



Estes Park | Fort Collins | Longmont | Loveland

# Building Tune-up program

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Service provider presentation

January 26, 2022

# Agenda

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- Introductions
- What is Efficiency Works?
- Staying cool: cooling rebates
- BTU program overview
- Performance Plus documentation
- Performance Plus application process
- Next steps
- Questions

# Team introductions



**Gregory Smith**

Outreach Specialist



**Jacob Scott**

Program Manager



**Christina Barker**

Operations Analyst



**Bryce Brady**

Energy Solutions  
Supervisor

# Efficiency Works

## About

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Efficiency Works is a collaboration of common efficiency programs between Platte River Power Authority and the utilities of Estes Park, Fort Collins, Longmont, and Loveland.





# Communities served



Larimer County

Fort Collins

HWY 34

Estes Park

Loveland

HWY 36

HWY 287

I-25

HWY 66

Boulder County

Longmont



Estes Park Power  
& Communications

Fort Collins  
Utilities

Longmont Power  
& Communications

Loveland Water  
and Power

Platte River  
Power Authority



## Business incentives

- Lighting
- Cooling
- Building envelope
- Food service
- Grocery
- Office and IT
- VFDs
- Custom
- New construction

## Efficiency services

- Energy advising
- Facility assessments
- Building Tune-up
- Quote reviews
- Multifamily
- Efficiency product installs

<https://efficiencyworks.org/business/>

# Staying cool

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**Beyond Building Tune-up there are many retrofit cooling rebates available**



# 2022 rebates

## Cooling retrofits

Upgrade Type	Rebate
Programable thermostat	\$100 per ton
Install economizer	\$100 per ton
Integrated economizer with DX	\$10 per ton
Demand control ventilation (DCV)	\$20 per ton
Variable speed supply fan	\$200 per hp
Advanced RTU controllers	\$200 per unit
Evaporative condenser cooling*	\$100 per ton
Evaporative cooling*	\$0.20 per CFM

\*Available for new construction.



# Additional opportunities process

## Applying for cooling upgrade retrofit incentives

- In addition to Performance Plus opportunities and can be done at any time.
- A business rebate application is required.
  - Available on Efficiency Works website:  
<https://efficiencyworks.org/business/rebates/>
  - Preapproval required for rebates over \$10,000.
- If you have questions about retrofit cooling rebates, contact [business@efficiencyworks.org](mailto:business@efficiencyworks.org)



# Program overview

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Building Tune-up

# What is Building Tune-up?

The Efficiency Works Building Tune-up program is designed to optimize and enhance your current building's HVAC systems. Building Tune-up offers services from enhanced maintenance for standard rooftop units to full retro commissioning (RCx) on facilities with building automation systems.

# What is Building Tune-up?



Estes Park | Fort Collins | Longmont | Loveland

# Choose your path

## Performance plus

### Qualifications

- Commercial business customers
- Stand-alone rooftop units and/or air handler units
- Equipment not served by a central chiller or controlled by a building automation system

### Benefits

- High-quality maintenance at an affordable price
- Improved reliability and performance of cooling equipment
- Reduced energy use and cost
- Seamless process with service providers you know and trust

### Typical savings

- 11,000 kWh saved annually
- \$1,900 in rebates

## RCx light

### Qualifications

- Facility is <25,000 square feet or uses <200 kW
- Must have existing building automation system
- Post-measure verification required

### Benefits

- Fund 100% of the study up to \$15,000
- Receive incentives for measure implementation of \$0.10 per kWh, up to 75% of project cost (Must commit to spend at least \$2,500 on measures with 2-year payback or less)
- Quicker implementation for faster energy savings; typical project life cycle is 6 months

### Typical savings

- 35,000 kWh saved annually
- \$3,500 in rebates

## RCx full

### Qualifications

- Facility is >25,000 square feet or uses >200 kW
- Must have existing building automation system
- Post-measure verification required

### Benefits

- Fund 100% of the study up to \$40,000
- Receive incentives for measure implementation of \$0.10 per kWh, up to 75% of project cost (Must commit to spend at least \$10,000 on measures with 2-year payback or less)
- Deep look at energy savings opportunities and high savings potential

