**Environmental Issues Committee Meeting Minutes**

February 11, 2014, 12:00 pm to 1:00 pm

Umpqua Room, EMU

**MEMBERS PRESENT**

Shabnam Akhtari—Math

Holly Lynn—Biology

Marie Swarrigim—Campus Planning, Design, and Construction

Doug Brooke - Environment, Health, and Safety

Student:

Erin Walker, Student Sustainability Coalition Board

Ryan Ahrling, Environment Science and Geography

Ex-Officio

Eric Beeler—Student Sustainability Coalition
Steve Mital—Office of Sustainability

Christine Thompson – Campus Planning, Design, and Construction

Blair Hinton - Athletics

Other Attendees

Dean Foor, Owner and Chief Engineer of JCBiomethane

Analinda Camacho, Director of Sponsored Project Services,

Sonya Carlson—Office of Sustainability

**WELCOME AND MINUTES**

Steve welcomed the committee and committee members and guests introduced themselves. Holly moved to approve the January minutes and Marie seconded the motion. By a voice vote, the minutes were unanimously approved.

**DEAN FOOR’S JCBIOMETHANE DIGESTER PRESENTATION**

The JC Biomethane plant is a “bio-gas” plant in Junction City. It is the first of its kind in the PNW and one of only 5 or 6 plants across the country. It processes post-consumer food waste. Most of that waste is post-plate and originates from more than a 1,000 different places in Portland area. The waste is picked up by garbage-like trucks, which then deliver the waste to truck trailers which in turn deliver that waste to JC. Those trailers usually move other materials north so they are already making the commute so JC benefits from the back haul.

Dean then showed a video on the process. The fermentation process creates methane, which is then burned to run a turbine. They create enough electricity to power about 1,000 homes. Leftover nutrients are used to make fertilizer. They take about 500 tons of food waste a week, of which 350 comes from Portland and 150 or so from Eugene Springfield area. The energy produced is sold back on the grid through a complex process that delivers it back to Portland.

Through a couple of scrubbing steps they can remove the carbon dioxide and can make the biogas more methane rich (as pure or more pure than natural gas). This means they could become a direct replacement for natural gas. Unlike natural gas, biogas is recognized as a carbon neutral or carbon negative fuel by the EPA. This is the case because biogas offsets the current fate of that waste. Normally it would be sent to a landfill, where food waste decomposes and then nitrous oxide is emitted into the atmosphere.

The amount of energy JC currently produces represents roughly 10% of what UO uses. JC has plans to double their operations.

If the UO wanted to partner with the UO, some benefits include meeting sustainability goals, public relations and educational opportunities, and local investments.

Examples of other projects:

Dean gave some figures for green data centers using biogas. In particular, Google has done some pilot projects, including a micro grid project for 65KW with Duke University in North Carolina. University of Wisconsin’s Osh Kosh Campus has their own biogas plant that covers 10% of their energy needs.

He noted that a partnership starts with discussion and negotiation. Once the agreement is established they could make the investment and then 6 months to a year later they could be up and running.

Opened up discussion for Q&A:

Q: Why are you not sourcing from Eugene?

A: Don’t have a large enough food waste collection program (Eugene’s has only been in operation for 2 years) and have a lower population base than Portland. The Love Food Not Waste program is collected through Sanipac. JC gets Monday’s shipment (Rexius gets the rest). Sanipac has 80% of the market. If they could increase closer they would like to decrease long hauls, but Portland is big and wants to triple their food collection program. There is a shortage of this kind of capacity, but there are many biogas plants in the planning stages. It is difficult to source the waste, because sellers want to have purchasers compete on the open market, but you have $20 million upfront investment costs.

Q: How do the costs compare?

A: Generally they are double to triple the cost of natural gas, but it depends on what the fuel is being used for, as there are different environmental credits for different uses. If NG is $4 per MMBTU, then biogas is $8 to $12 per MMBTU, but that is the wholesale rate. End customers may pay $12 for natural gas, UO probably gets good rates on bulk purchasing.

Q: Would the cost come down if the food waste was sourced more locally?

A: Operations and the revenue they earn from taking the food waste are the primary drivers, so local sourcing would not have a huge impact on price. JC gets paid half of what it costs to throw food in the landfill. So people pay $90/ton to throw the waste away vs. $45/ton to give it to JCBiomethane. He believes they should get paid the same amount as landfill operators and have some bills in the Legislature (under consideration) to address this kind of issue.

Q: Do you use solid waste from waste-water treatment facilities and animal manures?

A: JC views themselves as a nutrient recovery plant first and then an energy plant second. Their plant offsets 2,000 acres of conventional fertilizers, which can be considered organic. You can’t use human wastes for organic fertilizers because they have pharmaceuticals, heavy metals, and other toxins that you just don’t want going into the soil.

