

# Infrastructure Council Minutes

## December 1, 2021

10:00 a.m.

160 Pugh\*

\*if needed via: <https://ufl.zoom.us/j/96563752875?pwd=NGczTEdKMk9HdGtGa1ZSbFpCY211dz09>

**Present:** Keith Rambo, Gail Hansen, Frank LoMonte, Ann Baird, Yousong Ding, Patrick Reakes, Ariel Pomputius, Nancy Clark, Lynn Frazier, Walter O'Dell, Amanda Phalin, Mark McCallister, Alex Wong, Laurie Bialosky, Ray Issa, Mark Helms, and Breann Garbas.

### 1. Call to Order – Keith Rambo, Chair

- The meeting was called to order at 10:01 a.m. by Infrastructure Council Chair Keith Rambo.

### 2. Approval of November 4, 2021 Minutes

- The minutes were approved.

### 3. Chair's Message

- An agenda overview was provided.

- The Board of Governors (BOG) approved the \$200 million central energy plant and new infrastructure to handle steam and chilled water but a proposal for a different route - away from the required use of natural gas - will be explored in today's meeting. Chair Rambo shared a [Spectrum thermal solar article](#) from his professional society. The power tower and the parabolic trough and cost 1.4 billion dollars. Solar thermal and PV (photovoltaic) examples and scaling were discussed. UF would need 100 megawatts and an enormous amount of land.

- The Office of Sustainability is hosting a [CAP 2.0 Lunch & Learn](#) to help faculty & staff become more familiar with the UF's Climate Action Plan (CAP) process and make an impact. On Friday, December 10<sup>th</sup>, you and your colleagues are encouraged to join the discussion on Zoom from 12-1 p.m. to find out about the ongoing UF CAP 2.0 update and opportunities to engage across campus.

### 4. University Libraries Committee (ULC) Update - Patrick Reakes, Senior Associate Dean, Scholarly Resources & Services / Josepha Cheong, ULC Chair

- Senior Associate Dean Reakes provided an overview of the compact shelving project in Library

West where many books can be maneuvered to a compressed area with easy accessibility. The system has been used extensively and is becoming less functional. A staff member needs to physically move the shelves with a machine to provide resource access for patrons.

- University Libraries initially discussed the project with Facility Services about three years ago.

- It is a unique item for preventative maintenance and while hardware and software have been updated, some machine components and software are now unavailable.

- COO Charlie Lane, CFO Chris Cowen, and Provost Joe Glover agreed to fund the project start-up in January.

- The most frequently used items on the second floor will serve as the pilot for the project, which will take three to four months to complete.

- There are safety, sensor, lighting, and software issues which make the project a complex one.

- Core pieces will remain during this upgrade. The shelving is expected to last at least 20 years but in the long term, Smathers will repurpose the space into other uses and utilize remote storage facilities, reduce book purchases of print materials, etc.

- Materials will remain accessible during the project. Senior Associate Dean Reakes responded to a request to consult with faculty in the social sciences before books are moved to a remote storage location by clarifying that this is a long-term vision and that the second and third floors used to house more print journals and reference materials which have since become e-resources. Faculty members expressed appreciation that the University Libraries are aiming for and maintaining a generous depth and breadth of resource materials.

- A [Smathers Deferred Renewal Projects List](#) was shared. The list is informational and includes multiple projects and priorities, so this is meant to be a general reference document. UF has been trying to upgrade Smathers Library, through projects which include HVAC, roofing, envelope work. University Libraries is appreciative of Facility Services which has worked closely with the libraries in managing these projects and issues.

- In response to an inquiry, it was noted that fundraising is still being done for outside seating areas near the colonnade and other related projects.

**5. Central Energy Plant at UF & Carbon Neutrality/Sustainability** - Lynn Frazier, League of Women Voters of Alachua County (LWVAC) President

- LWVAC President Lynne Frazier contacted Faculty Senate Chair David C. Bloom to share league

concerns about environmental issues and was advised to attend today's council meeting so Infrastructure Council may bring information forward to Faculty Senate.

- The LWVAC advocates that:

-- a gas-fired energy plant is not compatible to university and county sustainability initiatives. It has lobbied elected officials to increase sustainable resources and has written to the Governor to share concerns about climate changes disruptions. While many universities consider climate change when making policies, UF and the city of Gainesville have been proactively setting 2025 carbon neutrality goals.

-- it should be made clear if overall emissions reduction for UF will take place with the use of a new fossil fuel plant.

-- while transitioning to a sustainable energy source, issues should be studied, and a plan developed to keep us on a path to sustainability to help build a transition from fossil to renewable energy. UF academic experts should be tapped to help to do so.

-- that it has no position on the plant and has not studied this power plant but hopes UF will employ its Climate Action Plan.

- It was noted that it rained on the Greenland summit yesterday for the first time ever.

- Mark Helms, Assistant VP for UF's Facilities Services Division and Sustainability, is the contact to address central energy plant inquiries and he addressed the following points with council:

-- The creation of steam using means other than locally generated fossil fuel systems (such as electric boilers) would produce more CO2 emission due to having to purchase power from Duke Energy which currently produce more CO2 per kilowatt hour (KWh) than this new facility would using a system that has both co-generation (generate steam and electric power) and simultaneously run a combined cycle from the gas turbine with heat recovery systems running a second generator thereby making the unit have the highest efficiency available for this scale of facility.

-- The design will incorporate the ability to burn both natural gas and a mixture of natural gas and hydrogen. Assistant VP Helms indicated that if technology was further advanced on other viable systems that these would be used, and he is dedicated to meeting the goals for a carbon neutral campus.

-- UF has partnered with a notable sustainable firm, Jacobs Engineering, since 2017 and has been exploring the best available short- and long-term campus options.