### Typical savings

- 300,000 kWh saved annually
- \$30,000 in rebates

# Building Tune-up: retrocommissioning



## Light retrocommissioning

- Building Automation System
- Facility is <25,000 sq. ft or uses <200 kW
- 3-6 month process
- Study incentive up to \$15,000
- Implementation commitment up to \$2,500
- Typical Savings = 35,000 kWh

## Full retrocommissioning

- Building Automation System
- Facility is >25,000 sq. ft or uses >200 kW
- 6-12 month process
- Study incentive up to \$40,000
- Implementation commitment up to \$10,000
- Typical Savings = 300,000 kWh



# Building Tune-up

**New incentive in 2022!**  
**Limited funds available.**

## Retrocommissioning (RCx) upgrade incentives

Category	Rebate
RCx light path	\$2,500 per approved project
RCx full path	\$10,000 per approved project

RCx application must be approved on or after January 1, 2022.

RCx implementation upgrades must be completed and submitted for payment within 12 months of incentive upgrade approval for RCx full path participants.

RCx implementation upgrades must be completed and submitted for payment within 6 months of incentive upgrade approval for RCx light path participants.

# Building tune-up Program Guide

[efficiencyworks.org/business/building-tune-up/](https://efficiencyworks.org/business/building-tune-up/)



## Efficiency Works Building Tune-up retrocommissioning program guide

Revised March 2021

# Performance plus program path



## Typical Savings

- 11,000 kWh saved annually
- \$1,900 in rebates

## Qualifications

- Commercial business customers
- Stand-alone rooftop units and/or air handler units
- Equipment not served by a central chiller or controlled by a building automation system

## Benefits

- High-quality maintenance at an affordable price
- Improved reliability and performance of cooling equipment
- Reduced energy use and cost
- Seamless process with service providers you know and trust

