

**DRAFT**

Solebury Township

# Energy Transition Plan

or Community Energy Strategy Plan (CESP)



- Achieve carbon free ELECTRICITY by 2035
- Achieve carbon free ENERGY by 2050

Ready for 100  
initiative  
(Rf100)

- Part of the initiative established by Sierra Club as a nationwide effort to achieve carbon neutral energy and reduce Green House Gases (GHG).

- In July 2020 we joined more than 2 dozen townships and counties in PA, and 170 municipalities, counties and states across the country, in passing similar resolutions.

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Cut Waste – Build and Buy Efficient  
Reduce Pollution – Clean Electricity  
Supply  
Emphasize Sustainability  
Energy efficiency in buildings and  
operations  
Community Outreach

## Two parts:

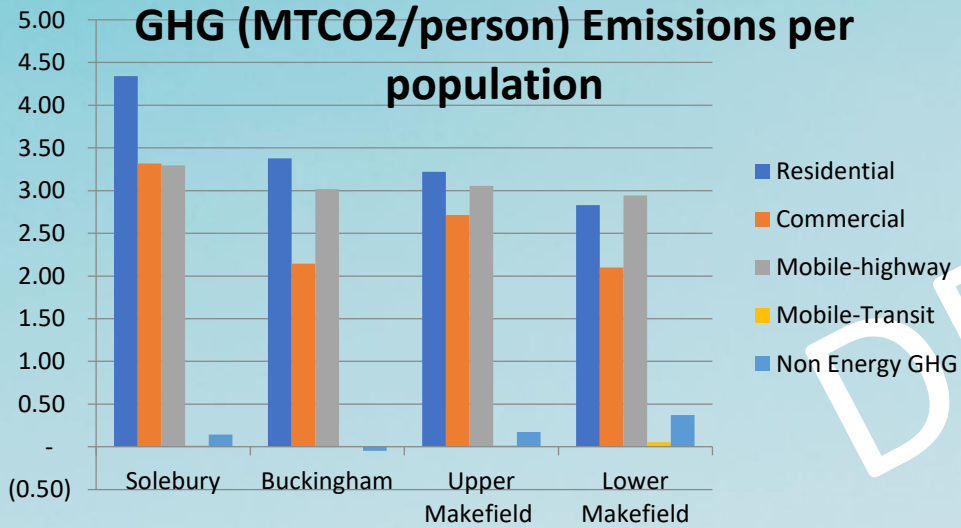
- **Municipal**
  - Includes township buildings and municipally owned facilities
- **Community**
  - Includes residential, transportation, farming and commercial

Goals

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We have completed an energy audit of Solebury. This is based on DVRPC's data collected 2015



# Municipal Findings



In 2019 Solebury Township fleet vehicles & equipment consumed:

**20,500**  
GALLONS OF GASOLINE

**5,240**  
GALLONS OF DIESEL FUEL

— which translates to —

**\$57,300**  
TOTAL FUEL COST

**213**  
*metric tons*  
TOTAL GHG EMISSIONS



In 2019 Solebury Township facilities consumed:

