

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

Green Building Advisory Council

Meeting Date: April 24, 2024 at 2pm

Meeting Location: Online – WebEx

Recording: <https://app.box.com/s/2bztipoy0kuavuuypngj461a4jhf9ae>

Attendees (all by Webex/phone)

GBAC Members Present: Vanessa Bertelli (Electrify DC), Michael Brown (DOB), Jen Croft (DGS), Jenn Hatch (DOEE), Stephen Gyor (OP), Cliff Majersik (IMT), June Marshall (Private Sector), Linda Toth (Arup), Mansi Talwar (GWU)

GBAC Members Absent: Billy Grayson (ULI), Anica Landreneau (HOK)

Other Attendees: Connor Rattey (DOEE), Casey Studhalter (DOEE), Kate Tanabe (DOEE), Michael Feldman-Wiencek (DOEE), Jamie Donovan (DOEE), Ali Alaswadi (DOB), Tasneem Islam (DOEE), Brian Fox (DOEE), Brad King, Raj Setty, Scott Teixeira, Matthias Paustian, Anne deBuys, Juan Andrade, Brian Farrell, Ryan Wilhelm, Solomon Ikotun, Chad Sullivan, Paich McInturff, Burt Jackson, Victor Reid, Mohamed Jalloh, Cassidy Mullen, Jenn Brown, Javier Dussan, Alex Colon, Nitesh Shah, Wade Stephens, Lopez Matthews Jr., Mada Makke, Bill Beschorner, Michelle Loggins, Andrea Foss, Dan Hines, Allam Al-Alami, Antonio Price, Colby Pfister, Oni Gaston, Alexei Zemskov, Rachel Stern, Mary Thomas, Cristine Gibney, Neil Flannagan, Shilpa Khatri, Renee Pean, Erin Foxworthy, Bobby Kirby, Kimberly Basset, Will Perkins

Administrative updates – *Jenn Hatch, DOEE*

- Jenn Hatch opened the meeting and introduced.

Roundtable Updates – *All*

- None

Greener Government Building Act: Requests for Exemptions – *DGS Staff*

- [DC Archives](#) – 4200 Connecticut Avenue NW
 - Background
 - New archival facility for the District of Columbia’s archival records and collections, plus a research center, exhibit space, and event space.
 - Located on the University of the District of Columbia’s campus.
 - Above 2/3 of the building will be used for archival storage and the remaining area will be offices or public space.
 - NZE compliance
 - Designed to achieve LEED Gold certification.
 - The project will meet annual energy use indices, annual cooling demand, building commissioning, airtightness testing, on-site combustion, on-site renewable energy and reporting requirements.

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- Exemption request
 - Zero Energy Performance Index (zEPI) is 47.8. Requesting exemption from Z2.1.1 which requires buildings to demonstrate zEPI of 30 or lower due to energy needs of archival facilities.
 - Annual heating demand is 10.5 kBtu/ft². Requesting exemption from Z2.2.1 which requires annual heating demands of 4.2 kBtu/ft² or lower. Project team argues that high annual heating demand is due to the low humidity needs of the archive's storage areas. To dehumidify, the air needs to be cooled to remove moisture and then reheated to bring back up to correct temperature for the archival space.
 - Procurement of off-site renewable energy. Requesting approval to use DGS wind PPA in Pennsylvania to meet the off-site renewable energy requirement.
- GBAC questions and discussion
 - GBAC voiced concerns about this project not meeting the District's net-zero energy commitment, noted that the exemption request is not sufficiently justified or transparently documented, and reiterated that the GBAC does not recommend exemptions purely based on cost constraints.
 - GBAC members are concerned about the high Zero Energy Performance Index and high heating loads, especially as compared to the cooling demand. Members asked questions to clarify if the project team had considered systems like dedicated outdoor air or variable refrigerant flow systems, the potential for geothermal wells on the UDC field that is currently under construction, and
 - GBAC also voiced concerns about discrepancies in the energy model and requested the project provide the full inputs, assumptions, and outputs.
 - GBAC members requested more information on the team's efforts to zone the archival spaces, right-size systems, and utilize sophisticated controls in order to decrease the annual heating demand value.
 - Linda would like breakdown of localization and set points, air changes differ across from archival area and office area
 - GBAC determined that they would postpone a vote on a recommendation for this project due to the lack of information provided and outstanding questions. The GBAC suggested that the team produce additional information, including but not limited to the requests listed below, before returning to the Council to present at a future meeting.
 - The full energy model, including list of inputs, assumptions (including how different building uses are considered), and outputs.
 - Analysis of the proposed energy performance of non-archival spaces.
 - A summary of all systems considered and efforts to reduce energy consumption across the building.
 - The breakdown of building space by use (i.e., percentage of total building space that is dedicated to archival and non-archival spaces) and

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any information on space constraints given the needs for archival storage, archival processing, and non-archival spaces.

