

ENERGY COST RECOVERY CLAUSE

Applicable To

- Schedule R - Residential Service
- Schedule G - General Service - Non-Demand
- Schedule J - General Service - Demand
- Schedule DS - Large Power Directly Served Service
- Schedule P - Large Power Service
- Schedule F - Public Street Lighting, Highway
Lighting and Park and Playground
Floodlighting
- Schedule U - Time-of-Use Service
- Schedule TOU-R - Residential Time-of-Use Service
- Schedule TOU-G - Small Commercial Time-of-Use Service
- Schedule TOU-J - Commercial Time-of-Use Service
- Schedule TOU-P - Large Time-of-Use Service
- Schedule SS - Standby Service
- Schedule TOU EV- Residential Time-of-Use Service with
Electric Vehicle
- Schedule EV-F - Commercial Public Electric Vehicle
Charging Facility Service Pilot
- Schedule TOU-RI- Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules are applicable, except that the Monthly Energy Cost Recovery Factor described below will be multiplied by the billed kWh and added to the customer bill.

All base rate schedule discounts, surcharges, and all other adjustments will not apply to the Energy Cost Recovery Clause.

The Energy Cost Recovery Clause shall be consistent with the terms of fuel contracts, distributed generation contracts, and purchased energy contracts. Changes to the Energy Cost Recovery Clause may be proposed by application to the Commission.

Monthly Energy Cost Recovery Factor

The Monthly Energy Cost Recovery Factor shall be the sum of the Company-owned Major Energy Factor, the Company-owned Minor Energy Factor, the Purchased Energy Factor, the Non-Adjustable Component, and the Fossil Fuel Cost Risk Sharing Component.

The Monthly Energy Cost Recovery Factor shall normally be effective on the 1st day of the month. When a customer's billing period includes more than one applicable Monthly Energy Cost Recovery Factor, each Monthly Energy Cost Recovery Factor will be prorated to the customer bill for the number of days each factor was in effect.

COMPANY-OWNED MAJOR ENERGY FACTOR - The Company-owned Major Energy Factor shall be determined by the current composite cost of fuel for Major Energy, in cents per million Btu, weighted by the proportion of current Company-owned Major Energy generation to total system net energy, multiplied by the 2017 Test Year efficiency factor of 0.011165 million Btu per kWh, and adjusted for revenue taxes.

HAWAIIAN ELECTRIC COMPANY, INC.

Energy Cost Recovery Clause - (continued)

COMPANY-OWNED MINOR ENERGY FACTOR - The Company-owned Minor Energy Factor shall be the current composite cost of Minor Energy, in cents per kWh, weighted by the proportion of current Company-owned Minor Energy generation to total system net energy, adjusted to the sales delivery level and adjusted for revenue taxes. Company-generated energy from non-fuel sources shall be considered as zero cost per kWh in the determination of the composite cost of Minor Energy.

PURCHASED ENERGY FACTOR - The Purchased Energy Factor shall be the current composite cost of Purchased Energy, in cents per kWh, weighted by the proportion of current Purchased Energy to total system net energy, adjusted to the sales delivery level and adjusted for revenue taxes. The Company shall also show the composite cost of fossil fuel purchased energy and the composite cost of renewable purchased energy that comprise the composite cost of purchased energy.

NON-ADJUSTABLE COMPONENT - The Non-Adjustable Component is the fuel handling expense per kWh established in the Company's rate case, adjusted for revenue taxes. The Non-Adjustable Component is excluded from the Reconciliation Adjustment described below.

FOSSIL FUEL COST RISK SHARING COMPONENT - The Monthly Fossil Fuel Cost Risk Sharing Component shall equal 2% of the difference of the Monthly Fossil Cost for all fossil fuel types less the Monthly Base Fossil Recovery Target for all fossil fuel types, divided by the forecast sales for the month, multiplied by negative one (-1), and adjusted for revenue taxes. The year-to-date sum of the Monthly Fossil Fuel Cost Risk Sharing Components shall be subject to a calendar year maximum of ±\$2,500,000.

The Monthly Fossil Cost for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the forecasted cost per million Btu for that fossil fuel type.