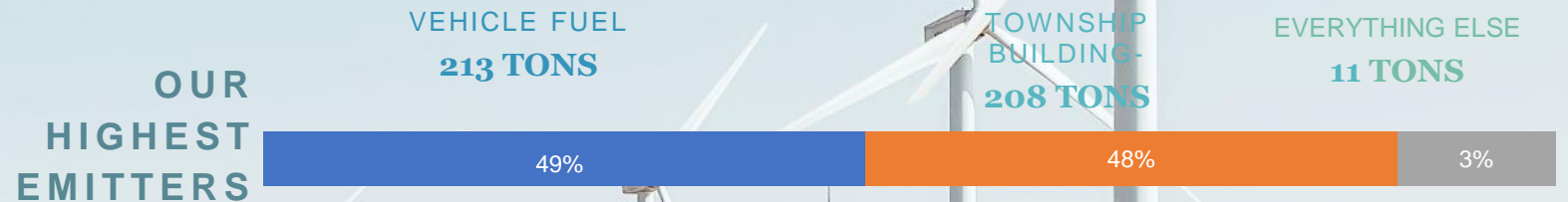
**340**  
MEGAWATT-HOURS OF ELECTRICITY

**15,800**  
GALLONS OF PROPANE

— which translates to —

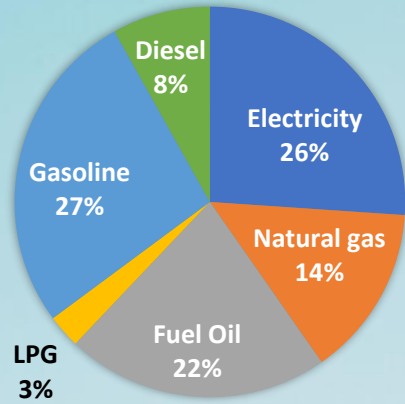
**\$37,100**  
TOTAL ENERGY COST

**219**  
*metric tons*  
TOTAL GHG EMISSIONS



We have completed an energy audit of Solebury. This is based on DVRPC's data collected 2015

Energy breakdown for Solebury Township values in BBTU (DVRPC, 2015)



# Community Findings



In 2015 Solebury highway transportation:

**\$7,728,508**  
TOTAL FUEL COST

**28,450**  
*metric tons*  
TOTAL GHG EMISSIONS



In 2015 Solebury Residential usage:

