# Municipal Campus Microgrid RFI: Questions and Answers

*Issued by the City of Philadelphia, Managing Director's Office, with Philadelphia Gas Works | November 20, 2026*

# Overview

This document provides the City's responses to questions received about the Municipal Campus Microgrid Request for Information (RFI), issued by the City of Philadelphia and Philadelphia Gas Works (PGW). 69 questions were submitted. Overlapping questions have been combined and are organized under six topics, so that all respondents receive the same information.

All communication about this RFI should go through the City contacts named in the RFI: June Bethea (june.bethea@phila.gov) and Dominic McGraw (dominic.mcgraw@phila.gov). Where a response states that information will not be provided at the RFI stage, respondents should rely on the RFI and its appendices and state any assumptions they make. Appendix A of this document shows the RFI site layout with illustrative clusters added.

Responses to the RFI remain due Thursday, December 10, 2026, at 5:00 PM Eastern.

# Energy Data and Billing

## 1. Interval data

Can the City provide 15-minute electric interval data by meter, in Excel format, for as much of the last three years as is available (at minimum for the pump station, the main prison, and the water treatment plant)? Can the City also provide the most granular gas usage data available?

> **Response:** Interval data will not be provided at the RFI stage. Respondents should use the monthly usage and peak demand values in Appendix B. More detailed energy data may be made available to a smaller group of firms in a future solicitation.

## 2. Rates, bills, and supply contracts

For each electric and gas account, can the City provide the PECO rate schedule, service voltage, meter number, and recent bills with costs (up to three years), along with the PGW rate schedule? Can the City also share its electricity supply contracts and their expiration dates, capacity and transmission obligations (tags), and annual energy spend by facility? Appendix B shows usage but not the rate information the RFI references.

> **Response:** Account-level bills, meter numbers, rate schedules, and voltage levels will not be provided at the RFI stage. The campus is served by 34 electric meters on 26 accounts.
>
> FY26 blended electric supply cost across the campus accounts was $0.0693/kWh (supply only, excluding distribution charges). FY26 gas supply unit cost across the campus accounts was $4.55/Dth. The City procures electricity supply in aggregate across approximately 600 municipal facilities, so changes in load at this campus are not expected to affect existing supply contract terms.

## 3. Peak demand values in Appendix B

Several “Highest 3-Year Peak” values in Appendix B are far above the monthly figures (for example, 8,114 kW for Prison and about 13.4 MW for the Pump Station, roughly five times average load), and in some months the average load implied by kWh exceeds the reported demand. Do the peaks reflect actual coincident demand, isolated events such as storm-flow pumping, or several meters combined?

> **Response:** The peak values in Appendix B are drawn from the City’s utility billing data and represent the highest demand recorded at each site over the three-year period, and they combine individual account data where a facility has multiple accounts. They may include isolated events and should be treated as indicative maximum demand, not as a coincident peak for the campus.

## 4. Matching Appendix B labels to buildings

Can the City provide a key matching each Appendix B column (Prison through Prison7, Temporary Facility, Prison and Temporary Facility, Miscellaneous City Facility, and the others) to a named building, address, and Appendix A map label, with square footage and year built? Specifically:

- Is “Prison7” in the gas table the same facility as “Prison and Temporary Facility” in the electric table?
- Do any accounts serve the closed House of Correction?
- The Shelter appears in the demand table and on the map but not in the kWh or gas tables, and the gas table covers only the prisons, pump station, and water plant. Are the Shelter and the police, fire, and fleet facilities served through other accounts?
- Some Appendix B values appear to be missing (for example, demand for the City Fleet Facility and Prison7, and kWh for Prison7 and the Shelter). Do these accounts have no data, or were values omitted?
- Facilities without gas accounts (for example, the City Fleet Facility, Fire Facility, Fleet Shop, Miscellaneous City Facility, Parking, and Police Facility): how are they heated and cooled?
- How do the numbered prisons in the utility tables (Prison through Prison7) correspond to the lettered facilities on the Appendix A site layout (C, D, H, I, L, and P)?

