Sustainability Sub-council Meeting

3/18/21; 2 – 3 pm

1. **Welcome and introductions**
   - Attendees: Madhu Khanna, Mohamed Attalla, German Bollero, Mike DeLorenzo, Kim Kidwell, Matthew Tomaszewski, Lowa Mwilambwe, Ximing Cai, Morgan White, Meredith Moore

2. **iCAP process and procedures**
   - This is the first meeting of the sustainability sub-council, chaired by Mike DeLorenzo
     - iSEE and F&S jointly developed agenda
     - The group will always meet ~1 month before Sustainability Council
   - Sustainability Council makes the high-level, high-budget decisions and is meeting in April

3. **Solar Farm 3.0**
   - iCAP objective: 140,000 MWh/year of clean power by FY25
   - eGen008: SWATeam recommendation to explore PPA
   - iWG supported recommendation to move forward with RFP for PPA.
   - Preference for Illinois-based project to support state economy;
   - Could enter into a physical agreement integrated into our campus electrical system
     - Cost $2 or $3 million more every year
   - Other option: Virtual Power Purchase Agreement (VPPA)
   - Other option, buy RECs that require clear additionality
   - What is a VPPA?
     - We agree to a fixed price from this future solar farm
     - In these scenarios, our fixed price agreement is for $30.50/MWh
     - The vendor sells the power into the market, at the real-time market price (fluctuates every minute)
     - We know the historical market prices, and we can only predict the future market prices
     - Monthly, we pay or receive the difference between fixed VPPA price and variable market price
     - Whatever we pay through VPPA, we get the REC with clear additionality in the end; selling the power to the grid.
       - RECs are not being converted to dollars. We would retire them in support of our carbon commitment to be net-zero emissions by 2050.
   - Financial analysis by CFR
     - Expected subsidy is $**2.4 million/10 years** (July 2020 analysis)
   - Comptroller questions
     - Various scenarios to consider
       1. Update with current market pricing
          - Overall expected subsidy was good news; came to **$1.3 million subsidy** over 10 years
          - Analysis includes net termination exposures (NTE) that would be reported on Derivatives Use Report, required by the Derivatives Use Policy
       2. Evaluate price fluctuation and volatility
          - Assumed worst case scenario that market price goes down 10% from February 2021; pricing for life of the agreement (expected **subsidy $3.8 million)**

- Cost increase of $2.6 million, 204.5% (compared to the $1.3M/10 years)

3. Add a price collar for VPPA (on top of worst case of $3.8M/10 years)
   - Assumption is we add a collar of +/- 10% or $3 ($27.50 - $33.50)
   - **$2.4 million subsidy**
4. Compare to buying RECs on the spot market
   - Buy Green-e RECs, without clear additionality
     i. Approximately $2.00/REC
     ii. 90,000 MWh/year x 1 REC/MWh x 10 years x $2.00/REC = **$1.8 million subsidy**
   - RECs with clear additionality
     i. Not easily estimated
     ii. Expected subsidy $9 million
5. Philosophical question of why additionality matters
   - As a leader in environmental stewardship, we want to ensure that we are contributing to green energy somewhere
   - Clear additionality would guarantee this for us, that our investment went somewhere, someplace that went somewhere to yield in carbon reduction
   - Students, SSC in particular, are a strong advocates for this
6. Relationship between VPPA and Futures Contracts
   - Use Futures Contracts to reduce risk of gas prices going up in future
   - Used as a means to guarantee low prices
   - VPPAs are with private parties, off-campus solar
   - Futures are associated with lower market prices offset by lower commodity costs
   - VPPAs have less price certainty than Futures Contracts

- Open questions
  - Is additionality required?
    - RECs with additionality would come from VPPA
  - Consideration of pursuing Illinois-based solar farm compared to somewhere else (e.g., Texas): numbers would be much better if we pursued elsewhere and we would likely save money, but there is a preference to support Illinois industry
  - How are we responding to Avijit Ghosh, Illinois Comptroller?
    - We should take this information, submit documentation back to him and Chancellor
    - Dr. Ghosh has concerns about the market and price
    - There are still likely a lot of questions about the additionality. We need to be leaders in this, but the cost is a concern.
    - Should we even be considering the other methods without it?
    - We could make recommendation to Dr. Ghosh and Chancellor Jones that the group feels that additionality is important.
    - Additional concern is that financially, this will trickle down and impact the units.
    - Seems to be a competing commitment. As a system and campus, we have to decide this and what the impact will be on the units financially, especially considering the challenges of the past year. It will likely take us a few years to recover.
    - VPPA is recognized as: we are partnering with a solar developer to build a new farm, guaranteeing them the price and we get the RECs with additionality. The developer will sell it on the market, and we get the difference.