**\$10,226,301**  
TOTAL ENERGY COST

**34,087**  
*metric tons*  
TOTAL GHG EMISSIONS

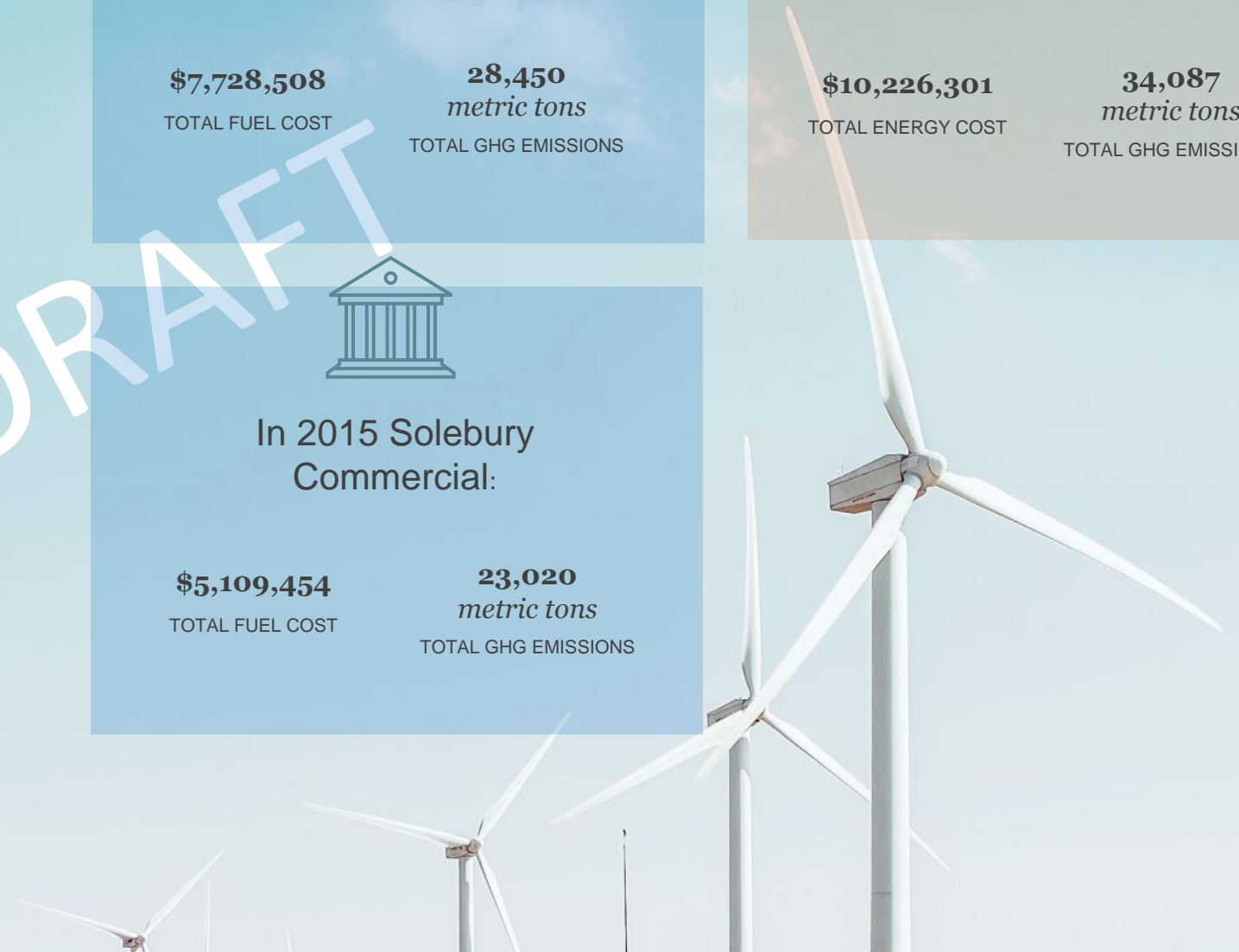


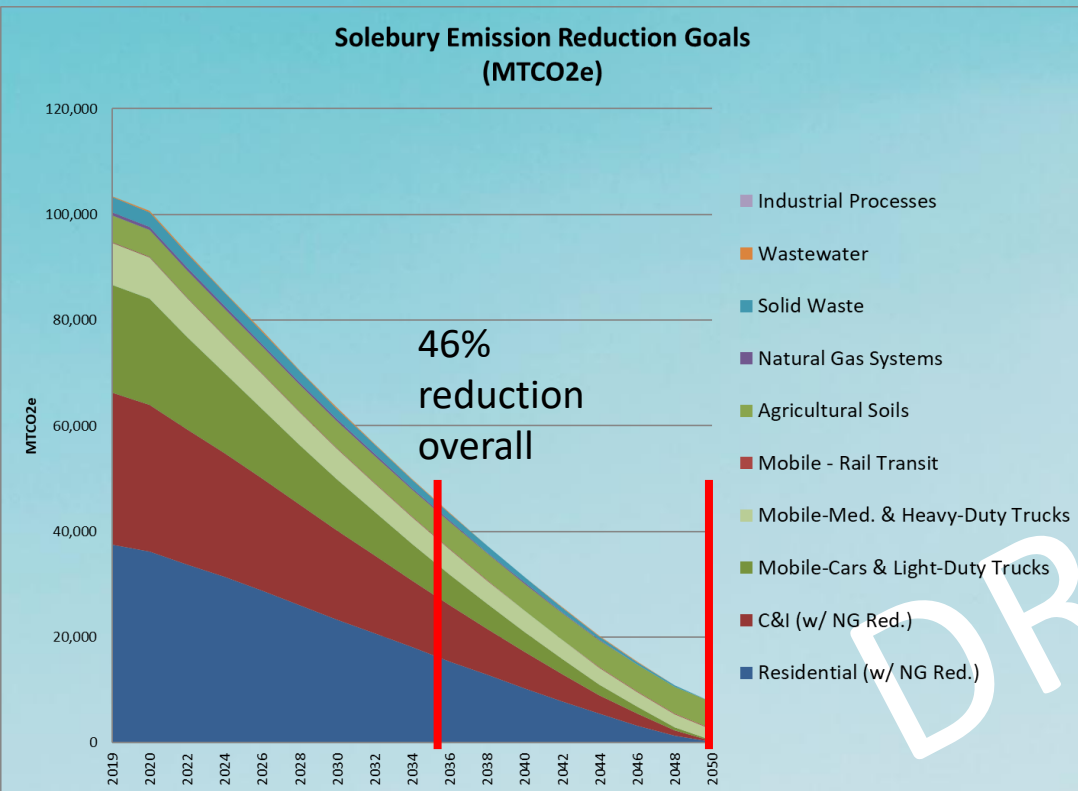
In 2015 Solebury Commercial:

**\$5,109,454**  
TOTAL FUEL COST

**23,020**  
*metric tons*  
TOTAL GHG EMISSIONS

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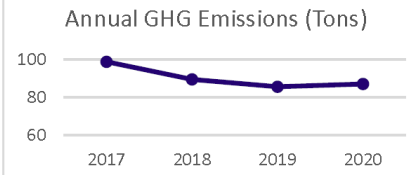
## Municipal emissions vis a vis Twp

- Muni: 432 MTCO<sub>2</sub>e (2019)
- Twp: 85,500 MTCO<sub>2</sub>e (2015)
- Muni = 0.4%
  - Lead by example
  - Reduce roadblocks
  - Regulatory review
  - Public education
  - Apply for grants

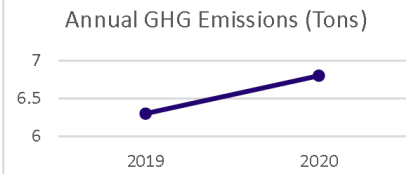
**GHG  
Reduction Goals**

The municipality will implement energy efficiency measures and shift its energy sources to renewable energy as expeditiously as possible.

