

Radnor Township

Ready for 100

January 28, 2019



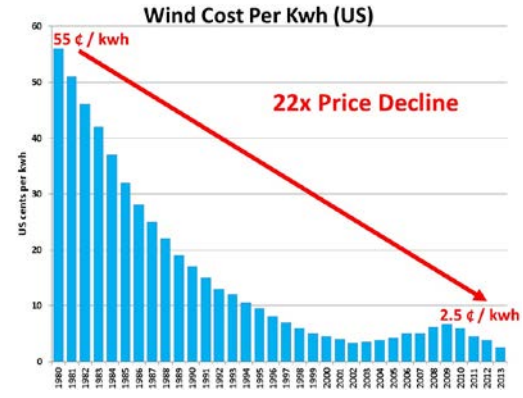
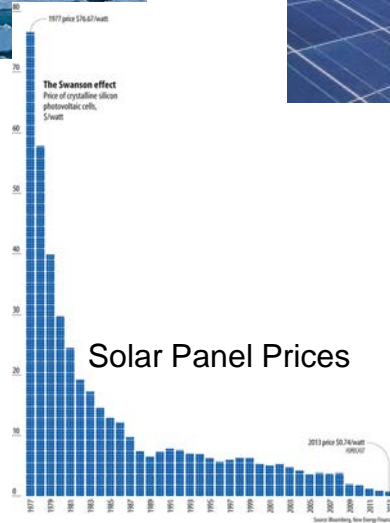
Jim Wylie

Sierra Club, Southeastern PA Group
Volunteer, Exec Cmte Chair

Sara Pilling

Radnor For 100
Volunteer, Resident

Why Renewable Energy?



Gov Wolf Declares State Of Emergency in Delaware County After Touring Flooded Areas



8/17/2018

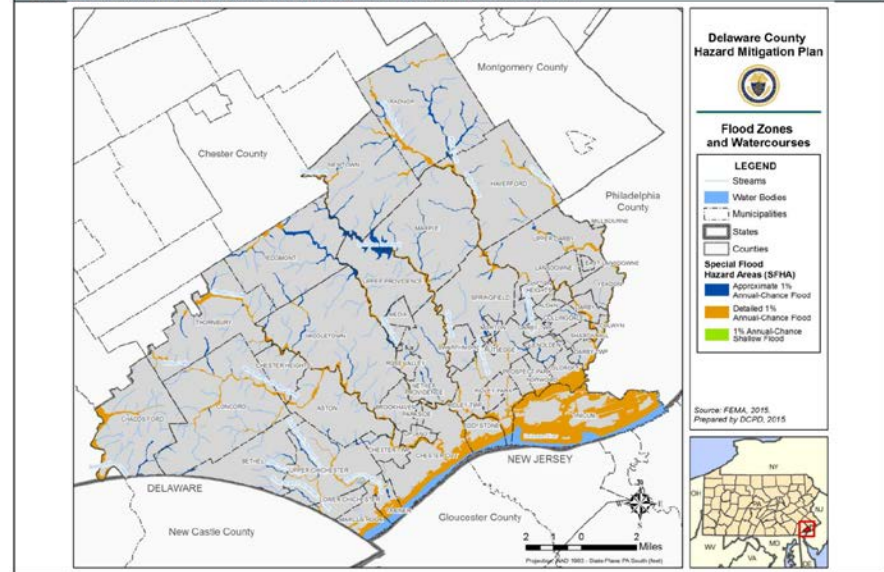
Flood risk from high precipitation events

Climate Change: The global climate has experienced significant changes over the last few decades due to increased temperatures that are caused by elevated levels of greenhouse gases in the troposphere. ***The increased temperatures have also created more variability in the occurrence of storms as well as the severity of individual storm events.***

p15 MontCo 2017 Hazard Mitigation Plan



Figure 4.3.4-3: Location of Watercourses and Flood Zones Throughout Delaware County.

