

Ready for 100

Planning the 100% Renewable Future



[TOWNSHIP NAME TK]

[DATE TK]

What is Ready for 100?

A Sierra Club initiative to help communities transition to:

100% clean renewable electricity by **2035**

100% clean renewable energy, all sectors, by **2050**, including heat and transportation



Ready for 100 Operating Principles

- Put efficiency first
- Be equitable & just
- Prioritize local generation & job creation
- Be inclusive & transparent in planning & implementation
- Collaborate with neighboring communities
- Advocate & educate!
- Demonstrate immediate progress



Why Ready for 100?

2020-2021: the “future” arrives, after a landmark decade of climate disasters*

- Globally: Wildfires, floods, melting events, rogue heat waves
- U.S.: *Snow droughts* in Alaska, *snowmagedon* in Texas
- Regionally: Damaged infrastructure, tree die-backs, freak storms, injurious-insect and algae blooms



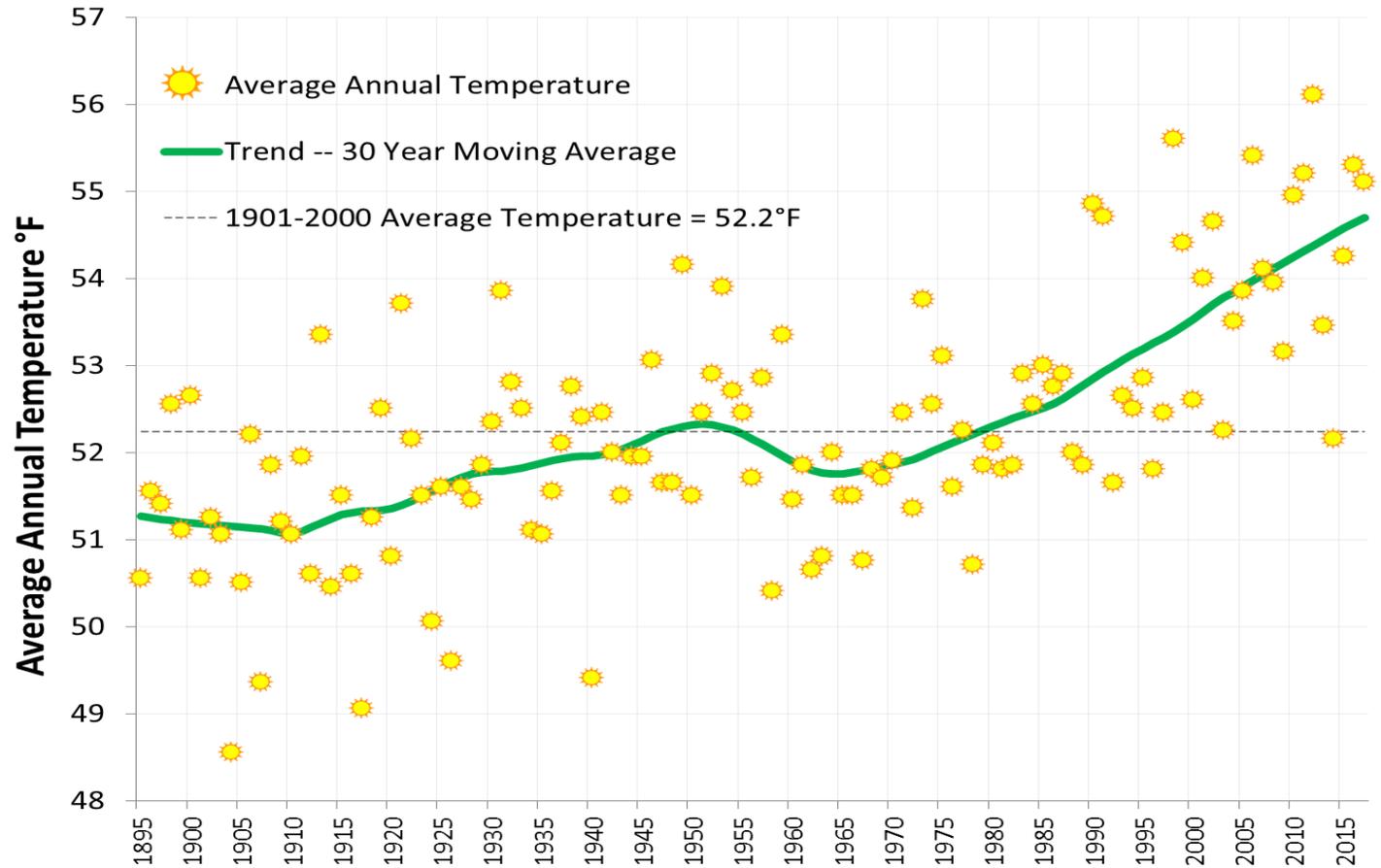
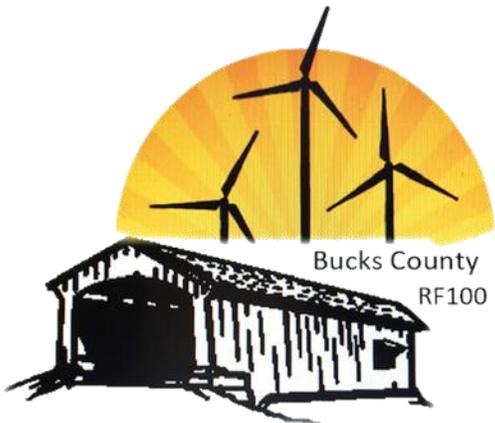
*Source: National Oceanic and Atmospheric Administration (NOAA)
[<https://www.climate.gov/news-features/category/extreme-events>]



Average Regional Temperature: 1895–2017

DVRPC data for Southeastern
PA & Southern NJ. Data last
accessed May 2018

Source: NOAA



Source: DVRPC chart using data accessed 24 May 2018 from www.ncdc.noaa.gov/cag/. Data reflects the average of two regions: Southeastern PA (Climate Div.3) and Southern NJ (Climate Div.2).