> **Response:** The City will not provide a building-level key at the RFI stage. To support planning, respondents may consider the campus in the following geographic clusters (shown in Appendix A at the end of this document):
>
> - Cluster 1: facilities southwest of the creek;
> - Cluster 2: correctional facilities northeast of the creek;
> - Cluster 3: fleet, fire, police, parking, and other City facilities;
> - Cluster 4: water treatment and pumping facilities.
>
> These groupings are illustrative, and respondents are welcome to recommend other groupings or phasing. Area M is not available for new equipment (refer to Question 16). Holmesburg Prison (H) and Pleasant Hill Park (J) are not assigned to a cluster (refer to Question 15 for Holmesburg Prison). Questions about individual accounts and facilities will be addressed in any future solicitation.
>
> Blank cells in Appendix B indicate that no data was applicable for that facility. The City Fleet Facility, Fire Facility, Miscellaneous City Facility, and Police Facility use fuel oil for

> supplemental heating, and the rest are electric only. The numbered facilities in the utility tables will not be matched to the lettered facilities on the Appendix A map at the RFI stage; the geographic clusters above are provided to support planning.

### 5. Thermal loads by end use

Can the City break down gas use by end use (space heating, domestic hot water, laundry, kitchens) and provide existing cooling loads, particularly at the prisons?

> **Response:** A breakdown of gas use by end use is not available without building-level surveys. The monthly gas usage in Appendix B shows seasonal variation that respondents may use to estimate heating and base loads. Cooling load data is not available at this time.

### 6. Intra-campus freight and vehicle trips

Has the City characterized recurring movement of materials, supplies, food, waste, laundry, maintenance items, parcels, or other small freight among campus facilities, including the number of vehicle trips, payloads, distances, and associated energy use? If so, can the City share that data or estimates?

> **Response:** The City has not characterized deliveries or vehicle trips among campus facilities, including regular deliveries and services at the correctional facilities, and this information is not available at this time.

## Existing Systems and Infrastructure

### 7. Electric service configuration

Are the water treatment plant and pump station on separate services? Are there known PECO capacity constraints? Can the City share single-line diagrams for the larger facilities? Which buildings are served by each service, and is the campus supplied by more than one utility feed?

> **Response:** The campus is supplied by more than one electric utility feed (refer to the response to Question 2 for the number of meters). A list of facilities by service, single-line diagrams, and campus distribution maps will not be provided at the RFI stage. The City is not aware of specific PECO capacity constraints at this time.

### 8. Heating and cooling systems

At the prisons, the water treatment plant, and other facilities, is heating and cooling provided by a central plant or by building-level equipment, and is heat distributed as steam or hot water? Can the City provide an inventory of boilers and chillers with capacity, age, and condition, and say whether any replacements are planned? Can the City also describe the HVAC systems serving the prison buildings?

> **Response:** There is no central plant or steam system on the campus; heating and cooling equipment serves individual buildings, with a mix of water-cooled and air-cooled chillers, oil-fired and gas-fired hot water boilers, and split systems. For this RFI, respondents should assume existing heating and cooling equipment is approaching the end of its useful life. An

> equipment inventory will not be provided at the RFI stage. One building has an existing solar hot water system.

## 9. Backup generation and resilience requirements

What standby generation exists at each facility today (type, size, fuel, age, and on-site fuel storage)? Which loads must stay online during a grid outage, for how long, and with what redundancy? Should the microgrid replace or supplement the existing emergency generators? Can the City share the outage history on the PECO service to the campus?

> **Response:** Standby power on the campus is currently provided by diesel generators, without battery storage. The City's long-term interest is in solutions that could supplement and eventually replace diesel standby generation. The water treatment and pumping facilities are critical and must be able to operate independently of the grid.
>
> The correctional facilities have existing standby generation and can shed load during an outage. The City does not maintain a formal record of PECO outage history for the campus.

## 10. Roof conditions

Are there roof condition assessments, or planned roof replacements, for the larger buildings?

> **Response:** Roof condition assessments are not available at this time. For this RFI, respondents should assume roofs will not need replacement before installation.

## 11. Gas service

Can PGW confirm the available capacity and delivery pressure on the mains serving the campus for added on-site generation? Who owns the on-site gas distribution? Is there a PGW gas rate for combined heat and power (CHP)?

> **Response:** PGW owns the gas service up to the outlet of each meter and has capacity available on its high-pressure system serving the campus. PGW can provide up to 10 psi at the meter outlet; under the gas code, piping inside buildings is limited to 5 psi. PGW may offer a negotiated gas rate for CHP on a case-by-case basis, but no rate is available to share at this time.