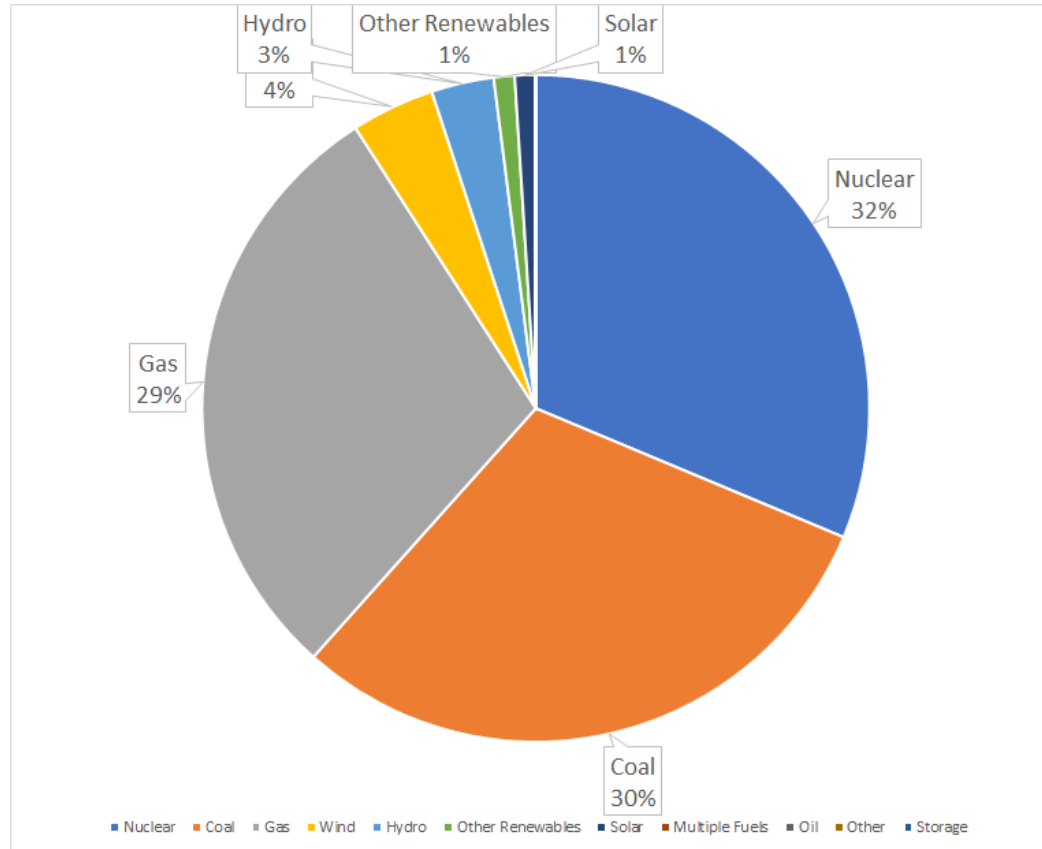


Delaware County 2016 Hazard Mitigation Plan

Table 4.3.4-7: Structure and Critical Facility Vulnerability Summary for Flood Hazards.

MUNICIPALITY	TOTAL PARCELS	TOTAL PARCELS IN SFHA	TOTAL ASSESSED PARCEL VALUE IN SFHA	POLICIES IN FORCE	TOTAL CRITICAL FACILITIES	TOTAL CRITICAL FACILITIES IN SFHA	ESTIMATED 2010 POPULATION IN SFHA*
Prospect Park	2,194	41	\$8,077,847	11	9	0	1,413
Radnor Township	8,732	725	\$458,487,890	184	40	0	9,497

PJM Grid Mix - Wed. 4/11/2018, 9 am



What Is?



