculations are provided under the tab for each type of housing. Note that only the allowances for the applicable tenant-paid utility and actual equipment are to be provided. The base charge for electrical service is included under the Other Electric category, which should be provided to all participants unless all utilities are paid by the owner.

METHODOLOGY AND ASSUMPTIONS

As indicated above, the allowances were developed in accordance with the regulations set forth at 24 CFR Part 982.517, which require PHAs to establish utility allowances *must be determined based on the typical*

cost of utilities and services paid by energy-conservative households that occupy housing of similar size and type in the same locality. As a result, no allowance is provided for heat or air-conditioning, as these are not customary in the locality.

The allowances for each housing type are based upon the customary construction type and equipment for the locality. Since NFC developed the site-based allowances for the Public Housing program, that information was utilized to determine the expected equipment in Section 8 rental units.

Allowances were developed for the following usages:

- Allowances were developed for lighting based upon the prevalent fixtures utilized in the locality. The wattage of bulbs was multiplied by an estimate of the daily usage and then converted to a monthly usage. Since incandescent bulbs are no longer produced after January 1, 2014; any lamps that were included in the calculation (as a result of a room not having fixed fixtures) or any fixture that would have a standard base were assumed to have a 13-watt Compact Fluorescent Light (CFL) bulb.

- Miscellaneous small appliance usage was estimated based upon the regulatory standard of an energy-conservative household of modest circumstances. Allowances were provided for clocks, coffee makers, computers, computer monitors, fans, hair dryers, irons, microwave ovens, radios, smoke detectors, telephones, and televisions and were adjusted, as reasonably needed, for the size of the unit and number of occupants. The estimated watts per appliance were multiplied by the hours of daily use and converted to a total monthly usage estimate. It should be noted that the list of items is not intended to be exact; rather, it is intended to reflect an estimate of usage based upon the standard. For example, an individual household may not use a computer, but may use a gaming system instead and the allowance is intended to cover that usage. It is not intended to include the usage of excessive equipment beyond the standard.

- Usage for a refrigerator is provided as a non Energy-Star, frost-free model that utilizes a total of 600 kWh per year.

- An allowance for cooking was established for efficiency to two-bedroom units and then for three bedroom to five bedroom units to adjust for extensive changes in numbers of occupants.

- An allowance for water heating was established for each unit size based upon the maximum number of occupants in a unit in accordance with the Authority's occupancy standards as stated in the Administrative Plan. In addition, a more accurate estimate of the inlet water temperature was utilized; therefore, there was a decrease in the consumption for this category.

- An allowance for solar water heating was established for each unit size based upon the number of occupants. Staff should verify that the solar system is in good repair prior to applying that allowance.

- Allowances were also developed for the cost of various types of medical equipment in accordance with the requirements under Section 504 of the Housing and Redevelopment Act. As the Authority grants reasonable accommodation for the various allowances, they should be provided to the resident accordingly. These medical allowances are presented for each housing type under the applicable tab.

- Water and sewer allowances were developed based on the expected usage of an energy-conservative household. It was assumed that the maximum number of occupants (based on occupancy standards) is in the household to provide a "worst-case" scenario.

Rates were collected for each applicable utility for each type of property. All rate schedules were verified and any adjustments to rates were collected for the year period from January 1, 2016 through December 31, 2016. This is consistent with the approach utilized by the HPHA for the Public Housing program where adjustments that fluctuate every month are averaged over the preceding year. It should be noted that in cases where utility companies were granted an increase in their base rates by regulatory authorities, the monthly energy cost adjustments were reduced by the amount of the increase for the months prior to the effective date of the increase in order to prevent over compensation.

Where rate schedules are graduated with increased rates are in effect for higher usage, the entire first two tiers were averaged to formulate a weighted average rate for the resident. Since all of the total consumption allowances are above the total for the consumption of the first tier yet below the consumption of the first two tiers combined, this is also to the benefit of the participant.

For water and sewer rates, the "single-family" rate was utilized for all types of housing based on information provided by the Board of Water Supply. The Board representative indicated that the

multifamily rate is only used when the bill includes multiple units and that the single-family rate is used for an individual bill, regardless of the actual type of housing. Since a participant would not be provided the allowance if it were paid by the building owner, the multifamily rate was not utilized.

ALLOWANCES FOR THE PURCHASE OF REFRIGERATORS AND STOVES

In accordance with HUD regulations, the cost of purchasing a refrigerator or stove is also included in the allowance. For refrigerators, a purchase price of $700 was assumed and that amount was amortized over a five-year period at an interest rate of 26%. For stoves, a purchase price of $450 was assumed and that amount was also amortized over a five-year period at an interest rate of 26%. The prices are based upon the Home Depot price for a base GE appliance. The interest rates are based upon that charged on a Home Depot credit account.

FORMS HUD-52667

Allowances for Tenant-Furnished Utilities and Other Services

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0169
(exp. 09/30/2017)

See Public Reporting Statement and Instructions on back

Locality	Unit Type	Date (mm/dd/yyyy)
Hawaii Public Housing Authority	Single Family	05/01/2017

Utility or Service		Monthly Dollar Allowances					
		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR
Heating	a. Natural Gas						
	b. Bottle Gas						
	c. Oil / Electric						
	d. Coal / Other						
Cooking	a. Natural Gas	26	26	26	29	29	29
	b. Bottle Gas						
	c. Oil / Electric	19	19	19	23	23	23
	d. Coal / Other						
Other Electric		44	44	50	55	61	62
Air Conditioning							
Water Heating	a. Natural Gas	20	28	45	62	79	96
	b. Bottle Gas						
	c. Oil / Electric	11	21	42	64	85	106
(Solar)	d. Coal / Other	4	8	11	19	27	34
Water		18	23	36	45	58	67
Sewer		87	91	101	110	119	128
Trash Collection							
Range/Microwave		14	14	14	14	14	14
Refrigerator		21	21	21	21	21	21
Other -- specify							

Actual Family Allowances To be used by the family to compute allowance.
Complete below for the actual unit rented.