Our infrastructure wasn't made for today's hotter world.

A sticky situation: Our roadways, bridges and other critical transportation assets were built in—and *for*—a different era.

A 2017 *Nature* study found that 35% of our roadways were made with materials ill-suited to a changing climate, “significantly threaten[ing] pavement infrastructure” in the U.S.*

*Nature. Available at: <https://www.nature.com/articles/nclimate3390>



NYC's subways opened when Teddy Roosevelt was president.

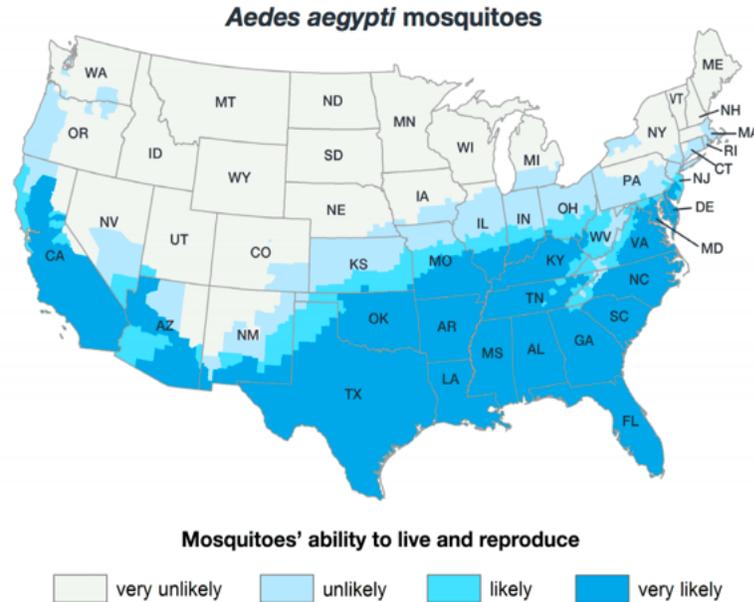
Neither were we.

Our Interstate highway system dates to the Eisenhower years.

Rising temperatures = rising health threats !!

Local mosquitoes are now active longer, and the *Ae. aegypti* mosquito has expanded its range. This has the potential to bring pathogens like dengue and Zika to new parts of the country.*

*CDC. Available at: <https://www.cdc.gov/mosquitoes/mosquito-control/professionals/range.html>



Map: Centers for Disease Control and Prevention

Fossil-fuel-related warming and air pollution have led to an increase in heatstroke, allergies, asthma, stress-related illness and premature death.*** Small children, the elderly and outdoor workers are especially vulnerable.

***CDC. Available at: <https://www.cdc.gov/climateandhealth/effects/allergen.htm>

Ticks thrive in the warmer, wetter conditions of our changing climate.** The tick-borne illness Lyme disease is especially prevalent in our area. Undiagnosed and untreated, it can cause major disability.

** CDC. Available at: https://www.cdc.gov/climateandhealth/pubs/VECTOR-BORNE-DISEASE-Final_508.pdf



Photo: Emma Lee/WHYY



Photo: Erika Machtinger, Penn State University, College of Agricultural Sciences

Not-So-Fun-Fact:

Bucks County has already warmed 2 degrees Celsius—a widely accepted climate-change tipping point—*double the average for the lower 48 states.**

Here, as elsewhere, climate change is contributing to die-backs of common tree species.**



Distressed trees in Buckingham

*Source: The Washington Post
<https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-america/>

**Source: UMass Extension
<https://ag.umass.edu/landscape/fact-sheets/dieback-of-eastern-white-pine>



But here in
green,
leafy,
bucolic
Bucks
everything's okay!