Vision

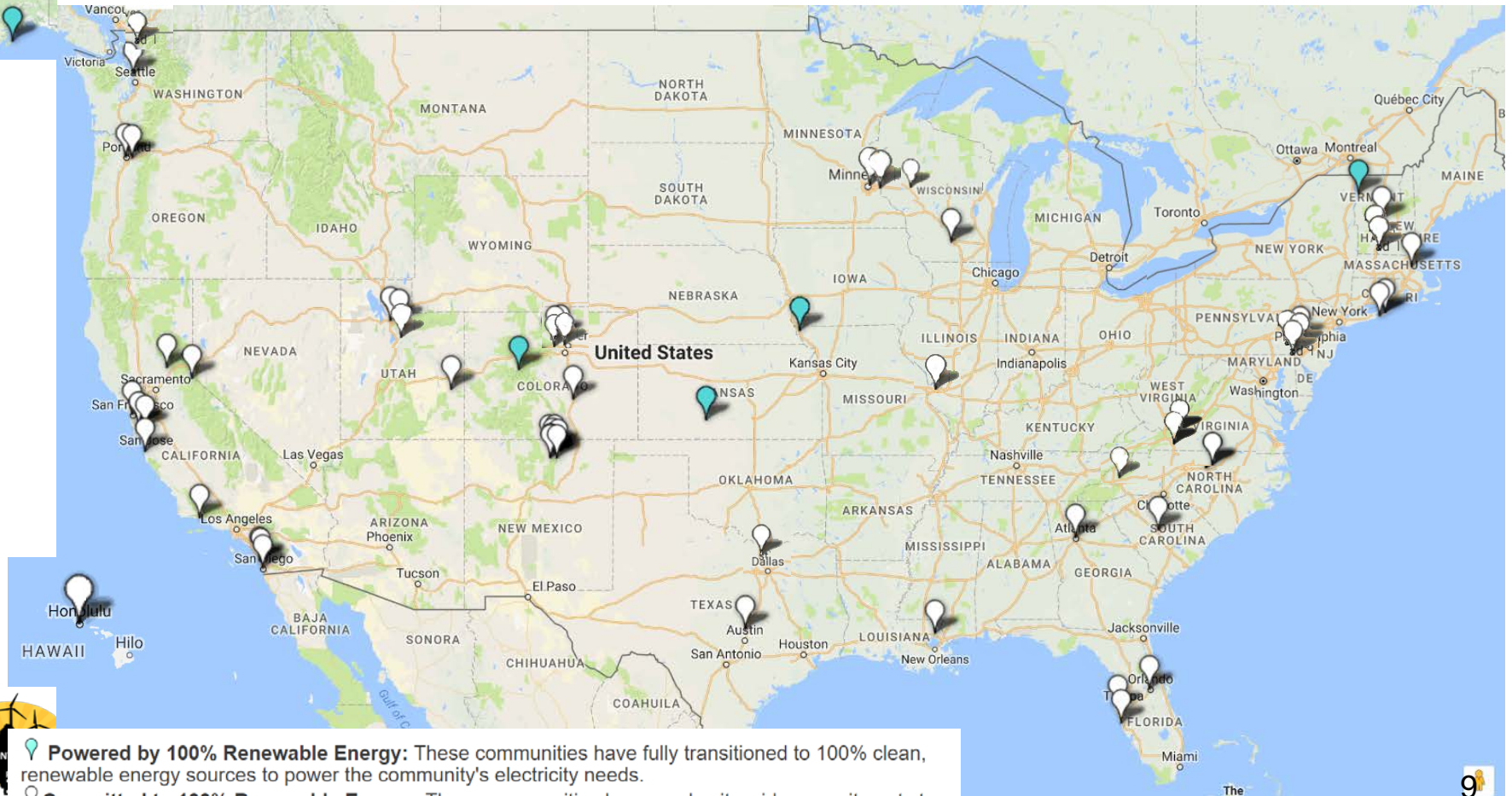
We envision healthy, thriving communities across the United States, powered by affordable, community-based, and 100% clean, renewable sources of energy; where our energy system is predicated on racial, economic and environmental justice; where a thriving workforce has access to secure, safe and sustainable jobs; and where there is democratic accountability to ensure that the energy industry is fair, just and aligned with the public interest.


Values


We advocate for clean, affordable, renewable energy systems rooted in **equity, democracy, and local agency**. We are committed to working in **collaboration** with **communities** to foster **love** and **connection**, and to strive for **justice** by acknowledging and addressing inequality.



100% Renewable Electricity Cities: 100 Commitments, 5 counties, 2 states. 6 Have Achieved



 **Powered by 100% Renewable Energy:** These communities have fully transitioned to 100% clean, renewable energy sources to power the community's electricity needs.

 **Committed to 100% Renewable Energy:** These communities have made city-wide commitments to transition to 100% clean, renewable energy no later than 2050.



71% of Pennsylvanians

support a goal of generating 100% of the state's electricity using clean, renewable energy by 2030.

61% of Pennsylvanians say this goal is realistic after learning that over 50 cities across the country already have this goal.



sc.org/2IE67Ws



Who Has Done It? Who's Next?



