

Joint Environmental Taskforce
MEETING SUMMARY
3/4/2020

Committee Members in Attendance: School Board Members Karl Frisch and Elaine Tholen, Supervisors Dan Storck and Penny Gross, Susan Stillman, Smita Chandra Thomas, Greg Ulses, Ire Kim, Wendy Gao

WELCOME/UPDATES

- School Board Member Elaine Tholen: Welcomed David Corsar, guest from the National Wildlife Federation (NWF), who joined the JET meeting to discuss green careers with the workforce development subcommittee.
- Supervisor Penny Gross: Climate action planning came up at a National Association of Counties (NACo) conference last weekend. Santa Fe now has the link to Fairfax County's work on the CECAP and will be consulting the county's committee process.
- School Board Member Karl Frisch: The transportation subcommittee is still trying to track down answers to subcommittee questions.
- Kambiz Agazi, Director, Office of Environmental and Energy Coordination: Provided update on county's solar power purchase agreement (PPA). Staff initiated PPA efforts about a month ago in anticipation of the PPA pilot program cap being lifted. Staff has been working with the solar companies and other agencies to try to streamline the permitting review process. About 20 properties throughout the county have been identified for the first round of solar installations, including the I-66 Transfer Station and the Springfield Warehouse.
- Supervisor Penny Gross: Received an email from county's Legislative Director that morning with an update on Solar Freedom legislation in Virginia's General Assembly. The House (HB 572) and Senate (SB 710) bills have gone to conference, but conferees had not yet been appointed.
- Justin Moss, Director of Facilities Management FCPS: Provided an update on PPA progress from Schools. FCPS locked in the remaining MW in the PPA pilot program and identified 9 schools in January for potential installations. Of these 9 sites, 3 are feasible for canopy solar installations. FCPS has chosen South County Middle School, Mount Vernon High School and Edison High School for these installations.
- Justin Moss: SunTribe Solar, the company FCPS is working with on these first few projects, has an environmental education program attached to some of their work around the country. There may be a chance to expand these educational programs in Fairfax County.
- Supervisor Penny Gross: At the VACo conference, members discussed that climate and energy risk will be a part of future bond ratings. Fairfax County has a AAA bond rating from Moody's.

SUBCOMMITTEE WORK SESSION – Subcommittees took their own notes

- a. **Ensure understanding of current practices and plans**
- b. **Once understanding is achieved, begin high-level discussions to determine what targets/goal areas are appropriate for your subject area (March/April) (i.e. conversion to electric vehicles)**
- c. **Next steps**

JET NEXT STEPS

- Will meet again on April 1, 2020.

OTHER NOTES

Meeting Dates: First Wednesday of each month

Next Meeting: Wednesday, April 1, 2020

Subcommittee Meeting Notes

WORKFORCE DEVELOPMENT

Subcommittee members in attendance: School Board Member Elaine Tholen, Greg Ulses and Ire Kim

Others in attendance included David Corsar, NWF.

Subcommittee members spoke with David Corsar about the NWF's Green Career Program, developed preliminary subcommittee goals and came up with additional questions related to workforce development within the county:

- NWF Green Career Program
 - High School Seniors and Juniors, College Age
 - Online program with career center outlooks
 - Career paths, trends, opportunities, salaries, ways to get involved and get hands on experience
 - K-12 work with facilities
 - Informational interviews
 - Online conference—employers, students, try to be interactive
 - Keynote addresses, panels, workshops interactive, guidance for projects, career planning session-vision and self-awareness
 - 5 planning areas for this year:
 - Climate change
 - Food justice
 - Arts and creative
 - Finance and investments
 - Circular economy-packaging, closing the loop, manufacturing
- What can we do to identify career paths for our county's green collar workers?
- **Goal: How equipped are the guidance counselors to talk with students—tool kit for them to use with interested students, college needed and not needed, David Corsar—has a draft**
- How do we make all jobs “green aware”?
- International Society of Sustainability Professionals
- Understanding of sustainability, products-plastics
- What is the minimum our students need to know to be sustainability aware to perform in any job?
- NOVA Community College Workforce analysis work on the region
- Prep students for entrepreneurship and intrapreneurship
- **Goal: HS certification programs—do one**
- Sustainability Leadership—NWF—implement a project and submit report to get certification
- Landscaping—Chesapeake Bay Land Professional

- Sun Tribe partnership-internship, apprenticeship
- **Goal: Design and Construction and Facilities and Maintenance—as we go Net Zero, how do we use our building as a learning tool—Skype out the info –what is happening?**
- Ire Kim will talk with the counselor to see what they have available
- **Goal: Collaborate with local solar installers to train employees, INSUN, MDV-SEIA (Solar Energy Industry Assn)**
- Occupational Handbook—look for Green occupations

ENERGY

Subcommittee members in attendance: Supervisor Dan Storck, Smita Chandra Thomas, Wendy Gao