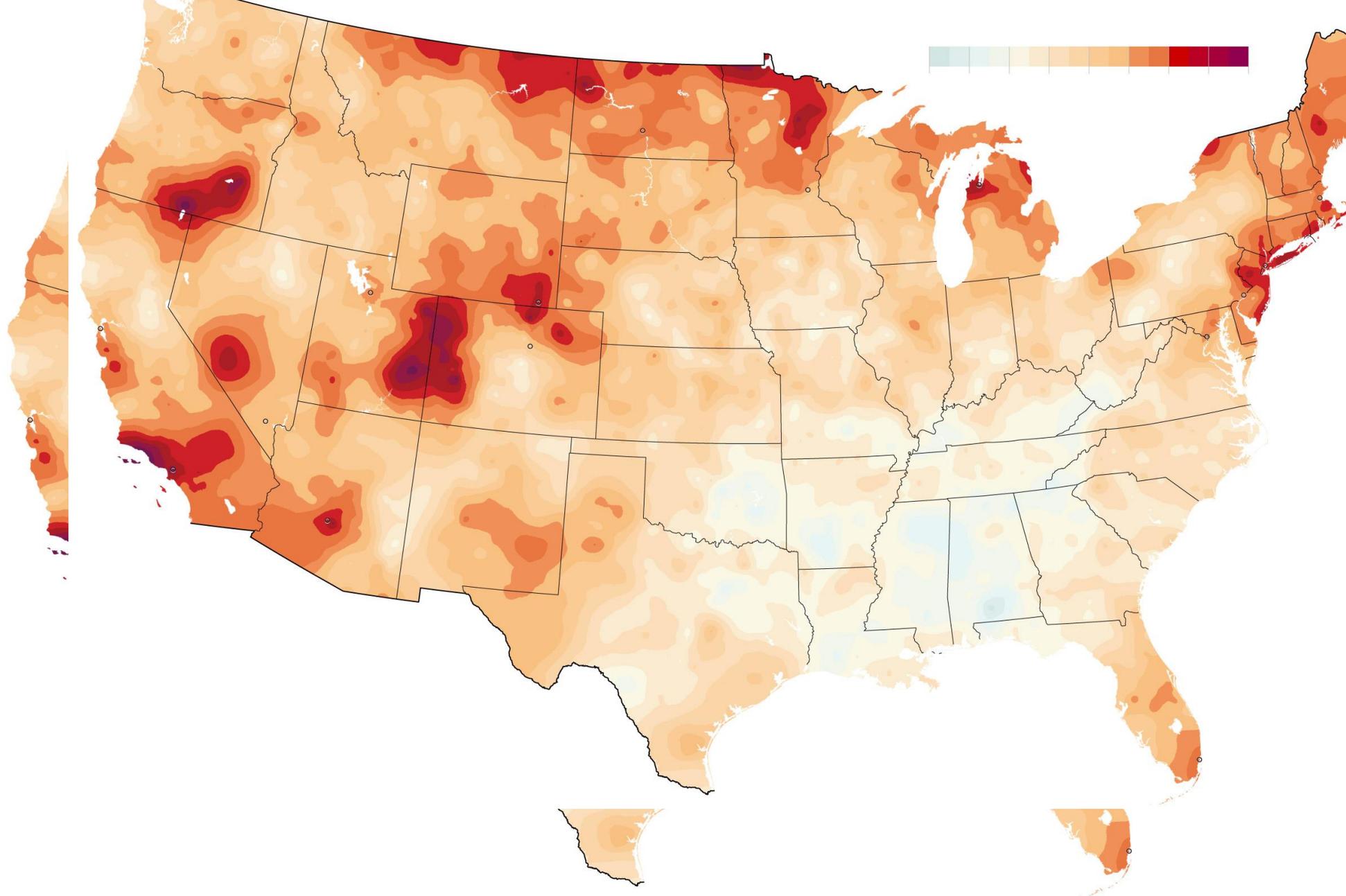
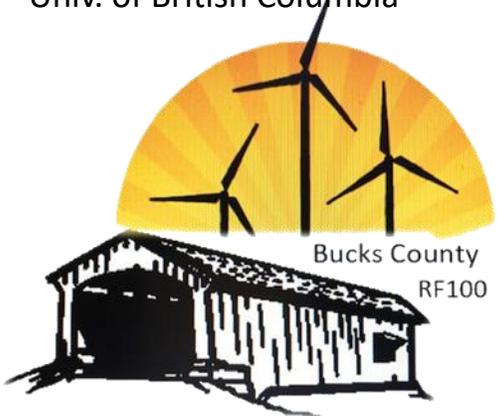
(Right?)

Watson Creek

Bucks County is one of 71 U.S. counties, out of 3,107 in the lower 48 states, to have reached the +2°C threshold.*

These hot spots are “chunks of the future in the present.”

--Daniel Pauly, PhD
Sea Around Us Project
Univ. of British Columbia



*Source: National Oceanic and Atmospheric Administration (NOAA)

This is NOT how we want to “lead.”



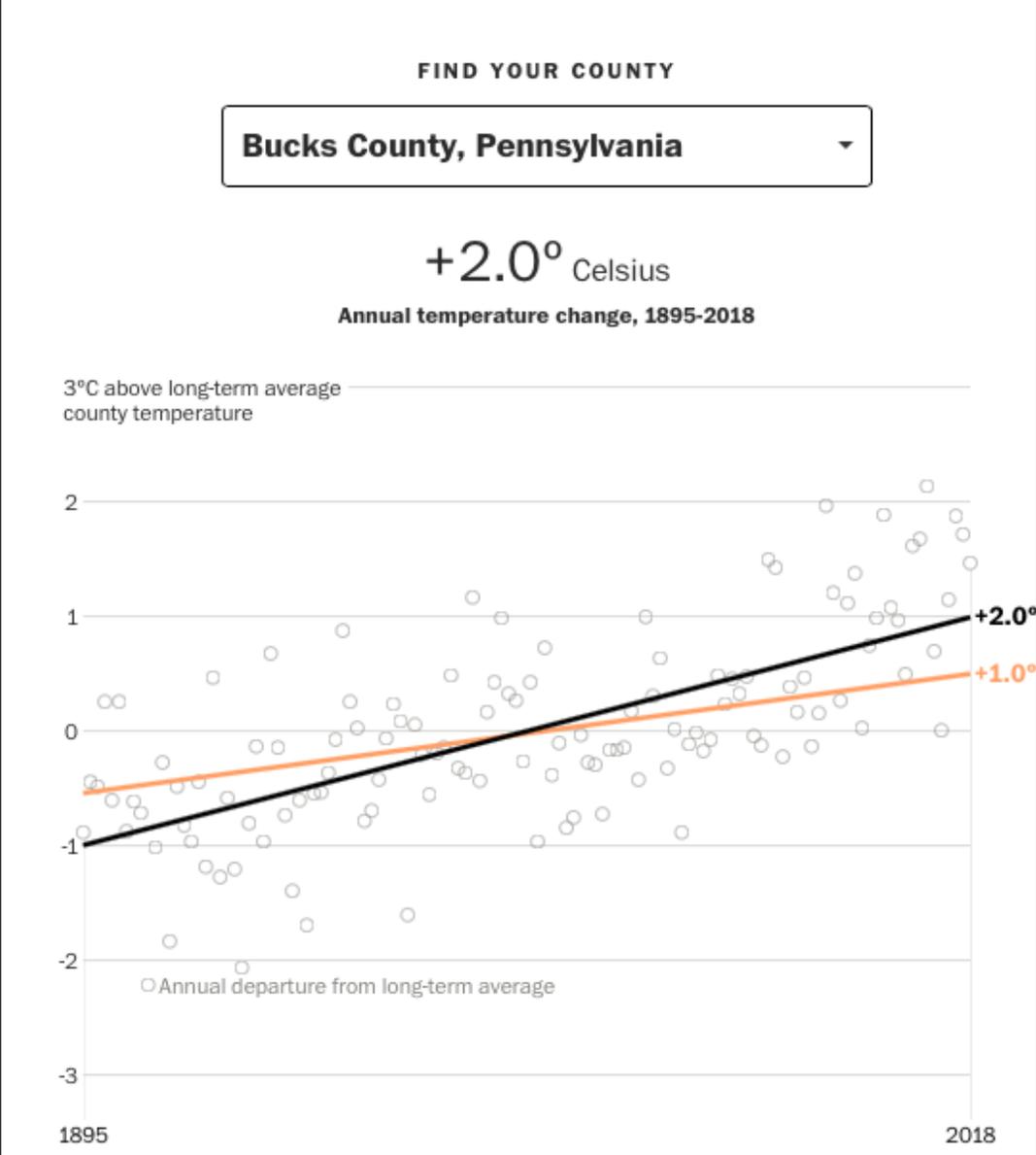
“[P]eople who live in 2-degree Celsius zones are discovering...that climate change seems remote or invisible, until all of a sudden it is inescapable.”

