



Sustainable Cleveland 2019

Summit Workgroup Two-Week Report: **Advanced Energy Generation (AEG)**

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Mission: Expand the regional green economy by developing synergies with regional clean energy businesses, public sector, nonprofits and academia, and to promote and advance sustainable energy generation.

Project Name/POC	Goals	Objectives	Timeline	Status	Action items. Get involved.	Networks
Lake Erie wind farm (Stefanie Spear and David Madcharo)	Position Cleveland as the center of a nascent but potentially booming offshore wind industry in the U.S.	Form the Sustainable Cleveland Wind Accelerator to create the first utility scale freshwater wind farm in the world, bolstering support for the pilot	Timeline needs updating.	LEEDCo is progressing as planned. The business plan is under development. The entity has been formed. The Board is in place. The economic impact study is well underway.	- AEG members are attending Task Force meetings to stay connected. No current action items.	Nortech, Great Lakes Energy Task Force
"Solar rail" (Cynthia Trotta - cztrotta@yahoo.com, 216-408-9692)	Create a sustainable transportation-related solar panel system.	To develop a cash-neutral solar-powered plant of 1/2 MW or more for a rail organization.	TBD	Financial models in development. Feasibility studies being performed. Contacts being made.	- AEG member subgroup is performing feasibility studies.	Regional agencies.
"Waste-to-Power" - 400MW system (Marc Divis, Cleveland Thermal)	Utilize Cleveland region solid and water "waste" to provide power more sustainably.	Create a 400MW combined heat and power plant and an industrial water management collection and reuse system.	TBD	AEG member subgroup has a plan for the system. Project has regional support, but needs additional political support and funding.	- AEG member subgroup is pursuing political support and funding. - CSU is performing LCA studies on concepts	City of Cleveland. Cleveland State University.
"Waste-to-Power" system (Ibrahim Hakki, ka design)	Utilize Cleveland region solid waste to provide power more sustainably.	Create a combined heat and power plant - need to add more details.	TBD	Ibrahim ?	- AEG member subgroup is pursuing political support and funding. - CSU is performing LCA studies on concepts	Cleveland State University.

Community Solar Panel Project(s) / wind, other (TBD)	Expand solar panel initiatives currently active and planned in the region, to enable new clean energy grid and grow local green power businesses.	Find "niche" for AEG while expanding work of Evergreen Solar, City EEGBC efficiency/ renewables, and add renewables to Green Building retrofits.	TBD	Networking with groups (see last column) to gather information: how are systems set up. What is the funding mechanisms. Where do we install (SIDs?).	- Seeking input / presentation from Evergreen Solar. Meeting with new City of Cleveland energy manager.	Vacant Land Alt Energy Gen subgroup. Green Building group. Evergreen Solar. City of Cleveland.
Hydrogen from water for power and fuel. (Renewable Hydrogen Today collaborative) Project(s) as a result of NASA power sessions with regional renewable power companies	Produce zero-emission fuel, "energy storage" systems, and clean utility power via fuel cells. Expand the regional/state clean power supply chain.	Finish the Great Lakes Science Center hydrogen fueling station project, providing a template for station replication to accomplish "Goals."	Need to insert.	The Cleveland Foundation had provided seed funding to begin the project. \$1M remains to finish the station and provide a template for replication.	- Members of the RHT are pursuing funding. Outreach being performed at events, in publications.	"Renewable Hydrogen Today" (RHT) regional collaborative.
	Determine best projects for the region to implement sustainable energy, commercialize products, and grow the green grid and regional green economy.	Starting point is to have brainstorming sessions among NASA energy experts, CSN businesses, and renewable power co's.	TBD	GCBL will give a presentation at the April 9 3:30pm AEG meeting - about their "energy roadmap to the future". NASA is planning structure of sessions with SC2019 AEG group.	- Sessions are being planned for after Earthfest. SEEKING REGIONAL CLEAN POWER COMPANIES. CSN & Nortech providing lists.	Advanced Energy & Commercialization group. Renewable power co's. CSN business networks. NASA experts. GreenCityBlueLake

Others' projects:

CPP - Waste-to-Power, Ridge Road

City of Cleveland - EEGCB - energy efficiency retrofits and renewable power

City of Cleveland - Vacant Lands Alternative Energy Generation breakout group - solar, wind, waste energy, geothermal on vacant lands

Green Building group - Energy efficiency retrofits

Advanced Energy and Commercialization group - Storage concepts / projects

Evergreen Solar - solar power purchase agreements

Lakewood - Solar Improvement concept (from new AEG member Emily Amato)

Tri-C pilot - Solar PV, Solar thermal (from Emily)

Calendar:

April 6 - Next general AEG meeting

April 15 - Earth Day at Glenn - SC2019 Advanced Energy Generation display

April 18 - Earthfest at the Zoo - SC2019 display

April 29 - Next Vacant Lands - Alternative Energy Generation breakout group meeting.

May X - NASA power sessions