



Meeting Notes Citizens Advisory Board (CAB)

September 16, 2020
2:00pm – 4:00pm
Virtual Meeting – WebEx

Meeting attendance available [here](#). | Recording of meeting available [here](#).

Introductions (Mike Wharton, ACCGov)

- We'll be posting a recording of this meeting on the web. Meeting is being livestreamed thought YouTube. Chat is part of public record as well.

Recap and Introduction to Education Series (Mike Wharton, ACCGov)

- Prioritizing learning opportunities for Citizens Advisory Board (CAB) members – Education series, starting with this meeting
 - Decision to introduce educational series based on interest and feedback from CAB.
- In addition to education for the CAB, another goal is to receive feedback from CAB on effectiveness of educational materials for use with broader community
- Education Series schedule (Megan O'Neil, Southface)

Date	Topic
September 16* (TODAY)	Clean Energy 101: Impact Opportunities in Energy Efficiency
October 7	The Built Environment and Energy Efficiency Planning
October 21*	Energy Systems and Policy
November 4	Topic TBD, Based on Survey Feedback
November 18*	Topic TBD, Based on Survey Feedback

- * = Regularly scheduled CAB meeting

Clean Energy 101 (Mike Ford, Southface)

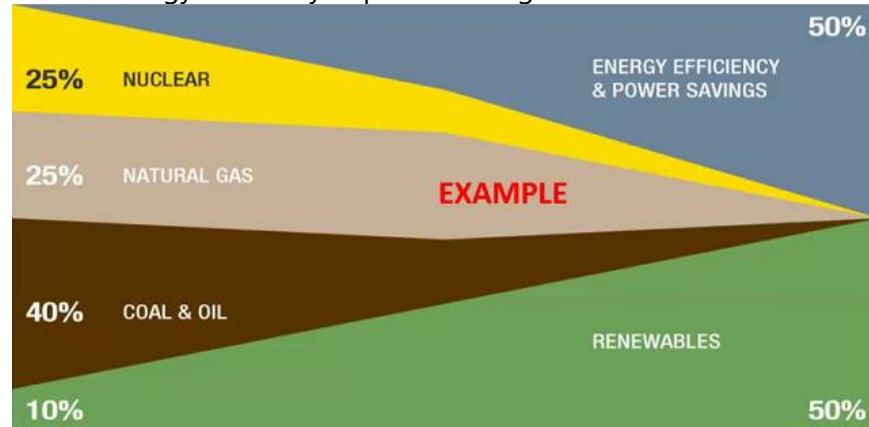
- Introduction and logistics
- Introduction to Southface – more about our work.
 - Southface provides education, research, advocacy, and technical services promoting sustainable buildings, clean energy, and regenerative economies in homes, workplaces, and communities.
- Clean and renewable energy – It seems complicated, but we'll take it step by step.
 - Why?



- Chat conversation brainstorm
 - "Social justice"
 - "Climate change"
 - "Economic growth"
 - "I would like to leave future residents a clean environment and plenty of water for use. Equity is vital, also."
 - "Equity - address high utility costs for our neighbors"
 - "Energy equity"
 - "Better quality of air"
- Why – specifically for Athens?
 - Energy burden
 - Healthier homes and communities – wellbeing, productivity
 - Job creation
 - Economic growth, Athens as a leader
- The Big Picture (Financial)
 - \$25 billion leaves Georgia for energy-related imports per year
 - \$500 million leave Athens-Clarke for energy annually
- Georgia's Electrical Energy Mix
 - Coal
 - Coal-based energy is a major CO2 contributor
 - Coal extraction is very harmful to environment
 - Coal use is declining primarily because of cheap gas
 - Nuclear
 - No direct CO2 from generation but uranium mining is energy intensive
 - Hazardous waste
 - Heavy water use
 - Natural gas
 - >Half (50-60%) CO2 emissions of coal
 - Methane
 - Fracking
 - Subject to price volatility/market forces
 - Hydro
 - Only provides about 2% of our power
 - Limited capacity with little room for expansion
 - Expensive to maintain
 - Disrupts ecosystems
 - Renewables – 3% of Georgia's energy supply (mostly solar in Georgia)
 - Question: Where does most of our raw material come from?
 - Not Georgia
 - Discussion regarding import costs – gas, coal from the mid-Atlantic, the Midwest, and much further; petroleum from Venezuela; uranium from around the world
 - Power plants in and around Athens
 - Hydro – 2 dams
 - Oglethorpe Power has large hydro plant on Lake Hartwell
 - Natural gas – 1 "peaker" plant



- Methane – Athens landfill gas
- Biomass plants – Colbert area and Franklin County
- Solar – UGA array, Comer array, Cedar Creek
 - UGA's 984 kilowatt solar array – compare to Plant Bowen coal plant (~3,000,000 kilowatt)
- Renewables + energy efficiency & power savings = 100% clean and renewable.