Name of Family

Address of Unit

Number of Bedrooms

Utility or Service	per month cost
Heating	$
Cooking	
Other Electric	
Air Conditioning	
Water Heating	
Water	
Sewer	
Trash Collection	
Range/Microwave	
Refrigerator	
Other	
Total	$

Previous editions are obsolete

form **HUD-52667** (09/14)
ref. Handbook 7420.8

Allowances for Tenant-Furnished Utilities and Other Services

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0169
(exp. 09/30/2017)

See Public Reporting Statement and Instructions on back

Locality	Unit Type	Date (mm/dd/yyyy)
Hawaii Public Housing Authority	Duplex	05/01/2017

Utility or Service		Monthly Dollar Allowances					
		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR
Heating	a. Natural Gas						
	b. Bottle Gas						
	c. Oil / Electric						
	d. Coal / Other						
Cooking	a. Natural Gas	26	26	26	29	29	29
	b. Bottle Gas						
	c. Oil / Electric	19	19	19	23	23	23
	d. Coal / Other						
Other Electric		44	44	50	55	61	62
Air Conditioning							
Water Heating	a. Natural Gas	20	28	45	62	79	96
	b. Bottle Gas						
	c. Oil / Electric	11	21	42	64	85	106
(Solar)	d. Coal / Other	4	8	11	19	27	34
Water		18	23	36	45	58	67
Sewer		87	91	101	110	119	128
Trash Collection							
Range/Microwave		14	14	14	14	14	14
Refrigerator		21	21	21	21	21	21
Other -- specify							

Actual Family Allowances To be used by the family to compute allowance.
Complete below for the actual unit rented.

Name of Family

Address of Unit

Number of Bedrooms

Utility or Service	per month cost
Heating	$
Cooking	
Other Electric	
Air Conditioning	
Water Heating	
Water	
Sewer	
Trash Collection	
Range/Microwave	
Refrigerator	
Other	
Total	$

Allowances for Tenant-Furnished Utilities and Other Services

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0169
(exp. 09/30/2017)

See Public Reporting Statement and Instructions on back

Locality	Unit Type	Date (mm/dd/yyyy)
Hawaii Public Housing Authority	Townhouse	05/01/2017

Utility or Service		Monthly Dollar Allowances					
		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR
Heating	a. Natural Gas						
	b. Bottle Gas						
	c. Oil / Electric						
	d. Coal / Other						
Cooking	a. Natural Gas	26	26	26	29	29	29
	b. Bottle Gas						
	c. Oil / Electric	19	19	19	23	23	23
	d. Coal / Other						
Other Electric		44	45	50	56	61	62
Air Conditioning							
Water Heating	a. Natural Gas	20	28	45	62	79	96
	b. Bottle Gas						
	c. Oil / Electric	11	21	42	64	85	106
(Solar)	d. Coal / Other	4	8	11	19	27	34
Water		18	23	36	45	58	67
Sewer		87	91	101	110	119	128
Trash Collection							
Range/Microwave		14	14	14	14	14	14
Refrigerator		21	21	21	21	21	21
Other -- specify							

Actual Family Allowances To be used by the family to compute allowance.
Complete below for the actual unit rented.

Name of Family

Address of Unit

Number of Bedrooms

Utility or Service	per month cost
Heating	$
Cooking	
Other Electric	
Air Conditioning	
Water Heating	
Water	
Sewer	
Trash Collection	
Range/Microwave	
Refrigerator	
Other	
Total	$

Previous editions are obsolete

form **HUD-52667** (09/14)
ref. Handbook 7420.8

Allowances for Tenant-Furnished Utilities and Other Services

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0169
(exp. 09/30/2017)

See Public Reporting Statement and Instructions on back

Locality	Unit Type	Date (mm/dd/yyyy)
Hawaii Public Housing Authority	Lowrise	05/01/2017

Utility or Service		Monthly Dollar Allowances					
		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR
Heating	a. Natural Gas						
	b. Bottle Gas						
	c. Oil / Electric						
	d. Coal / Other						
Cooking	a. Natural Gas	26	26	26	29	29	29
	b. Bottle Gas						
	c. Oil / Electric	19	19	19	23	23	23
	d. Coal / Other						
Other Electric		44	44	49	55	61	61
Air Conditioning							
Water Heating	a. Natural Gas	20	28	45	62	79	96
	b. Bottle Gas						
	c. Oil / Electric	11	21	42	64	85	106
(Solar)	d. Coal / Other	4	8	11	19	27	34
Water		18	23	36	45	58	67
Sewer		87	91	101	110	119	128
Trash Collection							
Range/Microwave		14	14	14	14	14	14
Refrigerator		21	21	21	21	21	21
Other -- specify							

Actual Family Allowances To be used by the family to compute allowance.
Complete below for the actual unit rented.

Name of Family

Address of Unit

Number of Bedrooms

Utility or Service	per month cost
Heating	$
Cooking	
Other Electric	
Air Conditioning	
Water Heating	
Water	
Sewer	
Trash Collection	
Range/Microwave	
Refrigerator	
Other	
Total	$

Previous editions are obsolete

form **HUD-52667** (09/14)
ref. Handbook 7420.8

Allowances for Tenant-Furnished Utilities and Other Services

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0169
(exp. 09/30/2017)

See Public Reporting Statement and Instructions on back

Locality	Unit Type	Date (mm/dd/yyyy)
Hawaii Public Housing Authority	Highrise	05/01/2017

Utility or Service		Monthly Dollar Allowances					
		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR
Heating	a. Natural Gas						
	b. Bottle Gas						
	c. Oil / Electric						
	d. Coal / Other						
Cooking	a. Natural Gas	26	26	26	29	29	29
	b. Bottle Gas						
	c. Oil / Electric	19	19	19	23	23	23
	d. Coal / Other						
Other Electric		43	44	49	55	60	61
Air Conditioning							
Water Heating	a. Natural Gas	20	28	45	62	79	96
	b. Bottle Gas						
	c. Oil / Electric	11	21	42	64	85	106
(Solar)	d. Coal / Other	4	8	11	19	27	34
Water		18	23	36	45	58	67
Sewer		87	91	101	110	119	128
Trash Collection							
Range/Microwave		14	14	14	14	14	14
Refrigerator		21	21	21	21	21	21
Other -- specify							

Actual Family Allowances To be used by the family to compute allowance.
Complete below for the actual unit rented.

