



THE CITY OF PHILADELPHIA
— OFFICE OF —
SUSTAINABILITY

Powering Our Future: A Clean Energy Vision for Philadelphia

Powering Our Future is a long-term vision for a Philadelphia that achieves Mayor Kenney's goal of reducing carbon emissions 80 percent from 2006 levels by 2050 while emphasizing equity and health for all Philadelphians. You can read the full plan at bit.ly/CleanEnergyVision.

Energy is at the center of our lives. But while all Philadelphians use energy, not all Philadelphians can easily afford its costs. Using energy more efficiently in our homes and transitioning away from burning fossil fuels to create energy will save money and reduce carbon pollution, which causes climate change.

Because our most vulnerable residents are disproportionately harmed by changes in our climate, the transition to a just energy system that is clean and affordable for all is critical to achieving an equitable Philadelphia.

Powering Our Future is a step toward meeting Philadelphia's recent pledge to uphold the commitments of the Paris Climate Agreement and work toward a 100% clean energy future.

The report highlights current and expected trends in our energy system and identifies opportunities for the city, other government agencies, residents, and businesses to each lead on achieving our climate and energy goals.

Clean Energy Vision Values

To transform Philadelphia's energy system to meet our city's long-term goals, the Office of Sustainability (OOS) worked with stakeholders and residents to identify five core values to guide future energy work in our city:



CLEAN:

Energy used by Philadelphians reduces our contributions to climate change and local air pollution.



EFFICIENT:

Philadelphians cut wasted energy, saving money and reducing pollution.



RESILIENT:

Philadelphians continue to have access to energy even as climate change results in higher temperatures, increased precipitation, and more extreme weather.



AFFORDABLE:

Changes to our energy system help reduce utility bills, particularly for vulnerable Philadelphians.

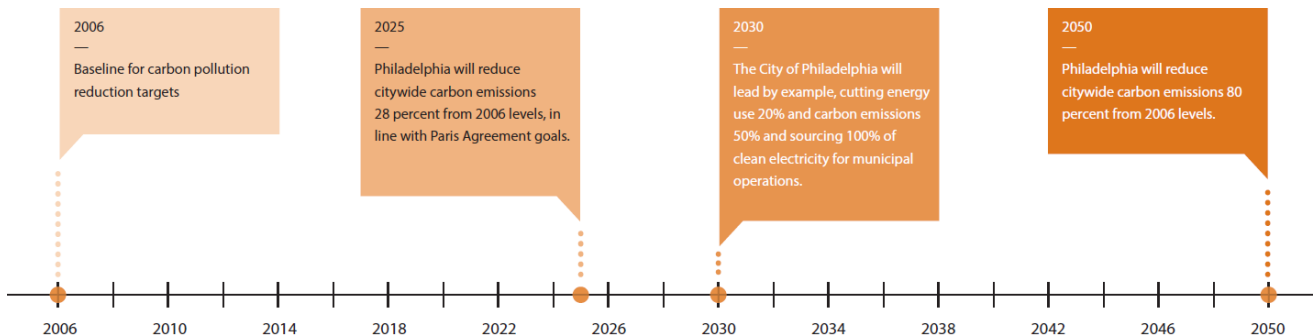


EQUITABLE:

Our energy vision acknowledges historical and existing inequities in how the energy system impacts Philadelphians and works to eliminate those inequities.

