



THE COUNTY OF CHESTER



COMMISSIONERS
Marian D. Moskowitz
Josh Maxwell
Michelle Kichline

Brian N. O’Leary, AICP
Executive Director

PLANNING COMMISSION
Government Services Center, Suite 270
601 Westtown Road
P. O. Box 2747
West Chester, PA 19380-0990
(610) 344-6285 Fax (610) 344-6515

Chester County Environmental and
Energy Advisory Board

Hybrid Meeting – GSC Suite 270/Zoom
Government Services Center
July 27, 2022

AGENDA

2:30 p.m. 1. CALL TO ORDER

- A. Welcome
- B. Introduction of Sarah Sharp, new EEAB member

Jess Cadorette, Chair

2:35 p.m. 2. ACTION ITEM

- C. Adoption of April 27, 2022 Minutes
- D. Bylaws Revision

Jess Cadorette, Chair
Brian O’Leary

2:45 p.m. 3. DISCUSSION ITEMS

- E. EEAB Subcommittee Reports
 - 1) Environmental Subcommittee
 - 2) Clean Energy Subcommittee

Carol Stauffer
Jim Wylie, Subcommittee Chair

3:20 p.m. 4. UPDATES AND COMMENTS

- F. Outreach Updates
 - 1) County outreach activities
- G. Climate Action Plan Metrics
- H. Open Space Outreach
- I. Grid Scale Solar Update
- J. Regional Power Purchase Agreement Update
- K. Planning Commission Director’s Report
- L. Other Updates
- M. Public Comment

Rachael Griffith

Rachael Griffith

Rachael Griffith

Brian O’Leary

Jan Bowers/Carol Stauffer

Brian O’Leary

Board Members

4:00 p.m. 5. ADJOURNMENT



THE COUNTY OF CHESTER

COMMISSIONERS

Marian D. Moskowitz

Josh Maxwell

Michelle Kichline

Brian N. O'Leary, AICP

Executive Director

PLANNING COMMISSION

Government Services Center, Suite 270

601 Westtown Road

P. O. Box 2747

West Chester, PA 19380-0990

(610) 344-6285 Fax (610) 344-6515



Next quarterly meeting – October 26, 2022

Attachments:

Draft April 27, 2022 Minutes

Proposed amendments to EEAB bylaws



THE COUNTY OF CHESTER



COMMISSIONERS
Marian D. Moskowitz
Josh Maxwell
Michelle Kichline

Brian N. O'Leary, AICP
Executive Director

PLANNING COMMISSION
Government Services Center, Suite 270
601 Westtown Road
P. O. Box 2747
West Chester, PA 19380-0990
(610) 344-6285 Fax (610) 344-6515

Environmental and Energy Advisory Board
Government Services Center Suite 270

April 27, 2022
Hybrid meeting

MINUTES

MEMBERS PRESENT IN PERSON: Jess Cadorette, Chair; Paul Spiegel, Vice-Chair; Brian O'Leary, Secretary; Jan Bowers; David Busch; Mike Murphy; Jim Wylie.

MEMBERS PRESENT VIA ZOOM: Jon Altshul; Seung Ah Byun; Mark Connolly; Karena DiLeo; Ann Hutchinson; Steve Krug; Dave Stauffer; Chris Strohmaier; Kevin Warren; Will Williams.

OTHERS PRESENT IN PERSON: Carol Stauffer, CCPC; Beth Cunliffe, CCPC; Gene Huller, CCPC; Benny Nein, CCPC; Rachael Griffith, CCPC; Suzanne Wozniak, CCPC.

OTHERS PRESENT VIA ZOOM: Carolyn Conwell, CCPC.

VISITORS PRESENT IN PERSON: Al Wright; Jason Carey.

CALL TO ORDER:

The Environmental and Energy Advisory Board meeting, held in the Government Services Center Suite 270 and via Zoom video/audio on Wednesday, April 27, 2022 was called to order at 2:31 P.M. by Chair Jess Cadorette.

Ms. Cadorette introduced new board member Karena DiLeo and the new Chester County Planning Commission Sustainability Director Rachael Griffith.

ACTION ITEMS:

Adoption of January 26, 2022 Minutes:

A MOTION TO ADOPT THE MINUTES FROM THE JANUARY 26, 2022 MEETING WAS MADE BY MR. WYLIE, SECONDED BY MR. BUSCH, AND PASSED BY UNANIMOUS VOTE OF THE BOARD.

DISCUSSION ITEMS:

EEAB Bylaws Revision:

Mr. O'Leary discussed two proposed revisions to the bylaws.

1. Article V, 5.1 – “with no more than three (3) consecutive terms for either the chair or vice-chair.”
2. Article VI, 6.5 – “Secretary shall notify the Commissioners of any vacancies of members from the Board.”

After concurrence of the board, Mr. O’Leary noted that he will share the proposed bylaws changes with the county solicitor and will share the revised bylaws with all board members at least 30 days before the next board meeting on July 27, 2022.

Subcommittee Reports:

Environmental Subcommittee:

Ms. Griffith reported that two subcommittee meetings have been held since the January 26, 2022 EEAB meeting. The group discussed whether they wanted to take on individual projects or act in an advisory role. Discussion included supporting the Planning Commission work program with upcoming work and developing recommended policies or programs around woodlands protection and natural resources. Subcommittee members also discussed carbon credits and what the potential might be in Chester County for landowners to take advantage of existing programs.

Clean Energy Subcommittee:

Mr. Wylie reported that two meetings have been held by the Clean Energy Subcommittee, which will continue to meet monthly. There are currently eight members. Discussions included the following: Engagement with large energy users about energy benchmarking, onsite solar advocacy, electrification of buildings and vehicles, and sharing of the Chester County Climate Action Plan with specific groups.

Mr. Wylie added that the group also discussed potential partners and coordinating with municipalities, hosting a solar stakeholders conference, tracking community solar and community choice aggregation, training on building codes and best practices for sustainability checklists, and transportation issues.