Q: Could we send UO food waste into this system?

A: Yes. Love Food Not Waste is also up and running and expanding (might be doing a test area for curbside compost pick up). Many composters don’t want more food waste as it is still complex. UO would still only be a small portion of their supply.

Q: Have we asked Zero Waste how much food waste they send to Sanipac?

A: No. Steve said he would follow up on that question.

Q: How would the energy be transported?

A: Could have a direct application where the biogas is piped to the facility. Or we could have an agreement to have the biogas is injected into the general natural gas pipeline. Lastly, you could pay to produce the energy, which is then added to the general supply and then the environmental impact is contractually attributed to the particular end user. The natural gas pipeline that the UO purchases natural gas from runs right by JC Biomethane. It could be possible to inject the bio methane directly into that transmission line. JC originally wanted to do an injection project only, but the incentives were set up in a way that you have to have the renewable energy plant even though an injection project is twice as efficient.

Q: What are the next steps?

A: Christine noted that we would have to analyze what are the goals would be from the campus footprint and how the added cost fits into that picture. We would need to figure out if it is logistically even possible. Steve noted that one question he has gotten in regards to the travel tax is “how will the money raised be spent”? That money would mostly be spent on energy efficiency projects, but could also look at seeing how we can offset emissions.

**TRAVEL TAX UPDATE ON FEDERAL FUND LIMITATIONS**

The committee received the report from Analinda on the limitations of using Federal Grant funding to support the Carbon Pricing Proposal. In short, the answer is no. The tax would not be allowed on Federal Grants or Facilities and Administrative money so there would have to be a different mechanism in place to account for those funds separately. The University spent $15 million on travel last year. (varies from our figures). Getting accurate figures for air travel estimates is difficult, because it is not being measured separately from other types of travel costs such as lodging. The Business Office could implement a system with new codes, but that is currently not in practice. Amount charged to grants is about $2.4 million.

Q: What happens currently when someone choses to add the carbon offset?

A: Currently they believe that they are caught in Business Affairs and are not reimbursed.

Q: Have there been discussions at the Federal level about type of proposal?

A: The Feds just revamped their regulations and did not address this. Furthermore, they tightened up what the grant funding could be used for so there is almost a trend in the opposite direction.

Q: Is it common for departments to cover costs that are not allowed?

A: Yes. The $2 million is for all grant related travel not just the amount spent on air tickets. At the UO about 90% of the grant funding is all Federal and most of the funding from the state is flow through so that leaves about 5% that is not subject to Federal restrictions.

Q: Shabnam brought up a problem she encountered where she took a train instead of flying and was not reimbursed for the full price because the train was not the cheapest option. She asked if we could change the policy to incentivize more ground travel?

A: There are two governing policies – there is UO Policy and Federal Policy so UO can be stricter than Federal, but cannot be less strict as the Federal Policy takes precedent. The cheaper travel option restriction is a UO Policy, so it is theoretically possible for us to change that mechanism.

Q: Are there any other schools looking at this type of policy?

A: Not from what she has seen or heard from her colleagues at other universities.

Q: Are there examples of other places that allow for alternate modes of travel such as trains vs. planes?

A: Steve mentioned that Laurie Jacoby noted that generally the policy is that you have to rent the cheapest car, but that there is an exception if the vehicle is more fuel efficient.

Process Update:

Steve noted that he has been setting up meetings with a number of groups to present the Carbon Pricing Proposal. He received numbers from the travel office and is working through the data on it. There are a number of complications with disaggregating the data.

As $30 on a $2000 trip sounds better than $30 on a $500 airplane ticket, they briefly discussed how it might be more palatable to set the rate as a proportion of all travel. That rate would attempt to account for the most carbon intensive proportion, air travel. Currently, it is very laborious to disaggregate the data, but adding account codes in the future is possible, but would take some resources and trainings to implement.

We could create region fees even though there might be slight differences in how much is charged. Marie raised the point that the fairest way would be to create the account codes and that UO is actually taking over the account codes that in the past were administered by the OUS.

The initial feedback that Steve has received is that $30 is a non-starter. Steve has received some information that companies are doing this sort of thing and their fees range from about $6/ton at Microsoft to $77/ton at Exon Mobil. Another question is, how the money would be spent. Steve has talked with George Hecht, but there has not been a detailed analysis of what projects are available for this kind of project. A biogas project could be one option, but the projects need to be focused on campus. Christine believed that there were enough projects on campus that funding could easily be used there first to reduce our energy use before changing the energy source.

The next step is to have these meetings and bring that information back to the committee for review and recommendations. At some point after that then Frank Stahl could propose this concept bring to the Faculty Senate. Steve adjourned the meeting.