## 12. Prior studies

The RFI notes that the City has explored solar, batteries, and geothermal. Can the City share any studies, concept designs, or screening results from that work?

> **Response:** Existing on-site clean energy assets include a solar installation of approximately 120 kW that is near the end of its service life, a solar hot water system at one of the correctional facilities, and a geothermal system at the police facility. Prior studies, including a CHP study for one of the correctional facilities, may be shared with a smaller group of firms in a future solicitation.

# Site and Campus Plans

## 13. Areas available for equipment

Which areas inside the boundary (fields, parking lots, roofs, and the open area around the water treatment plant) are available for ground-mount or carport solar, geothermal borefields, storage, or a central plant? Are any restricted by floodplain, river setbacks, dedicated parkland (including Pleasant Hill Park), or security perimeters around the correctional facilities? What construction access rules apply inside the secure perimeters?

> **Response:** Specific sites for new equipment will be determined in a future solicitation. For this RFI, the parking area labeled R on Appendix A is available for new equipment, and the area labeled M is not (refer to Question 16). Portions of the campus lie within the floodplain and the regulatory floodway along the creek, and development in those areas is subject to the City's floodplain regulations.
>
> Construction within secure perimeters would be subject to correctional facility security requirements.

## 14. Planned construction, closures, and changes

Are any closures, consolidations, demolitions, expansions, new construction, major renovations, or population changes planned or under way at any campus facility over the next 20 years, including added cooling at the prisons? If so, please share each project's location and approximate timing, and identify any parking lots, fields, or open areas that should be kept free of new energy equipment.

> **Response:** Respondents should assume for this RFI that no additional changes will occur at campus facilities.

## 15. Holmesburg Prison

What is the current use and status of Holmesburg Prison? Is the City planning to reuse, redevelop, or demolish it? Appendix B includes no data for it; if it is included in a solution, what load should respondents assume?

> **Response:** Holmesburg Prison is vacant, and the City has not determined its future use. Although the RFI asks respondents to consider the feasibility of including this site, respondents should not propose solutions that connect the rest of the campus to Holmesburg Prison via crossing the rail corridor and other infrastructure between the campus and the prison.

## 16. Water treatment plant and pump station

Can the City confirm that the water treatment plant is the Baxter plant and the pump station is the Torresdale Treated Water Pump Station, and that PWD operates them? What does the pump station serve, and what is its operating profile or schedule? Should it be treated as a critical load to island or as a flexible load? If the pump station is being upgraded, does the FY2024–FY2026 data reflect construction-period operation, and can PWD provide an expected

post-upgrade load profile? What is the purpose of the land labeled “Water Treatment M” on Appendix A (for example, raw water filtering), and is it restricted from other uses?

> **Response:** The City is not confirming the names of individual campus facilities at the RFI stage. The water treatment plant and pump station are operated by the Philadelphia Water Department (PWD) and are critical facilities that must be able to operate independently of the grid. Detailed operating information will not be provided at the RFI stage.
>
> The land labeled “M” on Appendix A is part of the water treatment facilities and is used in the treatment process. It is not available for new equipment, and respondents should not anticipate development on that section.

### 17. Crossings, ownership, and site drawings

Who owns State Road at the campus (City or PennDOT) and the rail corridor? Does the City hold existing easements, duct banks, tunnels, or utility crossings at those points or between the campus and Holmesburg? Can the City provide Appendix A in CAD or GIS format with utility drawings, property ownership, easements, and floodplain boundaries?

> **Response:** State Road is owned by PennDOT.
>
> Currently, the City is not pursuing a crossing of the rail corridor or of the other infrastructure, including I-95, between the campus and Holmesburg Prison. For that reason, ownership of the rail corridor is not addressed here.
>
> Information on easements, utility crossings, and CAD or GIS site files will not be provided at the RFI stage.

## Design Basis and Objectives

### 18. Grid relationship and market participation

Does the City intend the system to be (a) fully independent of the grid, (b) grid-connected and supplying the full campus load, or (c) grid-connected and supplying part of the load for resilience? Does the City want the system to export power or participate in PJM markets?

> **Response:** The City anticipates a grid-connected system that serves part or all of the campus load and improves resilience, rather than a system fully independent of the grid. The water treatment and pumping loads should be able to operate in island mode. The City has no plans at this time for the system to export power or participate in PJM markets.