UPDATES AND COMMENTS:

Natural Resource Protection Outreach:

Ms. Stauffer spoke about the efforts that the Planning Commission has been working on since 2010 when the Planning Commission created an inventory and began tracking municipal natural resource protecting standards. Specifically, five natural resources of woodlands, wetlands, steep slopes, floodplains, and riparian buffers are included in the inventory. In 2020, the inventory was used as a basis of an outreach effort to municipalities to offer guidance and assistance to make their protection standards more effective.

Ms. Griffith continued and noted that general outreach went to all 73 municipalities letting them know the inventory was established. The inventory was shared with 21 municipalities and direct assistance was offered to four municipalities. Staff are currently updating ordinances for two municipalities.

Ms. Griffith and Ms. Stauffer participated in a panel discussion at a sustainability conference in Delaware County. The four counties surrounding Chester County created an inter-county group on sustainability. Staff attended several events in the area and distributed Planning Commission materials.

Ms. Stauffer presented the Climate Action Plan to a group of Northern Chester County EAC members. The County is forming a stakeholder committee on the County-Wide Master Trail Plan, and a representative from the EEAB is invited to participate on the committee.

C-PACE Update:

Ms. Griffith noted that the Commercial Property Assessed Clean Energy (C-PACE) program is active in Chester County and accepting applications for clean energy projects. The C-PACE program is open to helping owners of commercial, industrial, nonprofit, and agricultural properties to fund energy and water conservation projects. This program will allow Chester County commercial property owners to access long-term loans to pay for renewable energy systems, energy-efficient equipment, and fixtures that reduce water consumption.

Regional Power Purchase Agreement Update:

Ms. Stauffer and Ms. Bowers updated the board on the status of the Chester County Regional Power Purchase Agreement. Staff have been working with the consultant, Enel X North America, and meeting monthly.

Planning Commission Director's Report:

Grid-Scale Solar Guide:

The members were introduced to the new Chester County Planning Commission website area for the Chester County Solar Power Guide. This information provides guidance to the county's municipalities on regulating solar power facilities. The guide is focused on larger grid-scale solar facilities, which are essentially electric generation plants; however, it also includes information and links on accessory use of solar power.

The site currently includes three main areas. Solar Power Trends, Planning for Solar Power and Regulating Solar Power at the Municipal Level. The website can be found at <https://www.chescoplanning.org/uandi/SolarPowerGuide/Introduction.cfm>

Mr. Connolly mentioned that PECO, in response to solar installers' requests, provides an interconnection viability map. <https://www.peco.com/MyAccount/MyService/Pages/DERInterconnectionViability.aspx>

Mr. Wylie inquired about the model solar ordinance that DVRPC is currently preparing. Mr O'Leary noted the ordinance may be complete as early as this summer. The Board agreed they would like to review and offer comments on the ordinance when a draft is available.

Protected Open Space – 2021 Totals:

Each year the Planning Commission estimates the amount of total protected open space within Chester County and compares it to estimates from the past ten years. Mr. O'Leary reported that according to Protected Open Space Tracking (POST), 147,000 acres of protected open space, or 30.2% of the County, was preserved as of December 31, 2021. An estimated 2,930 acres of open space were protected in 2021.

Ms. Griffith mentioned the upcoming Protected Open Space Summit – Farms for the Future. The Chester County Commissioners along with the Planning Commission and Department of Parks + Preservation will hold the event on Tuesday, May 10, 2022, beginning at 4:00 pm at Springton Manor Farm. Part of the event will include remarks by the PA Secretary of Agriculture Russell Redding on Chester County's agriculture industry and the importance of agricultural preservation. Additionally, tours of preserved farms are being offered during May to highlight the variety of agriculture in the county. These events are in-person and registration is required.

Other Updates:

There were no other updates.

The next quarterly meeting will be on July 27, 2022.

Public Comment:

Mr. Al Wright introduced himself and provided comments regarding the Clean Energy Subcommittee and the Solar Utility-Scale Guide.

ADJOURNMENT

THERE BEING NO FURTHER BUSINESS, A MOTION TO ADJOURN AT 3:56 PM. WAS MADE BY MR. O'LEARY SECONDED BY MR. SPIEGEL AND PASSED BY UNANIMOUS VOTE OF THE BOARD.

Respectfully submitted,

A handwritten signature in black ink that reads "Brian N. O'Leary". The signature is written in a cursive style with a prominent loop at the end of the last name.

Brian N. O'Leary, AICP
Secretary

BNO/CJS/RG/slw

BYLAWS

CHESTER COUNTY ENVIRONMENTAL AND ENERGY
ADVISORY BOARD

Adopted May 28, 2020

Proposed for amendment at JULY 27, 2022 meeting

BYLAWS

CHESTER COUNTY ENVIRONMENTAL AND ENERGY ADVISORY BOARD CHESTER COUNTY, PENNSYLVANIA

ARTICLE I Name of Board

- 1.1 The name of this organization shall be CHESTER COUNTY ENVIRONMENTAL AND ENERGY ADVISORY BOARD.

ARTICLE II Authorization

- 2.1 The County Board of Commissioners (herein known as the “Commissioners”) authorized the establishment of the Chester County Environmental and Energy Advisory Board (herein known as the “Board”) with resolution number 35-19, adopted on September 12, 2019.

ARTICLE III Purpose

- 3.1 The Board shall provide review and recommendations to the Commissioners and pertinent County Departments which would, inter alia, include:
- 3.1.a Recommending best environmental and energy practices in the areas of buildings, facilities and operations; fuels, vehicles, and transportation; food; responsible purchasing; housing; energy sources; air quality; stormwater management; natural resource protection; solid waste; recycling; water; wastewater; and climate change.
 - 3.1.b Identifying environmental and energy policies the County has adopted and recommending ways to promote and educate about Chester County’s environmental and energy initiatives.
 - 3.1.c Identifying and recommending voluntary actions, projects, and programs for municipalities, businesses, non-profits, and other partners to implement county environmental and energy policies.
 - 3.1.d Reviewing and providing input into a Climate Action Plan.
 - 3.1.e Recommending environmental and energy related actions, projects, and programs to the Commissioners for implementation.