Staff in attendance included Kambiz Agazi and Justin Moss. Kambiz Agazi provided subcommittee members with a draft green building policy with incremental goals, transitioning county buildings to Net Zero Energy (NZE) by 2030. Subcommittee members discussed the draft policy:

- Capital Facilities Green Building Policy
 - LEED Gold certification
 - In the first year, buildings will achieve at least a 30% improvement in energy
 - Reduction in GHG emissions of 40% for new construction
 - 10% increase in energy efficiency every three years until buildings achieve NZE certification by FY 2031
- Already planning to implement LEED Gold certification -- behind on that → the issue is the transition period
- No county government buildings yet NZE certified
 - Can begin piloting two or three before 2030 so we're ready for 2031
 - Arlington, Washington, D.C.
- Why wait ten years?
 - NZE sooner
 - Not every building can reach NZE in the same timeframe but lower school buildings that can reach NZE with no additional cost should be pushed to do so before 2031
- NZE associated with renewable energy only
 - Generating as much energy onsite as you are using
- New construction would be done in the preliminary design phase → would let architect know so they can maximize energy efficiency (heat loss, cooling loss, etc.) → minimizes need for renewable energy, which is more expensive but possible with the Fairfax County PPA
- Credits currently can't be applied to contiguous properties → solar site contingent on that restriction being lifted
- NZE ready for new design vs. renovation
 - Factors
 - Natural lighting
 - Reduced plug load management
 - Geothermal

- Solar
 - Insulated concrete forms
- Which schools do we currently have in our criteria that could be NZE ready?
 - Mason Crest Elementary School
 - Geothermal fields under the soccer fields
 - Uses the least amount of energy per area
 - EUI at its best was 28 → pretty close to NZE
 - Usually low thirties or forties
 - Average for schools is about 65, FCPS better than national average, usually about 55
 - Discovery Elementary School is usually about 16-18 so that with solar it can pass the threshold
- Immediately go into LEED Gold and 30% energy efficiency
- LEED Silver requires 5% above the current code → 25% energy efficiency
- Virginia Tech exploring NZE buildings → three hundred interested engineers
- Put some language in the RFP that Fairfax County is exploring NZE and let the companies compete → will get way more than 30% energy efficiency
- Setting NZE as the standard
- Green Building Policy Draft outlines plan for NZE by 2031 because the rest of the region is following a similar timeframe
 - We can beat the region
 - Could start at 50% but **need a transition period because we currently don't have any NZE energy schools → need experience**
- Nobody in the region has an NZE policy; Fairfax County would be the first
- LEED standard separate of NZE
 - Our focus is what's the energy usage of this building and can we offset it with solar or renewables
- Arlington looking to buy 80% of county energy usage with credits 400 miles away
 - Our mission should be to focus on getting energy locally
- Fairfax County is the wealthiest, most populous county so we really need to be leading, not following Alexandria or Arlington
- CIP is not a procurement process
 - Proposing five years will get pushback from staff because there isn't even any transition time
- Citing previous Mt. Vernon projects, maybe a couple years' notice of getting as close to NZE as we can
- We can hit the 50% goal tomorrow → all facilities are designed solar/EV ready/LED lighting already
 - Maximum under LEED is 50% plus GHG atmospheric piece
- Can begin under maximum today but CIP people will push back against the transition
- CIP will commit to piloting NZE, but **no policy before NZE schools**
- **Ask CIP to begin looking at NZE in three years**

- Stringent timeline means they may find that there are differences in types of buildings that allow them to achieve NZE easier
- Ten years → staff will take their time to explore options
- Maybe we don't actually achieve NZE in three years, maybe we only get to 80% → still better than 50% in five years
- Payback for NZE concern
- Kambiz will:
 - Strengthen Capital Facilities Draft Green Building Policy
 - Ask staff about 3-5 years
 - Then the JET can make a recommendation about transitioning to an NZE policy
- Five-year transition very aggressive
 - 15-16 renovations on average
- Discovery cost \$42 million dollars → twice as much as a normal elementary school
 - Public will react to the price
 - Must make the NZE price more palatable because **the cost goes up with NZE**
- FCPS already on an extended renovation cycle, can't afford to extend that
- Kambiz's staff is focused on the policy
 - Policy must be implementable
 - Flexibility: LEED Gold/50% and NZE ASAP
 - If we can't obtain NZE in five years, staff should answer why
- When we replace old equipment with new equipment, maintenance staff goes down
 - We don't have specialty staff
- Justin will return with environmental stewardship policy from the schools
- Shouldn't lump new construction with renovations
 - 10-year plan makes sense for older buildings
 - New construction/major renovation/gut should have a shorter timeline
- FCPS doesn't build a lot of new schools so the timeline will differ between the county and the schools
- Incremental capital costs in moving toward NZE schools but costs nothing to be LEED Gold
 - Smita says opposite -- costs nothing to achieve NZE but there are incremental costs in LEED Gold → next meeting

RECYCLING/WASTE REDUCTION

Subcommittee members in attendance: Supervisor Penny Gross

Staff in attendance included Eric Forbes (County Director of Engineering and Environmental Compliance) and Sam Kang.