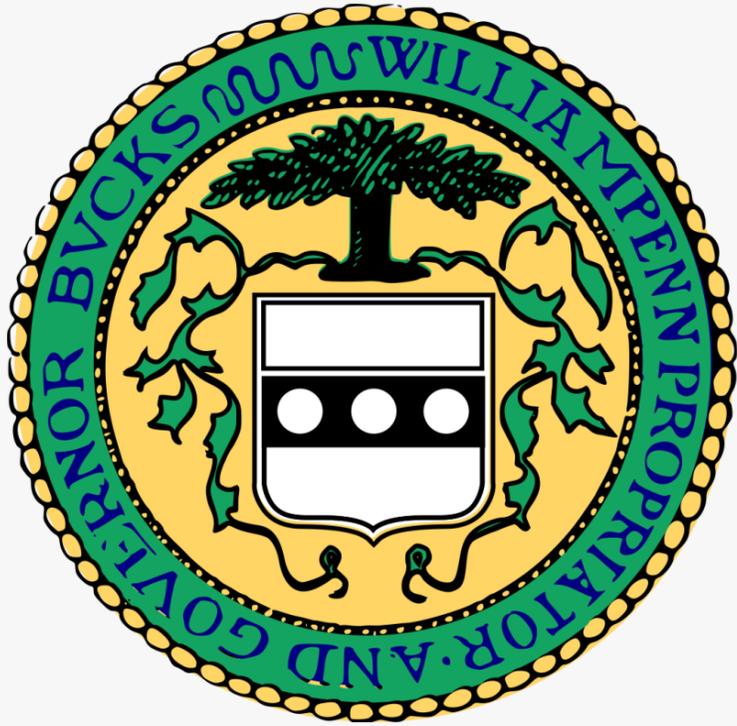
2° C: Beyond the limit

The Washington Post, Aug. 13, 2019

Black line: Average temperature increase in Bucks since consistent record-keeping began in 1895.

Orange line: Average rise in temperatures in the contiguous U.S. during the same period.





**But Bucks—and
[TOWNSHIP NAME TK]—
can.**

- [FACT ABOUT TOWNSHIP ENERGY USAGE TK]
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[DVRPC CHARTS AND DATA FOR TOWNSHIP NAME TK]



*Source: DVRPC. 2015 data.
(Most recent available.)



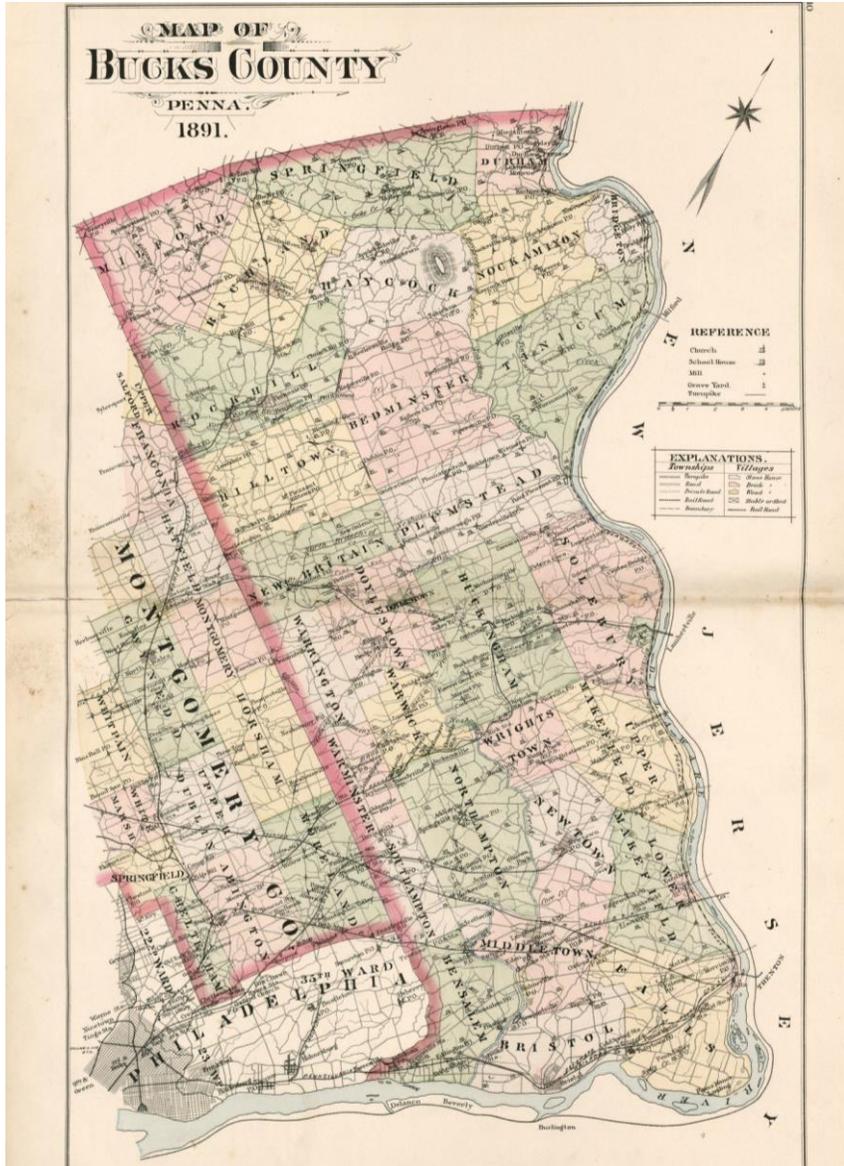
We all have a role to play in the fight against climate change.