ARTICLE IV Membership

- 4.1 Members shall be appointed by the Commissioners. Except for ex-officio members, each member is to serve a two-year term, except that, when the Board is first created, half of the members shall be appointed for three years and half for two years.

- 4.2 Membership shall consist of the following:
 - 4.2.a Four Chester County citizens
 - 4.2.b Four Chester County business representatives
 - 4.2.c One representative of Chester County Economic Development Council's Smart Energy Initiative (SEI)
 - 4.2.d One representative of Chester County Association of Township Officials
 - 4.2.e One representative of Chester County Municipal Managers Consortium
 - 4.2.f Two representatives of Chester County's land conservancies
 - 4.2.g Two representatives of utility companies serving Chester County
 - 4.2.h Executive Director of Chester County Planning Commission (ex officio)
 - 4.2.i Executive Director of Chester County Water Resources Authority (ex officio)
 - 4.2.j Chester County Director of Parks and Preservation (ex officio)
 - 4.2.k Chester County Director of Emergency Services (ex officio)
 - 4.2.l Director of Chester County Conservation District (ex officio)
 - 4.2.m Director of Chester County Facilities (ex officio)

- 4.3 The six county department directors shall be ex officio with no term limit. Ex officio members of the board shall be full voting members and may be represented by a designated alternate when they are unable to attend a board meeting.

ARTICLE V
Officers

- 5.1 The officers of the Board shall consist of Chair, Vice-Chair, and Secretary. The terms of officers shall be one year, with no more than three (3) total consecutive terms for either the chair or vice-chair.

- 5.2 The Chair shall preside at all meetings and hearings of the Board and shall have the duties normally conferred by parliamentary usage on such officers. At each meeting, the Chair shall submit such recommendations and information as may be considered proper concerning the business affairs and policies of the Board.

- 5.3 The Vice-Chair shall act for the Chair in his/her absence. In case of the resignation or death of the Chair, the Vice-Chair shall perform such duties as are imposed on the Chair until such time as the new Chair shall be selected.

- 5.4 The Secretary shall keep the Minutes and records of the Board, and with the assistance of such staff as is available, shall prepare the agenda of regular and special meetings under the direction of the Chair, provide notice of all meetings to Board members, arrange legal notice of meetings, attend to correspondence of the Board, and such other duties as are normally carried out by a Secretary.

ARTICLE VI
Election of Officers and Reorganization

- 6.1 An annual organization meeting of the Board and election of officers shall be held at the first meeting of the calendar year.

- 6.2 Nominations shall be made from the floor or by a nominating committee at the annual organization meeting, and election of officers set forth in Section 5.1 of Article V shall follow immediately thereafter.
- 6.3 A candidate receiving a majority vote of the entire membership of the Board shall be declared elected.
- 6.4 Vacancies in office shall be filled by the Board by regular election procedures at the next regular meeting.
- 6.5 The **Secretary** shall notify the Commissioners of any vacancies of members from the Board.

ARTICLE VII
Meetings

- 7.1 Meeting dates, times and locations for the year shall be determined by the Board at its organization meeting. Meetings shall be held on a quarterly basis, or as needed. In the event of conflict with holidays or other events, a majority of the members present at an official meeting may change the date or location of said meeting. Notice of all public meetings shall be posted on the Planning Commission website.
- 7.2 Notice of the time and place of additional meetings, except special meetings, or changes to the scheduled quarterly meetings shall be posted on the Planning Commission website.
- 7.3 A quorum shall consist of a majority of currently appointed members of the Board. A quorum shall be required to take action on business items. Action shall be by a majority of the members participating in the meeting and voting, which can be done in person or remotely via an electronic device. Voting shall be by voice vote. A record of the vote shall be kept as part of the Minutes.
- 7.4 Special meetings may be called by the Chair. It shall be the duty of the Chair to call a special meeting when requested to do so by a majority of members of the Board. The Secretary shall notify all members of the Board in writing or by e-mail not less than five (5) days in advance of such special meetings.
- 7.5 All meetings, or portions of meetings, at which official action is taken, shall be open to the general public. However, the Board may meet in executive session for discussion purposes, in compliance with the Pennsylvania Sunshine Law.
- 7.6 Unless otherwise specified, “Robert’s Rules of Order” shall govern the proceedings at the meetings of this Board.

ARTICLE VIII
Order of Business

- 8.1 The Secretary of the Board, under the direction of the Chair, shall establish the agenda for each regular, special, and executive meeting.

ARTICLE IX
Amendments

- 9.1 These Bylaws may be amended by a majority vote of the entire membership of the Board.
- 9.2 Notice of the proposed change in the Bylaws must be given at least thirty (30) days prior to the meeting at which the amendments to the Bylaws shall be considered, and this notice must be in writing by first-class mail or email to all members of the Board.

ADOPTED THIS DATE: July 27, 2022

ATTESTED:

Brian O’Leary, Secretary

Jessica Cadorette, Chair

EEAB Clean Energy Subcommittee Proposed Projects/Initiatives

Projects proposed for Q3-4 2022

Assist County with Benchmarking

Project Description: Set up ChesCo buildings on Energy Star Portfolio Manager and begin energy benchmarking. Once a year, load the ChesCo Facilities Energy Star data to a publicly available database on the county's website.

Goal: Set an example of benchmarking to encourage voluntary benchmarking for municipal and commercial/industrial property owners. Voluntarily track energy, using Energy Star Portfolio Manager to show improvement and identify energy efficiency opportunities.

CAP Action: Buildings & Energy A2- Benchmark select County-owned buildings on a regular basis using Energy Star Portfolio Manager.

Leader: Chester County Facilities Dept.

CCPC role: organizational support/facilitation

EEAB Role: Technical assistance, attend meetings

CCPC staff level of effort: low

Connecting Municipalities and School Districts with Funding Resources

Project Description: Assist in initiating facilities and fleet-focused energy projects for municipalities and school districts by providing a single resource of funding opportunities. This could involve: 1. Identification of funding opportunities; 2. Finding lists of recent project awards to highlight relevant local projects; 3. identify complete local case studies for print and presentation; 4. work with CCATO and other municipal organizations to present publicly or help disseminate materials.