Name of Family

Address of Unit

Number of Bedrooms

Utility or Service	per month cost
Heating	$
Cooking	
Other Electric	
Air Conditioning	
Water Heating	
Water	
Sewer	
Trash Collection	
Range/Microwave	
Refrigerator	
Other	
Total	$

Electric/Water Allowance Detail

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Average Residential DSM Adjustments (per kWh)

Month	Amount	Month	Amount
January-16	$0.000348	July-16	$0.000811
February-16	$0.000348	August-16	$0.000811
March-16	$0.000348	September-16	$0.000811
April-16	$0.000811	October-16	$0.000811
May-16	$0.000811	November-16	$0.000811
June-16	$0.000811	December-16	$0.000811
Average Adjustment			**$0.000695**

Average Energy Cost Adjustment Factors (per kWh)

Month	Amount	Month	Amount
January-16	-$0.03748	July-16	-$0.03854
February-16	-$0.04637	August-16	-$0.03176
March-16	-$0.05498	September-16	-$0.03345
April-16	-$0.05393	October-16	-$0.03964
May-16	-$0.05527	November-16	-$0.03848
June-16	-$0.04651	December-16	-$0.03578
Average Adjustment			**-$0.04268**

IRP Cost Recovery Provision

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Rate Adjustment

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

Summary of Rate Schedule -- Schedule "R"

Monthly Customer Base Charge*:	$10.27
Non-Fuel Energy Charge**:	$0.089205
Base Fuel/Energy Charge:	$0.136062
IRP Cost Recovery Provision (Applies to Above 3 Charges):	0.000%
Rate Adjustment (Applies to Above 3 Charges):	0.000%
Average Residential DSM Adjustments:	$0.000695
Average Energy Cost Adjustment Factors:	-$0.04268
Public Benefits Surcharge/Avg Purch Power Adj/RBA Rate Adj/RE Surcharge:	$0.060532

* Includes Green Infrastructure Fee Surcharge
** Rate is a weighted average of the first and second tiers of the graduated schedule

2017 Utility Allowances

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Consumption Allowances (kWh per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic	Electric Cooking	Electric Water Heating	Solar Water Heating*	Total
0	32	56	50	138	78	43	16	274
1	34	56	50	139	78	87	31	335
2	36	76	50	162	78	174	47	460
3	43	92	50	185	95	261	78	619
4	45	113	50	208	95	348	110	760
5	47	114	50	211	95	434	141	882

*** Distribution by bedroom size based on number of occupants**

Cost Allowances ($ per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic**	Electric Cooking	Electric Water Heating	Solar Water Heating	Total
0	$7.85	$13.54	$12.19	$44	$19	$11	$4	$77
1	$8.23	$13.54	$12.19	$44	$19	$21	$8	$92
2	$8.81	$18.52	$12.19	$50	$19	$42	$11	$123
3	$10.45	$22.45	$12.19	$55	$23	$64	$19	$161
4	$11.03	$27.43	$12.19	$61	$23	$85	$27	$196
5	$11.51	$27.78	$12.19	$62	$23	$106	$34	$225

****Total Basic Includes Monthly Customer Base Charge. This is the amount for Other Electric.**

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	2	104	38
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **1**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	2	26	3	156	57
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **3**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	3	26	3	234	85
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	4	26	3	312	114
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **5**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	5	26	3	390	142
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **1**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	2	2	24.0	2.9	35
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **3**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	3	2	24.0	4.3	52
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	4	2	24.0	5.8	69
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Number of Bedrooms: **5**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	5	2	24.0	7.2	86
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

2017 Allowances for Medical Equipment

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Electric
Utility Provider: HECO

Description	Frequency	kWh/Year	kWh/Month	Monthly Dollar Allowance
Air Conditioner, window type, 10,000 BtuH unit	Continuously As Needed	2,750	229	$55.87
Oxygen Concentrator, 400W	18 Hrs/Day	2,628	219	$53.39
Nebulizer, 75W	2 Hrs/Day	60	5	$1.22
Electric Hospital Bed, 200W	.2 Hrs/Day	12	1	$0.24
Alternating Pressure Pad, 70W	24 Hrs/Day	612	51	$12.43
Low Air-Loss Mattress, 120W	24 Hrs/Day	1,056	88	$21.46
Power Wheelchair/ Scooter, 550W, Full-Time Use	4 Hrs/Day Charge Time	803	67	$16.32
Feeding Tube, 120W	12 Hrs/Day	526	44	$10.68
CPAP Machine, 30W	10 Hrs/Day	110	9	$2.22
Leg Pump, 14W	6 Hrs/Day	31	3	$0.62

Water and Sewer Allowance Calculation

Hawaii Public Housing Authority

Property Description: Single Family
Utility Type: Water/Sewer
Utility Provider: City/County of Honolulu

Standards Used in Calculating Water Usage				
Fixture/Use	**Gallons**	**Times**	**Frequency**	**Description**
Toilet	3.5	X	5	Flushes per Person per Day
Shower	15	X	1	Showers per Person per Day
Dishwasher	3	X	0.5	Dishloads per Person per Day
Laundry	8	X	0.2	Loads per Person per Day
Cooking	0.1	X	3	Meals per Person per Day
Handwashing	0.1	X	10	Handwashings per Person per Day
Other	5	X	1	Allowance per Person per Day

Calculation of Monthly Water Usage						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
# Occupants >>>	1	2	4	6	8	10
Toilet	17.5	35	70	105	140	175
Shower	15	30	60	90	120	150
Diswasher	1.5	3	6	9	12	15
Clothes	1.6	3.2	6.4	9.6	12.8	16
Cooking	0.3	0.6	1.2	1.8	2.4	3
Handwashing	1	2	4	6	8	10
Other	5	10	20	30	40	50
Gallons per Day	41.9	83.8	167.6	251.4	335.2	419
Gallons per Month	1274	2549	5098	7647	10196	12745
Water Billing Gallons	2000	3000	6000	8000	11000	13000
Sewer Billing Gallons*	2000	3000	5000	7000	9000	11000

Water Rate Schedule	
Base Charge	$9.26
Charge per 1000 Gals	$4.42

Sewer Rate Schedule	
Base Charge	$77.55
Charge per 1000 Gals	$4.63

Monthly Cost Allowances						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
Water Allowance	$18	$23	$36	$45	$58	$67
Sewer Allowance	$87	$91	$101	$110	$119	$128

*Actual consumption reduced by 20% for water irrigation factor

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Average Residential DSM Adjustments (per kWh)

Month	Amount	Month	Amount
January-16	$0.000348	July-16	$0.000811
February-16	$0.000348	August-16	$0.000811
March-16	$0.000348	September-16	$0.000811
April-16	$0.000811	October-16	$0.000811
May-16	$0.000811	November-16	$0.000811
June-16	$0.000811	December-16	$0.000811
Average Adjustment			**$0.000695**

Average Energy Cost Adjustment Factors (per kWh)

Month	Amount	Month	Amount
January-16	-$0.03748	July-16	-$0.03854
February-16	-$0.04637	August-16	-$0.03176
March-16	-$0.05498	September-16	-$0.03345
April-16	-$0.05393	October-16	-$0.03964
May-16	-$0.05527	November-16	-$0.03848
June-16	-$0.04651	December-16	-$0.03578
Average Adjustment			**-$0.04268**

IRP Cost Recovery Provision

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Rate Adjustment

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

Summary of Rate Schedule -- Schedule "R"