Residential use accounts for the highest energy expenditures and greenhouse gas (GHG) emissions of any sector.



In 2015, [TOWNSHIP NAME TK] emitted [NUMBER TK] metric tons of GHG from all sources.*



Back when this map was new, people had few options about where to spend their energy dollars.

Energy was uniformly dirty & non-renewable. Often, it was harmful to one's health too.

Today, we have
CHOICES.

This...

OR

This.



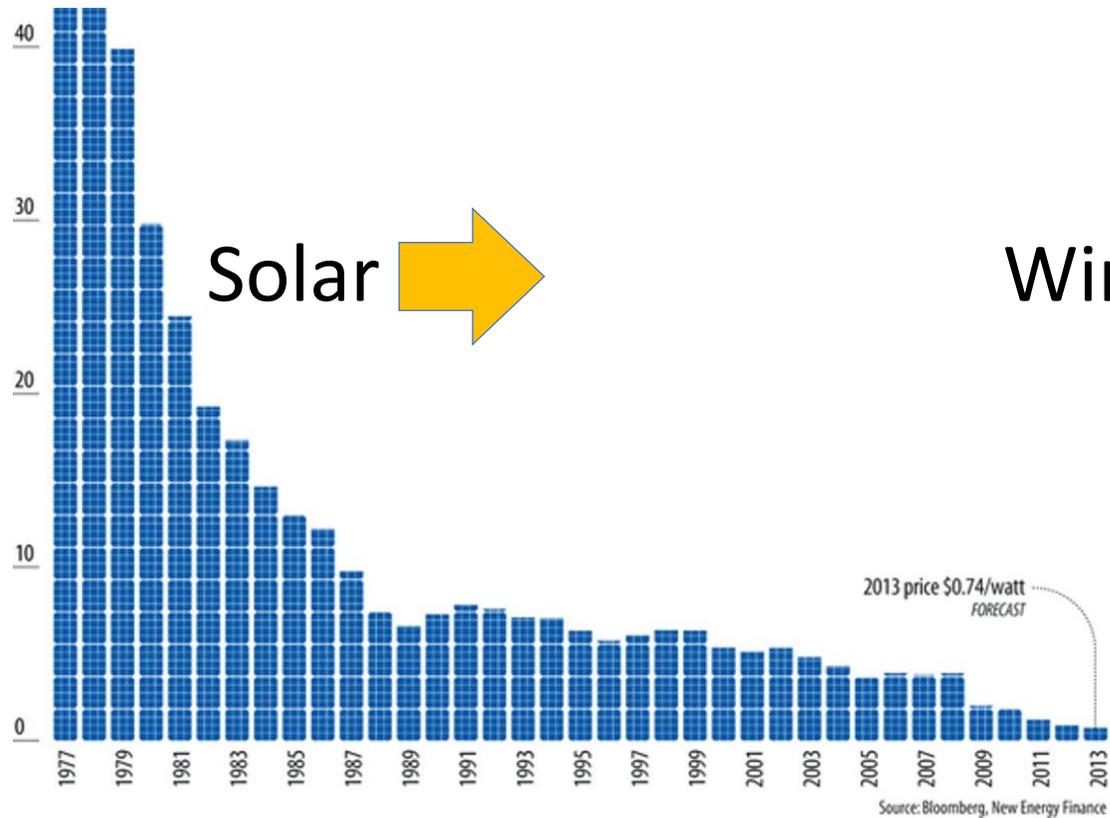
That is, continue pumping CO₂ into the atmosphere at current rates...

OR begin the transition to 100% clean, renewable energy.

