



**ENERGY COMMITTEE
REGULAR MEETING AGENDA
Monday, August 10, 2015 6:30 pm
City Hall Council Chamber, Bethel, AK**

Members

Mary Weiss
Chair
mtweiss@uaa.alaska.edu

Shari Neth
Vice-Chair
Shari_neth@lksd.org

Zach Fansler
Council Representative
zfansler@cityofbethel.net

Jeff Sanders
Jeefco2004@yahoo.com

Eddie Stanley
eddieselectric@gci.net

Wade Ferdig
wadeferdig@gmail.com

Jody Drew
Jody_drew@yahoo.com

Alternative Members:

Ex-Officio Member

John Sargent
Recorder
543-1386
jsargent@cityofbethel.net

- I. CALL TO ORDER**
- II. ROLL CALL**
- III. PEOPLE TO BE HEARD** – Fifteen minutes per person
- IV. APPROVAL OF AGENDA**
- V. APPROVAL OF MEETING MINUTES**
 - a. Regular Energy Committee Meeting May 11, 2015
 - b. Regular Energy Committee Meeting June 8, 2015
 - c. Regular Energy Committee Meeting July 13, 2015
- VI. UNFINISHED BUSINESS**
 - a. Alternative Energy Report Update
 - b. Pool Wind Turbine Data Collection and Display
 - c. Information on Recovered Heat (possible guest Ron Kaiser)
- VII. NEW BUSINESS**
 - a. Approval of Resignation of Wade Ferdig from Energy Committee
 - b. Pool Wind Turbine Improved Blade Purchase
 - c. Northern Power Operation and Maintenance Proposal for Pool Wind Turbine
- VIII. COMMITTEE MEMBER COMMENTS**
- IX. ADJOURNMENT**

City of Bethel

Energy Committee

May 11, 2015

Regular Meeting

Bethel, Alaska

I. CALL TO ORDER

A regular meeting of the Energy Committee was held on May 11, 2015 at 6:30 pm in the City Hall Council Chambers, in Bethel, Alaska.

Chair Mary Weiss called the meeting to order at 6:35 pm.

II. ROLL CALL

The following Committee members were present, demonstrating a quorum:

Mary Weiss
Shari Neth
Wade Ferdig
Jody Drew
Zach Fansler
Jeff Sanders
John Sargent (Ex-Officio)

III. PEOPLE TO BE HEARD

None

IV. APPROVAL OF AGENDA

MOVED:	Zach	Approve Agenda.
SECONDED:	Jody	
MOVED:	Zack	Amend agenda by moving items b, c, d, f in front of item a under V. Approval of Meeting Minutes.
SECONDED:	Jody	
VOTE ON AMENDMENT	All in favor Motion passes; 6 and 0 opposed.	
VOTE ON MAIN MOTION	All in favor Motion passes; 6 and 0 opposed.	

V. UNFINISHED BUSINESS

MOVED:	Jody	Change wording of Recommendation of Land Lease to AVEC for Wind Energy Development to meet AVEC's need for land.
SECONDED:	Shari	
VOTE ON MAIN MOTION		
All in favor Motion passes; 6 and 0 opposed.		

John recorded word changes and said he would make the changes before submitting the recommendation to City Council.

MOVED:	Shari	Change wording in Recommendation that Bethel City Council Investigate the Purchase and Use of Waste Heat from AVEC (e.g., "recovered heat" not "waste heat," "pipes" not "lines," and "attractive" not "lucrative.")
SECONDED:	Jody	
VOTE ON MAIN MOTION		
All in favor Motion passes; 6 and 0 opposed.		

John recorded word changes and said he would make the changes before submitting the recommendation to City Council.

VI. APPROVAL OF MEETING MINUTES

MOVED:	Jody	Approve Regular Committee Meeting April 6, 2015.
SECONDED:	Shari	
VOTE ON MAIN MOTION		
All in favor Motion passes; 6 and 0 opposed.		

VII. NEW BUSINESS

After three hours of discussion during meeting, it was mutually decided to postpone these items.

VIII. COMMITTEE MEMBER COMMENTS

IX. ADJOURNMENT

MOVED:	Wade	Adjourn meeting.
SECONDED:	Jeff	
VOTE ON MAIN MOTION	All in favor Motion passes; 6 and 0 opposed.	

Shari Neth, Vice-Chair

ATTEST:

John Sargent, Recorder

City of Bethel

Energy Committee

June 8, 2015

Regular Meeting

Bethel, Alaska

I. CALL TO ORDER

A regular meeting of the Energy Committee was held on June 8, 2015 at 6:30 pm in the City Hall Council Chambers, in Bethel, Alaska.

