

Summary of Energy Sector Discussion May 18, 2020.

Missing Feasible & Practical Strategies/Technologies	Pitfalls & Dangers of Identified Actions	Prioritizing Our Actions
<p>Shelley and Rob</p> <ul style="list-style-type: none"> <li>● Commissioning - 5 year payback; tuning up the equipment that's already there, having it operate as initially intended</li> <li>● Energy audits and conservation measures - specifically for municipal buildings</li> <li>● Some strategies will cross sectors</li> </ul>	<p>Shelley and Rob</p> <ul style="list-style-type: none"> <li>● Money - many initiatives will need upfront investment</li> <li>● How do you incentivize local businesses and homeowners to take action?</li> </ul>	<p>Shelley and Rob</p> <ul style="list-style-type: none"> <li>● Focus first on lowering consumption, focus on existing buildings, then move to new buildings (changes to codes, construction requirements)</li> <li>● Focus on renewables</li> </ul>
<p>Jason Grottini</p> <ul style="list-style-type: none"> <li>● Giving thoughts to building types and end uses and define appropriate scope - commissioning is currently missing</li> <li>● Education and outreach partnerships with high schools, tech schools, etc. - take the burden off of COG; additional industry partners</li> <li>● More definition around benchmarking</li> <li>● F.2 -"streamline permitting for solar-plus-storage for individual homes and businesses": <ul style="list-style-type: none"> <li>○ Keeping the review process streamlined and efficient as demand for</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Too much responsibility on COG - bring in partners to lighten load and increase expertise</li> <li>● Money</li> <li>● Incentives to do the work - ties to educating the public (end user marketing) - making the case for energy efficiency among a diverse community</li> </ul>	<ul style="list-style-type: none"> <li>● Robust benchmarking plan - easy enough to do for municipal buildings, but then roll out to other large energy consumers in the community</li> <li>● Identify partnerships</li> </ul>

<p>these services increases.</p> <ul style="list-style-type: none"> <li>○ Investing in the generation of electrical inspectors now, and adding to that team.</li> <li>● I can envision a scenario where permit applications and inspections increase, whether from changes in renewable legislation or a community wide solar program that is being discussed, and the Centre Region Code agency finds itself not ready to respond.</li> </ul>		
<p>Lisa Iulo</p> <ul style="list-style-type: none"> <li>● What does resilience planning look like in a time of uncertainty and how do we consider equitable solutions? <ul style="list-style-type: none"> <li>○ Cobenefits - sheltering in place longer (lowering energy demand, increasing efficiency), passive survivability (climate surfing) - reduce building temp fluctuation by looking at passive solar design strategies and design of the envelope</li> <li>○ Engage Maureen Safko at SCB</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Cooperation and collaboration across scales, sectors, and disciplines is necessary <ul style="list-style-type: none"> <li>○ We need a knowledgeable champion to foster cooperation and serve as an advocate</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Benchmarking - goes along with the inventory</li> <li>● D1 - incentive programs</li> <li>● E1 - affordable housing - looking more closely too at all new construction and major reno (Architecture 2030 Zero Code)</li> <li>● G1 - green zoning ordinances</li> <li>● F2, G2, A3, C3, and definitely looking at enhancing resiliency</li> </ul>
<p>Bruce Logan</p>	<ul style="list-style-type: none"> <li>● Beware the targets related to peak</li> </ul>	<ul style="list-style-type: none"> <li>● Get more solar out into the</li> </ul>

<ul style="list-style-type: none"> <li>• Informing the community about where their electricity / energy is currently coming from</li> <li>• Transportation sector emissions seem a bit low given commuting into the area (understanding the energy requirements here as well and how it compares to energy needed for our homes)</li> </ul>	<p>energy demands</p> <ul style="list-style-type: none"> <li>• Renters - less incentives</li> <li>• Short term ownership - less incentives</li> </ul>	<p>community</p> <ul style="list-style-type: none"> <li>• Encourage people who have solar to host open houses to educate their neighbors and community</li> </ul>
<p>Ed Johnstonbaugh</p> <ul style="list-style-type: none"> <li>• Each municipality should become a sponsor, make the pathway to renewables more easy for nonprofits (food banks, senior centers, fire dept) - uniform permitting and procedures would make it easier to work region-wide</li> <li>• RPS that creates incentives (current AEPS is sunseting) - involve our elected officials to carry this message to Harrisburg (VA commits to 100% renewables by 2050)</li> <li>• Community solar</li> </ul>	<ul style="list-style-type: none"> <li>• Failure to engage state-level lawmakers</li> </ul>	<ul style="list-style-type: none"> <li>• Engage legislative representatives</li> </ul>
<p>Sarah Klinetob Lowe</p> <ul style="list-style-type: none"> <li>• With granular data, will have separate treatments for existing buildings and new construction</li> <li>• With granular data, can develop specific goals, incentives, and strategies for different sectors (e.g., different goals, incentives,</li> </ul>	<ul style="list-style-type: none"> <li>• Without education tendency will be to make easy fuel switches not the transformative change we need (example - natural gas)</li> <li>• Without education there could be policy fragmentation (example from affordable housing)</li> <li>• I didn't mention this on the call, but</li> </ul>	<ul style="list-style-type: none"> <li>• Granular data for benchmarking (gov't, business, multifamily) (anyone in the country looking at smaller building disclosure?)</li> <li>• Create strong policy based on this granular data that policy makers can stand behind and developers won't be able to work around later</li> </ul>

