**ECBS SWATeam Meeting 04**

December 6th, 2018

TBH 115

4pm - 5pm

**Attendees:** Bill Rose (chair), Karl Helmink, Dave Boehm, Paul Foote, Andrea Martinez Gonzalez, Taylor Holin (clerk)

1. Approval of last meeting’s minutes
2. Update on ESOC recommendation (Karl)
	1. Nothing new to report
3. Preparation for Friday (12/07) meeting with eGen SWATeam
	1. What’s included in renewables?
		1. Nuclear power? In or out?
	2. Batteries - how are we going to meet constancy of energy requirements on campus by 2050 if we are limiting our available power to cyclical sources of energy?
		* 1. New storage, technology; USC 5 years back
			2. By 2050, it could be a viable option for solar and wind
	3. ECBS has to save enough, eGen has to produce enough
		1. Where will they be? Can we meet?
	4. Constancy of energy requirements, can they be met with storage between now and 2050 to keep up with the inconsistencies
		1. 50/50? Proportion?
	5. Specific topic: Geothermal energy
		1. New P3 building
		2. 60 wells, 450 ft deep, 8 inch
		3. Reliability factor
		4. Quality of well in order to protect the groundwater, protection to interface, protect and conduct
4. Preparation for input to 2020 iCAP report to Working Group
	1. Provide input to working group -- there are concerns
	2. We need to know exactly which buildings we are concerned with -- what’s the campus?
		1. Once we have this, we can look at our current trend and how we are doing with it in order to make future progress with reliable data
	3. Follow up with Morgan to meet about this topic
	4. Reviewed the Utilities Master Plan
		1. Shows no decline in energy use by 2050 with the best scenarios
		2. We’re going to flatline
	5. Funding, how much and where it’s coming from?
		1. Come up with budget with how much changes are going to take
		2. Needs to be in Master Plan and iCAP
		3. Prepping needs to be along the lines of getting approval and being pointed into the right direction
5. Andrea Martinez
	1. Behavior among people in 2050
		1. If the student body contributes to making a building net 0, the savings go into their meal plans - some universities do that, interesting idea to consider
		2. With an incentive, a meaningful behavioral change can be made
		3. Students don’t believe that their bill is within their reach, why am I paying for this if I don’t use this?
		4. Some don’t know that there are fees for certain services (Ex: Library fee)
		5. Opt in vs Opt out system
6. Karl’s email
	1. Deferred maintenance sheets - Architectural Firm (Cannon) → price per building
		1. Being reevaluated
	2. Disconnects with buildings
		1. Priority levels, how much each is going to cost
		2. Grey area in costs
		3. Budget for deferred maintenance is not enough for what sheet provides
	3. Is this the right strategy?
	4. Concerns - lag time, how long it takes to get projects going
	5. Budgetary concerns for proposed cost
	6. More research is needed
	7. Question: Matter seems to interface with work of the committee
		1. Numbers - if the university calls on us, what should the committee tell F&S to do in this situation? Points you towards the projects where your interventions will create the biggest savings
		2. Overhaul the oldest buildings, get them up to speed, go from there
		3. Look to the Campus Master Plan
7. Joint meeting with eGen tomorrow (12.07) at 4pm in TBH 115
8. Action items
	1. Think about the 2020 iCAP report - what should we include, what are the obstacles, what we need to do and include; Big picture
9. Next ECBS Meeting TBD - after winter break
10. Adjournment