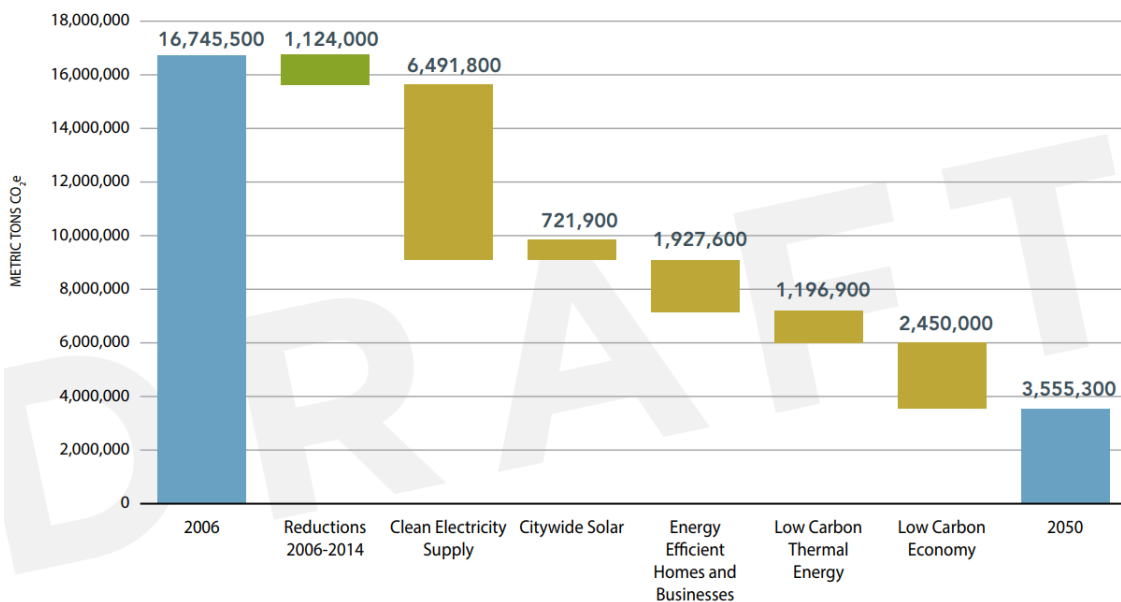
Philadelphia's Energy and Climate Goals

In the past two years, Mayor Kenney and the City of Philadelphia have set a series of ambitious targets to reduce carbon emissions and move our city toward a clean energy future:



How We'll Get There

POTENTIAL TO REDUCE CARBON POLLUTION IN PHILADELPHIA'S BUILT ENVIRONMENT



Powering Our Future covers three major parts of Philadelphia's energy system: our city's 600,000 buildings, industry, and the regional energy system that powers them. Taken together, these sectors account for nearly 80 percent of carbon emissions in Philadelphia, and transforming them will be critical to achieving a clean and just energy future.

Meeting Philadelphia's energy and carbon reduction goals will require work across all levels of government and throughout our community. OOS has grouped this work into five categories, which will form the basis of the CEV framework:

- **Clean Electricity Supply:** Philadelphia's electricity is generated by power plants not only in Pennsylvania but from a regional grid stretching from New Jersey and Delaware to West Virginia and Ohio. To achieve our goal of reducing carbon emissions 80 percent by 2050, the power plants in our regional grid must shift from reliance on coal and natural gas toward zero-carbon generation sources.
- **Citywide Solar:** As part of the transition toward a cleaner grid, Philadelphians can do our part by installing solar generation on rooftops and other surfaces throughout the city. Like energy efficiency, this strategy can save residents money while spurring economic growth and moving us toward a clean energy future.
- **Energy-Efficient Homes and Businesses:** The Environmental Protection Agency estimates that 30 percent of energy in an average commercial building is wasted. Eliminating this waste in our homes and businesses will save money, improve indoor air quality and tenant comfort, and reduce our reliance on fossil fuel-generated energy.
- **Low-Carbon Thermal Energy:** Most buildings in Philadelphia are currently heated by oil, on-site gas furnaces, or the Veolia steam loop (which uses natural gas to generate heat and electricity). Emerging technologies like microgrids, high-efficiency heat pumps, fuel cells, geothermal and solar heating systems, and renewable biogas can reduce our reliance on fossil fuel energy for heating and domestic hot water.
- **Low-Carbon Economy:** Factories, shipping, and refineries are a major source of carbon pollution within our city. By implementing the CEV, Philadelphia will create new clean economic opportunities for residents. OOS is committed to working with all stakeholders to understand how we can move together to achieve a just, healthy, and low-carbon economy that works for all our residents.



What's Next

Philadelphia's clean energy vision is a long-term initiative, but the City of Philadelphia is committed to taking immediate steps toward meeting the vision. These steps fall into three categories: leading by example, planning, and programs and policies.

Leading By Example: Since 2006 carbon emissions from City-owned and -operated buildings and streetlights have decreased by 24 percent. The City of Philadelphia will deepen this progress and demonstrate leadership in climate action by continuing to reduce energy consumption and carbon emissions from its own buildings.

Energy Planning: Powering Our Future was based in part on long-term planning conducted by OOS with support from issue experts throughout Philadelphia. OOS and partners in local government are committed to continued planning on long-term energy challenges identified in the vision.

Programs and Policies: OOS will work with community stakeholders and advocates to understand where there is collective interest in moving ahead with initiatives described throughout this document.

Public Comment

Powering Our Future is being released as a public draft to solicit additional feedback from residents, issue experts, and advocates. OOS will incorporate these results and other feedback into the final version of this report. You can complete a survey on this report by visiting bit.ly/cleanenergysurvey or connect with us directly by emailing sustainability@phila.gov.