Goal: Inspire municipalities and school districts to initiate clean energy/energy efficiency projects by providing resources and information.

CAP Action: Transportation & Land Use F11- Provide recommendations and support for police and public works departments to transition to alternative fuels/fuel efficient vehicles.

Leader: CCPC

CCPC Role: Assistance with research, lead on outreach

EEAB Role: providing funding information and contacts at municipalities and school districts

CCPC staff level of effort: medium

Convene a Solar/Distributed Energy Stakeholder Meeting

Project Description: Organize a conference or panel discussion among stakeholders involved in the distributed energy process including:

- local governments (county, some municipalities, DVRPC)
- solar installers (3 to 5 that do the most business in Chesco)
- electric utilities
- financiers (C-PACE/PennSEF, other banks)
- solar assessment entities
- land owners/business owners that have encountered barriers when trying to install

Goal: Identify barriers to installing more solar (or other distributed energy generation or storage) in Chester County; draft an action plan for removing/reducing barriers.

CAP Action: Buildings & Energy B1- Provide technical assistance and support for policies and regulations that: advance a resilient energy generation and distribution system, support the use of micro-grids, community solar and local energy management... Develop effective outreach and communication to implementers and stakeholders on these issues.

Leader: EEAB

CCPC Role: Send invites, organize meeting logistics, manage registration, facilitate meeting, document outcomes. Delegation to EEAB volunteers as much as comfortable with.

EEAB Role: Develop program, identify panelists/speakers, develop invite list, assist with logistics as needed

CCPC staff level of effort: low

Educating Municipalities on Updating Building Codes

Project Description: Host information session to educate municipalities about building energy codes and incorporating building performance standards into building codes. Demonstrate how energy efficient buildings save money, have higher occupant performance and comfort, are healthier and reduce GHG emissions. Include building code and municipal code provisions for EV-ready new construction. Potentially conduct this info session in partnership with CCATO. In addition to the event, this could also include adding best practices (example ordinances) to the Clean Energy page and simple outreach to municipal officials directing them to this information.

Goal: Provide municipalities with resources to update and enforce their codes to ensure energy efficiency standards are being met; Reduce the cost of adding EV charging infrastructure, thus encouraging the adoption of EVs.

CAP Action: Buildings and Energy E14- Assess building codes and provide guidance on who they could be enhanced to support alternative energy, greater energy efficiency, and EV use. This could include offering incentives to use the Green Building Code, ICC Zero Code... Consider requiring new construction... to be EV-ready.

Leader: SEI

CCPC Role: Help get contact info for building code officials and municipalities. This would be in Q4 2022

EEAB Role: Provide content and suggest/coordinate presenters

CCPC staff level of effort: low

Projects proposed for 2023

Develop a Voluntary Benchmarking Program and Database

Project Description: Partner with DVRPC, SEI, and others to develop a voluntary program for institutional/commercial/industrial building benchmarking and public disclosure of building energy usage data. This program would be similar to one developed by Philadelphia. DVRPC may be involved in this initiative due to similar interests across the region. Accordingly, CCPC and the EEAB's role would shift if DVRPC were instead leading the initiative. Potential activities could involve: outreach-related programming; developing a web-based database and map; assisting building owners with data submission questions.

Goal: Track energy use and greenhouse gas data in support of improving energy efficiency and promoting leaders in energy conservation.

CAP Action: Buildings and Energy E16: Develop voluntary Building Energy Benchmarking program to be established and managed by CCEDC Smart Energy Initiative, supported by County authorization, and funded via federal and state resources.

Leader: DVRPC

CCPC Role: TBD- depends on DVRPC's role.

EEAB Role: Advisory, technical assistance, recommending organizations to reach out to

CCPC staff level of effort: TBD. Depends on DVRPC's role.

Organize a Municipal Cohort Group for Climate Action and Energy Efficiency

Project Description: Invite township and borough managers to join (or send representative) to a kickoff meeting, with the development of a smaller cohort group/groups resulting from the initial meeting. Present resources available from CCPC, DVRPC and elsewhere that can help with planning, policy making and capital projects that will help advance their climate and energy transition goals. Other ideas that

could result from this include: hosting an annual conference, developing a periodic newsletter, establishing an online communication/resource sharing portal for members of the cohort.

Goal: Connect ChesCo municipalities that are interested in energy efficiency or GHG reduction actions for optimal resource sharing, collaboration, and peer networking.

CAP Action: Buildings and Energy E17- Organize a Strategic Energy Management style cohort program where local wastewater treatment plants, municipalities and school districts share best practices for energy savings, recycling, etc.

Leader: CCPC

CCPC Role: Cohort facilitator/coordinator. Municipal member(s) should eventually take a leadership role.

EEAB Role: Assist as needed with engaging with anchor institutions, large corporations, etc.

CCPC staff level of effort: low to moderate

Convene a Solar Adopters Forum

Project Description: Convene a conference aimed at larger energy users to provide information about energy efficiency, renewable energy, and electrification to high carbon emitters. Provide case studies of local companies or other organizations who have employed these technologies and utilized financing such as C-PACE. This event could also provide information about contractors who specialize in this type of work.

Goal: Provide major emitters and other environmentally conscious private and non-profit sector entities with the information, contacts, and resources needed to undertake energy efficiency and renewable energy projects to reduce greenhouse gas emissions.

CAP Actions: Buildings & Energy E18- Develop outreach programs to work with commercial and industrial sectors to encourage emission reductions actions. Also F5- Identify and recommend voluntary actions, projects, and programs for municipalities, businesses, non-profits, and other partners to implement county environmental and energy policies.

Leader: SEI

CCPC role: oversight, some promotion

EEAB Role: program development, selecting and securing speakers, promotion

CCPC staff level of effort: minimal

Promote Ordinances Requiring Electric Vehicle-Ready New Construction

Project Description: EV-Ready ordinances for new construction are being adopted by municipalities across the country. The EEAB will add best practices (example ordinances) to the Clean Energy webpage and EV Planning eTool, and CCPC will conduct simple outreach to municipal officials to encourage them to consider adopting EV-Ready ordinances.

