



# City of Ann Arbor

## Meeting Minutes

### Energy Commission

301 E. Huron St.  
Ann Arbor, MI 48104  
[http://a2gov.legistar.com/  
Calendar.aspx](http://a2gov.legistar.com/Calendar.aspx)

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Tuesday, November 8, 2016

6:00 PM

Larcom City Hall, 301 E Huron St, Second  
floor, City Council Chambers

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#### CALL TO ORDER

Appleyard called the meeting to order at 6:03 PM

#### ROLL CALL

**Present:** 11 - Charles Hookham, Brigit Macomber, Mike Shriberg, Mark Clevey, Shoshannah Lenski, Wayne Appleyard, Kenneth J. Wadland, Noah Levin, Chip Smith, John Mirsky, and Sarah Paleg

#### APPROVAL OF AGENDA

Approved

#### APPROVAL OF MINUTES

Approved

**16-1588** Minutes of the October 11, 2016 Ann Arbor Energy Commission Meeting

**Attachments:** Energy Commission Minutes 11-8-16.pdf

Approved by the Commission and forwarded to the City Council

#### PUBLIC INPUT

**Dave Konkle – He is currently the president of the Great Lakes Renewable Energy Association (GLREA), an organization made up of renewable installers and individuals interested in renewable energy. There are upcoming GLREA events, including an annual membership meeting from 11:30 to 3:30 on December 3rd at Ann Arbor Brewing Company. The meeting will include a section to address the group’s accomplishments and planning for next year. There will also be a state policy update from Sara Mullkoff from the**

Michigan Environmental Council. There will also be two guest speakers; Tom Lyon will talk about work on renewable portfolio standards, and Larry Ward is the executive director of the Energy Conservatory Program. The event is open to the public and costs \$15 (which includes lunch). There is no need to RSVP ahead of time. The GLREA is also thinking about putting on 2-3 regional fairs instead of the one state-wide fair they had in previous years (including one in Ann Arbor).

#### **ENERGY REPORT - NEWS FROM THE ENERGY OFFICE AND COMMISSIONERS**

ITC currently has a couple of options for a high voltage transmission line proposal, which will connect a substation on Dhu Varren on the north side of town to UM's north campus. They are currently holding open house events in Washtenaw Community College's Morris Laurence building, on the 9th and 10th from 4pm – 7pm. More information at [WWW.ITC/holdings .com](http://WWW.ITC/holdings.com).

There is a Ford School working group that will be presenting on the economic potential of energy efficiency and will be sharing information at the December meeting.

Bill Nye the Science Guy will be in Toledo's Stranahan Theater, November 17th at 7pm. The cost is \$8 for students and \$10 for general admissions. There is more information on Toledo library's website. Bill Nye has been promoting new technology that uses nanoparticles to splice silicon wafers to reduce the cost of solar panels.

Appleyard: The Paris agreement has been adopted which is a step in the right direction.

#### **Biodigester Feasibility Study - FTC&H**

Jack Grafter from FTC&H along with Brian Hannon from Moore & Brugginck and Chad Antle from Bio Works Energy presented on the bio-digester.

Jack Grafter – They looked at different options for the feedstock of the biodigester, such as food waste and other substrates. 90% of the material would be coming from the sludge from the waste water treatment plant. Food stock would help to create a good energy balance. The bio-digester scenario reviewed located it 5 miles from the Waste Water Treatment Plant at Wheeler Center area. Since the material would mostly be from the Waste Water Treatment Plant, the

bio-digester design was based on the load capacity of the plant. The biodigester could operate 5 days a week at 8 hours per day based on the feedstock. The final byproduct of the process would have to meet standards and could either be land applied or landfilled. The economic feasibility of using the bio-digester to create utility grade bio methane or use it to create electrical power was considered.

Brian Hannon did an overview of the different components of the plant design. The process would start with two reception tanks for solids and liquids. The solids and liquids would be combined and preheated in the homogenous tank to allow for even loading. The product then enters two tanks that have a capacity of 1.1 million gallons for the digesting process. The final tank holds the byproduct and has a holding cell for either the gas or the bio methane. The bio-digester is kept at 98 degree through insulation and is made up of glass-lined steel containers. They can then take the byproduct and thicken it to be used as fertilizer for farms. Otherwise, you can solidify the byproduct, which can also be used as fertilizer but can be used for several other things like landfill cover. Further steps refine the byproduct to make consumer grade fertilizer if need be.