### 19. Decarbonization

How will the City count on-site gas-fired generation, such as CHP, against its decarbonization goals, including 100% renewable electricity for municipal operations by 2030 and carbon neutrality by 2050? Is there a renewable share or emissions target a solution must meet? Should responses assume pipeline gas, renewable natural gas, or a blend over the term?

> **Response:** The City has not set a renewable share or emissions target specific to this Project. Respondents should describe how their proposed solution would affect emissions and support the City’s goals, including carbon neutrality by 2050. Gas-fired generation such as CHP may be proposed, particularly where it improves efficiency and resilience at critical

> facilities. Respondents should state their fuel assumptions and how emissions could be reduced over the term.

### 20. Savings baseline and existing contracts

What baseline should savings be measured against: the City's current electricity supply contracts (including the Adams Solar and Abes Run PPAs, where they cover these accounts), PECO default service, or a forecast? How would fuel price risk be handled? Do any current supply contracts or PPAs carry minimum purchase obligations that on-site generation would affect?

> **Response:** The City has not determined the savings baseline. Respondents should state the baseline they assume, including utility cost escalation, and describe how they would manage fuel price risk. The City procures electricity in aggregate across its facilities, and on-site generation at this campus is not expected to conflict with existing supply contracts.

## Commercial Structure, Financing, and Schedule

### 21. PGW's role and the issuing entity for a future solicitation

What role does PGW expect to have in the Project: co-procuring agency, contracting party, owner or operator of any part of the system, or gas supplier only? Would a future RFQ or RFP be issued by the City, PGW, the Philadelphia Energy Authority (PEA), or a joint procurement team?

> **Response:** PGW's role has not been determined and is under review. Options range from gas supplier to contracting party or operator on the City's behalf. The issuing entity and form of any future solicitation will be determined later.

### 22. Ownership, financing, and contract structure

Which financing model does the City expect: PEA or City financing (as on the Quadplex + Community Health GESA), ESCO or third-party financing, or either? Could a provider own and operate the plant and sell electricity and thermal energy to the City under a long-term agreement, and would that be contracted under GESA or under a separate energy services agreement or power purchase agreement? If separate, would the City consider a term longer than 20 years for long-lived assets such as a geothermal borefield, thermal piping, or electrical distribution? Is the 20-year maximum contract term negotiable?

> **Response:** The City has not selected a financing, ownership, or contract structure and is open to all approaches, including GESA, energy services agreements, power purchase agreements, and third-party ownership. Respondents are encouraged to recommend the structure they believe best fits the Project, including any term needed for long-lived assets.
>
> Under GESA, the maximum contract term is set by Pennsylvania law (62 Pa.C.S. § 3752); other agreement structures may be considered, subject to legal review.

## 23. Eligible prime respondents and team structure

For a future RFP, will the City require a prequalified ESCO as the prime? May a team led by an engineering firm partnering with an ESCO respond? May the owner and operator be a developer that is not itself an ESCO, with a qualified ESCO delivering the GESA measures?

> **Response:** Requirements for any future solicitation have not been determined. Respondents should focus on technologies and solutions; team structures will be addressed in any future solicitation.

## 24. PWD's participation

Is PWD a party to this effort, and would the water treatment plant and pump station fall under the same GESA or energy services agreement as the General Fund facilities? Do PWD's rate or bond requirements limit how its facilities can participate?

> **Response:** PWD's participation, including how its facilities might be contracted, has not been determined. For this RFI, respondents should assume no difference between agencies.

## 25. Savings guarantee and capital contributions

Will the City count avoided or deferred capital costs (for example, boiler, chiller, standby generator, or switchgear replacements already in the City's or PWD's capital plans) toward the savings guarantee? Is the City open to contributing capital or grant funds for resilience scope that does not pay back on energy savings alone?

> **Response:** Respondents may include avoided or deferred capital costs and operations and maintenance savings in their savings estimates and should identify them separately. The City is not considering capital or grant contributions to the Project at this time, and respondents should not assume them.

## 26. Incentives and cost estimate scope

Does the City intend to claim federal tax credits through elective pay, which generally requires City ownership, or should respondents assume a private owner monetizes them? Has the City applied for or secured grant funding for the Project? Should the non-binding indicative cost estimate cover installed capital cost only, or also development, financing, and operations and maintenance over the term?