Goal: Provide municipalities with information and case studies for adopting ordinances that require new construction to be EV-ready, which can reduce the costs of adding EV Chargers by future building owners by 4 or 5 times and can promote EV adoption.

CAP Actions: Transportation and Land Use D1- Advance efficient, reliable and innovative transportation... infrastructure systems; F4- promote use of electric vehicles and high-fuel efficiency vehicles to municipalities and residents.

Leader: EEAB

CCPC role: website updates, eTool updates, communications

EEAB Role: Provide guidance and resources to CCPC staff

CCPC staff level of effort: low

CHESTER COUNTY CLIMATE ACTION PLAN

OBJECTIVES AND ACTIONS FOR
COUNTY FACILITIES & OPERATIONS
AND COMMUNITY ENGAGEMENT

ADOPTED IN 2021



EXECUTIVE SUMMARY

DRAFT 07/21/22

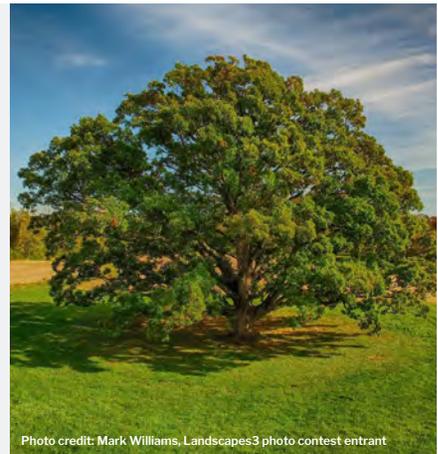
THE CHALLENGE AND OPPORTUNITY

Chester County considers climate change one of the most significant environmental challenges of the 21st century. It poses a threat not just to Chester County's natural resources, but also to the economy and community health.

Action to address climate change presents opportunities for creating a healthier, safer, and more equitable zero-carbon world. Chester County can address climate change in ways that improve public health, save money, reduce risk, increase energy security, create jobs and foster social equity. The plan provides a blueprint for reducing greenhouse gas emissions and increasing energy efficiency at county government facilities and community-wide.

VISION FOR CLIMATE ACTION

Chester County's vision for Climate Action is to reduce the county's contribution to global climate change and equitably improve the health and well-being of the community by: **reducing** greenhouse emissions through government leadership and collaboration, **mitigating** impacts of climate change through resiliency and planning, and **transitioning** to clean and sustainable energy generation.

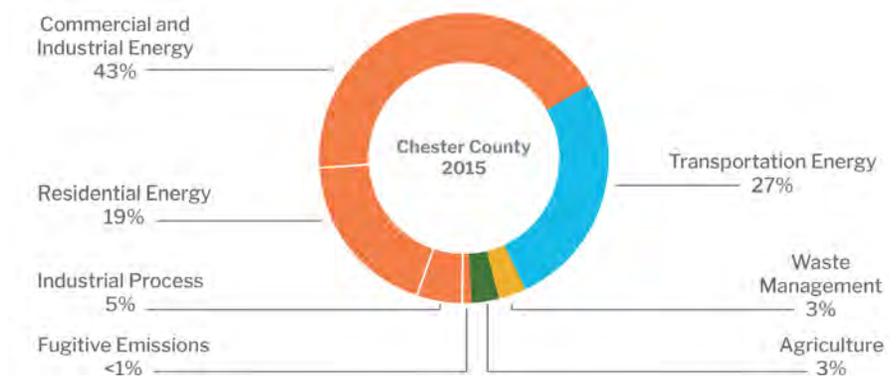


GREENHOUSE GAS REDUCTION GOAL

80% reduction of GHG emissions from 2005 levels by 2050.

The Chester County Climate Action Plan sets a goal of reducing greenhouse gas emissions by 80 percent from 2005 levels by 2050. This goal applies not only to county government, but the greater Chester County community. It aligns with the Pennsylvania Climate Action Plan 2021, as well as the Delaware Valley Regional Planning Commission's long range plan for our region.

Greenhouse Gas Emissions by Sector



Source: Chester County's GHG 2015 GHG emissions were provided by the Delaware Valley Regional Planning Commission.

OBJECTIVES

The plan identifies 17 objectives based on the four primary sources of emissions. These objectives relate to either  County Facilities & Operations or  Community-wide Engagement.

Buildings and Energy



County Facilities & Operations

- A. Increase energy-management capabilities.
- B. Increase building energy efficiency.
- C. Incorporate sustainable design into County buildings and facilities.
- D. Transition to renewable energy.



Community-wide Engagement

- E. Promote sustainable energy, energy efficiency, and communications.
- F. Establish and support an Environmental and Energy Advisory Board.

Transportation and Land Use



County Facilities & Operations

- A. Reduce employee commuter vehicle miles traveled.
- B. Optimize the County fleet.
- C. Encourage low/no carbon travel.



Community-wide Engagement

- D. Encourage smart growth balanced with land preservation.
- E. Promote efficient commuting and transit options.
- F. Encourage no/low emissions travel and transportation actions.

Waste Management



County Facilities & Operations

- A. Increase County Operations waste diversion.



Community-wide Engagement

- B. Increase county waste diversion and other best practices through partnerships and collaborations.

Agriculture, Food, and Forestry



County Facilities & Operations

- A. Manage County open spaces responsibly.



Community-wide Engagement

- B. Grow and preserve open spaces.
- C. Support local food production, the agricultural community, and sustainable agricultural practices.

TAKING ACTION

Everyone has a role in combating climate change, and accordingly, the plan includes nearly 150 actions to meet the 17 objectives. The following parties have a leading role in implementing these actions. Please contact the Chester County Planning Commission to discuss how you or your organization can help implement the plan.

