



Building Energy Performance Program Tune-Up Instructions

These instructions are provided to use with the Tune-Up Report Workbook. These are guidance materials for printing and reviewing purposes only. Do not submit any information handwritten or entered onto these pages to the Office of Sustainability. **A report will only be accepted when submitted via the provided excel Tune-Up Report Workbook.**

How to use these Instructions

As you review and fill out the excel Tune-Up Report Workbook, you may use these instructions for additional clarity, comments, and examples of what is required. The instructions are broken down into sections that reference different worksheets in the Tune-Up Report Workbook.

- Introduction
- Contact Information
- Building Overview
- Major Systems
- Data Review
- Tune-Up Instructions
- Tune-Up Sections
 - 1) Building System Maintenance & Repairs
 - 2) HVAC Operations and Controls
 - 3) Lighting System Assessment
 - 4) Domestic Hot Water and Water Usage
 - 5) Building Envelope
- Tune-Up Summary
- Sign-off

Introduction

All buildings conducting a Tune-Up to comply with the City of Philadelphia's Building Energy Performance Policy must submit documentation to the Office of Sustainability (OOS). The Tune-Up Report Workbook can be completed and submitted to meet this requirement.

Please read the directions carefully and complete all the fields on all the Workbook tabs, accordingly. There are fields marked as "Optional" that are not required to be fully compliant. If a field is not

applicable to a building, please use "N/A" or do not choose from a dropdown menu.

The "Sign-off" tab must be completed and the Tune-Up Specialist must be approved by OOS before this form is submitted to TuneUps@phila.gov.

Once completed, please send this report to "TuneUps@phila.gov" with the OPA number in the subject line. If you do not know the building's OPA number, please visit www.atlas.phila.gov.

Contact Information

Contact details for the Building Owner and the Primary Building Contact are requested in the Tune-Up Report Workbook. If the Building Owner is the same individual as the Primary Building Contact, you do not need to enter the same information twice.

Note: Contact information for the Tune-Up Specialists is requested in the "Sign-off" section. The Building Owner should not be the same contact as the Tune-Up Specialist unless approved by OOS.

Building Overview

Inputs in this section are for basic building information and characteristics.

Building Information

This section asks for basic building details such as name, address, OPA#, and Portfolio Manager ID. This is also where you will indicate whether or not this building shares energy or water meters with another building on the OPA parcel.

Note: Tune-Up Workbooks are required for each individual building, even if they share a primary heating or cooling system such as a central plant.

General Information

This includes details such as Year Built, GFA, Occupancy, and more. The [OPA Property Assessments Tool](#) can be used to search for some of these inputs.

Fuel Sources Used

These are Yes or No inputs for various fuel sources powering the building. If you have on-site solar PV, please enter the total amount of kilowatts (kW) installed as a whole number.

Space Use (Up to five largest energy users)

Enter values to identify building space types impacting energy use (e.g., offices, data centers, laboratories, food service) and their floor area. Available use types correspond to the property types in [Energy Star Portfolio Manager](#).

Note: For College/University, choose this as your primary space use but also include the other significant spaces uses in the building such as Office, Laboratory, etc.

Occupancy Use

Enter values for the point at which the desired temperature of space is set when occupied, or setback when unoccupied, for both heating and cooling seasons.

Building Automation Systems

Building Automation Systems (BAS) are control systems that consist of sensors and actuators that are programmed using control logic to monitor and regulate operation of building equipment and systems (e.g., HVAC, lighting, and plug loads) in a coordinated fashion to optimize performance and energy use. Enter values to define whether you have a BAS and the type of BAS.

Note: To define the BAS “Type”, there is a dropdown that is limited to two options (Direct Digital Control, Pneumatic). If you have multiple systems of different types, please include this information in the Comments section.

Tenant Information

This section seeks to understand how the tenants are engaged with building energy efficiency. Please share any tenant-owner programs or leasing structures if relevant.

Major Systems

This section is an inventory of the building HVAC, Hot Water, Lighting, and other systems. The first and second column are for the primary systems that service your base building. Enter values in the second column if you have a Heating or Cooling Plant and need additional space to define your Heating or Cooling equipment.

Space Use Served – Referencing the space use types defined in the “Building Overview”, enter values for the space use types that the systems are servicing.

Occupancy Schedule – If tenants with a different schedule than the main building occupy the space use served by the major systems, please note this here.

Type – A dropdown of options will appear. If “Other”, please define the Type of system in the “Notes” section.

Size – Enter the system size threshold, or output capacity, as a numerical value.

Size (Unit) - Define the unit of measurement for the size. Ex. BTU, Ton, MBH.

of Pieces of Equipment – Enter the number of pieces of the same equipment for the system.

Age – A dropdown of options will appear to define the approximate age of the system.

Efficiency Rating* - Enter the efficiency rating as a numerical value.

Efficiency Rating (Units)* - Define the unit of measurement for efficiency. If “Other”, please define in the “Notes” section. Ex. AFUE, COP.

Condition – A dropdown of options will appear to define the condition of your equipment

Notes – For any additional comments about your system

*Optional Inputs

Note: If you are unable to clearly describe all of your Major Systems, use the table labeled “Other Major Equipment of Systems (Not referenced above)” for more details and “Additional Major Systems Notes (Optional)” for descriptions and clarity.