<p>and strategies for single family owner occupied homes vs. single family rentals)</p> <ul style="list-style-type: none"> <li>• Beyond education - will building. Being ready for the gravity and opportunities of the situation</li> <li>• Importance of reducing energy consumption, not just energy costs</li> <li>• Importance of collectively being clear on terms as policy develops - 'reducing energy costs' is not the same as 'decarbonization'</li> <li>• What information are we giving in energy audits to various audiences (experts vs. non-experts)? As is, standard 'energy audits' are not 'decarbonization roadmaps'.</li> </ul>	<p>I would say to be mindful of the 'other' in our community, which I would say is 'student rentals'. Without granular data and subsequent programs/incentives devoted to these different sectors, we could lose momentum with fingerpointing and false equivalencies ("those big student rentals are doing NOTHING, so why should I rehab my beautiful owner occupied historic home?")</p>	
<p>Tom Richard</p> <ul style="list-style-type: none"> <li>• Opportunities to engage our agricultural community - mostly we're talking about reducing emissions and not generating renewable energy on our farms (could also help in the transportation sector)</li> <li>• Forest landscape of the region - connects to the building sector (building materials become bigger part of the footprint as the energy use goes down) - using more wood in our building materials -</li> </ul>		

strength of the region		
<p>Erica Smithwick</p> <ul style="list-style-type: none"> <li>● Forest corridors - linked to the community and could help with the offset side of things</li> <li>● Automated sensors in buildings to support behavioral change</li> <li>● Does the inventory assess the types of buildings that need more focus and support (equity issues)?</li> <li>● Closed loop heating/cooling systems investment</li> <li>● Green roofs (co-benefits)</li> </ul>		<ul style="list-style-type: none"> <li>● Green zoning</li> </ul>
<p>Susan Stewart</p> <ul style="list-style-type: none"> <li>● Need for education and outreach</li> <li>● Integrating more charging stations (perhaps coupled with solar) - the demand is coming</li> </ul>	<ul style="list-style-type: none"> <li>● SCASD doesn't participate in a lot of programs from PSU - having their participation will be really important</li> <li>● State support shifted to natural gas from renewables over the last decade. Starting to come back, but we need more political support.</li> </ul>	<ul style="list-style-type: none"> <li>● Education in the area of choice (PA Power Switch)</li> <li>● Overall education</li> <li>● Focus on things with the quickest payback for least investment</li> </ul>
<p>Neil Sullivan</p> <ul style="list-style-type: none"> <li>● Disconnect between how we inhabit the landscape (neighborhoods and commercial centers - creates reliance on cars) <ul style="list-style-type: none"> <li>○ Design things more thoughtfully</li> </ul> </li> <li>● Building stock - do we need to do the harder work of retrofitting</li> </ul>	<ul style="list-style-type: none"> <li>● Incentives for building owners to make rentals more efficient - what will it take to change that?</li> </ul>	<ul style="list-style-type: none"> <li>● What are the quick wins for the region? Ag, forest land - sequestration, building materials, ability to grow local food and live more regionally</li> </ul>

existing buildings or rely on newer ones?		
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Open discussion:

How do we get folks to want to do commissioning?

- Education efforts first
- Talk to third party vendors and the university to learn about programs that exist
- Needs to be easy and/or save a lot of money
- Train the trainer - target facilities managers to teach them the basics of commissioning, then they teach their staff
- Organizations need to incentivize those energy savings to their employees - creates real movement

Do panelists see interest for district energy in this region?

- Example - conversations between the university and State College
  - Penn State needs the steam load
- Vancouver district heating example - then they made big efficiency improvements and don't actually need all of the district heating they invested in

While there's not usually a challenge in raising money for new renewable projects, but getting money together for retrofitting is much more difficult. Could we pull together the money for these necessary investments- infrastructure bank?

- Getting the infrastructure investments in place would provide a rapid payback
- Penn State's Guaranteed Energy Savings Program as a model with internal funding (mostly from avoided utility costs)
- Talk to Borough about their thinking and how it links to this

Community solar - we don't want to be cutting down our trees for rooftop arrays.

Partnering with Chamber of Business and Industry Centre County?

- They've been a good partner for promoting renewable energy and energy efficiency

C-PACE - how much can this fill the gap for legislation necessary to incentivize efficiency? Doesn't work for multi-family buildings

- Supports non-profits

More broadly where the state legislation helps and where it hinders and how municipalities can fill in any shortcomings.

- Intrinsic barriers - electricity is ineligible for things that entities can do outside their purview (UAJA example)