Phoenixville, West Chester 9/2017

Downingtown 12/2017

Kennett Township 5/2018

East Bradford, Bridgeport

Haverford Twp, Springfield (M)



Phoenixville 9/2017



Montgomery County

RF100 Communities

Delaware County

Passed Resolution

- Bridgeport Borough
- Springfield Twp

Discussing

- Ambler Borough
- Conshohocken Borough
- Lansdale Borough
- Lower Merion Township
- Narberth Borough
- Plymouth Township
- Whitemarsh Township

Interested

- Abington Township
- Cheltenham Township
- Lower Gwynedd Twp
- Norristown Borough
- Upper Dublin Township
- West Norriton Township
- *Montgomery County Commissioners*

Passed Resolution

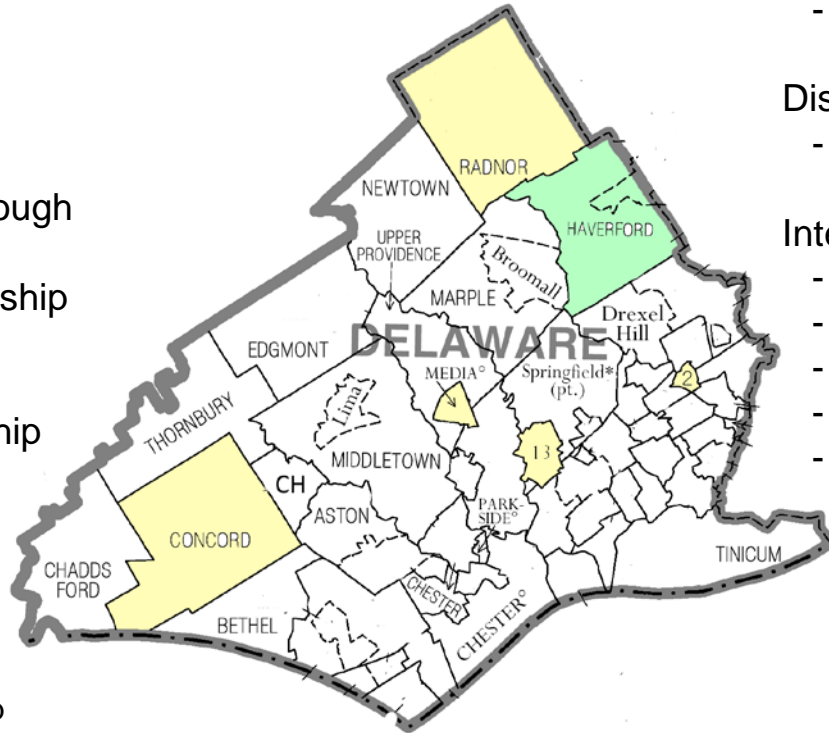
- Haverford Township

Discussing

- Radnor

Interested

- Swarthmore
- Media
- Concord
- Upper Providence
- Upper Darby



Chester County Clean Energy Leaders

Council, Supervisors, Committees

Wayne Braffman, member, Kennett Square Borough Council
Doug Doerfler, Kennett Square Borough Council
Richard Leff, Kennett Township Supervisor
Jonathan R. Meyers, Member, Schuylkill Township Environmental Advisory Council
Stephen P. Kunz, Schuylkill Township EAC
Karen Cronin, West Chester Borough, Sustainability Advisory Committee
David Mazzocco, Chair, Borough of West Chester Sustainability Advisory Committee
Debra Goodridge, West Goshen Sustainability Task Force
David Shuey, East Goshen Township Supervisor

All co-signers of a letter to
Chester County Planning Commission

Mayors

Matt Fetick, Mayor of Kennett Square Borough
Josh Maxwell, Mayor of Downingtown Borough
Dianne Herrin, Mayor of West Chester Borough
Peter Urscheler, Mayor of Phoenixville Borough

Volunteers

Henry Alexander, P.E., West Goshen Township Volunteer
Alexa Manning, Uwchlan Township volunteer
Jim Wylie, West Chester Borough Volunteer Sierra Club
Paula Kline, Westtown Township Volunteer
Eunice L. Alexander, West Goshen Township volunteer
Janet S. Cleaver, Pennsbury Township, Volunteer 4CP
Jennifer Cox, Tredyffrin Township, Volunteer
Rutger Boerema, Tredyffrin Township, Volunteer