County Government

Agricultural Development Council (Ag Council)
Commissioners
Conservation District (CCCD)*
Community Development
Emergency Services (DES)*
Environmental & Energy Advisory Board (EEAB)
Facilities*
Finance/Risk Management
Health (CCHD)
Parks and Preservation* (formerly Parks and Open Space)
Planning Commission*
Procurement
Water Resources Authority (CCWRA)*
Chester County Recycling Committee and GoGreen Chesco

Municipalities

Municipal government
Chester County Association of Township Officials (CCATO)*

Regional Planning

Delaware Valley Regional Planning Commission (DVRPC)

Transportation Agencies

Public transit, transportation management associations, PennDOT

Utilities*

Energy, sewer, water

Businesses*

Chester County Economic Development Council (CCECD), the Chambers

Land Trusts & Conservancies*

Environmental Advocacy Groups*

Solid Waste Authorities

Chester County (CCSWA) and Southeastern Chester County (SECCRA)

Education

School districts, private schools, universities, technical and post-secondary schools

Other Federal and State Agencies

National Park Service, PaDEP, PaDCNR

Historic Preservation Network

Citizens*

Residents and other volunteers

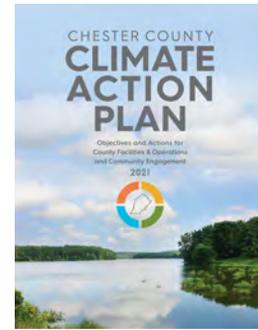
* Groups represented on Chester County's Environmental & Energy Advisory Board (EEAB)



Please contact the **Chester County Planning Commission** with questions.

601 Westtown Road, Suite 270 www.chescoplanning.org
PO Box 2747 ccplanning@chesco.org
West Chester, PA 19380 610.344.6285

THE PLAN



Read the full plan including the recommended actions:

www.chescoplanning.org/Environmental/ClimateAction.cfm ▶

ADDITIONAL RESOURCES

Chester County Clean and Sustainable Energy ▶

www.chescoplanning.org/UandI/CleanEnergy.cfm

DVRPC Energy & Climate Resources ▶

www.dvrpc.org/energyclimate/resources

PA Climate Action Plan ▶

www.dep.pa.gov/citizens/climate/Pages/PA-Climate-Action-Plan.aspx

PA Department of Environmental Protection on Climate Change ▶

www.dep.pa.gov/Citizens/climate/Pages/default.aspx



The Chester County Climate Action Plan was adopted by the County Commissioners on October 7, 2021.

Chester County Commissioners

Marian Moskowitz
Josh Maxwell
Michelle Kichline

CHESTER COUNTY
**CLIMATE
ACTION
PLAN**

2021



Primary source of emissions

- Buildings and Energy
- Transportation and Land Use
- Waste Management
- Agriculture, Food, and Forestry

Goal: 80% reduction of GHG emissions from 2005 levels by 2050.

Actions

This ambitious goal can only be achieved through actions by:

- 🏢 County Facilities & Operations
- 👤 Community-wide Engagement

Priorities of low, medium, and high are influenced by the impact to GHG emissions.

Timeframes start with the adoption of the plan (October 2021):

- Immediate: within 1 year or continue as ongoing if underway
- Short-term: within 2–3 years
- Long-Term: within 3–5 years

Performance measures will be tracked annually, unless indicated otherwise, and posted online.

[www.chescoplanning.org/
Environmental/ClimateAction.cfm](http://www.chescoplanning.org/Environmental/ClimateAction.cfm)

ACTIONS FOR Chester County Conservation District

The Chester County Conservation District is a critical partner in implementing the Climate Action Plan.

Enclosed are the specific actions listed in the plan that the Conservation District could play a key role in implementing. Some of these actions are intended to be led by the Conservation District, and others may involve a partnership with another organization.

Ready to get started?



Please contact the **Chester County Planning Commission** with questions.

Rachael Griffith, RLA, AICP
Sustainability Director
rgriffith@chesco.org

601 Westtown Road, Suite 270
PO Box 2747
West Chester, PA 19380

www.ChescoPlanning.org
610.344.6285



Buildings and Energy

Community-wide Engagement

OBJECTIVE E: Promote sustainable energy, energy efficiency, and communications

ACTIONS for Chester County Conservation District		Impact	Implementers	Priority	Timeframe	Page
	E21 Promote increased recovery of methane gas from agriculture, wastewater, and landfill operations for use as energy. Co-benefits: Jobs & economic prosperity, Public health & environmental quality		LEADER: • Conservation District • Ag Council PARTNERS: • Municipalities • Solid Waste Authorities	Medium	Long-term	48



Transportation and Land Use

The plan does not assign any actions under this emissions category to the Conservation District, but there may be actions where your organization could be involved.



Waste Management

County Facilities & Operations

OBJECTIVE A: Increase County Operations waste diversion

ACTIONS for Chester County Conservation District		Impact	Implementers	Priority	Timeframe	Page
	A4 Assess and reduce plastic usage in County facilities and procurement of single-use plastic products. Co-benefits: Public health & environmental quality		LEADER: CC GoGreen and Recycling and Committee PARTNERS: County Departments	Medium	Short-term	63



Agriculture, Food, and Forestry

County Facilities & Operations

OBJECTIVE A: Manage County open spaces responsibly

ACTIONS for Chester County Conservation District		Impact	Implementers	Priority	Timeframe	Page
 A2	<p>Establish a sustainable landscape management plan for County lands, including increased green infrastructure, native plants, and naturalized stormwater basins.</p> <p>Co-benefits: Public health & environmental quality</p>		<p>LEADER: Facilities</p> <p>PARTNERS: • Parks & Preservation • Conservation District • Water Resources Authority</p>	High	Short-term	69
 A3	<p>Investigate, identify, and pursue reforestation opportunities on County lands where appropriate and develop forest management plans for their long-term health.</p> <p>Co-benefits: Public health & environmental quality</p>		<p>LEADER: Parks & Preservation</p> <p>PARTNERS: • Facilities • Conservation District</p>	High	Short-term	69
 A5	<p>Encourage, integrated pest management, soil conservation, nutrient management plans, and other best management practices for agricultural operations located on County property.</p> <p>Co-benefits: Public health & environmental quality</p>		<p>LEADER: Parks & Preservation</p> <p>PARTNERS: • Water Resources Authority • Conservation District</p>	Medium	Short-term	69