# Incentive structure

Annual  
incentive

**Unit size**

**Incentive per ton**

Per business

<7.5 tons

\$50

7.5-10 tons

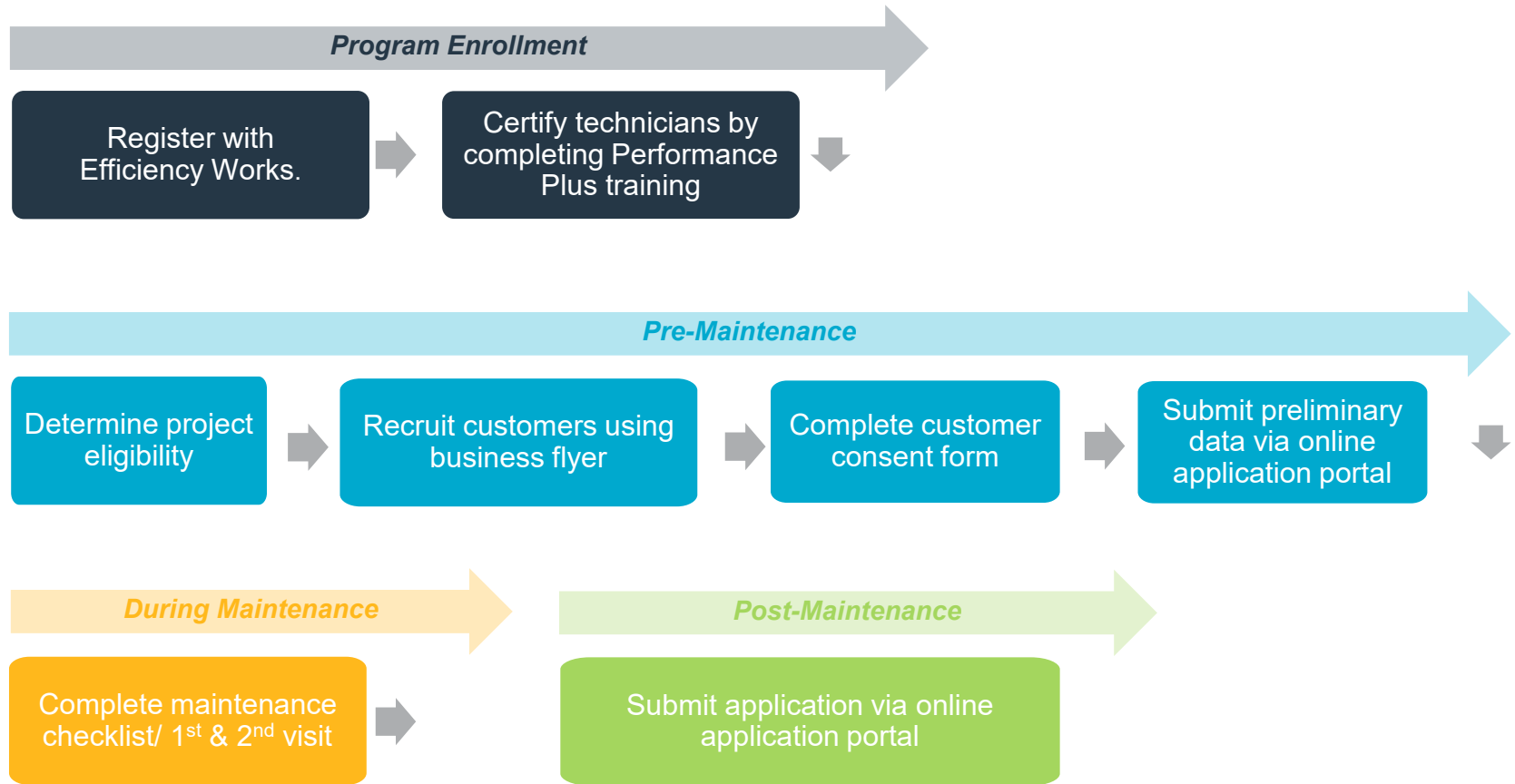
\$40

Per unit

> 10 tons

\$35

# Performance Plus workflow



Franklin Energy will verify rebate application that was submitted through iEnergy platform.  
A rebate check will be mailed to your company within 6 weeks.



# Performance Plus - Documentation

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How to record your maintenance



# Performance Plus – Documents

## Review documentation

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- Customer agreement form
- RTU checklist
- Data collection form
- Commercial business flyer

# Customer agreement



## Performance Plus program Participant agreement and authorization to pay

By participating in the Performance Plus program offered by Efficiency Works, the Participant (the Business Customer) agrees to the following:

- Allow my HVAC maintenance contractor, identified below, to complete an enhanced level of maintenance on their rooftop unit HVAC equipment outlined in the Performance Plus maintenance checklist listed below.
- I have read, understood, agree and possess the authority to execute this participation agreement in relation to the terms and conditions listed below.
- I authorize Efficiency Works to make the incentive payment to the identified party below for completing the tasks outlined in the Performance Plus program.
- Participant agrees to the Business Incentives Terms & Conditions as outlined below.

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

### Participant Information

Printed Name \_\_\_\_\_

Company name \_\_\_\_\_

Title \_\_\_\_\_

Facility address \_\_\_\_\_

Email \_\_\_\_\_

City, State, and Zip \_\_\_\_\_

Phone \_\_\_\_\_

### Incentive recipient (alternate payment recipient): Performance Plus Service Provider

\_\_\_\_\_  
Name of Company

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
City, State, and Zip

### **Business Incentives Terms and Conditions**

Participant acknowledges that the Efficiency Works program ("Program") is a partnership between Platte River Power Authority ("Platte River") and its owner communities of the Town of Estes Park, the City of Fort Collins, the City of Longmont and the City of Loveland (the "Owner Communities"). Platte River manages the Program. By participating in the Program, you acknowledge and agree that your customer data may be shared among the Owner Communities and third-party Program implementors for a variety of purposes. Customer data may include, but is not limited to, name, address, contact information, account number, utility usage data as well as details regarding your participation in the Program or other programs and services offered by Platte River or the Owner Communities. These details may include, but are not limited to, audit results, rebate amounts, and products purchased related to participation. Purposes for which your customer data may be shared or used include, but are not limited to, determining your eligibility for the Program, Program administration, marketing, quality control, providing you with products or services you request, offering you products or services that may be of interest to you, or analyzing your utility usage. Platte River and the Owner Communities may not have control over your customer data and cannot guarantee that it will remain confidential. You

# RTU checklist

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- Comprehensive list of tune-up actions
- Quick checklist that must be completed for each RTU
- Use to document 1<sup>st</sup> and 2<sup>nd</sup> maintenance visit

# RTU checklist

## Key notes

- Utilize unit designation
- Notate the cooling capacity
- A checklist must be completed for each RTU

### Efficiency Works Performance Plus RTU Checklist

Effective April 7, 2021 until further notice

Service provider name	
Business name	
Site address	
Unit designation	
Cooling capacity	

#### Maintenance checklist

Instructions: All maintenance items are required to be performed.