Chad Antle – Addressed the economics of the system. On the one hand, there will be cost savings that would come from the product of the WWTP, which would otherwise be treated. The product could either be used to make biomethane vehicle fuel or to create electricity. Producing Biomethane would be priced at \$12.75/mmBTU, a result of regulation credits promoting renewable energy production (known as RINS). But those regulations could change and the price could drop to half the price in as little as 7 years, as long term market from RINS is uncertain. If we used the product to create electrical power, 500 kw would be priced at 5.5 cents per kWh, while 100kw could be used to power the Wheeler Center at a net metered price of 9c per kWh. Most biodigesters need to be in the 9-10c range to be economically viable. Currently, the feasibility study shows a negative cash flow for a bio digester. Ways to make the plant feasible include increasing gas production, increasing revenue, decreasing operation costs, or decreasing initial capital costs. Doubling duties and infrastructure could help bring costs down. Unfortunately, there is not enough space at the WWTP to place the bio-digester, which would take up a total of 3 acres. Another way of making the plant feasible is by increasing food stock, which includes greases and simple sugars that are the

“jet fuel” of bio digesters. They have looked at increasing the food stock beyond Ann Arbor, but most major food producers use their byproduct as animal feed or landfill it at a low price. In general, state laws can also help hinder or promote biodigesters, and the state of Michigan generally hasn’t been a recent proponent.

#### Energy Codes & Efficiency - Hookham

The State has two types of energy codes. The first is a residential energy code from 2015 and the second is the commercial code from 2016. The commercial code is currently looking at comments that were submitted. The state generally adopts the international building committee along with versions of ASHRAE and tailors it for Michigan. LARA (Department of Licensing and Regulatory Affairs) checks buildings based on the changes that come out every three years. Commissioner Hookham commented that these 3 year delays generally don’t capture the most up-to-date findings, and the State generally requires the minimum for fear of construction costs going up for developers. In contrast, stretch codes in other states promote greater efficiency. And while the developer might not want the upfront costs, these costs aren’t as high when spread out through the life of the building. Officials have suggested that they would be open to considering local ordinances that are more stringent than state law through an appeals process. Presenting a case for economics and looking at the types of efficiencies that could be implemented might be a starting point. Furthermore, we could look at other communities and compare what they have done. We might want to see if there have been any appeals in Michigan. Next steps would be to create a resolution that follows the green street policy and to see the direction Council wants to take. It is also important to consider stakeholders in the process, such as the state and local developers. The Commission might also think about giving feedback for development premiums.

#### COMMITTEE UPDATES

##### Climate Action Plan

Climate Partnership website is now live and is looking at feedback from commissioners. [www.a2cp.org](http://www.a2cp.org)

##### Renewable Energies

**CEC is currently finalizing the agreement for the solar purchase partner. CEC will come to next work session to present community solar model.**

**Sustainable Funding**

**Ideas for sustainability funding will be presented to Council. There should be an update on mechanisms for funding at the next meeting as City Attorney office has done review of tools available..**

**PUBLIC INPUT**

**No public input.**

**ITEMS FOR NEXT AGENDA**

**Ford School students to present on energy efficiencies  
UM Symposium summaries from Commissioner Mirsky  
Community Solar update  
Possible ITC update either next meeting or a future meeting**

**ADJOURNMENT**

**Appleyard adjourned the meeting at 7:45 PM**

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All persons are encouraged to participate in public meetings. Citizens requiring translation or sign language services or other reasonable accommodations may contact the City Clerk's office at 734.794.6140; via e-mail to: [cityclerk@a2gov.org](mailto:cityclerk@a2gov.org); or by written request addressed and mailed or delivered to:

City Clerk's Office  
301 E. Huron St.  
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Requests made with less than two business days' notice may not be able to be accommodated.

Visit [www.a2energy.org](http://www.a2energy.org) for community energy information in Ann Arbor,  
or  
[www.a2gov.org/energy](http://www.a2gov.org/energy) to learn more about the City's Energy Programs

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[www.a2gov.org/ctn](http://www.a2gov.org/ctn)