Community-wide Engagement

OBJECTIVE B: Grow and preserve open spaces and natural areas

ACTIONS for Chester County Conservation District		Impact	Implementers	Priority	Timeframe	Page
 B5	<p>Support and promote tree planting in urban settings to address heat mitigation and the urban heat island effect. Explore funding sources and programs such as Treevitalize and Tree Tenders to assist with tree planting and maintenance.</p> <p>Co-benefits: Public health & environmental quality, Social equity</p>		<p>LEADER: Municipalities</p> <p>PARTNERS: • Conservation District • PA DCNR</p>	High	Immediate	70
 B7	<p>Establish a Woodland Conservation and Restoration Committee (WCRC) for Chester County consisting of representatives of a broad spectrum of organizations.</p> <p>Co-benefits: Public health & environmental quality</p>		<p>LEADER: Parks & Preservation</p> <p>PARTNERS: • Land Trusts & Conservancies • Conservation District • EEAB</p>	Medium	Short-term	70
 B8	<p>Coordinate and promote the PADEP TreeVitalize program in Chester County.</p> <p>Co-benefits: Public health & environmental quality</p>		<p>LEADER: Conservation District</p>	Medium	Short-term	71

		Impact	Implementers	Priority	Timeframe	Page
 B10	Identify opportunities and promote reforestation and afforestation on degraded lands not used for agriculture. Co-benefits: Public health & environmental quality		LEADER: Conservation District PARTNERS: • Land Trusts & Conservancies • Parks & Preservation • Municipalities	Medium	Short-term	71
 B11	Use lessons learned from County efforts to assist municipalities in identifying opportunities to convert grass lawns to wildscapes; identifying and replacing non-native plants with native species; and investigating, identifying and pursuing reforestation opportunities on municipal lands where appropriate. Co-benefits: Public health & environmental quality		LEADER: • Conservation District • Land Trusts & Conservancies PARTNERS: • Parks & Preservation • Municipalities	Low	Short-term	71

OBJECTIVE C: Support local food production, the agricultural community, and sustainable agricultural practices

ACTIONS for Chester County Conservation District		Impact	Implementers	Priority	Timeframe	Page
 C2	Promote regenerative agricultural and practices, such as no till, cover cropping open space tree planting, agroforestry, and other techniques that increase carbon sequestration in soils.* Co-benefits: Public health & environmental quality		LEADER: Conservation District	High	Immediate	72
 C5	Promote use of compost and manure to build up organic matter and increase soil carbon content. Co-benefits: Public health & environmental quality		LEADER: Conservation District	Medium	Short-term	72
 C6	Promote use of protected nitrogen fertilizers or additives to urea and ammonium sulfate such as N-Serve, Agrotain, and other products that protect nitrogen. Co-benefits: Public health & environmental quality		LEADER: Conservation District	Low	Long-term	72

* Note: "Regenerative Agriculture" describes a system of farming and grazing practices that, among other benefits, addresses climate change by rebuilding soil organic matter and restoring degraded soil biodiversity, resulting in both carbon drawdown and improving watersheds. "Agroforestry" is the integration of trees and shrubs into crop and animal farming systems enhancing long-term carbon sequestration, soil enrichment, biodiversity, and air and water quality.

Climate Action Plan Draft Metrics and Data Sources

Buildings and Energy

1. County-owned facilities benchmarking and energy use reduction using the Energy Star Portfolio Manager.
Proposed data source: TBD
2. Energy saving improvements implemented at County-owned facilities.
Proposed data source: TBD
3. Percentage of energy purchased from renewable energy sources.
Proposed data source: TBD
4. Change in the number of municipal renewable energy ordinances adopted or updated by municipalities.
Proposed data source: annual reporting from CCPC plan review planners
5. Total solar kilowatts installed county-wide certified through PA Alternative Energy Portfolio Standards (AEPS).
Proposed data source: Pennsylvania Alternative Energy Credit Program; updated in real-time, tracked by CCPC annually

Transportation and Land Use

1. Percent increase in multi-use trail, sidewalk, and bike lane mileage in the county.
Currently tracked annually
2. Percentage of residents using means other than single-occupant vehicles for transportation to work.
Currently tracked annually
3. Change in public transit ridership trips in the county including bus routes, regional rail, and AMTRAK.
Currently tracked annually
4. Percentage of new housing units that are attached or multi-family.
Currently tracked annually
5. Percentage of proposed residential lots/units in designated Growth Areas.
Currently tracked annually
6. Percentage of proposed non-residential square footage in designated Growth Areas.
Currently tracked annually
7. Number of electric vehicles county wide
Proposed Data Source: Vehicle registration data from DVRPC, tracked annually
8. Percentage of county fleet that consists of electric or other low-emission vehicles
Proposed data source: Report from Chester County fleet manager, tracked annually
- 8.9. Number of electric vehicle charging stations county-wide
Proposed data source: DOE's Alternative Fuels Data Center data, tracked annually
- 9.10. Number of municipalities that have adopted a clean energy transition plan.
Proposed data source: PA Clean Energy website; annual survey of municipalities

Waste Management

1. Percent change in municipal solid waste per capita in the county.
Currently tracked annually.

Agriculture, Food, and Forestry

1. Percent increase in protected open space.
Currently tracked annually
2. Percent increase in protected farmland.
Currently tracked annually
3. Percent increase in protected woodlands.
Proposed data source: Chesapeake Conservancy Land Cover data, Chester County Protected Open Space Tracking data
4. Net change in tree cover.
Proposed data source: Chesapeake Conservancy Land Cover data (updated every 5 years)

Draft

Addition to Solar Power Trends

Add the following subsection to the Solar Power Framework in Chester County section.

Maximum Hypothetical Demand for Solar Power Facilities in Chester County

Demand for solar power is steadily increasing in Chester County as more and more households and businesses convert to renewable electricity. With a few exceptions, most of this renewable energy is being generated from beyond Chester County's borders, but many users of this power would prefer if the energy were generated locally. A key question is, how much land would be needed to meet electricity demand locally?