- Additional information on building system design, including an analysis of temperature, humidity, and air circulation. This analysis should provide information on the zoning, set points, air changes, and energy consumption impacts across the archival zones and non-archival areas, as well as the efficiency efforts that have been considered or taken to reduce energy consumption. It should also include a breakdown of the amount of heat that is projected from electric resistance heating and heat pumps, as well as details on heat recovery systems.
- Analysis of energy costs of the baseline and proposed design.
- DOEE will work to produce a full list of questions and requests from the GBAC and provide that to DGS and the project team before scheduling a future meeting time for the Archives project to represent to the GBAC.
- Public questions and discussion
 - At the time of this meeting, DOEE received two sets of written comments from Sierra Club DC and Earthjustice. The letters are available [here](#).
 - Neil Flannagan is an architect that sits on Archives Advisory Council and acknowledges that his comments today do not reflect the council. Voiced concerns about the lack of transparency since the start of this project and concurred that he would like to see more details on the project's design.
 - Matthias Paustian (Sierra Club) voiced concerns regarding the discrepancies in the energy model and unclear exemption request documentation, including confusion about the project's heating and cooling systems, apprehension over the costs of heating and cooling the building, and a request for more information on why heat pumps could not be feasible here.
- GBAC recommendation
 - GBAC member Cliff Majersik motioned to recommend a denial of the current exemption request with the understanding that the project team will provide requested information and return to the GBAC at a future date.
 - June Marshall seconded the motion. A vote was taken by roll call, and the motion passed unanimously.
- [Nalle Modular Campus](#) – 219 50th Street SE
 - Background
 - The project is a modular trailer campus next to Nalle Elementary School that would accelerate modernizations in Wards 7 and 8. Campus will operate as a swing campus for 3-4 schools over the next 6-8 years, which is the estimated lifetime of the trailer units.
 - Campus will be made up of a collection of trailers, playground, and multipurpose tent, and kitchen area.

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- The current contract does not include a deconstruction or recycling plan, which is required under the Green Building Act regulations.
- Planned to open in summer 2025 for King Elementary School.
- DGS received a mandate to build additional modular campuses and is looking for guidance for future projects.
- NZE compliance
 - The campus will be all-electric, including an electric kitchen, except for a gas emergency generator.
- Exemption request
 - Requesting exemption from LEED certification, building energy performance, on-site renewable energy, and off-site renewable energy requirements due to temporary nature of campus.
 - Project has explored options for increasing energy efficiency including increasing wall insulation and procuring external HVAC units for clusters of trailers (as opposed to individual HVAC units for each trailer).
- Questions and discussion
 - GBAC asked clarifying questions about the size of classrooms and heat pump specifications. DGS clarified that classroom size is ~1,000 square feet (possible smaller) and would each be served by a 3.5-ton heat pump.
 - GBAC requested performance specifications on the trailer units and the attached HVAC units.
 - GBAC asked clarifying questions, including if an energy model would be produced, if the trailers had cool roofs, and if DGS had considered saddle heat pump windows, high performance prefabricated homes, and temporary solar systems.
 - GBAC would like more information regarding the deconstruction or reuse plan.
 - GBAC determined that they would postpone a vote on a recommendation for this project due to outstanding questions. The GBAC suggested that the team produce additional information, including but not limited to the requests listed below, before returning to the Council to present at a future meeting.
 - Trailer and bubble specifications from manufacturers, including heat pump performance, envelope information (e.g., r-values, etc.), and cool roof details;
 - Analysis of potential methods for procuring on-site solar energy; and
 - Commitment letter describing the deconstruction or reuse plan, including details on the materials that need to be disposed.
- GBAC recommendation
 - GBAC member Cliff Majersik motioned to recommend a denial of the current exemption request with the understanding that the project team will provide requested information and return to the GBAC at a future date.

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- June Marshall seconded the motion. A vote was taken by roll call, and the motion passed unanimously.

Meeting adjourned at 4:03 PM.

The next regular meeting will be May 15, 2024.