The Monthly Base Fossil Recovery Target for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the Fossil Fuel Baseline Cost for that fossil fuel type.

The Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year, provided that if actual fossil fuel costs in the first applicable month of the year are not yet known, forecasted fossil fuel costs may be used in the above calculation, and provided that if actual million Btu in the first applicable month of the year are not yet known, forecasted million Btu may be used in the above calculation. The first applicable month shall be January of each year.

HAWAIIAN ELECTRIC COMPANY, INC.

Energy Cost Recovery Clause -(continued)

Revenue taxes shall be calculated using current rates of the Franchise Tax, Public Service Company tax, and Public Utility Commission Fee.

TARGET HEAT RATES AND DEADBANDS

Target Heat Rates:

1. The target heat rate for low sulfur fuel oil (LSFO) shall be 0.011165 million Btu per kWh. There is no target heat rate for diesel fuel or for biodiesel fuel. The target heat rate for other company generation sources in the Major Energy Component shall be 0.011165 million Btu per kWh. The overall target heat rate in the Major Energy Component shall be the weighted average efficiency factor of all sources.
2. The target sales heat rate for LSFO may be reestablished each calendar year, beginning at January 1, 2019. If the prior year's actual sales heat rate is greater than or equal to the established target sales heat rate in place at the end of the prior calendar year, the target sales heat rate for LSFO remains unchanged. If the prior year's actual sales heat rate is less than the established target sales heat rate in place at the end of the prior calendar year, the target sales heat rate in place at the end of the prior calendar year shall be reduced by one-half of the difference between the prior year's actual sales heat rate and the established target sales heat rate in place at the end of the prior calendar year.

Deadbands:

3. Application of the Deadbands
 - a. The deadband shall be applied around its respective target heat rate for each fuel type where a target heat rate has been established. The deadband shall be ± 125 Btu/kWh-sales for low sulfur fuel oil (LSFO).
 - b. If target heat rates are modified, the deadband levels described in Sections 3.a above shall apply around the modified target heat rate.

Modifications to Target Heat Rates and Deadbands:

4. Modifications to target heat rates and/or deadbands may be determined in a rate case.
5. Modifications to target heat rates and/or deadbands may be made outside of a rate case proceeding by application by the Company or the Consumer Advocate, or by an investigation by the Commission on its own motion.
 - a. An applicant must make a separate request to the Commission, and provide appropriate justification and support.

HAWAIIAN ELECTRIC COMPANY, INC.

Energy Cost Recovery Clause - (continued)

1. Sufficient basis for justification of a change in target heat rate and/or deadband may include but not be limited to the following:

- a. Addition or retirement of non-utility firm or non-utility non-firm renewable resources (such as wind or photovoltaics) from which the utility will purchase capacity and/or energy under a Power Purchase Agreement that exceed 20 MW;
- b. Addition or retirement of utility firm and non-firm renewable resources (such as wind or photovoltaics) that exceed 20 MW. Modifications to the target heat rate and/or deadband may be determined as part of the application for approval to expend funds (in accordance with General Order No. 7) for the resource that would cause the change;
- c. Additions, retirements or modifications to the generating systems, or modifications to the generating system operating procedures, that are expected to increase or decrease the target heat rates by more than the deadband amount; or
- d. The recorded heat rate is outside of the deadband around the target heat rate and is expected to remain outside of the deadband.

- b. Any proposed modifications to target heat rates and/or deadbands under this provision shall not take effect until approved by the Commission.

YEAR-TO-DATE FOSSIL FUEL COST RISK SHARING ADJUSTMENT

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be subject to an annual maximum of ±\$2,500,000 in aggregate across all company-generation fossil fuel types subject to fossil fuel cost risk sharing. This section shall take effect as of January 1, 2019, and the Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be included in the Reconciliation Adjustment, beginning with the Reconciliation Adjustment for the First Quarter of 2019.

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be excluded from the determination of Earnings Sharing Revenue Credits provided for in the Rate Adjustment Mechanism Provision.

HAWAIIAN ELECTRIC COMPANY, INC.