        - "Virtual" because they are not selling it to campus which is a cheaper way to get essentially the same thing; this should all be explained thoroughly in response to Dr. Ghosh.
        - Need to address what our financial health is as an institution.
        - Every unit is paying their way based on new budget model; department heads have to be consulted because at the end of the day, they are the ones making the difficult decisions.
        - Subcouncil committee can decide whether we put something on the council agenda.
        - System-level leadership likely has concerns.
    - **Next steps:**
        - Mohamed will provide this explanation and document to Dr. Ghosh
        - Document will also be sent to Chancellor Jones and Mike DeLorenzo while waiting for Dr. Ghosh's feedback, to discuss at the Sustainability Council to see if internal questions come up

4. **Energy Performance Contracts**
    - iWG supported the recommendation that ACES, F&S, and Campus work together to prioritize funding as soon as possible
    - We will save money in the long-term; there is a performance guarantee with a maximum payback of 20 years
    - We pay ESCO through savings, after contract expires, we keep all the savings
    - We have done 5 projects across 17 buildings with savings of $40 million to date
    - Next - ACES laboratory: estimated project cost is $40 million across 7 buildings
        - $1.5 million in first year with 20-year payback, approx. 25% cost reduction
    - Open question – funding
        - Need $40 million – should discuss further with Matthew Tomaszewski and Provost Office.
        - Do ACES, F&S, and campus leadership agree that this is something that should be prioritized?
            - Need to look at the cost model and where the source of funding would come from before we move forward.
            - ACES needs chance to review.
    - **Next steps:**
        - F&S will share information and documentation with ACES and Provost Office for further discussion

5. **Land Management Practices**
    - Goal is to promote better and more sustainable land management practices, both on South Farms and off-campus
    - We have more control over South Farms, under our jurisdiction, and management under Crop and Animal Sciences
    - Need to look into what current practices are already implemented and what potential we have to improve these (e.g., more cover campus?) and cost
    - We would like to engage all who use the land
    - Also interested in starting composting and using this as a fertilizer on the land
    - Evan, German, Ximing previously developed potential list of committee members with intent of looking at current practices and alternatives
    - Committee met a few times without much coming out of it

- We are now interested in picking up where we left off - how do we deal with these issues both on- and off-campus
- Crop and Animal Sciences own the majority of land; a lot of land used for rotational purposes and research later on
    - MOU signed 10 days ago between the two departments
- Both department heads are very committed to sustainably managing this land and this is the direction that the South Farms are heading.
    - Need to form a committee as German and Madhu discussed for guidance with sustainable practices
- South Farms as demonstration opportunity that could affect our extension recommendations
    - Allen Parrish and Jonathon Mosley are on board.
    - Demonstration area that supports farmers with a de-risk perspective, opportunity to try sustainable BMPs, new technology, and innovation.
- We have gifts of land donated throughout the state (~30,000 acres), majority of which is managed by ACES.
- Transitioned land-use ownership policy in 2018 to engage with land-owners; the system is more focused on economics, ACES is more focused on BMPs and stewardship, which became part of the agreement
- ACES committed to keeping land that is highly productive; converted marginal pieces to wind farms, solar farms, etc. Everything is in partnership with community; management practices are implemented that are supported by the community.
- Goal is to re-form conversation to work with farmers to support adoption of sustainability BMPs. This has been done too aggressively in the past. Want to invite people to work with us, rather than require it.
- **Next steps:**
    - Form “Sustainable Land Management Committee” with both ACES and non-ACES representation (e.g., iSEE, F&S, UI System, Ag Property Management, Engineering, etc.)
    - Madhu will work with ACES to form this committee, which will focus on incorporating sustainable land management practices on South Farms, extension opportunities, and updating agronomy handbook and recommended set of practices
        - Identify chair
        - Send out charge letter
    - South Farms will ultimately be an example of how to demonstrate sustainability practices, and will connect with farmers who are willing and engaged with these practices