



**Detailed Audit Report for [enter
brief project description]**

Idaho Power Audit Number:

Presented to
[Company Name/Logo]
[Facility Address]
[City, State Zip]

Sponsored by
Idaho Power

Submitted by
Consultant Name

Consultant Project Number:

Presented to
[Company Name/Logo]
[Facility Address]
[City, State Zip]

Submittal Date

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PROJECT CONTACT INFORMATION

Site Contact

[Contact Name]

[Title]

[Company Name]

[Address]

[Phone Number]

[Email]

Idaho Power Contact

[Contact Name]

[Title]

[Address]

[Phone Number]

[Email]

Prepared By

[Contact Name]

[Title]

[Company Name]

[Address]

[Phone Number]

[Email]

[Insert Optional Disclaimer Here]

1. EXECUTIVE SUMMARY

1.1 Introduction

This template outlines the components required in a Detailed Audit Report submitted to Idaho Power for customer reimbursement.

Provide a brief overview for efficiency improvement opportunities specific to the customer needs and their primary interest (i.e., maintenance, energy efficiency, safety, end-of-life, production increase, etc.) in proceeding with the audit. Also, provide a brief background to the customer's operations relevant to the efficiency project.

1.2 Energy Efficiency Measures

Provide a brief description of the project and each energy efficiency measure (EEM) analyzed. Identify the EEMs recommended for incorporation into the design. The level of explanation and detail included in this section should be equal to that of an executive summary so the reader can identify which EEMs are recommended and understand why.

1.3 Economic Summary

For each recommended EEM, indicate annual electric savings, cost savings, project cost, etc., as shown in tables 1 and 2.

Table 1

Economic summary, pre-incentive

Utility Rate Schedule		Annual Cost Savings						
Cost of Energy*	\$_____/kWh	Billing Demand Savings (kW)	Annual Energy Savings (kWh/yr)	Demand Charges	Energy Charges	Total Savings	Installed Cost	Pre-Incentive Payback (years)
Cost of Demand	\$_____/kW							
1				\$	\$	\$	\$	
2				\$	\$	\$	\$	
3				\$	\$	\$	\$	
4				\$	\$	\$	\$	
5				\$	\$	\$	\$	
6				\$	\$	\$	\$	
7				\$	\$	\$	\$	

EEM No.	Description	Billing Demand Savings (kW)	Annual Energy Savings (kWh/yr)	Annual Cost Savings			Installed Cost	Pre-Incentive Payback (years)
				Demand Charges	Energy Charges	Total Savings		
8				\$	\$	\$	\$	
Total				\$	\$	\$	\$	

Table 2
Economic summary, post incentive

EEM No.	Description	Utility Incentive Calculation				Customer Payback w/Incentive (years)
		Estimated Incentive (\$0.18/ kWh)	70% Incentive Cap	Estimated Utility Incentive	Customer Cost After Incentive	
1						
2						
3						
4						
5						
6						
7						
8						
Total						

1.4 Recommendations and Implementation Strategy

List and describe the EEMs from tables 1 and 2 recommended for implementation. The next steps typically recommended include soliciting bids and submitting the incentive application.

1.5 Non-energy Benefits

Describe any non-energy benefits (NEB), such as increasing capacity, improving reliability, improving safety, reducing maintenance cost, etc., associated with the analyzed EEMs.

1.6 Additional Energy Efficiency Opportunities

Describe other energy efficiency opportunities that may exist but may not be included in the EEM list or recommended at this time. Describe other energy efficiency opportunities that may exist on the system being studied by the EEMs that are part of this report.

2. GENERAL PROJECT INFORMATION

2.1 General Information

Describe the customer, what they do, potential projects and why they would consider these projects (i.e., energy efficiency, end-of-life, safety, increased production).

2.2 Baseline System

Describe the baseline system being used to compare with the EEMs. What does the baseline consist of? How does it currently operate? Include pertinent drawings, schematics, set points and cut sheets of the baseline system or equipment.

2.3 EEMs

Describe each EEM, including the source of energy savings, specific equipment recommendations, set points recommended to achieve calculated savings and key assumptions behind the savings estimates.

2.4 Production Schedule

Describe how the facility operates, including the system or equipment in this study (hours per day, percent loaded, seasonal variation, etc.).

2.5 Utility Schedule and Rates

List the customer's Idaho Power rate schedule and provide at least 12 months of historical utility billing data in a table or graph.

