Hawai'i Energy

WHOLE BUILDING ASSISTANCE
Compressed Air System and Leak Detection Audits
Rules & Requirements
EFFECTIVE JULY 1, 2025 THROUGH JUNE 30, 2026 OR WHILE FUNDING LASTS.

A comprehensive compressed air system assessment provides a holistic evaluation of system performance, identifying opportunities for energy savings, operational improvements, and system reliability enhancements. Compressed air leaks can account for a significant amount of energy loss. Hawai'i Energy offers incentives to offset the cost of full system assessments and leak detection audits performed by qualified providers.

ELIGIBILITY

Program pre-approval is required prior to the start of a compressed air system audit process. Eligible program participants must:

- ❒ Own a compressed air system that is currently operational and operates for at least 1,500 hours annually.
- ❒ Receive electric service from Hawaiian Electric Companies.
- ❒ Grant Hawai'i Energy access to the facility when requested for on-going program assessment, monitoring and measurement purposes.

INCENTIVES

Compressed Air Audit Type	System Size (Excluding Backup)	Incentives
Complete System Assessment	100 HP or greater	50% of the audit cost, up to $15,000
Complete System Assessment	Less than 100 HP	50% of the audit cost, up to $3,000
Leak Detection Audit	25 to 100 HP	$25 per HP, up to $2,000

REQUIREMENTS

- **Written pre-approval is required prior to the start of the audit.**
- Hawai'i Energy requires an electronic copy of the final audit report be provided to the Program upon completion. The Program reserves the right to review all materials that result from program-supported audits including, but not limited to, metered data, additional consultant recommendations, etc.
- Within three (3) months of receiving the audit report, the applicant will meet with Hawai'i Energy to review findings and available resources such as incentives to support recommendations.
- The audit must be performed by a qualified person or firm. A brief summary of the consultant's qualifications should be submitted with the application.
- Leak Audit Technicians should be Certified Leak Auditors through a recognized training provider (e.g. UE Systems, SDT, Flir, or equivalent)
- System Assessors / Engineers should be Certified Compressed Air System Specialist (CAC) or equivalent, or Certified Energy Manager (CEM) or Professional Engineer (PE) with demonstrated compressed air experience, or have completed Compressed Air Challenge – Fundamentals and Advanced courses.

HOW TO APPLY

1. Notify your Energy Advisor or Dan Mestas (daniel.s.mestas@leidos.com) with your interest in applying for these incentives to receive assistance in the application process.
2. Request a quote and scope of work from a qualified professional, along with a sample of their past work or summary of their experience with compressed air audits.
3. Fill and sign a Hawai'i Energy Commercial Incentive Application.
4. Email the application, quote, scope of work, and contractor information to your Energy Advisor or Dan Mestas at daniel.s.mestas@leidos.com for review and pre-approval for an incentive.
5. Hawai'i Energy will review the application package and provide written notice of incentive pre-approval or if further information is required. Upon pre-approval, work may begin.

6. When work is complete, email the following documents to your Energy Advisor for incentive payment:
   - Audit report
   - Paid invoice
   - Applicant's IRS Form W-9
7. Receive an incentive check within 6 to 8 weeks of submitting all final, completed documentation.
8. Meet with your Energy Advisor to review your audit findings, available compressed air system incentives, and next steps.

QUESTIONS

Contact Dan Mestas at daniel.s.mestas@leidos.com or (808) 292-3495.

LEAK AUDIT REPORT FORMAT

Section	Required Content
1. Executive Summary	- Brief description of facility and systems audited - Number and types of leaks found - Estimated total SCFM leakage - Estimated kWh and cost impact
2. Methodology	- Leak detection method and tool used (e.g., ultrasonic gun) - Survey dates and times - Pressure conditions during audit - Documentation of equipment calibration
3. Leak Log (tabular format)	For each leak: - Tag/ID number - Description and location - dB level - Estimated SCFM - System pressure - Estimated kWh/year loss - Photo of leak location - Priority level (High/Medium/Low)
4. Assumptions & Calculations	- SCFM-to-kWh conversion factors - Assumed compressor efficiency (specific power) - Operating hours/year - Leak load factor (%) - Documentation source for assumptions
5. Recommendations	- List of high-priority leaks to repair - Suggested timeline - PM or operational practices to prevent recurrence
6. Signature & Contact Info	- Auditor name, organization, certification - Contact email and phone number - Date of report

SYSTEM ASSESSMENT REPORT FORMAT

Section	Required Content
1. Executive Summary	- Site description and scope of assessment - Key findings (e.g., oversized compressor, poor control) - Summary of baseline energy use and savings opportunity
2. System Inventory	- List & photographs of all compressors and major equipment - Nameplate info (HP, cfm, pressure, control type) - Storage tanks, dryers, drains, filters
3. Measurement Data	- Power (kW), Pressure (psi), and Flow (SCFM) logged - Duration: ≥7 consecutive days - Interval: 1-minute - Logging equipment specs and calibration dates - Ambient conditions noted
4. Operating Profile	- Load profile across time (graphs/charts) - On/off cycles or VSD ramping - Air demand characteristics (shifts, production variation) - Pressure band behavior
5. Baseline Specific Power Calculation	- Total energy use (kWh/year) - Total output air volume (SCFM × hours/year) - Calculated Specific Power kW/SCFM baseline* - Normalization for pressure if needed
6. Recommendations & Proposed Measures	For each recommended measure: - Description (e.g., VSD retrofit, storage tank, pressure reduction, controls system) - Estimated savings (kWh/year) - Implementation cost (if known) - Simple payback and NPV
7. Support Documents	- OEM data sheets (if used for estimation) - Equipment cut sheets - Photos of existing equipment & conditions
8. Signature & Contact Info	- Assessor name, organization, title, and credentials - Contact email and phone number - Report date

* Method 1: Specific Power Method (Preferred for Follow-on Custom Projects and Incentives) Method 2: Power vs. Pressure-Flow Curve Method (Permitted with Conditions for Follow-on Custom Projects and Incentives)