

ReImagining Shuttered Coal Plants

Breakout Session Planning and Agenda



When: Wednesday, October 16th from Noon - 3:30 pm ET via Zoom

Register: At this [link](#).

Full Agenda: At this [link](#).

Sponsor the Summit: If you are interested in sponsoring the summit, [please see this form](#).

Facilitation Notes:

It will take about five minutes to move people into breakout rooms. Please plan on about 40 minutes for content and discussion. Our current estimate is 15-30 people per breakout room, though it's impossible to guess. Facilitators will be automatically moved into breakout rooms when sessions begin.

[See all breakout session planning and agenda documents](#)

[Tips for Zoom Here](#)

Breakout Description and Title:

Please be in touch asap if you see errors, typos, or other suggested changes for this description.

12:45 – 1:30 Breakout Session 1: Option 2

Transforming Shuttered Coal Plants into Eco-Manufacturing Hub

As we look to reimagine these sites, advocates need to consider a site's "highest and best use" and look for climate friendly and sustainable development opportunities. Shuttered coal plants have enormous potential to be hubs for manufacturing in the region, as well as leaders for innovative projects that include considerations of labor, environmental, community and overall productivity.

Sample Agenda/Run of Show:

12:45 - 1:30 - 40 min

12:45-12:50 - 5 min: Entering the room

- Please share introductions in the chat: Name, Organization, Location, pronoun and why you chose this breakout session

12:50-1:30 - 40 min: Conversation and Presentations

Roles for Event:

- **Lead Organizer:** Amanda Woodrum
- **Moderator:** Amanda Woodrum
- **Notetaker:** Kate Rudek
- **Speaker from main panel:** Adam Walters
- **Experts in the room:**
 - Confirmed

- Kate Rudek talk about our paper on eco industrial parks
- Kristen Olmi, KO Consulting - GIME, City of Struthers vision
- Graeme Miller- repurposing coal plant assets for Combined heat and Power
- Morgan Putnam, DNV Energy, Transmission Development
- Baleigh Epperly, Re-Use Corridor, Coalfield Development
- Ben Cross
- George Banzinger

Notes:

Goal: Redevelopment that produces equal jobs and something that communities really want

Kristen Olmi (CEO KO consulting- contract hired by GIME) - concept of eco-hubs

-wanted to build first green park in Mahoning Valley

-had grant resources and financing from the city of Struthers (a grant for planning process)

-goal to use former brownfield sites (former steel) and investigating how to utilize all resources and build a circular economy within this location

What happened: the site was privately owned and the industrial park location's vision did not match with what the city wanted to do because there were worries that the eco-friendly products didn't have to market pipeline yet

- For example there was concern about hemp's market not being strong enough yet
- Some members of the board were not interested in looking at next generation manufacturing
- ROI and product to market, and start up companies- were considered risky

Lesson learned: municipality-owned property can be easier to work with to enact eco-industrial vision

****Ownership is key when building the community benefits package**

-if property remains privately owned- the project is at the whim of the board of directors

-Funding is often there, private investment often there- park ownership is the biggest key to avoid stalemates

What is happening with the project now?- looking to relocate to a new site

-Have acquired 30 acres of potential relocation

-City of Struthers and Campbell are both willing to move forward with system to benefit both tax bases

In the process of building out the park at the moment

Further reflections

-Many facilities sit vacant as owners may be trying to escape environmental liability- write off of tax-

-This behavior is a barrier to redevelopment

-How do you work with private owners?

- Explore municipal ownership- movement to reclaim abandoned mine lands for lessons to apply to this situation
- think about how the community can push the owner in the direction they want to go
 - highlight the assets on the site (Waste heat and electric infrastructure) and how they can be repurposed

Graeme Miller- research at University Illinois Chicago-

Works with Onsite Energy Technical Assistance Program (TAPs) (DOE funded program)

- now expanded to include all onsite tech in electric and thermal generation to promote decarbonization by supporting:
 - technical assistance
 - end-user engagement
 - stakeholder engagement

DOE Industrial Decarbonization Roadmap

- considered more difficult to decarbonize industrial
- 4 pillars:
 - energy efficiency,
 - industrial electrification,
 - low carbon fuels,
 - carbon capture utilization and storage
- 4 sources of Co2 emissions in industry:
 - Process heat over 50% co2 emissions from industrial sector
 - Process emissions
 - Emissions from electricity
 - other

Industrial process heat can be categorized as low heat, mid temp, high temp

Combined heat and power (fuel agnostic but natural gas is most common in US) captures waste heat from electricity-generation production

Industrial heat decarbonization is critical

- best current tech to do that is CHP system
- various methods (like capturing steam and reusing exhaust) are all more efficient than other ways of producing industrial heat

Shuttered coal plants are great because electrical infrastructure already exists (electrical interconnection and thermal connection)

- eliminates lengthy and costly permit and interconnection process
- utilizing CHP at shuttered coal plant sites can reduce cost, pollutants, and carbon emissions

- Data centers are heat intensive and inefficient with heat
 - maybe data centers should be in mix of manufacturers at an eco-industrial site because they produce waste heat that could be used

Bay Epperly

- ReUse Corridor (launched in 2019) is a coalition in recycling, upcycling and reuse
- The key: community buy in
- Be on guard against greenwashing- people living up against sites know how effective and 'green' new developments are
- Plastic production is a big problem
 - recycling plastic is more harmful to workers and communities than the production
- we should aim to minimize waste instead of recycle out way out of it
- **West Virginians don't want to let go of livelihoods (not just about coal)
- Community input is important!

Morgan Putnam- mapping (also has been involved with DND international energy consulting fund and solar cell RandD)

- Electric infrastructure is valuable even when plant has closed
- When trucking electrifies the electric load will increase a ton
- Morgan uses Google Maps satellite view to conduct "white roof" survey to find clusters of industry and development projects

-Kansas City example- coal plant and manufacturing located nearby, steel manufacturing on the other side— organically set up— how to connect them

What to do with coal assets?

- > one idea: redevelop into HVDC converter station (high voltage direct current transmission)
 - requires space but it can support load growth
 - There are ways to use dc to minimize community impact such as by running lines around instead of through urban centers

-The future is having a mix of energy resources and shuttered coal sites provide a place to develop electric capacity

Christina Clamp- COOPs

- Shared services cooperative work well with eco-industrial principals
- finding shared need, cultivating trust, and looking for growth opportunities are qualities shared by successful eco-industrial parks and coops
- circular economy is a great way to think about strengthening community

From the chat:

Mat Roberts: Not sure about existing manufacturing facilities, but this tool for grid planning shows all kinds of stuff, including substations where big manufacturing will be near: <https://gem.anl.gov/>