Monthly Customer Base Charge*:	$10.27
Non-Fuel Energy Charge**:	$0.089205
Base Fuel/Energy Charge:	$0.136062
IRP Cost Recovery Provision (Applies to Above 3 Charges):	0.000%
Rate Adjustment (Applies to Above 3 Charges):	0.000%
Average Residential DSM Adjustments:	$0.000695
Average Energy Cost Adjustment Factors:	-$0.04268
Public Benefits Surcharge/Avg Purch Power Adj/RBA Rate Adj/RE Surcharge:	$0.060532

* Includes Green Infrastructure Fee Surcharge
** Rate is a weighted average of the first and second tiers of the graduated schedule

2017 Utility Allowances

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Consumption Allowances (kWh per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic	Electric Cooking	Electric Water Heating	Solar Water Heating*	Total
0	32	56	50	138	78	43	16	274
1	34	56	50	139	78	87	31	335
2	36	76	50	162	78	174	47	460
3	43	92	50	185	95	261	78	619
4	45	113	50	208	95	348	110	760
5	47	114	50	211	95	434	141	882

*** Distribution by bedroom size based on number of occupants**

Cost Allowances ($ per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic**	Electric Cooking	Electric Water Heating	Solar Water Heating	Total
0	$7.85	$13.54	$12.19	$44	$19	$11	$4	$77
1	$8.23	$13.54	$12.19	$44	$19	$21	$8	$92
2	$8.81	$18.52	$12.19	$50	$19	$42	$11	$123
3	$10.45	$22.45	$12.19	$55	$23	$64	$19	$161
4	$11.03	$27.43	$12.19	$61	$23	$85	$27	$196
5	$11.51	$27.78	$12.19	$62	$23	$106	$34	$225

****Total Basic Includes Monthly Customer Base Charge. This is the amount for Other Electric.**

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	2	104	38
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **1**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	2	26	3	156	57
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **3**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	3	26	3	234	85
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	4	26	3	312	114
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **5**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	5	26	3	390	142
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **1**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	2	2	24.0	2.9	35
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **3**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	3	2	24.0	4.3	52
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	4	2	24.0	5.8	69
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Number of Bedrooms: **5**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	5	2	24.0	7.2	86
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

2017 Allowances for Medical Equipment

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Electric
Utility Provider: HECO

Description	Frequency	kWh/Year	kWh/Month	Monthly Dollar Allowance
Air Conditioner, window type, 10,000 BtuH unit	Continuously As Needed	2,750	229	$55.87
Oxygen Concentrator, 400W	18 Hrs/Day	2,628	219	$53.39
Nebulizer, 75W	2 Hrs/Day	60	5	$1.22
Electric Hospital Bed, 200W	.2 Hrs/Day	12	1	$0.24
Alternating Pressure Pad, 70W	24 Hrs/Day	612	51	$12.43
Low Air-Loss Mattress, 120W	24 Hrs/Day	1,056	88	$21.46
Power Wheelchair/ Scooter, 550W, Full-Time Use	4 Hrs/Day Charge Time	803	67	$16.32
Feeding Tube, 120W	12 Hrs/Day	526	44	$10.68
CPAP Machine, 30W	10 Hrs/Day	110	9	$2.22
Leg Pump, 14W	6 Hrs/Day	31	3	$0.62

Water and Sewer Allowance Calculation

Hawaii Public Housing Authority

Property Description: Duplex
Utility Type: Water/Sewer
Utility Provider: City/County of Honolulu

Standards Used in Calculating Water Usage				
Fixture/Use	**Gallons**	**Times**	**Frequency**	**Description**
Toilet	3.5	X	5	Flushes per Person per Day
Shower	15	X	1	Showers per Person per Day
Dishwasher	3	X	0.5	Dishloads per Person per Day
Laundry	8	X	0.2	Loads per Person per Day
Cooking	0.1	X	3	Meals per Person per Day
Handwashing	0.1	X	10	Handwashings per Person per Day
Other	5	X	1	Allowance per Person per Day

Calculation of Monthly Water Usage						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
# Occupants >>>	1	2	4	6	8	10
Toilet	17.5	35	70	105	140	175
Shower	15	30	60	90	120	150
Diswasher	1.5	3	6	9	12	15
Clothes	1.6	3.2	6.4	9.6	12.8	16
Cooking	0.3	0.6	1.2	1.8	2.4	3
Handwashing	1	2	4	6	8	10
Other	5	10	20	30	40	50
Gallons per Day	41.9	83.8	167.6	251.4	335.2	419
Gallons per Month	1274	2549	5098	7647	10196	12745
Water Billing Gallons	2000	3000	6000	8000	11000	13000
Sewer Billing Gallons*	2000	3000	5000	7000	9000	11000

Water Rate Schedule	
Base Charge	$9.26
Charge per 1000 Gals	$4.42

Sewer Rate Schedule	
Base Charge	$77.55
Charge per 1000 Gals	$4.63

Monthly Cost Allowances						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
Water Allowance	$18	$23	$36	$45	$58	$67
Sewer Allowance	$87	$91	$101	$110	$119	$128

*Actual consumption reduced by 20% for water irrigation factor

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Average Residential DSM Adjustments (per kWh)

Month	Amount	Month	Amount
January-16	$0.000348	July-16	$0.000811
February-16	$0.000348	August-16	$0.000811
March-16	$0.000348	September-16	$0.000811
April-16	$0.000811	October-16	$0.000811
May-16	$0.000811	November-16	$0.000811
June-16	$0.000811	December-16	$0.000811
Average Adjustment			**$0.000695**

Average Energy Cost Adjustment Factors (per kWh)

Month	Amount	Month	Amount
January-16	-$0.03748	July-16	-$0.03854
February-16	-$0.04637	August-16	-$0.03176
March-16	-$0.05498	September-16	-$0.03345
April-16	-$0.05393	October-16	-$0.03964
May-16	-$0.05527	November-16	-$0.03848
June-16	-$0.04651	December-16	-$0.03578
Average Adjustment			**-$0.04268**

IRP Cost Recovery Provision

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Rate Adjustment

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

Summary of Rate Schedule -- Schedule "R"

Monthly Customer Base Charge*:	$10.27
Non-Fuel Energy Charge**:	$0.089205
Base Fuel/Energy Charge:	$0.136062
IRP Cost Recovery Provision (Applies to Above 3 Charges):	0.000%
Rate Adjustment (Applies to Above 3 Charges):	0.000%
Average Residential DSM Adjustments:	$0.000695
Average Energy Cost Adjustment Factors:	-$0.04268
Public Benefits Surcharge/Avg Purch Power Adj/RBA Rate Adj/RE Surcharge:	$0.060532

* Includes Green Infrastructure Fee Surcharge
** Rate is a weighted average of the first and second tiers of the graduated schedule