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- Energy Use by Sector
 - U.S. – 29% Transportation, 32% Industry, 39% Buildings
 - 90% of our time or more is spent in the “built environment” – buildings are something everyone can impact
 - Globally, buildings consume 40% of our energy and 25% of our water. A lot of that happens at the construction point.
- “How we use buildings matters”
 - First – Energy conservation
 - Second – Energy efficiency
 - Third – Renewable energy
 - Fourth – Renewable energy credits and other market mechanisms
 - Also – Electrification
 - Applies to fleets and facilities. By allowing fleets and facilities to run on electricity, we can control how those our fueled. Once electricity grid is fueled by renewable sources, those cars and buildings/equipment will also be fueled by renewables.
- Energy burden in Athens.
 - 6.1%
 - About as much as our state income tax.
 - 2.4 times the average energy burden in America
 - 1.4 times the average energy burden in Georgia
 - The census tract with the single highest energy burden in Georgia is in Athens-Clarke County
- Break down of the built environment
 - Residential – single family, townhomes
 - Commercial – offices, municipal buildings, college buildings, manufacturing plants, apartments and retail
 - Linking the built environment together – energy grid, transportation system, water plants



- Impact areas in buildings – opportunities for efficiency
 - Building envelope
 - Systems
 - Operations and maintenance
- Natural factors in building performance
 - Sun exposure to buildings
 - Topography –
 - Prevailing winds
 - Climate zones
 - Athens in Zone 3
 - Describe the heat and humidity that make unique building challenges
 - “Stack effect” – air pressure differences in building effects heat distribution throughout floors
 - Thermal bridging – transfer of heat through conduction across stone wall
- Thermodynamics – Movement of heat, air, moisture
- Building Envelope basics
 - Conditioned versus unconditioned attics
 - Insulation is critical – Blow-in, foam, fiberglass bats
 - Air leakage – Any penetration for plumbing, electrification, framing, windows, recessed lighting – air leaks add up
- Building systems
 - Air conditioning units, chillers, duct system
 - Combustion appliances, ventilations systems (exhaust fans)
- Operations and maintenance practices
 - *Systems only run as well as they're maintained.*
 - Air conditioning filter – changing multiple times a year
 - Cleaning air ducts
 - Periodic maintenance on machinery
 - Controls – Thermostat, programmable or not; Occupant sensor; Vampire effect
 - *The bigger the space, the more important these controls are.*
- Building energy codes
 - New building code in Georgia – we're on the 2015 building code. This new code went into effect in January 2020.
 - *Code is only as good as it's being enforced.*
- Green building certifications – for when you want to go beyond code!
 - Examples: LEED, EarthCraft
 - Existing buildings – biggest problem and struggle to get certifications
- Building performance improvement processes
 - Benchmark – tracking energy use baseline and improvements, often using ENERGY STAR Portfolio Manager
 - Energy audits
 - Establish performance goals
- First / fast steps (low-hanging fruit)
 - Incentives – utilities, taxes, recognition, monetary savings
 - Provide options!
 - Volunteer / incentive-based approach to stir interest and build momentum



- Job and investment opportunities
- Affordability and equity (lowering the energy burden)
- Identify low hanging fruit
- Advanced Clean Energy Scenario (ACES) Tool – shows us options, including making these critical changes to our built environment, and shows us how close those efforts can get us to 100% clean and renewable. The selection of our fuel sources, incentives, choices we make and the policies we implement – are all built into this tool

Clean Energy 101 Discussion and Questions

- Question (Amy Kissane): How does the inefficiency of existing building compare to the energy consumption of new construction
 - National average for replacing existing buildings with new ones is just about 2%
 - New buildings have incredible environmental impacts. This is why improving existing buildings is so critical.