Energy Cost Recovery Clause - (continued)

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall equal 2% of the difference between the sum of the Year-To-Date Fuel Filing Cost Recovery Amount across all fossil fuel types and the sum of the Year-To-Date Base Cost Recovery Target across all fossil fuel types.

If a fossil fuel type has a target heat rate, the Year-To-Date Fuel Filing Cost Recovery Amount for that fossil fuel type shall be the sum of the Eligible Revenue for Major Energy Cost for all months, as determined in the Reconciliation Adjustment section below. If a fossil fuel type does not have a target heat rate, the Year-To-Date Fuel Filing Cost Recovery Amount for that fossil fuel type shall be the Eligible Revenue for Minor Energy Cost for all months, as determined in the Reconciliation Adjustment section below.

If a fossil fuel type has a target heat rate, the Year-To-Date Base Cost Recovery Target for that fossil fuel type shall equal the applicable target heat rate, multiplied by the sales kWh for that fossil fuel type, multiplied by the Reconciliation Fossil Fuel Baseline Cost for that fossil fuel type.

If a fossil fuel type does not have a target heat rate, the Year-To-Date Base Cost Recovery Target for that fossil fuel type shall equal the Year-To-Date million Btu for that fossil fuel type multiplied by the Reconciliation Fossil Fuel Baseline Cost for that fossil fuel type.

The Reconciliation Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year.

Energy Cost Recovery Clause - (continued)

RECONCILIATION ADJUSTMENT

In order to reconcile any differences that may occur between recorded revenue and eligible revenue from the Energy Cost Recovery Clause, the year-to-date recorded revenue from the Energy Cost Recovery Clause will be compared with the year-to-date eligible revenue from the Energy Cost Recovery Clause on a quarterly basis. If there is a variance between the year-to-date recorded revenue from the Energy Cost Recovery Clause and the year-to-date eligible revenue from the Energy Cost Recovery Clause, a reconciliation adjustment shall be added to the rate calculated under the Energy Cost Recovery Clause to reconcile the revenue variance. This reconciliation adjustment shall be applied at the beginning of the second month after the end of the quarter, and shall be set to recover the revenue variance over the estimated sales for the subsequent three months.

The Non-Adjustable Component revenue will be excluded from the Energy Cost Recovery Clause revenue for the purposes of this reconciliation. The Non-Adjustable Component revenue is the Non-Adjustable Component multiplied by year-to-date sales kWh.

The eligible revenue from the Energy Cost Recovery Clause shall be equal to the eligible revenue for Major Energy cost, Minor Energy cost and Purchased Energy expense, adjusted by the Year-to-Date Fossil Fuel Cost Risk Sharing Adjustment.

The eligible revenue for Major Energy cost is the eligible revenue for fuel used in generation that is subject to a target heat rate. The eligible revenue for fuel is calculated for each fuel type each month as:

the sales kWh for that fuel type
multiplied by the adjusted target heat rate for that fuel type
multiplied by the average fuel cost per million Btu
and then summed across all fuel types.

The adjusted target heat rate for each fuel type is established by comparing the applicable target heat rate, adjusted by a plus or minus 125 Btu/kWh sales heat rate deadband versus the year-to-date actual heat rate. The year-to-date actual heat rate is derived by dividing the fuel type's year-to-date million Btu usage by the fuel type's share of year-to-date sales kWh. If the year-to-date actual heat rate is greater than the applicable target heat rate plus 125 Btu/kWh, then the adjusted target heat rate is the applicable target heat rate plus 125 Btu/kWh. If the year-to-date actual heat rate is less than the applicable target heat rate less 125 Btu/kWh, then the adjusted target heat rate is the applicable target heat rate less 125 Btu/kWh. If the year-to-date actual heat rate falls between the applicable target heat rate adjusted by a plus or minus 125 Btu/kWh, then the adjusted target heat rate is the year-to-date actual heat rate.

The eligible revenue for Minor Energy cost and Purchased Energy expenses are equal to the amount of their respective expenses.

Revenue from the Energy Cost Recovery Clause excludes revenue taxes for the purpose of this reconciliation.

HAWAIIAN ELECTRIC COMPANY, INC.