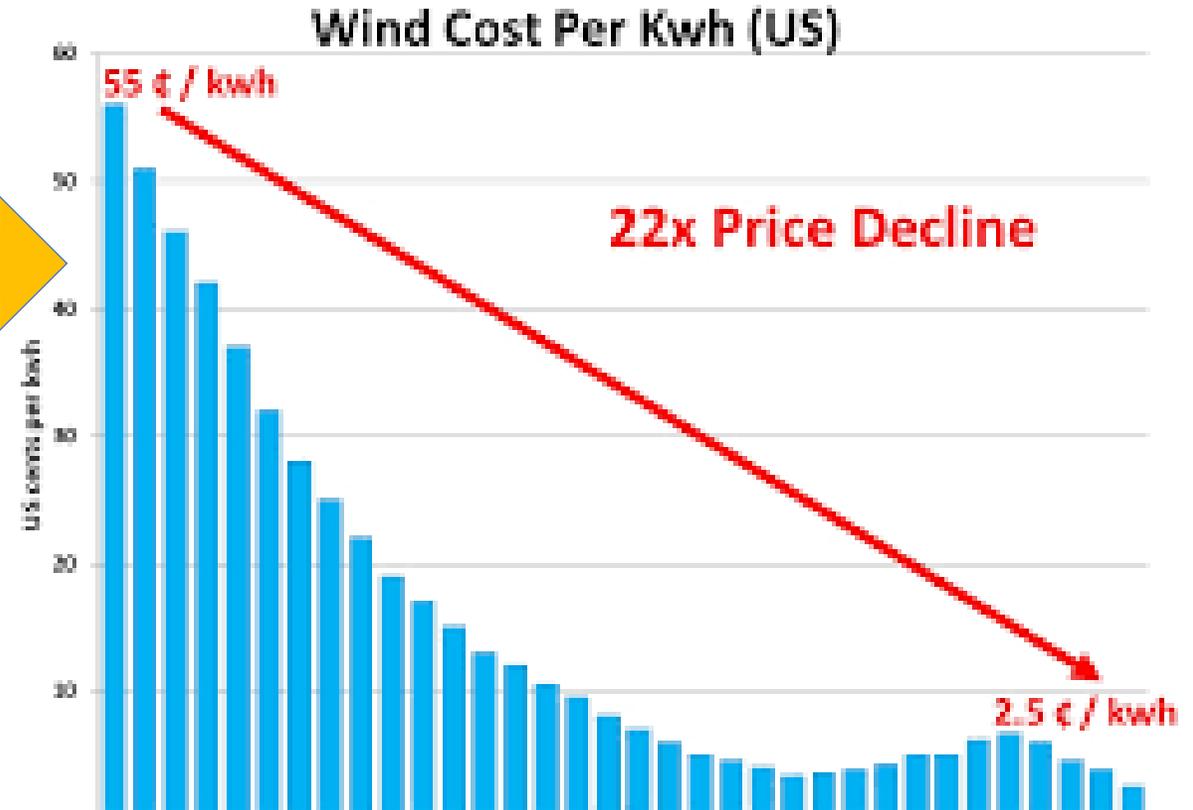
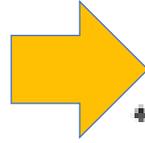


Our children,
grandchildren
& future
generations
are depending
on us to make
the right
choices.

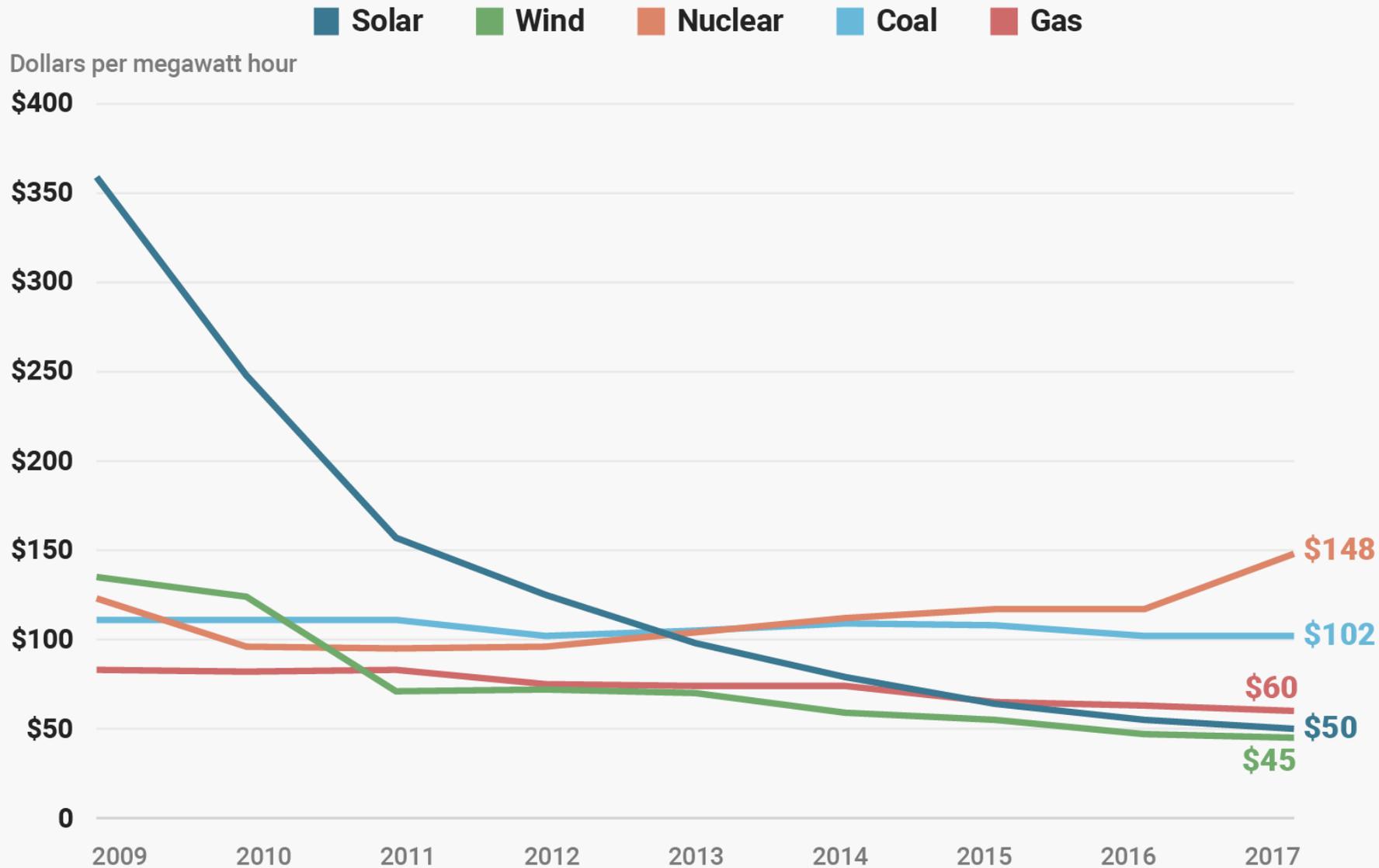
Fortunately for them and for us, the price of clean, renewable energy keeps falling...