#### Economizers (if installed)

- ☐ Clean and wash economizer/outside air filters to ensure good airflow and economizer effectiveness.
- ☐ Check and adjust economizer temperature setting to up to 73°F OA dry-bulb as appropriate for the building.
- ☐ Replace sensors with large dead bands
  - Example: Honeywell C7400 enthalpy and C7650 dry-bulb sensors w/ C7660 dry-bulb sensors
- ☐ Check and adjust/repair/replace damper seal, linkage, and actuator as needed.
- ☐ Recommend upgrades to building owner or tenant:
  - Install DX OAT lockout controls and integrated economizer and DX controls (in cooling mode, RTU uses economizer and compressors together when outdoor air temperature is less than return air temperature)
  - Enable or add morning warm-up/cool-down controls – no outdoor air during unoccupied times, such as winter morning warm-up, and 100% outdoor air during cooling season night/morning flush

#### Fan motors – supply and return

- ☐ Check and adjust fan belt tension and alignment and adjustable sheaves setup (belt tension, pulley and belt wear, alignment). Consider changing pulley from adjustable once pitch diameter is set.

#### Condensers and refrigerant

- ☐ Measure and record 'BEFORE' compressor amperages.
- ☐ Clean and wash the condenser coil with water. The flow of water should be from the inside to the outside of the coil.
  - Cleaning should be completed twice during each cooling season between mid-May and mid-September.
- ☐ Comb flattened/dented condenser coil fins to straighten to improve efficiency of the unit. Note initial percentage dented area.
- ☐ Compare measured refrigerant superheat and subcool temperatures to manufacturers acceptable range and adjust refrigerant as needed.
- ☐ Measure and record 'AFTER' compressor amperages once condenser coil is dry.

#### Thermostat check

- ☐ Review thermostat settings and compare to business operating hours (per week). Recommend changes and reprogram as appropriate.
- ☐ Verify thermostat cooling stages match equipment – single-stage RTU with economizer should have a 2-stage cooling thermostat.

# Data collection form

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- Document additional property information
- Captures specific details of changes made to economizers, fan motors, condenser, refrigerants and thermostat
- Should be submitted with the RTU checklist

# General information

## Key notes

- Participant information
- Business information
- Site information



Service provider name	<input type="text"/>
Business name	<input type="text"/>
Site address	<input type="text"/>

### Performance Plus Data Collection Form

Effective April 7, 2021 until further notice

#### General information

**Instructions:** Fill out participant, business and site information for Performance Plus maintenance service. Certify that all maintenance was performed and complete the rebate summary.

#### Participant information

Property owner/manager name

Contact name, if different than above

Phone number of contact

Email address of contact

#### Business information

Business name

Business type

Operating hours (weekly)

Customer electric utility: ☒ Fort Collins ☐ Loveland ☐ Longmont ☐ Estes Park

Electric utility account number (if known)

#### Site information

Site address

Site city  Site zip

First visit date  Date of scheduled follow-up

#### Technician information

☐ I certify that all items on the Performance Plus maintenance checklist have been completed

Performance Plus technician name

Performance Plus technician signature



# Rooftop unit maintenance record: rooftop unit basics

## Key notes

- Unit ID
- Cooling capacity
  - This will determine the rebate amount
- Nameplate data

### Rooftop unit data sheet

**Instructions:** For each rooftop unit serviced, fill in the required information below. Add notes in the box below to provide additional information on the rooftop unit maintenance record. This page may be copied to accommodate additional rooftop units.