West Chester Area Council Of Governments

100% Renewable Energy Planning RFQ
Received 9 Quality Responses:



protogenenergy.com

CADMUS

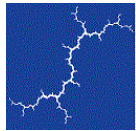
cadmusgroup.com



noresco.com



optenergy.com



Synapse
Energy Economics, Inc.

synapse-energy.com



pwius.com



newr-energy.com



amerexenergyservices.com



forefrontpower.com



practicalenergy.net

Commit:

Plan:

Act:

Symbolic Statement

Start the conversation - get people's attention

Clean Energy Resolution

Goal Setting Shows Political Commitment

Moving the resolution through committees gets more leaders involved, incorporates various interests

Energy Transition Plan (or Climate Action Plan)

A roadmap for achieving the goals of the resolution

Options, prioritize actions, cost estimates, progress metrics, equity assessments, reference models

Comp Plan Updates

Puts the energy transition in context with other sustainability initiatives

Comp Plan is the place for far-sighted goals

Energy Action

Efficiency incentives, grid options, local generation, energy storage, demand reduction, collective bargaining, micro-grids, matching buyers with sellers

Don't leave people behind - keep this transition fair and inclusive

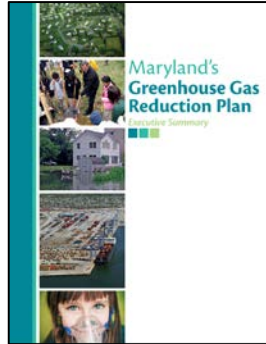
Stakeholder Engagement

Serious meetings with community, business, institutions, institutions, etc. Before, during and after the roll-out of the transition plan

Energy Transition Planning



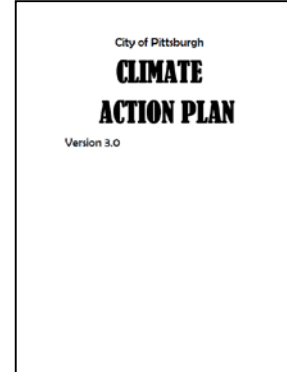
Philadelphia



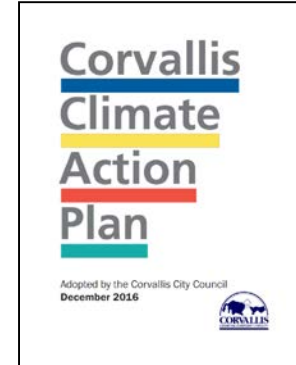
Maryland



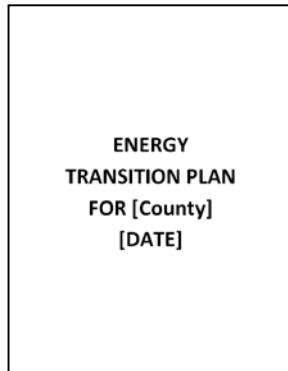
Kings
County, WA



Pittsburgh,
PA (v3 draft)



Corvallis, OR

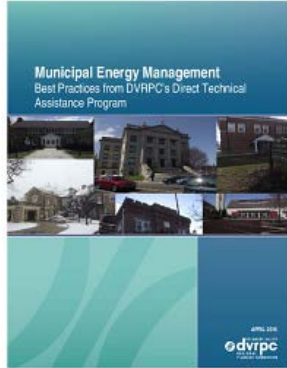


Ours?