Wind



The average cost of energy in North America



“[U]sing renewable energy is increasingly cost-effective compared to other sources, even when renewables must compete with the heavily-subsidized fossil fuel industry.”

James Ellsmoor,
“Renewable energy is now the cheapest option,” *Forbes*,
June 15, 2019

Meanwhile, the cost of fossil fuels has become all too clear,



in more ways than one.



We can do better.



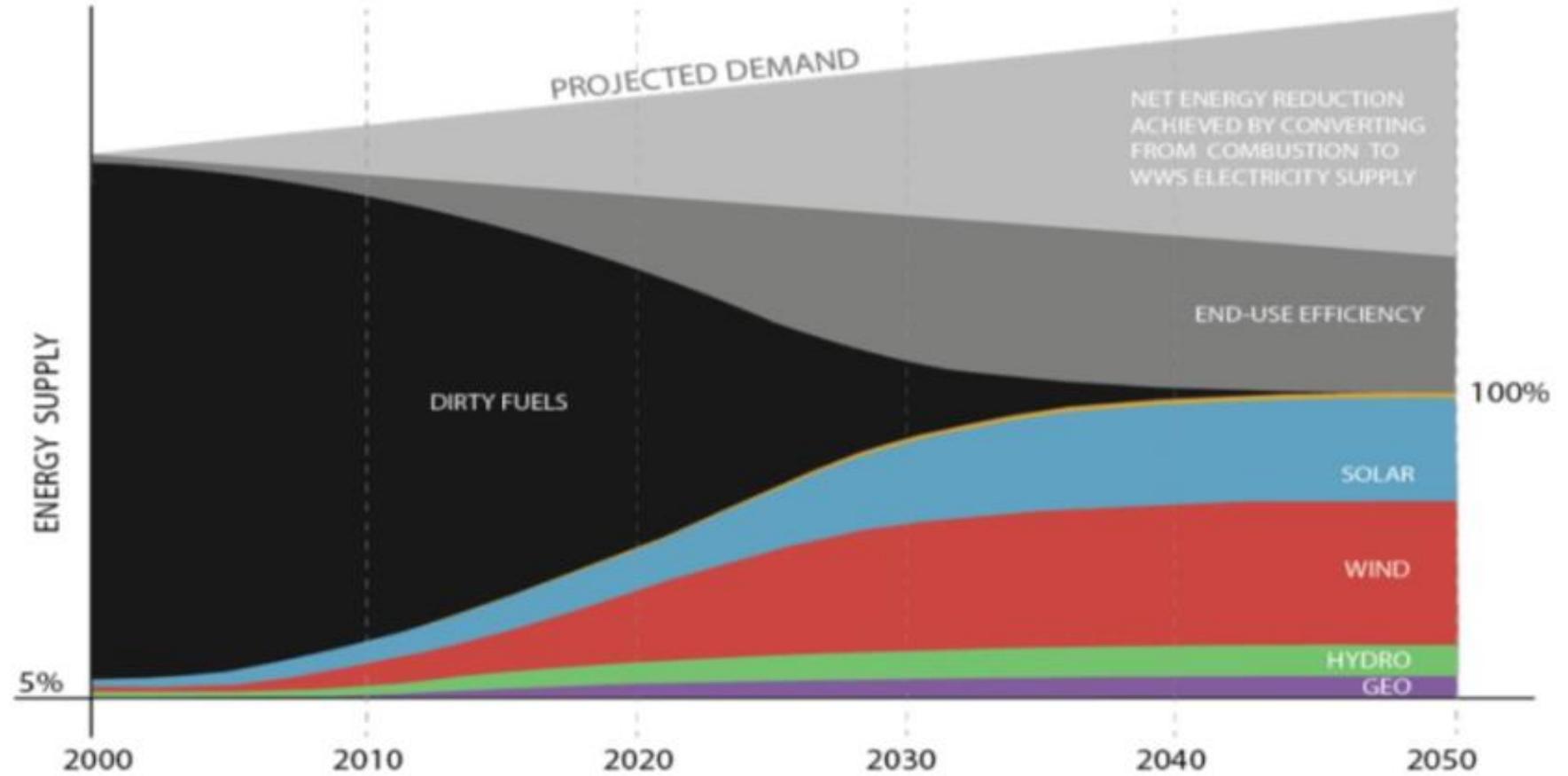
Getting to “net zero” won’t happen overnight.

But we can get there if we all work together.

Which is what RF100 is all about.



Energy Use Goal - 100% Renewable





> 150 communities across the U.S.

1 *in* 4

people in America now live in a community committed to a transition to 100% clean, renewable energy.

So, who is already “Ready for 100”?