2017 Utility Allowances

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Consumption Allowances (kWh per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic	Electric Cooking	Electric Water Heating	Solar Water Heating*	Total
0	33	56	50	139	78	43	16	275
1	35	56	50	140	78	87	31	336
2	37	76	50	163	78	174	47	462
3	44	92	50	186	95	261	78	620
4	46	113	50	209	95	348	110	761
5	48	114	50	212	95	434	141	883

*** Distribution by bedroom size based on number of occupants**

Cost Allowances ($ per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic**	Electric Cooking	Electric Water Heating	Solar Water Heating	Total
0	$8.14	$13.54	$12.19	$44	$19	$11	$4	$77
1	$8.52	$13.54	$12.19	$45	$19	$21	$8	$92
2	$9.10	$18.52	$12.19	$50	$19	$42	$11	$123
3	$10.74	$22.45	$12.19	$56	$23	$64	$19	$161
4	$11.32	$27.43	$12.19	$61	$23	$85	$27	$196
5	$11.80	$27.78	$12.19	$62	$23	$106	$34	$226

****Total Basic Includes Monthly Customer Base Charge. This is the amount for Other Electric.**

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	2	104	38
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **1**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 2

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	2	26	3	156	57
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: 3

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	3	26	3	234	85
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	4	26	3	312	114
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **5**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	2	13	3	78	28
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	5	26	3	390	142
Lamps	0	0	4	0	0
Hall/Stairs	4	13	3	156	57
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **1**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 2

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	2	2	24.0	2.9	35
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: 3

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	3	2	24.0	4.3	52
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 4

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	4	2	24.0	5.8	69
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Number of Bedrooms: 5

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	5	2	24.0	7.2	86
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

2017 Allowances for Medical Equipment

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Electric
Utility Provider: HECO

Description	Frequency	kWh/Year	kWh/Month	Monthly Dollar Allowance
Air Conditioner, window type, 10,000 BtuH unit	Continuously As Needed	2,750	229	$55.87
Oxygen Concentrator, 400W	18 Hrs/Day	2,628	219	$53.39
Nebulizer, 75W	2 Hrs/Day	60	5	$1.22
Electric Hospital Bed, 200W	.2 Hrs/Day	12	1	$0.24
Alternating Pressure Pad, 70W	24 Hrs/Day	612	51	$12.43
Low Air-Loss Mattress, 120W	24 Hrs/Day	1,056	88	$21.46
Power Wheelchair/ Scooter, 550W, Full-Time Use	4 Hrs/Day Charge Time	803	67	$16.32
Feeding Tube, 120W	12 Hrs/Day	526	44	$10.68
CPAP Machine, 30W	10 Hrs/Day	110	9	$2.22
Leg Pump, 14W	6 Hrs/Day	31	3	$0.62

Water and Sewer Allowance Calculation

Hawaii Public Housing Authority

Property Description: Townhouse
Utility Type: Water/Sewer
Utility Provider: City/County of Honolulu

Standards Used in Calculating Water Usage				
Fixture/Use	**Gallons**	**Times**	**Frequency**	**Description**
Toilet	3.5	X	5	Flushes per Person per Day
Shower	15	X	1	Showers per Person per Day
Dishwasher	3	X	0.5	Dishloads per Person per Day
Laundry	8	X	0.2	Loads per Person per Day
Cooking	0.1	X	3	Meals per Person per Day
Handwashing	0.1	X	10	Handwashings per Person per Day
Other	5	X	1	Allowance per Person per Day

Calculation of Monthly Water Usage						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
# Occupants >>>	1	2	4	6	8	10
Toilet	17.5	35	70	105	140	175
Shower	15	30	60	90	120	150
Diswasher	1.5	3	6	9	12	15
Clothes	1.6	3.2	6.4	9.6	12.8	16
Cooking	0.3	0.6	1.2	1.8	2.4	3
Handwashing	1	2	4	6	8	10
Other	5	10	20	30	40	50
Gallons per Day	41.9	83.8	167.6	251.4	335.2	419
Gallons per Month	1274	2549	5098	7647	10196	12745
Water Billing Gallons	2000	3000	6000	8000	11000	13000
Sewer Billing Gallons*	2000	3000	5000	7000	9000	11000

Water Rate Schedule	
Base Charge	$9.26
Charge per 1000 Gals	$4.42

Sewer Rate Schedule	
Base Charge	$77.55
Charge per 1000 Gals	$4.63

Monthly Cost Allowances						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
Water Allowance	$18	$23	$36	$45	$58	$67
Sewer Allowance	$87	$91	$101	$110	$119	$128

*Actual consumption reduced by 20% for water irrigation factor

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Average Residential DSM Adjustments (per kWh)

Month	Amount	Month	Amount
January-16	$0.000348	July-16	$0.000811
February-16	$0.000348	August-16	$0.000811
March-16	$0.000348	September-16	$0.000811
April-16	$0.000811	October-16	$0.000811
May-16	$0.000811	November-16	$0.000811
June-16	$0.000811	December-16	$0.000811
Average Adjustment			**$0.000695**

Average Energy Cost Adjustment Factors (per kWh)

Month	Amount	Month	Amount
January-16	-$0.03748	July-16	-$0.03854
February-16	-$0.04637	August-16	-$0.03176
March-16	-$0.05498	September-16	-$0.03345
April-16	-$0.05393	October-16	-$0.03964
May-16	-$0.05527	November-16	-$0.03848
June-16	-$0.04651	December-16	-$0.03578
Average Adjustment			**-$0.04268**

IRP Cost Recovery Provision

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Rate Adjustment

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

Summary of Rate Schedule -- Schedule "R"

Monthly Customer Base Charge*:	$10.27
Non-Fuel Energy Charge**:	$0.089205
Base Fuel/Energy Charge:	$0.136062
IRP Cost Recovery Provision (Applies to Above 3 Charges):	0.000%
Rate Adjustment (Applies to Above 3 Charges):	0.000%
Average Residential DSM Adjustments:	$0.000695
Average Energy Cost Adjustment Factors:	-$0.04268
Public Benefits Surcharge/Avg Purch Power Adj/RBA Rate Adj/RE Surcharge:	$0.060532

* Includes Green Infrastructure Fee Surcharge
** Rate is a weighted average of the first and second tiers of the graduated schedule

2017 Utility Allowances

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Consumption Allowances (kWh per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic	Electric Cooking	Electric Water Heating	Solar Water Heating*	Total
0	31	56	50	137	78	43	16	273
1	33	56	50	138	78	87	31	334
2	35	76	50	161	78	174	47	459
3	42	92	50	184	95	261	78	618
4	44	113	50	207	95	348	110	759
5	46	114	50	210	95	434	141	881