> **Response:** Eligibility for federal tax credits varies by technology and is subject to changes in federal law. Respondents should state their tax credit assumptions and which party would claim them. Grant funding should not be assumed or included in responses.
>
> The indicative cost estimate should state what it includes; respondents are encouraged to show installed capital cost separately from development, financing, and operations and maintenance costs.

### 27. Schedule and labor requirements

What is the City's target schedule for a formal solicitation, award, and first phase in service? Should respondents assume prevailing wage, a project labor agreement, and Office of Economic Opportunity (OEO) participation goals in their cost estimates?

> **Response:** The schedule for any future solicitation has not been determined. Respondents should assume prevailing wage, a project labor agreement, and the City's Office of Economic Opportunity participation goals in their cost estimates.

## RFI Process and Submission

### 28. Page limit

Does the 15-page limit include a cover letter, table of contents, and appendices such as project sheets and resumes? May site exhibits be 11″ × 17″ and count as one page?

> **Response:** Cover letters, tables of contents, and appendices such as project sheets and resumes do not count toward the 15-page limit. Site exhibits may be 11″ × 17″ and will count as one page.

### 29. Confidential pricing information

If a respondent marks indicative pricing or financial information as confidential proprietary information under Section 708(b)(11) of the Right-to-Know Law, will the City apply that exemption before releasing it?

> **Response:** The City will handle all responses in accordance with applicable law, including the Right-to-Know Law.

### 30. Contact with PECO

The RFI limits contact with City and PGW staff. May respondents talk with PECO about service configuration, interconnection, and hosting capacity at these accounts while preparing responses?

> **Response:** All communication about this RFI should go through the City contacts named in the RFI. Respondents should not contact PECO about these accounts while preparing responses.

### 31. Site visit

Will there be a site visit, including access to the main mechanical and electrical rooms, before the December 10 deadline or as part of a future solicitation?

> **Response:** No site visits will be held for this RFI.

## 32. On-site renewable fuel production

Is on-site production of renewable liquid fuel within the scope of the RFI? For example, modular units at campus facilities that convert waste feedstock, such as used cooking oil, into biodiesel for City fleet vehicles, using on-site generation.

> **Response:** The City is interested in all technologies and solutions that address the objectives described in the RFI.

## 33. Third-party ownership and utility regulation

If a third party owns the system, does the City foresee any challenges in buying power or services from the owner under GESA or a parallel agreement? Has the City discussed with PECO or the Pennsylvania Public Utility Commission whether a non-utility may serve multiple City accounts across public rights-of-way?

> **Response:** The City has not selected an ownership structure (refer to the response to Question 22). Respondents proposing third-party ownership, or service to multiple City accounts, should describe the regulatory approach they assume, including any utility or Pennsylvania Public Utility Commission (PUC) approvals they believe would be required. The City has not yet evaluated these questions with PECO or the PUC.

## 34. Response deadline

Given the time between the City's answers to questions on November 20 and the December 10 response deadline, including the Thanksgiving holiday, will the City extend the deadline by two to three weeks so respondents can fully incorporate the information provided?

> **Response:** The response deadline will not be extended. Responses remain due Thursday, December 10, 2026, at 5:00 PM Eastern.

# Appendix A: Site Layout with Illustrative Clusters

The clusters are illustrative groupings for planning only. They are not boundaries, and respondents may propose other groupings or phasing.