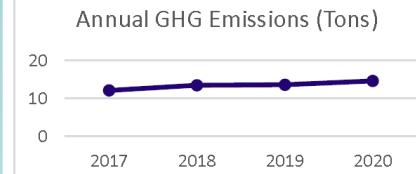
Administrative Municipal Building



Police Barracks



Public Works Garage



### Energy Star Analysis

Leading by example

#### OUR APPROACH

- Cut Waste – Build and Buy Efficient
- Reduce Pollution – Clean Electricity Supply
- Emphasize Sustainability
- Energy efficiency in buildings and operations
- Electrification of heating systems and vehicles
- Forward thinking policies

#### WHAT WE'VE DONE

- ✓ Retrofitted traffic lights and township office with LEDs
- ✓ Built a new Public Works Building to most recent standards, including LED lighting, efficient roof insulation, and efficient in-floor heating.
- ✓ Fitted the Township Office Building with electric heat pumps for A/C
- ✓ Purchased two hybrid Police vehicles as part of an on-going program to electrify Township automobiles
- ✓ Moved Township staff to a 4-day workweek, reducing building energy and vehicle miles.
- ✓ Gold/platinum work for Sustainable Pennsylvania Community Certification
- ✓ Applied for Grants to fund an Electric Vehicle Charging station

#### WHERE WE'RE GOING

- Prioritize savings with the transition of the fleet to Hybrid and Electric Vehicles
- Perform energy audits
- Undertake Benchmarking with Energy Star Portfolio Manager
- Feasibility Study for Solar Installations
- Review Planning and Zoning ordinances and policies relative

		Participation	% Reduction	Quantity Change/yr	Units
Residential	New	0.5%	45%	18	Housing Units
	Existing	4.0%	24%	140	Housing Units
Commercial and Industrial	New	1.0%	45%		
	Existing	4.0%	24%		
Vehicles		3.5%		223	EVs and Hybrid

The municipality will consider implementing changes to reduce roadblocks for climate-positive investments and encourage adoption of energy transition programs and investments by residents, institutions and businesses.

- Review processes to discover impediments to businesses and residents
- Conceive of and identify incentives
- Encourage investment of sustainable dollars

Reducing  
roadblocks

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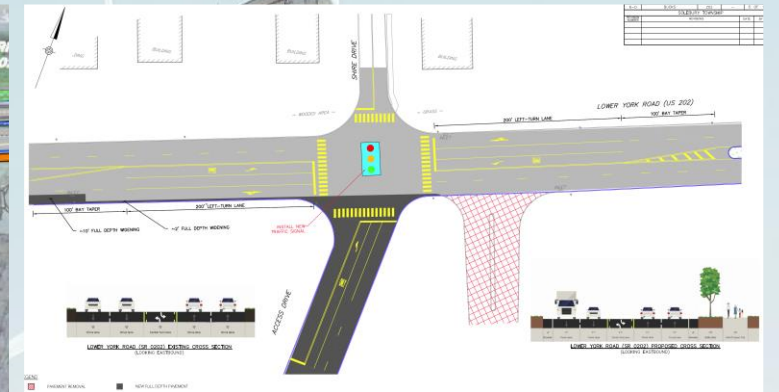




The municipality will undertake changes to its planning, zoning code, road system, and other aspects of municipal governance that impact energy usage throughout the community.

- PC to review SALDO and zoning
- Join SolSmart to learn best practices
- Create efficient traffic movement

Regulatory review



The municipality will provide information and encouragement to all stakeholders in the community to use energy efficiently and transition to the use of renewable energy.

- Reach out to HOAs
- Engage with School District
- Communicate ideas to developers and business owners
- Engage with community as a whole – push for specific action

Public  
Education

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Municipal governments can seek grants from nonprofits or state/federal programs that subsidize some aspect of projects for energy transition.

- Continue our stellar performance in obtaining grants wherever possible
- EV grant already in the bag!