Subcommittee members and staff discussed ongoing recycling and waste reduction efforts in the county, particularly in county schools. Members also developed additional questions for staff and drafted preliminary recommendations:

- In response to a previous request for a waste audit, Eric Forbes said that the county sets baseline conditions for waste/recycling. His dept. has room at the transfer station to do an audit for county pick-ups and can absorb cost in his budget. However, schools used Republic Services and he does not have staffing to handle schools' waste. He said that at least 3 "representative days" would be needed, but how many trucks and how much would have to be figured out.
 - Would you look at bags? At trucks?
 - Eric did a week-long study earlier this year, using 10 staffers. He thought a structure could be put together by April, but a study would take longer. Eric suggested coming up with some options and circulating them via email.
- Other items in this section included how do we get people to stop using plastic bags for recycling and get them out of the system? Also need to look at purchasing policies – what is being purchased and packaged?
- As for schools – how to get teachers to take on extra? Need system-wide advocacy.
- Green Flag program sponsored by the National Wildlife Federation – what did Longfellow do?
- Does PTA have leverage?
- Can community service hours be counted?
- Survey students/teachers/custodians re how much waste and recycling?
- A lot of waste during school year is plastic bottles
- Have students track what they are tossing
- For food waste, have a designated refrigerator to collect unopened milk, yogurt, etc. for redistribution and/or food pantries
- School supplies – where is a model to be shared?
- How to get water bottle refill stations in every school?
- Add to contract management how plastics and other items are handled
- We need to make recommendations –
 - Waste sort/audit
 - Part of new contracts – measure effectiveness and seasonal fluctuations
 - Costs to do sorts – not with routine rigor, but with mindset change
- High priority-
 - Single use plastic – policies? Procurement? Dispensers that you press a button for a fork, spoon, knife, etc.
 - What best practices can be highlighted to consumers?
 - Freebies? And publicize it
 - Recyclable quality – contaminated – get it out of the system
 - PR campaign

TRANSPORTATION

Subcommittee members in attendance: School Board Member Karl Frisch, Susan Stillman

Staff in attendance included Francine Furby (Director, FCPS Department of Transportation), Tom Biesiadny (Director, Fairfax County Department of Transportation) and Marguerite Guarino (Deputy Director of Administration, Fairfax County Department of Vehicle Services).

- 2.5M gallons /year diesel for FCPS.
- 516 K/year gallons unleaded.

- How do we get the greenhouse gas emissions data for FCPS and Fairfax County?
- Could we have 5 years of data on the fuel usage? Broken out as granular as possible.
- Could we have the school bus data based on the routes they run? Do school buses cross magisterial districts during the day?
- Tom Biesiadny will provide the Fairfax Connector bus age by garage.
- Francine Furby: school buses are divided into 4 areas. Buses that age out are replaced in that same area with new buses.
- Electric bus deployment will depend on where the charging stations are located. Currently at StoneCroft (Sully). Dominion made the determination of the location of the charging station.
- Has there been an evaluation of the maintenance requirements of the EV school buses? Every 45 school days a school bus is currently evaluated for maintenance. How EV buses will work out is TBD.
- Dominion is responsible for maintaining the charging infrastructure.
- Between 10 AM -1 PM, buses will be recharged and then 5 PM on is for vehicle to grid (V2G) services.
- RFP for Level 2 charging stations. Goal is 20 (library, county offices) facilities installed by 2025 for Fairfax County. In negotiations now for awarding the contract.
- RFI on how to electrify the schools.
- Fiat Chrysler-response.
- Black Excellence-Lion Buses 5 buses, 5 vehicles and 5 charging stations.
- Energetics-consulting services for EV conversion.
- Clean Cities-proposed consulting services.
- Blue Bird-provides EV buses-talked about grant funding.
- Lion-EV school buses flexible charging choices provided good information on working with utilities. Thomas Buses did too.
- Francine will see if she can't post all the information from the RFI.
- County will add 21 new bike share stations for the summer.
- County has invested \$300M in bike and pedestrian infrastructure.
- VDOT repaving program and restriping adds bike and pedestrian usage.
- Safe routes to school-schools have to self-identify.
- Need to do an inventory of bike racks and make certain there are enough racks for the number of students that want to ride to school.
- Average miles per bus/year for Fairfax Connector.
- County has transit benefits \$200/month for carpooling and vanpooling.
- Is there an idling policy for county vehicles? Yes. County vehicles can't idle more than 15 minutes. FCPS buses can't idle for more than 3 minutes.
- Middle and high school students can ride Connector buses for free.