*** Distribution by bedroom size based on number of occupants**

Cost Allowances ($ per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic**	Electric Cooking	Electric Water Heating	Solar Water Heating	Total
0	$7.56	$13.54	$12.19	$44	$19	$11	$4	$77
1	$7.94	$13.54	$12.19	$44	$19	$21	$8	$92
2	$8.52	$18.52	$12.19	$49	$19	$42	$11	$122
3	$10.16	$22.45	$12.19	$55	$23	$64	$19	$161
4	$10.74	$27.43	$12.19	$61	$23	$85	$27	$195
5	$11.22	$27.78	$12.19	$61	$23	$106	$34	$225

****Total Basic Includes Monthly Customer Base Charge. This is the amount for Other Electric.**

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	2	104	38
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **1**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	2	26	3	156	57
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **3**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	3	26	3	234	85
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	4	26	3	312	114
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **5**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	1	13	3	39	14
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	5	26	3	390	142
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **1**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 2

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	2	2	24.0	2.9	35
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: 3

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	3	2	24.0	4.3	52
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	4	2	24.0	5.8	69
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Number of Bedrooms: **5**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	5	2	24.0	7.2	86
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

2017 Allowances for Medical Equipment

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Electric
Utility Provider: HECO

Description	Frequency	kWh/Year	kWh/Month	Monthly Dollar Allowance
Air Conditioner, window type, 10,000 BtuH unit	Continuously As Needed	2,750	229	$55.87
Oxygen Concentrator, 400W	18 Hrs/Day	2,628	219	$53.39
Nebulizer, 75W	2 Hrs/Day	60	5	$1.22
Electric Hospital Bed, 200W	.2 Hrs/Day	12	1	$0.24
Alternating Pressure Pad, 70W	24 Hrs/Day	612	51	$12.43
Low Air-Loss Mattress, 120W	24 Hrs/Day	1,056	88	$21.46
Power Wheelchair/ Scooter, 550W, Full-Time Use	4 Hrs/Day Charge Time	803	67	$16.32
Feeding Tube, 120W	12 Hrs/Day	526	44	$10.68
CPAP Machine, 30W	10 Hrs/Day	110	9	$2.22
Leg Pump, 14W	6 Hrs/Day	31	3	$0.62

Water and Sewer Allowance Calculation

Hawaii Public Housing Authority

Property Description: Lowrise
Utility Type: Water/Sewer
Utility Provider: City/County of Honolulu

Standards Used in Calculating Water Usage				
Fixture/Use	**Gallons**	**Times**	**Frequency**	**Description**
Toilet	3.5	X	5	Flushes per Person per Day
Shower	15	X	1	Showers per Person per Day
Dishwasher	3	X	0.5	Dishloads per Person per Day
Laundry	8	X	0.2	Loads per Person per Day
Cooking	0.1	X	3	Meals per Person per Day
Handwashing	0.1	X	10	Handwashings per Person per Day
Other	5	X	1	Allowance per Person per Day

Calculation of Monthly Water Usage						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
# Occupants >>>	1	2	4	6	8	10
Toilet	17.5	35	70	105	140	175
Shower	15	30	60	90	120	150
Diswasher	1.5	3	6	9	12	15
Clothes	1.6	3.2	6.4	9.6	12.8	16
Cooking	0.3	0.6	1.2	1.8	2.4	3
Handwashing	1	2	4	6	8	10
Other	5	10	20	30	40	50
Gallons per Day	41.9	83.8	167.6	251.4	335.2	419
Gallons per Month	1274	2549	5098	7647	10196	12745
Water Billing Gallons	2000	3000	6000	8000	11000	13000
Sewer Billing Gallons*	2000	3000	5000	7000	9000	11000

Water Rate Schedule	
Base Charge	$9.26
Charge per 1000 Gals	$4.42

Sewer Rate Schedule	
Base Charge	$77.55
Charge per 1000 Gals	$4.63

Monthly Cost Allowances						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
Water Allowance	$18	$23	$36	$45	$58	$67
Sewer Allowance	$87	$91	$101	$110	$119	$128

*Actual consumption reduced by 20% for water irrigation factor

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Average Residential DSM Adjustments (per kWh)

Month	Amount	Month	Amount
January-16	$0.000348	July-16	$0.000811
February-16	$0.000348	August-16	$0.000811
March-16	$0.000348	September-16	$0.000811
April-16	$0.000811	October-16	$0.000811
May-16	$0.000811	November-16	$0.000811
June-16	$0.000811	December-16	$0.000811
Average Adjustment			**$0.000695**

Average Energy Cost Adjustment Factors (per kWh)

Month	Amount	Month	Amount
January-16	-$0.03748	July-16	-$0.03854
February-16	-$0.04637	August-16	-$0.03176
March-16	-$0.05498	September-16	-$0.03345
April-16	-$0.05393	October-16	-$0.03964
May-16	-$0.05527	November-16	-$0.03848
June-16	-$0.04651	December-16	-$0.03578
Average Adjustment			**-$0.04268**

IRP Cost Recovery Provision

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Rate Adjustment

Month	Amount	Month	Amount
January-16	0.000%	July-16	0.000%
February-16	0.000%	August-16	0.000%
March-16	0.000%	September-16	0.000%
April-16	0.000%	October-16	0.000%
May-16	0.000%	November-16	0.000%
June-16	0.000%	December-16	0.000%
Average Adjustment			**0.000%**

Summary of Rate Schedule -- Schedule "R"

Monthly Customer Base Charge*:	$10.27
Non-Fuel Energy Charge**:	$0.089205
Base Fuel/Energy Charge:	$0.136062
IRP Cost Recovery Provision (Applies to Above 3 Charges):	0.000%
Rate Adjustment (Applies to Above 3 Charges):	0.000%
Average Residential DSM Adjustments:	$0.000695
Average Energy Cost Adjustment Factors:	-$0.04268
Public Benefits Surcharge/Avg Purch Power Adj/RBA Rate Adj/RE Surcharge:	$0.060532

* Includes Green Infrastructure Fee Surcharge
** Rate is a weighted average of the first and second tiers of the graduated schedule

2017 Utility Allowances

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Consumption Allowances (kWh per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic	Electric Cooking	Electric Water Heating	Solar Water Heating*	Total
0	30	56	50	135	78	43	16	272
1	31	56	50	137	78	87	31	332
2	34	76	50	160	78	174	47	458
3	40	92	50	183	95	261	78	616
4	43	113	50	205	95	348	110	758
5	45	114	50	209	95	434	141	879

*** Distribution by bedroom size based on number of occupants**

Cost Allowances ($ per Month)