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Apply for Grants



	2020						2021											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Adopt Resolution Rf100	█																	
Develop the Community Energy Strategy (Transition) Plan (CESP)		█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Establish Leadership Team		█																
Identify and Engage Stakeholders		█	█	█	█	█	█	█	█	█	█	█						
Create Energy Profile						█												
Develop Energy Goals and Strategies							█	█	█									
Present to EAC and BOS to get buy in							█	█	█									
Identify and Prioritize Actions							█	█	█	█								
Develop and Socialize the Plan										█	█	█	█	█	█			
Write Energy Transition Plan						█				█		█	█	█	█	█		
Review Plan with BOS, SSG and EAC																█	█	
Finalize Plan																	█	█
Publish CESP																		█

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Anticipated timeline up until completion of the CESP

# Timeline



What will the cost be to the Township?

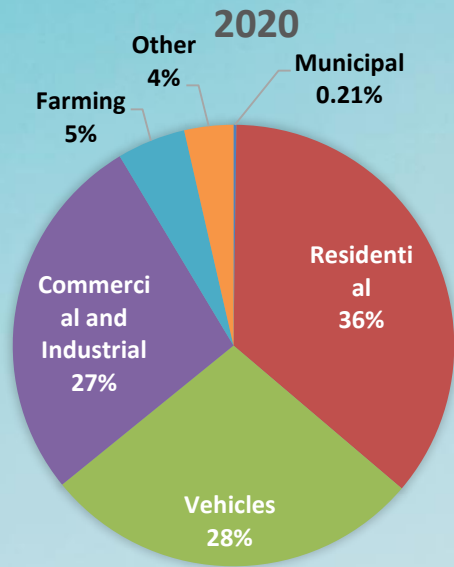
- Township staff time
- Consultant ??
- Studies
- Solar installation
- Facilities upgrades
- Police Fleet
- EV stations
- Outreach materials

Costs

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How will we know if we're succeeding?



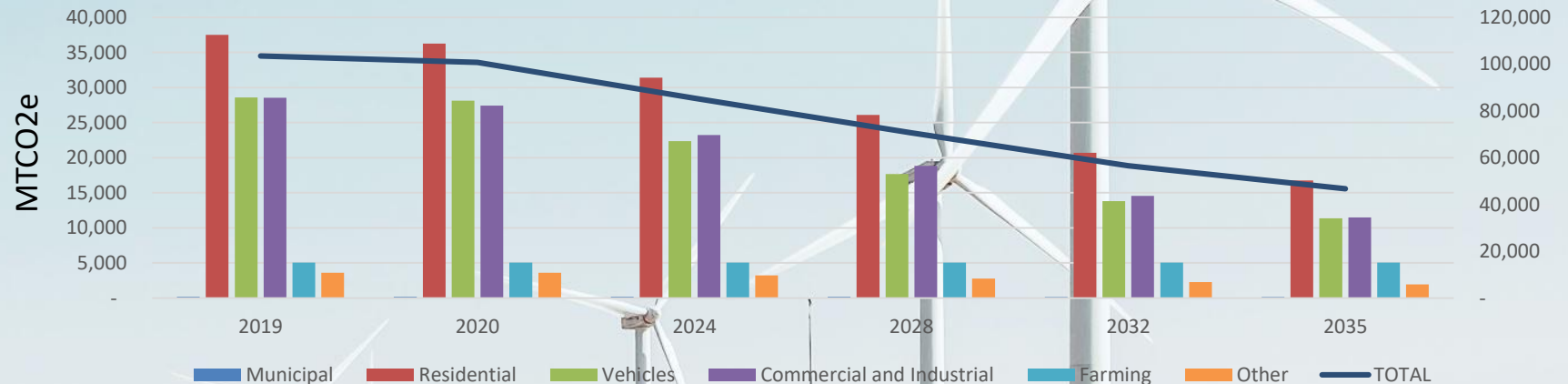
Current Solebury GHG Emissions

# Tracking Progress

- Key Benchmarks
- Milestone achievements
- Measured Goals

MTCO <sub>2</sub> e	2019	2020	2024	2028	2032	2035
Municipal	213	213	200	180	175	170
Residential	37,491	36,248	31,395	26,105	20,705	16,743
Vehicles	28,590	28,135	22,343	17,659	13,808	11,340
Commercial and Industrial	28,527	27,425	23,213	18,847	14,551	11,499
Farming	5,058	5,058	5,058	5,058	5,058	5,058
Other	3,617	3,617	3,221	2,778	2,288	1,920
<b>TOTAL</b>	<b>103,496</b>	<b>100,697</b>	<b>85,430</b>	<b>70,627</b>	<b>56,586</b>	<b>46,730</b>

