

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

Green Building Advisory Council

Meeting Date: February 7, 2024 at 2pm

Meeting Location: Online – WebEx

Recording: <https://dcnet.webex.com/dcnet/ldr.php?RCID=c0967b8b91619660224552341225227c>

Attendees (all by Webex/phone)

GBAC Members Present: Vanessa Bertelli (Electrify DC), Michael Brown (DOB), Jen Croft (DGS), Jenn Hatch (DOEE), Joseph Knackstedt (DHCD), Stephen Gyor (OP), Anica Landreneau (HOK), Cliff Majersik (IMT), June Marshall (Private Sector), Linda Toth (Arup)

GBAC Members Absent: Billy Grayson (ULI), Mansi Talwar (GWU)

Other Attendees: Connor Rattey (DOEE), Casey Studhalter (DOEE), Kate Tanabe (DOEE), Francisco Matiella (DOEE), Maribeth DeLorenzo (DOEE), Michael Feldman-Wiencek (DOEE), Aykut Yilmaz (DOEE), Ali Alaswadi (DOB), Sean MacCarthy (FEMS), Loriane Icbaci, Hampden Macbeth (DOEE), Nicole Cooper (DOEE), Katie Bergfeld (DOEE), Linda Tolliver (DGS), Ryan Walker (DGS), Crystal West (DGS), Emeka Nwabunwanne (DGS), Oni Gaston (DCPS), Cristine Gibney (DOEE), Isabel Guide (DCHA), Cassidy Mullen (DGS), David Bagnoli, Allam Al-Alami (DGS), Agyei Hargrove (DGS), Jenna Bolino (DGS), Brad King, Javier Castro Conroy, Martin Silber, Erin Foxworthy, Abdullah Ayazi, Juan Guarin, Kristina Vidal, Alan Karnofsky, Andrea Foss, Juan Guarin, Kayla Barlow, Keith Hack, Kerric Baird, Marquisha Powell, Mary Thomas, Michael Soong, Michelle Loggins, Mohamed Jalloh, Oni Gaston, Ryan Walker, Mattias Paustian, Stephen Kitterman, Tim Oberleiton, Dan Nebhut, Jonathan Herz, Joe Ockershausen, Patrique Henry, Paul Goel, Bob Hayes, Juan Guarin, Bruce Beddow, Anthony Scerbo (OOG), Burt Jackson, Jessica Qian, Rosette DiFranco, Fred Anderson, Miles Brewer

Administrative updates – *Jenn Hatch, DOEE*

- Vanessa Bertelli and Jen Croft have been sworn in to the GBAC. Vanessa is a new nonprofit sector representative. Jen is the new DGS representative, replacing Matt Floca.

Greener Government Buildings Act: DGS Project Pipeline Overview – *Cassidy Mullen, DGS*

- DGS shared that there are several projects that were under design when the GGBA went into effect without a transitory period. Many of these projects are unique or uncommon types of buildings, but vital to District operations.
- One challenge for NZE compliance is that DGS currently procures off-site renewable energy from a wind farm in PA (i.e., within PJM region), but has limited off-site renewable energy production in DC, MD, or VA, as required by Appendix Z.
- DGS will make every effort to achieve NZE for its modernization projects and will work with DOB, DOEE, and the GBAC to plan for the remaining existing projects that may need support or partial exemptions.
- Questions and discussion:

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- It would be helpful for GBAC consideration to include avoided embodied carbon emissions for projects that are investing in existing buildings rather than demolishing and constructing new structures.
- Does this legislation provide periods for obtaining permits under the previous version, as the code updates provide transitory periods?
- Transitory periods are in place for code updates but do not apply to this legislation. GBAC would like to see projects seeking exemption frame requests by presenting the compliance elements the project can meet, where the project is going above and beyond requirements, and where they are falling short. Ideally, projects should provide a breakdown of how far from baseline to NZE compliance that project can achieve.

Greener Government Building Act: Requests for Exemptions – DGS Staff

- Adams Education Campus – 2020 19th Street NW
 - Adams Education Campus houses Oyster-Adams Bilingual School in a historic building on a difficult site in Adams Morgan neighborhood. Site and building challenges include:
 - Small site that varies in topography with bedrock foundation that does not allow for deep geothermal wells.
 - Solar path analysis shows that much of the site is in shadow for most of Winter and Fall, while Spring shows a small increase in solar potential.
 - Project team tried to balance NZE, stormwater management, historic preservation, and programmatic needs.
 - Modernization was first requested in FY 2019 budget for funding starting in 2023. An RFP was put out in October 2022.
 - NZE compliance:
 - Building certification: Adams EC will meet LEED Gold standard as required
 - Building envelope and roof: Existing building will have higher insulation value and eliminate air infiltration. New addition will include efficient envelope design and will be tested for airtightness as required. All roofs will be further insulated as well.
 - Mechanical systems: Adams EC will include water-source heat pumps with cooling tower. Project is currently planning to use gas for backup power and Bunsen burners for science curriculum.
 - Energy modeling/EUI: Adams EC targets a site EUI of 21.3 and a zEPI score of 24.4 therefore in compliance with Appendix Z.
 - Annual heating and cooling demands: Project meets heating and cooling demands requirements.
 - Exemption requests:
 - On-site combustion: Bunsen burners using gas.
 - On-site renewable energy: Based on site exposure, limited footprint, partially slate roof, and designation of the building and its surrounding neighbors as