Bedroom Size	Lights	Misc.	Refrig.	Total Basic**	Electric Cooking	Electric Water Heating	Solar Water Heating	Total
0	$7.27	$13.54	$12.19	$43	$19	$11	$4	$77
1	$7.65	$13.54	$12.19	$44	$19	$21	$8	$91
2	$8.23	$18.52	$12.19	$49	$19	$42	$11	$122
3	$9.87	$22.45	$12.19	$55	$23	$64	$19	$161
4	$10.45	$27.43	$12.19	$60	$23	$85	$27	$195
5	$10.93	$27.78	$12.19	$61	$23	$106	$34	$225

****Total Basic Includes Monthly Customer Base Charge. This is the amount for Other Electric.**

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	2	104	38
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **1**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	1	26	3	78	28
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **2**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	0	0	2	0	0
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	2	26	3	156	57
Lamps	0	0	4	0	0
Hall/Stairs	1	13	3	39	14
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **3**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	3	26	3	234	85
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Lighting Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **4**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	4	208	76
Bedroom	4	26	3	312	114
Lamps	0	0	4	0	0
Hall/Stairs	2	13	3	78	28
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Number of Bedrooms: **5**

Area Description	Number of Fixtures	Watts per Fixture	Hours per Day	Watts per Day	kWh per Year
Porches	0	0	3	0	0
Living Room	1	39	5	195	71
Dining Room	1	26	2	52	19
Kitchen	1	128	4	512	187
Pantry	1	13	2	26	9
Bathroom	1	52	3	156	57
Bedroom	5	26	3	390	142
Lamps	0	0	4	0	0
Hall/Stairs	3	13	3	117	43
Closet	1	13	1	13	5
Utility	0	0	1	0	0
Storage	1	13	1	13	5

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: **0**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: **1**

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	1	2	24.0	1.4	17
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	1	60	4.0	7.2	86
Hair Dryer	1	1200	0.1	3.0	36
Iron	1	1100	0.1	4.7	57
Microwave Oven	1	800	0.2	4.1	49
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 2

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	2	2	24.0	2.9	35
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	1	15	6.0	2.7	32
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	1	100	4.0	12.0	144

Number of Bedrooms: 3

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	3	2	24.0	4.3	52
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	2	60	4.0	14.4	173
Hair Dryer	2	1200	0.1	6.0	72
Iron	1	1100	0.3	9.4	113
Microwave Oven	1	800	0.3	8.2	98
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Miscellaneous Small Appliance Usage Tables

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Number of Bedrooms: 4

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	4	2	24.0	5.8	69
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

Number of Bedrooms: 5

Area Description	Number of Appliances	Watts per Appliance	Hours per Day	kWh per Month	kWh per Year
Clocks	5	2	24.0	7.2	86
Coffee Maker	1	1000	0.2	5.1	61
Computer, Desktop	1	65	2.0	3.9	47
Computer Monitor, 15"	1	35	4.0	4.2	50
Fan	3	60	4.0	21.6	259
Hair Dryer	3	1200	0.1	9.0	108
Iron	1	1100	0.4	14.2	170
Microwave Oven	1	800	0.5	12.2	147
Radio	2	15	6.0	5.4	65
Smoke Detector	2	2	24.0	2.9	35
Telephone	1	6	24.0	4.3	52
Television	2	100	4.0	24.0	288

2017 Allowances for Medical Equipment

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Electric
Utility Provider: HECO

Description	Frequency	kWh/Year	kWh/Month	Monthly Dollar Allowance
Air Conditioner, window type, 10,000 BtuH unit	Continuously As Needed	2,750	229	$55.87
Oxygen Concentrator, 400W	18 Hrs/Day	2,628	219	$53.39
Nebulizer, 75W	2 Hrs/Day	60	5	$1.22
Electric Hospital Bed, 200W	.2 Hrs/Day	12	1	$0.24
Alternating Pressure Pad, 70W	24 Hrs/Day	612	51	$12.43
Low Air-Loss Mattress, 120W	24 Hrs/Day	1,056	88	$21.46
Power Wheelchair/ Scooter, 550W, Full-Time Use	4 Hrs/Day Charge Time	803	67	$16.32
Feeding Tube, 120W	12 Hrs/Day	526	44	$10.68
CPAP Machine, 30W	10 Hrs/Day	110	9	$2.22
Leg Pump, 14W	6 Hrs/Day	31	3	$0.62

Water and Sewer Allowance Calculation

Hawaii Public Housing Authority

Property Description: Highrise
Utility Type: Water/Sewer
Utility Provider: City/County of Honolulu

Standards Used in Calculating Water Usage				
Fixture/Use	**Gallons**	**Times**	**Frequency**	**Description**
Toilet	3.5	X	5	Flushes per Person per Day
Shower	15	X	1	Showers per Person per Day
Dishwasher	3	X	0.5	Dishloads per Person per Day
Laundry	8	X	0.2	Loads per Person per Day
Cooking	0.1	X	3	Meals per Person per Day
Handwashing	0.1	X	10	Handwashings per Person per Day
Other	5	X	1	Allowance per Person per Day

Calculation of Monthly Water Usage						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
# Occupants >>>	1	2	4	6	8	10
Toilet	17.5	35	70	105	140	175
Shower	15	30	60	90	120	150
Diswasher	1.5	3	6	9	12	15
Clothes	1.6	3.2	6.4	9.6	12.8	16
Cooking	0.3	0.6	1.2	1.8	2.4	3
Handwashing	1	2	4	6	8	10
Other	5	10	20	30	40	50
Gallons per Day	41.9	83.8	167.6	251.4	335.2	419
Gallons per Month	1274	2549	5098	7647	10196	12745
Water Billing Gallons	2000	3000	6000	8000	11000	13000
Sewer Billing Gallons*	2000	3000	5000	7000	9000	11000

Water Rate Schedule	
Base Charge	$9.26
Charge per 1000 Gals	$4.42

Sewer Rate Schedule	
Base Charge	$77.55
Charge per 1000 Gals	$4.63

Monthly Cost Allowances						
Bedroom Size >>>	**0**	**1**	**2**	**3**	**4**	**5**
Water Allowance	$18	$23	$36	$45	$58	$67
Sewer Allowance	$87	$91	$101	$110	$119	$128

*Actual consumption reduced by 20% for water irrigation factor

Natural Gas Allowance Detail

2017 Rate Calculation Form

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Single Family

Fuel Adjustment Cost (FAC) (per Therm)

Month	Amount	Month	Amount
January-17	-$0.3449	July-17	-$0.0068
February-17	-$0.5661	August-17	-$0.3303
March-17	-$0.7012	September-17	-$0.2882
April-17	-$0.3588	October-17	-$0.2720
May-17	-$0.2680	November-17	-$0.1279
June-17	-$0.0933	December-17	-$0.5497
Average Adjustment			**-$0.3256**