GHG emission targets

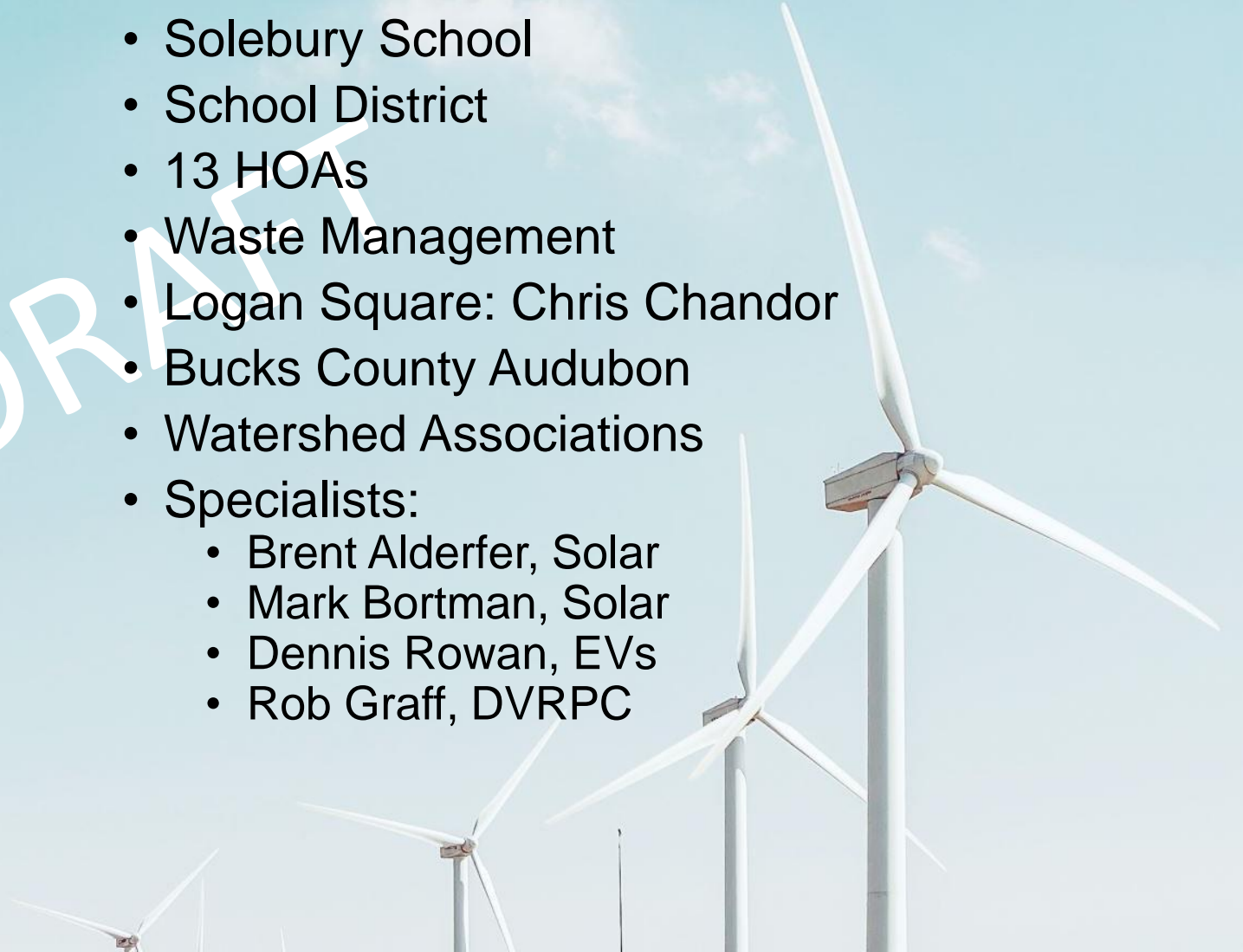


Who are the stakeholders and review bodies?

- Township Management
- EAC, PC, SSG
- Solebury School
- School District
- 13 HOAs
- Waste Management
- Logan Square: Chris Chandor
- Bucks County Audubon
- Watershed Associations
- Specialists:
  - Brent Alderfer, Solar
  - Mark Bortman, Solar
  - Dennis Rowan, EVs
  - Rob Graff, DVRPC

Who's involved

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Questions?