#### Rooftop unit maintenance record

Unit ID: \_\_\_\_\_

Cooling capacity (Btuh): \_\_\_\_\_

Air filter condition: ☐ Good ☐ Fair ☐ Poor Condenser coil condition: ☐ Good ☐ Fair ☐ Poor

Economizer functionality: ☐ Good ☐ Fair ☐ Poor ☐ No economizer

Compressors	Volts (rated)	Amps (rated)	Amps (before)	Amps (after)
Compressor 1				
Compressor 2				
Compressor 3				
Compressor 4				

Cooling setpoint	Before	After	Refrigerant	Rated	Before	After
Occupied (°F)			Superheat (°F)			
Unoccupied (°F)			Subcool (°F)			

Occupied hours (hours per week): Before \_\_\_\_\_ After \_\_\_\_\_

Additional notes (e.g. sensor replacement, recommended upgrades)

# Business flyer

## Building Tune-up: Performance Plus



Performance Plus is an Efficiency Works program partnering with local service providers to improve commercial building HVAC performance in northern Colorado. Take advantage of this special offer to improve maintenance and save energy on your HVAC equipment!

### How can my business participate?



Business in Estes Park, Fort  
Collins, Longmont or Loveland



Have 1+ roof top  
unit for cooling



Desire for a higher level  
of maintenance service

### What are the benefits?

- ✓ Improved reliability and performance of cooling equipment
- ✓ Reduced energy use and cost
- ✓ High-quality maintenance at an affordable price
- ✓ Seamless process with contractors you know and trust
- ✓ No paperwork or hassle

### Identify additional energy-saving opportunities

- ✓ Learn about other equipment upgrades and rebates that are right-sized for your business
- ✓ Receive energy advising support to help you make informed decisions
- ✓ Save energy and money to help your business grow

Please contact your service provider to get started.



[EfficiencyWorks.org/business/building-tune-up](https://EfficiencyWorks.org/business/building-tune-up)



# Application submission process

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What to expect

# What is needed?

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Online rebate application



Completed data collection form



Completed RTU checklist



Signed customer agreement form



Customer invoice

# Service Provider Development Grant

Find a great efficiency training and Efficiency Works Business will help pay for it

- Eligibility requirements
  - Listed SPs and energy management participants
  - Training must be relevant to EWB program offerings
- Get pre-approved
- Submit proof of completion and invoice

**Efficiency Works**  
Service Provider Development Grant Application 21.1

Company Name:   
Project Number:  Not pre-approved  
Approved Grant:  Not pre-approved

**Training reimbursement**

Instructions: Fill out this page with the participant and training information. All fields are required. Fields with an symbol can be clicked to display program rule reminders related to the field. To be eligible for training reimbursement participant must be a listed Efficiency Works Service Provider or a large commercial customer participating by invite-only. See the Instructions page for additional eligibility and supporting document requirements.

Participant and company information	
Business Name	Legal Business Name of applicant
Contact Person	Title
Mailing Address	Telephone
City, State, Zip	Email

Training reimbursement description	
Course title	Course location
Number of employees attending	Start date
Cost estimate	End date
Description of training	
How will this training benefit your company and Efficiency Works Business programs?	
Names of employees attending the training	
Will continuing education credits be earned? Select yes or no	

**Examples of eligible training and events types that are listed below**

Lighting	ASHRAE
LEED certification course	Advanced energy course
Leadership International (LPI) conference	ASHRAE 55 Learning
Energy efficiency	ASHRAE conference
ISO 14001 energy management	Other
Energy efficiency practitioner	Smart buildings / IoT
Building Performance Institute (BPI)	Business sales & marketing
	Lean process technology

To request reimbursement for other training not listed above, submit the pre-approval application for consideration.

Listed service provider		Premium service provider & EM customer	
Annual training maximum:	\$1,000	Annual training maximum:	\$2,000
• Amount reimbursed:	30%	• Amount reimbursed:	60%
Minimum reimbursement:	\$75	Minimum reimbursement:	\$75

# Next steps?

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- Contact program team to have additional discussions
- Sign up to become a registered service provider
- Attend formal Performance Plus training on February 23<sup>rd</sup>



# Questions?

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# Thank you

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303-214-3216



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