Chair Mary Weiss called the meeting to order at 6:42 pm.

II. ROLL CALL

The following Committee members were present, demonstrating a lack of quorum:

Shari Neth
Jeff Sanders
Jody Drew
John Sargent (Ex-Officio)

Meeting adjourned for lack of quorum.

Mary Weiss, Vice-Chair

ATTEST:

John Sargent, Recorder

City of Bethel Energy Committee

July 13, 2015

Regular Meeting

Bethel, Alaska

I. CALL TO ORDER

A regular meeting of the Energy Committee was held on July 13, 2015 at 6:30 pm in the City Hall Council Chambers, in Bethel, Alaska.

John Sargent called the meeting to order at 6:43 pm.

II. ROLL CALL

The following Committee members were present, demonstrating a lack of quorum:

Zack Fansler

John Sargent (Ex-Officio)

Meeting adjourned for lack of quorum.

Mary Weiss, Vice-Chair

ATTEST:

John Sargent, Recorder

**City of Bethel
Energy Committee
Renewable/Alternative Power Options
Updated March 3, 2015**

Project	Description	State of Development (Timeline)	Pros	Cons
1. Wind Energy Construction Project (AEA & Denali Commission funding)	AVEC has \$2.9 million from City. They will use it to design upgrades to power plant to prepare to accept alt. energy.	Need to call AVEC for an update.	Prepare for large-scale wind in Bethel; potential to lower cost of electricity.	Not enough money to pay for upgrades to generators/switch gear; may not lower cost of electricity.
2. Wind Energy Feasibility Study	City hired EPS to perform wind data analysis and wind data collection in Bethel.	Grant deadline: June 30, 2015	Helps AVEC move closer to providing wind energy in Bethel;	Small amount of money; City land harder for AVEC to use because must be leased by Council;
3. LNG shipped to Bethel from Fairbanks	Carry LNG down Yukon River then overland on winter road to Kuskokwim River, then down to Bethel.	Proposal rejected in 2012	Potential to lower cost of fuel for heating; could be a “bridge” fuel between fossil fuels and other sources; one LNG plant in north slope could power the State.	Years away;
4. Large natural gas-fired plant located near North Slope	Large plant built near clean, cheap, natural gas sources. Power transmitted via DC power lines all over State.	Formal study expected. AVEC promoting project.	Stabilize electric power in many places; may be able to be delivered to Bethel.	Many years away; High cost; No support yet. Meera Kohler continues to champion it.

Project	Description	State of Development (Timeline)	Pros	Cons
5. Bethel Natural Gas Development	Drill for natural gas in the YK Delta.	Find formal study of hole drilled near Bethel by Amoco.	Potential to lower cost of electricity; Bethel could make LNG in plant and ship to villages; run lines to villages.	Expensive; preliminary results do not support it; Need high population to make cost cheaper relative to demand.
6. City re-connect waste heat lines from Bethel Power Plant.	AVEC expressed interest in idea, but City has not pursued it; 3 city buildings can be hooked up: Fire Station, Courthouse, City Hall.	No deadline, no timeline.	Savings over heating oil;	Price of waste heat has risen over the years, lowering the benefit; heat may not be hot enough to heat building effectively with other demands.
7. Natural Gas Pipeline to Donlin Creek Mine	If natural gas piped in to mine, then pipe could be extended to Bethel.	Planning stage. No timeline. Mine mostly shut down while they wait for NEPA approvals.	Natural gas is clean, plentiful, and may be cheaper than heating oil. Donlin hired MacDowell to survey region residents and this project mentioned.	Depends on NEPA approvals and mine going into operation.
8. Biomass System	AVCP project?		Willows and alders grow fast; Easy to transplant;	Alder and willow leave no coals, making them poor biomass contributors.
9. Gasification unit to power public works building or aerators at sewage lagoon	Burn municipal solid waste in super hot incinerator (gasification unit) to create electricity and get rid of waste.	Planning stage.	Electricity may be cheaper; solid waste reduced to 5% ash; can provide power to a City building; Landfill close to PW bldg.	Environmental costs unknown (air monitoring); high cost of heating oil to operate unit; cost in City manpower and resources to operate.

Project	Description	State of Development (Timeline)	Pros	Cons
10. Kinetic Energy from Kuskokwim River	Turbines placed on old barge and sunk to bottom where the river movement generates electricity.	UAF did a study 3 years ago on the Kuskokwim in Bethel. Need a copy of that study.	Potential for a cheap source of power; Power lines emanating from the river need a place for power to go: into grid, to buildings; may work under ice perfectly with little disturbance from above.	Shallow river may not lend itself to ideal locations for sunken barges; maintenance costs unknown; may present river navigation hazard.