Public Engagement Strategy (Megan O'Neil, Southface)

- Terminology
 - "Community" engagement – Outreach and education to residents and community members to identify and address individual priorities for a clean and renewable energy future
 - "Stakeholder" engagement – Outreach and engagement with small groups of sector-specific organizations, businesses, and institutions to identify and address sector or group-level priorities for a clean and renewable energy future
- Stakeholder engagement
 - Who are the stakeholders?
 - Will be distributing initial list of stakeholders by September 18
 - Major categories
 - Community / Equity
 - Energy Service Providers
 - Environmental
 - Housing
 - Jobs / Economic Development
 - Large energy users
 - Neighborhood
 - Real estate
 - Transportation
 - How will we engage? – Stakeholder engagement – all virtual
 - 1:1 Interviews (10)
 - Receive detailed feedback, solidify support from influential leaders through direct conversation.
 - ACCGov Focused Meetings (2)
 - Gather internal ACCGov feedback and support on Plan development and implementation, with focus on municipal energy use.
 - Stakeholder Listening Sessions (3)



- Collect subject-specific feedback from expert stakeholders on priority topics.
 - Community and equity
 - Clean energy economy
 - Built environment
- How will we engage – Community engagement, all virtual
 - Community Conversations (5)
 - Varying times of day, Days of week
 - Varying topical focus areas
 - Public Education Events (2)
 - Originally in tandem with in-person events (e.g. Athens’ festivals)
 - Work with organizers to work within their adapted events
 - Community Survey
 - Gauge public views on the Plan
 - Will provide critical information for Plan development, such as:
 - Community values in shaping the Plan
 - Level of support for the clean energy target to date
 - Views on clean energy sources
 - Prioritization of clean energy policy and program areas

Public Engagement Strategy – Discussion

- Question: Virtual only?
 - Yes – currently planned as such.
- Suggestion: Local radio – hosts, talk shows
- Suggestion: “Depending on our target population, I think some socially distanced resources may be helpful - For example, ACC has a Neighborhood Leaders program with a paid liaison in each of 13 communities that shares information, gathers input, etc. Are we able to target census tracts with the highest energy costs?”
- Suggestion: The Chamber and Envision Athens have been hosting community conversations – build off those.
- Mike Wharton, ACCGov: We are really hoping CAB will be ambassadors
- Athens Wellbeing Project is also on board with helping us gather community information
- Are there any additional categories of stakeholders that need to be added?
 - Amy Kissane: Building/construction industry (ex.: W&A Engineering)
 - Consider changing title of “real estate” category
 - Tom Lawrence: Utilities themselves (e.g., Georgia Power, Jackson EMC)
 - Andrew: Really want to engage with smaller utilities, (Walton, Rayle, and Jackson EMCs) and even natural gas utilities.
 - Tom Lawrence able to make contact with Jackson EMC if helpful.
 - Michael Songster: Small businesses.
 - Ilka McConnell: Northeast Georgia Business Alliance, Athens Made, Chamber
 - Michael: small restaurants, pubs, small local retail.
 - Engage small business owners in addition to business organizations/groups.
 - Mike Wharton: Large apartment rental companies.



- Can you help us with direct engagement? What ways should we be using to reach out to stakeholders that don't neatly fit into these categories and how can you help us with that?
 - Amy Kissane, Michael Songster: Suggest two-step survey for community, first to gauge understanding.
 - Amy: CAB members could potentially help reach out to specific stakeholders that are more interested, if personal / professional relationships exist.
 - Tom Lawrence: The question will be asked, "Who's going to pay for it?"
- Stakeholder strategy and identification will be in the regularly scheduled CAB meeting (October 21).

Wrapping up (Megan)

- Today, we:
 - Introduced a new feature of CAB engagement: education series
 - Learned the What, Why, and How of getting to 100% Clean and Renewable Energy
 - Focusing on energy efficiency in buildings is the first step
 - Reviewed the Public Engagement Strategy
- Follow-up items from today:
 - CAB to provide feedback on educational survey and stakeholder list by **September 25th.**
 - Invitations to upcoming education events to be sent
 - Public engagement strategy and preliminary stakeholder list to be shared, CAB feedback on strategy and stakeholders to target for engagement to be provided by **September 18th.**