- There is a short term need to become steam independent by 2027. It is difficult to produce; while it can be done electrically, an extensive electrical grid is required.
- Because of UF's current solar mix availability, UF has a reduced carbon footprint. UF has reviewed countless technologies; the Duke energy plant is beyond its useful life. It produces no electricity for UF, which has been engaged in asking partners to bring creative solutions to the table since 2017.
- In the event of a natural disaster, UF is establishing infrastructure in a way which allow it to continue to operate its facilities, which is critical to the community.
- To reduce UF's carbon footprint, UF is heavily focused on reducing energy per FTE / and on driving down square footage energy usage of its two million square feet, even while there is an increasing student population.
- UF and Assistant VP Helms have asked partners to look at how to introduce and incorporate clean technology. The need for examination of renewable sources so as not miss any emerging technologies and incorporating it into the current distribution system was discussed. UF is researching the set up of three hydrogen systems to optimize hydrogen use although some of this technology is not yet available for use.
- The new energy plant is more energy efficient and thus will definitely reduce carbon footprint.
- Council discussed a small modular nuclear reactor option and its modular design; potential costs were discussed, as well as if the new federal infrastructure bill which just passed might offer a window of opportunity.
- The [Spectrum thermal solar article](#) was discussed, including that although solar costs have decreased, a tremendous amount of land is needed. UF would need about 1,000 acres currently. While it is possible that technology may change, it is now land prohibitive. Assistant VP Helms acknowledged that UF has the ability to shift and change as needed, and that it has applied for some of the new federal infrastructure money.
- Contacting the Public Utilities Research Center (PURC) in the Warrington College of Business was suggested to Assistant VP Helms, particularly as this project will provide a huge amount of data and can assist in tracking energy use changes.
- The Vet Med energy plant is a recent, standalone, and very successful project. Originally an ESCO project, the Facilities Services Division and Sustainability Office has helped the plant become a classroom and research project.
- Chair Rambo invited all to attend the Chuck Hawkins, Professor Emeritus of University of New Mexico to his guest lecture this \*Monday, December 6 at 3:00 in New Engineering Building #33, room 201. The talk is entitled "Limits of Renewables and Baseload Energy Sources". A Zoom link is also available by contacting Chair Rambo. *\*Presentation postponed.*
- Council discussed that a white paper or continued conversation with the league about sustainability obstacles could help identify shared governance paths.
- Florida is an energy-regulated state, so environmental, financial, and public service commission in the state are all key considerations and potential obstacles when planning and executing energy options.
- Thermal needs have proven to be vexing in addressing larger sustainability issues, and

California has been dealing with this issue as well.

- Council recommends Assistant VP Helms be invited to share information with Faculty Senate. A public campaign to share how the public-private partnership decisions are being made and input are welcome.

- There about 100 individuals involved in the Climate Action Plan on campus and there is also a separate energy committee.

- Chair Rambo and Assistant VP Helms voiced their commitment to continued open dialogue.

- Professor Lamonte also shared <https://www.facilitieservices.ufl.edu/information/central-energy-plant-project/> as a reference resource.

**6. Sustainability Comm Energy Plant Draft Resolution** –Ariel Pomputius, Sustainability Committee Chair

- The committee created a resolution which was approved by the majority of the Sustainability Committee. The goal is to ask Infrastructure Council to sponsor a resolution to move forward to the Faculty Senate.

- Council discussed the resolution in relation to the: 2025 carbon neutrality goal; wording clarifying methane leaks/releases; and the timing relative to UF's Climate Action Plan.

- An updated version of the 2009 UF 1.0 Climate Plan is expected this coming year.

- A two prong approach is being taken wherein a resolution plus a recommendation will be presented to the VP of Business Affairs, Curtis Reynolds.

- Council agreed to refer the resolution to a committee. Sustainability Committee Chair Ariel Pomputius agreed that her committee will review and discuss council feedback from today's resolution and incorporate any needed changes. A draft resolution will be forwarded for discussion at the January council meeting.

**7. Reporting of Contributing Committees and Administrative Liaisons:**

• University IT Committee (S) – Ray Issa

- A campus physical security presentation was made by Joe Souza, Director of Physical Security. The committee is interested in him visiting annually and Chair Issa suggests that he visit this council in the future to provide an update from his office.

• Lakes, Vegetation, and Landscaping Committee (J) -- Gail Hansen

- To accommodate shifting utilities, the committee approved the removal of 11 trees for the McCarty chilled water extension and seven for the Gator residential extension. At the next council meeting, Chair Hansen will share information obtained from her colleagues at her recent professional conference pertaining to measures taken during COVID which may be helpful to remain in effect.

• Preservation of Historic Buildings and Sites Committee (J) -- Ann Baird

- The committee has not recently met.

- Parking and Transportation Committee (J) -- Keith Rambo
  - A subcommittee is addressing the points council discussed in October related to hazardous vehicles and Linda Dixon, Director of Planning in UF's Planning, Design, & Construction, has been added to this working group.
- Sustainability Committee (J) -- Ariel Pomputius
  - The ESG investment resolution will be voted on at an upcoming meeting and will be shared with the Faculty Senate Budget Council.
- Additionally, student discussion continues regarding graduate student housing and, per the new mayor of McGuire, UF Housing is not accepting new housing applications; there are currently 290 vacancies. It was noted that this may be due to buildings being in hazardous condition and therefore such rooms are not being made available for rent. The Board of Trustees (BOT) meet this week. The BOT planned vote for a community housing partnership is currently set for August 2023 and details such as rental prices, the number of available units, and if any UF subsidies will be made available are currently unknown. As council previously discussed, the Campus Master Plan has ruled out McGuire and University Village South housing renovations.

## **8. Adjournment**

- The meeting adjourned at 11:17 p.m.