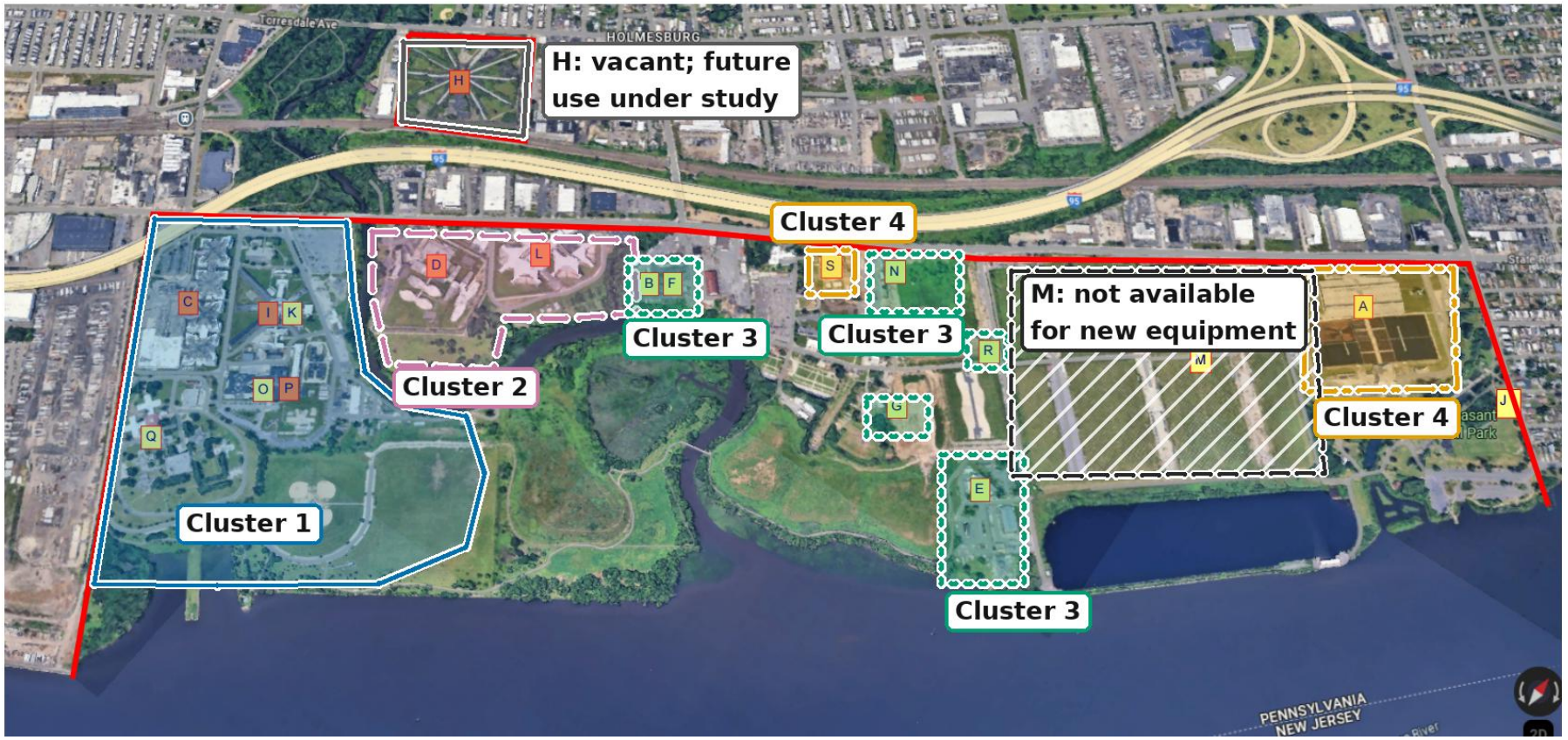



*Figure A-1. Campus site layout showing four illustrative clusters. Area M is not available for new equipment; parking area R, in Cluster 3, is available; Holmesburg Prison (H) is vacant and shown separately.*

## Cluster key

| Cluster | Description | Map markers |
|---|---|---|
| 1 | Facilities southwest of the creek | C, I, K, O, P, Q |
| 2 | Correctional facilities northeast of the creek | D, L |
| 3 | Fleet, fire, police, parking, and other City facilities | B, F, N, E, G, R |
| 4 | Water treatment and pumping facilities | A, S |
| Not clustered | Holmesburg Prison: vacant; not assumed to be part of any solution (refer to Questions 15 and 17) | H |
| Not clustered | Pleasant Hill Park | J |
| Excluded | Not available for new equipment | M |

## Facility key

| Marker | Facility |
|---|---|
| A | Water Treatment |
| B | City Fleet Facility |
| C | Prison |
| D | Prison |
| E | Fire Facility |
| F | Fleet Shop |
| G | Miscellaneous City Facility |
| H | Prison (Holmesburg Prison; vacant) |
| I | Prison |
| J | Park (Pleasant Hill Park) |
| K | Temporary Facility |
| L | Prison |
| M | Water Treatment (not available for new equipment) |
| N | Police Facility |
| O | Prison and Temporary Facility |
| P | Prison |
| Q | Shelter |
| R | Parking (available for new equipment) |
| S | Pump Station |