[LEARN MORE](#)

See who has committed in neighboring counties:

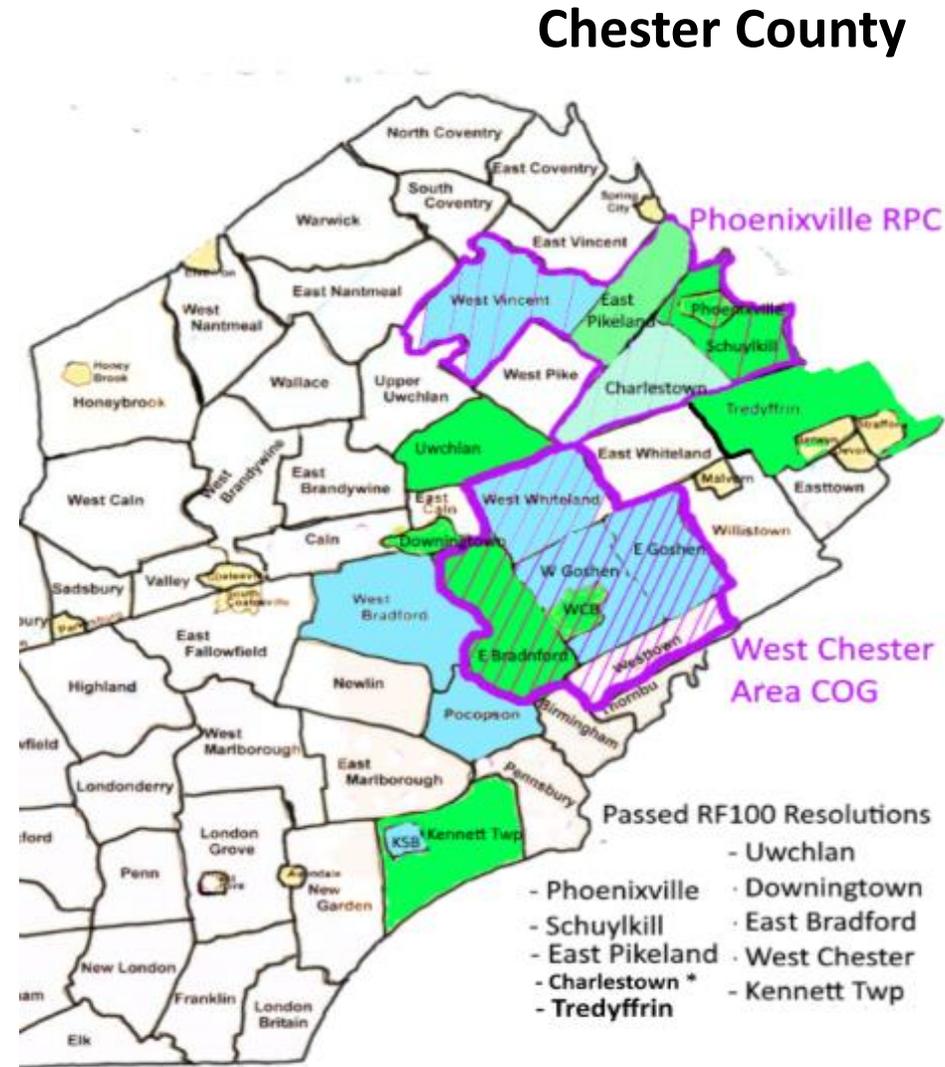
- Ambler Borough
- Bethlehem
- Downingtown
- Haverford
- Kennett TWP
- Narberth
- Norristown
- Plymouth TWP
- Philadelphia
- Phoenixville
- Radnor
- Reading
- Springfield TWP
- Upper Merion
- West Chester Area COG
- Whitemarsh TWP
- ...and counting!



Collaboration is key.

Across the U.S., RF100 communities are coming together to share ideas, lower costs and realize efficiencies on their way to 100% clean, renewable energy.

In SE Pennsylvania, the West Chester Area Council of Governments (COG) is a model.



Meanwhile, here in Bucks...

- Buckingham followed Doylestown Township and Solebury to unanimously approve RF100 (October 2020)
- Bucks County passed its own RF100 resolution (February 2021)
- And other Bucks municipalities are considering or working to adopt RF100/clean-energy commitments



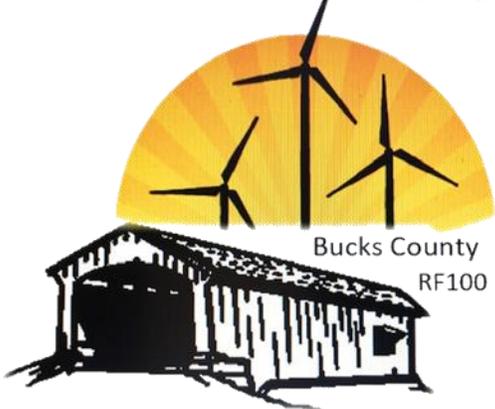
APPROVED!



To join the RF100-Bucks working group or for more information, go to <https://groups.google.com/g/ready-for-100-bucks-pa?pli=1> or contact Andrea Strout at alstrout_2000@yahoo.com.

Next steps for [TOWNSHIP NAME TK]

- Commit to goals and principles of RF100 via resolution
- Work with other township officials, neighboring municipalities and the county to educate and build support
- Get input, perspective and buy-in from residents, businesses and other stakeholders
- Develop energy transition plan and timeline
- Work the plan



[TOWNSHIP SEAL TK]

To summarize...

Set Goals



RF100 Resolution: community-wide renewable energy by_____.

Make a Plan

Energy Transition Plan: open and inclusive of all stakeholders.

Take Action



Get it done: municipal policies, community engagement, business leadership.



For their generous assistance, collaboration & inspiration, we say thanks to

- [INDIVIDUAL/ORGANIZATION NAMES TK]
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- Ready for 100-Bucks &
- Sierra Club, SE Pennsylvania Chapter