3. ANALYSIS METHODOLOGY AND DETAILS

3.1 General Information

Describe the methods used to analyze the project. What was the source of information and the data used? How was the data analyzed?

3.2 Baseline Performance

3.2.1 Baseline Description

Describe how the baseline performance was established. What data was used? What factors were considered? What was the baseline energy use estimated at?

3.2.2 Baseline Equipment and Operations

Describe the baseline equipment and operations. This should include an equipment inventory table showing the make, model, capacity, horsepower (hp), controls and other details pertinent to the analysis.

3.3 EEMs

If variable-frequency drives (VFD) are recommended, include the following note on harmonic requirements in the appropriate EEM section

Note: Idaho Power requires all harmonic generating equipment to comply with the Institute of Electrical and Electronics Engineers (IEEE) Standard 519. Idaho Power has a responsibility to limit harmonics on its system. Facilities whose equipment causes harmonic voltage distortion are required to use additional filters or other harmonic mitigation equipment to meet IEEE 519.

3.3.1 EEM 1—Name/Description

Describe how each EEM was analyzed in comparison with the baseline. What data was used? What was the source of the data? How was the data changed or modified to simulate the effect of implementing each EEM? What is the source of energy savings, specific equipment recommendations, set points recommended to achieve calculated savings and key assumptions behind the savings estimates. Describe in detail the new equipment required to achieve the claimed savings. Describe any required changes in set points or controls. Describe how the new system will be operated compared to the old system.

Provide a summary table with the costs for each major component of a recommended measure (i.e., new condenser, VFDs, PLC controller, commissioning, etc.)

3.3.2 EEM 2—Name/Description

Describe how each EEM was analyzed in comparison with the baseline. What data was used? What was the source of the data? How was the data changed or modified to simulate the effect of implementing each EEM? What is the source of energy savings, specific equipment recommendations, set points recommended to achieve calculated savings and key assumptions behind the savings estimates. Describe in detail the new equipment required to achieve the claimed savings. Describe any required changes in set points or controls. Describe how the new system will be operated compared to the old system.

Provide a summary table with the costs for each major component of a recommended measure (i.e., new condenser, VFDs, PLC controller, commissioning, etc.)

3.4 Calculation/Modeling Results

Include a summary table to summarize the results of the calculation/modeling efforts for each EEM considered. An example is provided below.

Table 3
Calculation/modeling results summary

Description	Baseline (kWh/yr)	Proposed (kWh/yr)	Savings (kWh/yr)	Demand Savings (kW)
EEM1—Name/Description				
EEM2—Name/Description				
...				
Total				

4. APPENDIX

4.1 General Information

List all major equipment that is part of the project. Include drawings, schematics, cut sheets and performance specifications for all equipment involved, including baseline equipment, when available.

4.2 Project Cost Documentation

Include copies of quotes, bids and estimates used to arrive at the costs shown within the report.

4.3 Incentive Program Information

Idaho Power's Commercial and Industrial Energy Efficiency Program offers businesses of all sizes incentives for efficient lighting, refrigeration, compressed air, pumps and fans, VSDs, controls, HVAC, building envelope and more. Visit idahopower.com/business for more details.

- 75 percent of a detailed study cost, up to \$12,500, may be available through Idaho Power's Custom Project's Detailed Audit support for a more detailed analysis.
- Custom incentives of \$0.18 per annual kWh saved in one year, up to 70 percent of the project cost, are available.

- After the energy savings has been estimated, complete and submit a pre-approval application with Idaho Power before purchasing equipment or beginning the project.
- Following the project completion, complete and submit a payment application. Idaho Power, or a contractor hired by Idaho Power, will then perform a post-installation inspection to verify energy savings and will prepare a summary report. The customer will turn in all invoices and project cost documents at this time.

For additional program details, contact:

- Randy Thorn, Principal Engineer, Idaho Power
208-388-5624
rthorn2@idahopower.com
- Chellie Jensen, Senior Engineer, Idaho Power
208-388-6140
cjensen@idahopower.com
- Chris Pollow, Senior Engineer, Idaho Power
208-388-5949
cpollow@idahopower.com

4.4 Supporting Calculations and Data

Include copies of all supporting data and calculations used to determine the energy savings for each EEM. This data can be provided to Idaho Power electronically.

4.4 Supplemental Information

Include copies of any other important information or data to help evaluate the proposed EEMs.