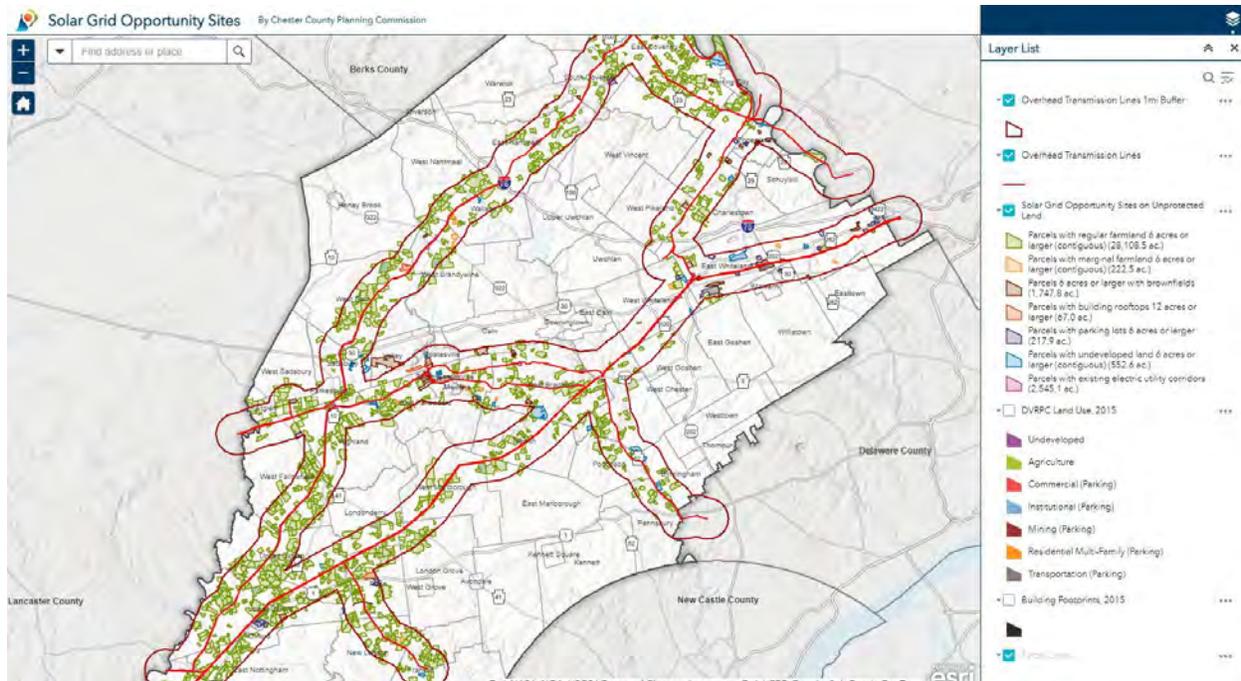
To get a rough idea of what might be needed, it is possible to calculate the amount of land needed to meet recent electricity usage in the county.

In 2015, which is the most recent data available, Chester County used an estimated 6.1 million MWh (megawatt hour) of electricity during the year. Of this, 1.7 million MWh was used by residential consumers, 4.4 million MWh by commercial and industrial users, and .2 million Mwh by regional rail. This is a lot of electricity.

Electricity generation is calculated in megawatts, while electricity used over time is calculated in megawatt hours. For solar power in southeastern Pennsylvania, a solar power facility that is classified as generating one megawatt will, on average, produce 3.56 megawatt hours per day of electricity, or 1,300 megawatt hours in a year, according to Pennsylvania Utility Commission data. (The amount of electricity produced by a solar power facility will vary by its location. In the desert in Arizona, a 1 megawatt facility will generate a lot more electricity in a day than one in cooler and cloudier Chester County.)

Taking the Chester County demand in 2015 of 6.1 million MWh and dividing by 1,300 MWh per 1 MW yields a total demand in 2015 of 4,715.7 MW. On average, a 1 MW solar field needs 6 acres of land; therefore, the 4,715.7 MW of demand, when multiplied by 6 acres of land, would yield 28,294 acres of land needed to meet all of Chester County's 2015 demand.

Does Chester County have enough suitable land to meet this demand? Probably not easily. First, as a general rule of thumb, grid scale solar facilities should be within one mile of a substation, preferably, or one mile of a high-voltage transmission line, which would require a tap in. The map below shows that Chester County currently has about 33,460 acres of land that meet this criterium. This includes all land over six acres that is vacant, farmland, or covered with parking lots, provided it is not protected open space.



Online map: [Solar Grid Opportunity Sites](#)

In addition to being relatively close to a high-voltage transmission line, grid-scale solar facilities need to be on flat or south facing slopes without shading in order to actually generate 3.56 megawatt hours per day. A significant portion of the properties identified would not meet these criteria.

Although the county might not be able to meet all of its 2015 electricity demand within the county with current solar facility technology, this technology is improving quickly, and some sources estimate that only 3 acres of land might be needed with the best equipment now available. In this case, only 14,147 acres of land would be needed.

There are other trends making the provision of solar facilities more feasible. Most importantly, many homeowners and businesses are installing their own accessory solar facilities, which not only means that they are meeting their own needs but also means they might, at times, be able to send excess electricity into the grid.

In addition, the efficiency of various appliances that use electricity is constantly improving.

On the other hand, there are trends moving the county towards more electricity consumption. One of the most important of these trends is the county's ongoing population and employment growth. Chester County is forecasted by DVRPC to add 131,000 people between 2015 and 2050, a 25.4% increase, and 71,000 jobs by 2050, a 23.5% increase. All of these new people and jobs will demand electricity.

With the trend for more people working from home, Chester County may see more electricity usage out of new households than it would have in the past.

Another trend that will lead to increased electricity demand is the accelerating conversion of gas-powered vehicles to electric-powered vehicles. Similarly, there could start being more conversions of natural-gas powered appliances and heaters to electric ones.

Overall, the county will see increasing demand for electricity and will see some of its electricity demand met by in-county solar facilities, whether they are accessory to buildings or grid-scale generating solar fields; however, it is probable that much of the county's future solar power will come from less-densely populated portions of the state.