Solutions Toolbox



Solar Permitting & Standardizing



Energy Storage



Bio-Fuels

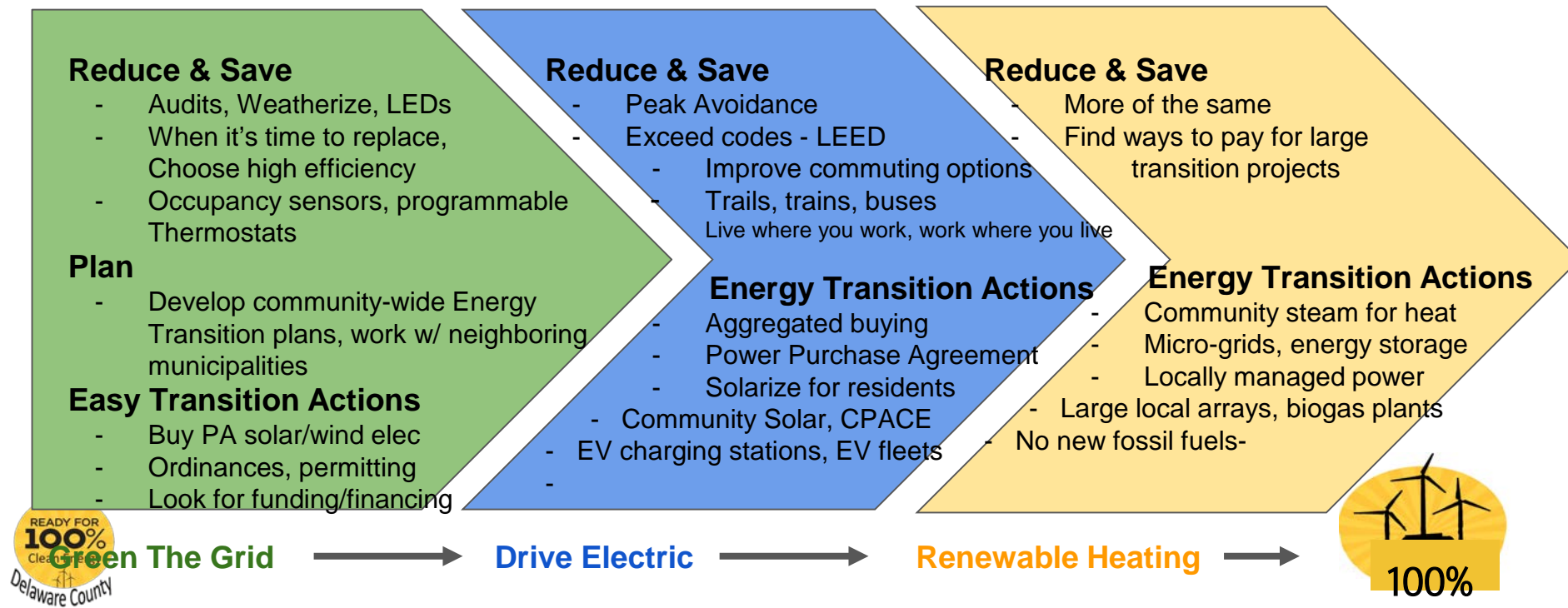


On The Horizon



Prioritizing Actions

100% means we need to tackle everything, so there is no wrong strategy. Nevertheless, our experts recommend something like this:



Reducing Energy Demand

Buildings

Building Envelope: building code enforcement, encourage exceeding code (LEED), green development checklists.

Building HVAC: require total cost of ownership disclosure at sale, incentives for high efficiency systems, discourage fossil fuel based systems, encourage CPACE funding.

Smart Building: use building orientation, occupancy sensors, etc. as leverage for conditional use approvals.
Save \$ w/ audit of muni operations, lighting.

Smart Commuting: work with CCPC to implement transit amenities: bus stops, shuttles to train station, HOV lanes. Resist investing in improving highway infrastructure (adding lanes)..

Alternatives to driving: invest in multi-use trails to connect people to destinations (not just recreational use).

Local Generation: look for financing opportunities for micro-grid and resiliency incentives for emergency services.

Transportation

Industrial

Transitioning To Renewables

Electricity

Greening The Grid: choosing PA renewable (wind, solar, hydro) sources for municipal use, aggregated buying w/ other munis to get competitive rates, join or lead a Power Purchase Agreement. **Save \$ via aggregated elec purchasing for muni operations.**

Greening PA Energy Policy: pass a resolution calling for improving the Alternative Energy Portfolio Standard (AEPS), putting a price on carbon emissions, allowing community solar and community choice.

Local/Distributed Generation: require roof or ground space for solar to meet 60% of expected elec use, prevent HOA's from prohibiting rooftop solar, CPACE funding for corp projects, LED streetlights, streamline solar permitting.

Non-Fossil Fuel Heating: find incentives and give priority to permits for geothermal systems, heat pumps, biomass, biogas, solar hot water. discourage fossil fuel based systems

Vehicles: Install EV charging stations at muni operations. Purchase EV or plug-in vehicles for muni staff. Priority parking for EVs.

Heating

Mobility

The Roadmap: Municipal Gov Actions

ReadyFor100.org/delcopa