Summary of Rate Schedule -- Schedule 20 - Residential

Monthly Customer Base Charge:	$8.50
Commodity Charge -- All Therms	$3.8871
Average Fuel Adjustment Cost:	-$0.3256
Applicable Tax Rate	4.712%

2017 Utility Allowances

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Single Family

Consumption Allowances (Therms per Month)

Bedroom Size	Cooking	Individual Water Heating	Total
0	4.50	5.25	9.75
1	4.50	7.50	12.00
2	4.50	12.00	16.50
3	5.50	16.58	22.08
4	5.50	21.08	26.58
5	5.50	25.67	31.17

Cost Allowances ($ per Month)

Bedroom Size	Cooking*	Individual Water Heating	Total
0	$26	$20	$45
1	$26	$28	$54
2	$26	$45	$70
3	$29	$62	$91
4	$29	$79	$108
5	$29	$96	$125

***Total Basic Includes Monthly Customer Base Charge**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Duplex

Fuel Adjustment Cost (FAC) (per Therm)

Month	Amount	Month	Amount
January-16	-$0.3449	July-16	-$0.0068
February-16	-$0.5661	August-16	-$0.3303
March-16	-$0.7012	September-16	-$0.2882
April-16	-$0.3588	October-16	-$0.2720
May-16	-$0.2680	November-16	-$0.1279
June-16	-$0.0933	December-16	-$0.5497
Average Adjustment			**-$0.3256**

Summary of Rate Schedule -- Schedule 20 - Residential

Monthly Customer Base Charge:	$8.50
Commodity Charge -- All Therms	$3.8871
Average Fuel Adjustment Cost:	-$0.3256
Applicable Tax Rate	4.712%

2017 Utility Allowances

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Duplex

Consumption Allowances (Therms per Month)

Bedroom Size	Cooking	Individual Water Heating	Total
0	4.50	5.25	9.75
1	4.50	7.50	12.00
2	4.50	12.00	16.50
3	5.50	16.58	22.08
4	5.50	21.08	26.58
5	5.50	25.67	31.17

Cost Allowances ($ per Month)

Bedroom Size	Cooking*	Individual Water Heating	Total
0	$26	$20	$45
1	$26	$28	$54
2	$26	$45	$70
3	$29	$62	$91
4	$29	$79	$108
5	$29	$96	$125

***Total Basic Includes Monthly Customer Base Charge**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Townhouse

Fuel Adjustment Cost (FAC) (per Therm)

Month	Amount	Month	Amount
January-17	-$0.3449	July-17	-$0.0068
February-17	-$0.5661	August-17	-$0.3303
March-17	-$0.7012	September-17	-$0.2882
April-17	-$0.3588	October-17	-$0.2720
May-17	-$0.2680	November-17	-$0.1279
June-17	-$0.0933	December-17	-$0.5497
Average Adjustment			**-$0.3256**

Summary of Rate Schedule -- Schedule 20 - Residential

Monthly Customer Base Charge:	$8.50
Commodity Charge -- All Therms	$3.8871
Average Fuel Adjustment Cost:	-$0.3256
Applicable Tax Rate	4.712%

2017 Utility Allowances

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Townhouse

Consumption Allowances (Therms per Month)

Bedroom Size	Cooking	Individual Water Heating	Total
0	4.50	5.25	9.75
1	4.50	7.50	12.00
2	4.50	12.00	16.50
3	5.50	16.58	22.08
4	5.50	21.08	26.58
5	5.50	25.67	31.17

Cost Allowances ($ per Month)

Bedroom Size	Cooking*	Individual Water Heating	Total
0	$26	$20	$45
1	$26	$28	$54
2	$26	$45	$70
3	$29	$62	$91
4	$29	$79	$108
5	$29	$96	$125

***Total Basic Includes Monthly Customer Base Charge**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Lowrise

Fuel Adjustment Cost (FAC) (per Therm)

Month	Amount	Month	Amount
January-17	-$0.3449	July-17	-$0.0068
February-17	-$0.5661	August-17	-$0.3303
March-17	-$0.7012	September-17	-$0.2882
April-17	-$0.3588	October-17	-$0.2720
May-17	-$0.2680	November-17	-$0.1279
June-17	-$0.0933	December-17	-$0.5497
Average Adjustment			**-$0.3256**

Summary of Rate Schedule -- Schedule 20 - Residential

Monthly Customer Base Charge:	$8.50
Commodity Charge -- All Therms	$3.8871
Average Fuel Adjustment Cost:	-$0.3256
Applicable Tax Rate	4.712%

2017 Utility Allowances

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Lowrise

Consumption Allowances (Therms per Month)

Bedroom Size	Cooking	Individual Water Heating	Total
0	4.50	5.25	9.75
1	4.50	7.50	12.00
2	4.50	12.00	16.50
3	5.50	16.58	22.08
4	5.50	21.08	26.58
5	5.50	25.67	31.17

Cost Allowances ($ per Month)

Bedroom Size	Cooking*	Individual Water Heating	Total
0	$26	$20	$45
1	$26	$28	$54
2	$26	$45	$70
3	$29	$62	$91
4	$29	$79	$108
5	$29	$96	$125

***Total Basic Includes Monthly Customer Base Charge**

2017 Rate Calculation Form

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Highrise

Fuel Adjustment Cost (FAC) (per Therm)

Month	Amount	Month	Amount
January-16	-$0.3449	July-16	-$0.0068
February-16	-$0.5661	August-16	-$0.3303
March-16	-$0.7012	September-16	-$0.2882
April-16	-$0.3588	October-16	-$0.2720
May-16	-$0.2680	November-16	-$0.1279
June-16	-$0.0933	December-16	-$0.5497
Average Adjustment			**-$0.3256**

Summary of Rate Schedule -- Schedule 20 - Residential

Monthly Customer Base Charge:	$8.50
Commodity Charge -- All Therms	$3.8871
Average Fuel Adjustment Cost:	-$0.3256
Applicable Tax Rate	4.712%

2017 Utility Allowances

Hawaii Public Housing Authority

Utility Type: LP -- Utility
Property Description: Highrise

Consumption Allowances (Therms per Month)

Bedroom Size	Cooking	Individual Water Heating	Total
0	4.50	5.25	9.75
1	4.50	7.50	12.00
2	4.50	12.00	16.50
3	5.50	16.58	22.08
4	5.50	21.08	26.58
5	5.50	25.67	31.17

Cost Allowances ($ per Month)

Bedroom Size	Cooking*	Individual Water Heating	Total
0	$26	$20	$45
1	$26	$28	$54
2	$26	$45	$70
3	$29	$62	$91
4	$29	$79	$108
5	$29	$96	$125

***Total Basic Includes Monthly Customer Base Charge**