Data Review

Inputs in this section ask that the Tune-Up Specialist review the property's most recent benchmarking submission in ENERGY STAR Portfolio Manager, monthly energy bills, and monthly water bills to confirm that all information is correct and there are no abnormalities in the billing data. There are two optional sections, Maintenance Review and Greenhouse Gas Emissions.

To achieve compliance, the Tune-Up Specialist must verify accuracy of benchmarking data in ENERGY STAR Portfolio Manager. Please see instructions here: [How do I save my Verification information? \(force.com\)](https://www.energystar.gov/force.com)

Tune-Up Instructions

Overarching Guidelines

- ***ALL assessment elements must be inspected***

- For assessment elements related to Maintenance & Repairs, building owners and Tune-Up Specialists should proceed according to ANSI/ASHRAE/ACCA Standard 180-2012 (or current edition). To learn more about how to become a Tune-Up Specialist, please review the application: [Tune-up Specialist Application Form \(jotform.com\)](https://www.jotform.com)
- If a building does not contain a certain element or system associated with an Assessment Element, the Tune-Up Specialist should note this in the "Inspection Finding" and "Description of Extenuating Circumstances" columns, and also choose "N/A" in the "Deficiency?" column. No corrective action is required.
- For any elements where a building owner can clearly demonstrate a reasoning for specific operations (e.g., meeting a specific use case, addressing a health issue, etc.), the owner may be exempt from completing the corrective action. The Tune-Up Specialist must still conduct an assessment and provide recommendations for the most efficient operation of that element, but the Specialist can approve the waiver of the corrective action by noting the reasoning in the "Description of Extenuating Circumstances" column. The Specialist should also choose "N/A" in the "Deficiency?" column.
- Sampling may be applied to assessing multiple pieces of repetitive, identical, minor equipment (e.g. fan coils, plumbing fixtures, or lighting sensors on the same schedules). Where a sampling is permitted, the Tune-Up Specialist can conduct a randomized inspection of at least 15% of that element, or a representative sample of each zone throughout the entire building, unless otherwise noted in the "Inspection Overview". Sampling should NOT be applied for major systems (e.g. chillers, boilers, air handling units). Within the "Sampling Approach" column, the Tune-Up Specialist must note the number of elements included in the random inspection, the total number of elements in the building (can be estimated), and the number of floors (as a % of total) on which an element was inspected.
- If over 50% of sampled elements demonstrate need for corrective actions, the Tune-Up Specialist

should provide a recommendation to the building owner in the "Corrective Action Description" column about if (and how) to review and/or correct potential issues among the broader set of the elements throughout the building. Corrective action on elements outside the sampling range is voluntary. The building owners should provide to the Tune-Up Specialist a description of further steps beyond fixing the sampled elements, if any, the building will take. The Tune-Up Specialist should note this within the "End Condition/Current Condition" column and describe what, if anything, was completed during the final review.

- After corrective actions are completed, Tune-Up Specialists must reassess all elements that are both marked "Yes" in the "Deficiency?" cell and require a corrective action. Tune-Up Specialists only have to reassess elements with voluntary corrective actions if the building takes action.

Tune-Up Section Guidance

Action #	Descriptions of the elements to be assessed. All elements require an initial assessment regardless of whether or not corrective actions are required.
Assessment Element	
Inspection Overview	An overview of what the Tune-Up Specialist should consider during the assessment.
Inspection Finding	The Tune-Up Specialist should provide a brief overview of what the assessment found and how the element is functioning in relation to the "Inspection Overview" prompt.
Deficiency?	<p>The Tune-Up Specialist should:</p> <ul style="list-style-type: none"> • Choose the appropriate "Yes" options to signal that a deficiency was found. • Choose "No" if the element is functioning optimally • Choose "N/A" if the element is not in the building or if there are extenuating circumstances.
Sampling Approach (If Applicable)	The Tune-Up Specialist should briefly describe the sampling approach taken, if applicable, to an element. This should include at least the number of elements included in the random sample, the total number of elements in the building (can be estimated), and the number of floors (as a % of total) on which an element was inspected.
Corrective Action	<p>Green cells: The corrective action is required to be completed if a deficiency is found.</p> <p>Yellow cells: The corrective action is voluntary if a deficiency is found.</p>
Corrective Action Description (If Applicable)	The Tune-Up Specialist should briefly describe the action(s) recommended to remedy the deficiency. It should provide additional detail and

	specificity to the language in the "Corrective Action" cell.
Verify Action Taken	The Tune-Up Specialist should choose "Yes" or "No" depending on their findings in the reassessment.
End Condition/Current Condition	The Tune-Up Specialist should briefly describe the end condition of an element following the corrective action phase of the Tune-Up. If nothing was altered, please write "current condition". Also, if applicable, please note if the building failed to take corrective action when required.
Description of Extenuating Circumstances (If Applicable)	<p>The Tune-Up Specialist should provide an explanation in this box if:</p> <ul style="list-style-type: none"> • An element does not exist within the building and therefore cannot be assessed or corrected. • "N/A" was chosen for the "Deficiency?" column because the building provides a sufficient reason for the Tune-Up Specialist to waive a corrective action.