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contributing historic structure to the Washington Heights Historic District, and experience with power purchase agreement (PPA) system owners, DGS does not believe the majority of the project site is an acceptable candidate for on-site renewables

- Off-site renewable energy: DGS does not have off-site RE that meet requirements for DC/MD/VA currently but does have off-site wind farm in PA (within PJM region).
- Questions and discussion:
 - GBAC would like more information on Bunsen burner alternatives as more school modernization projects will require these in the future. Members offered examples of university settings where electric Bunsen burners are now in common use.
 - GBAC does not see an issue with expanding offsite renewable energy requirements to PA or PJM region but would like to see additionality to cover the new energy consumption from the facility post renovation. DGS noted that this would not be adding additional capacity to their contract, but instead claiming off-site renewable from other projects. DGS is evaluating additional offsite renewable energy options as part of long-term carbon neutrality goals. DGS will need additional time to evaluate options for the entire portfolio and is asking GBAC to consider the wind PPA in Pennsylvania as compliance with the offsite renewable piece of Appendix Z for this project.
 - GBAC asked about the possibility of solar on different areas of the campus, such as recreation areas or parking lots. GBAC would like to see integrated green roofs with solar systems.
 - Public had clarifying questions about heating sources, community engagement, and solar constraints.
- GBAC recommendation
 - GBAC member Anica Landreneau motioned to recommend partial exemption with conditions to be verified at time of Certificate of Occupancy issuance by DOB.
 - June Marshall seconded the motion. A vote was taken by roll call, and the motion passed unanimously.
- Browne Education Campus – 820 26th Street NE
 - Browne Education Campus serves Ward 5 for grades PK3-8th. The new Browne Education Campus modernization will include a Child Development Center as well. Site and building issues:
 - Tight timeline with the project needing to deliver in December 2024. Browne EC is currently in trailer near site and JO Wilson Elementary will swing in behind them immediately.
 - Historic building and historic campus.

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- Campus includes steep slopes and much of the campus is paved. Only flat areas are needed for outdoor recreation space.
- Existing building does not have ideal solar orientation, but new addition will have better solar orientation.
- Upper floor of building will be “mothballed” (i.e., taken out of commission) due to decreased number of students.
- Added to Capital Improvement Plan (CIP) in FY 2018 with funding starting in 2023. RFP was put out in September 2023 and awarded to Perkins Eastman and MCN Build in January.
- NZE compliance:
 - Building certification: Project will meet the required LEED Gold standard.
 - Building envelope and roof: Project includes all new windows, additional insulation for existing building walls and the “mothballed” upper floor of the building, and new roofing system with insulation. New addition will include efficient envelope design and will be tested for airtightness as required.
 - Mechanical systems: DGS has evaluated multiple mechanical systems and will use water-source heat pumps with a cooling tower and gas boilers. The project will include gas backup generator and Bunsen burners.
 - Energy modeling/EUI: EUI of 33 and zEPI score of 26.44 therefore in compliance with Appendix Z.
 - Annual heating and cooling demands: Project meets the heating and cooling demand requirements.
 - Onsite renewable energy: Project complies with on-site renewable energy systems regarding the provision of rooftop area for future solar PV installation and installed pathways. Total generation is expected to be 356,000 kWh/year, equivalent to 23.7% of total building energy consumption, therefore in compliance with Appendix Z.
 - Embodied carbon: 7 million pounds of CO₂ saved by retrofitting existing building compared to constructing new building.
- Exemption requests:
 - On-site combustion: Mechanical systems included gas boiler system as part of water-sourced heat pump system, and gas Bunsen burners.
 - Off-site renewable energy: DGS does not have off-site RE that meet requirements for DC/MD/VA currently, but does have off-site wind farm in PA.
- Questions and discussion:
 - GBAC asked clarifying questions about airtightness sealing, mechanical systems, and electrical upgrades.
 - GBAC is interested in understanding energy modeling and compliance with Energy Conservation Code. The project is using the prescriptive path under the ECC.
- GBAC recommendation

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- GBAC member Anica Landreneau motioned to recommend partial exemption with conditions to be verified at time of Certificate of Occupancy issuance by DOB.
 - Linda Toth seconded the motion. A vote was taken by roll call, and the motion passed unanimously.
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- FEMS/OSSE Fleet Project – 6 Village Lane SW
 - Moved to schedule interim session for consideration and GBAC members agreed.
 - DOEE will work with DGS and GBAC to schedule quickly.
 - GBAC requested that the FEMS/OSSE project frame their exemption request based on compliance toward each Appendix Z element for next meeting.

Roundtable Updates – All

- None

Meeting adjourned at 4:02 PM.

The next regular meeting will be April 3, 2024.

An interim meeting will be held February 21, 2024.