

Friday, August 19, 2022

**Geothermal Energy Workgroup
Meeting #2**

Minutes

In Attendance: Josh VanDyke, William Pino, Cherie Brooks, Delegate Lorig Charkoudian, David Comis, Josh Kurtz, Diana Gutierrez, David Pudleiner, Mohammed Abdelsalam, Joanna Freeman, Ryan Opsal

Absent: Sean Straser, Adam Santry, Abigail Antonini

11:00am – Introductions and Welcome

11:05am- Review of the Geothermal Energy Study by Straughan Environmental (Diana Gutierrez)

Review of Geothermal Energy Tasks, in partnership with ICF and BithEnergy

- Run through of Bith and Straughan Tasks
 - o Task 1, 2 and 4 are dependent tasks
- Timeline (October 2022 for final report)
- Task 1: Data Sources
 - o MDE well permits – new data acquisition but COVID data entry delays prevented inclusion of 2020-2022 data at this time, data forthcoming from MDE
 - o Data issue with some locations, personal information sharing
 - o Open Loop wells based on existing water source
 - o Classifying data sets by Residential, Government, Commercial and Industrial (few so looping with Commercial), Schools
 - Delegate Charkoudian: prefer to break out local and state government for policy standpoint. Same with schools, K-12 and Universities managed differently for funding.
 - o Creating 24 maps, 1 per County with granular data
 - o Per a previous conversation between Diana G and Adam S- there may be more wells than MDE has provided data for. Well drillers submit more data than MDE shared with Straughan.
- Task 3: Bith Energy (information pending)
 - o Bith is busy gathering the national and international information
 - o Straughan will have a summary of this task from Bith by the next meeting
- Task 9:
 - o Localized soil contamination during installation
 - Discussion of Transient or permanent effects
 - Not seeing long term degradation unlike what is seen during storage tank installation
 - o Noise during construction

- Transient effect (David Comis)
 - Thermal Pollution
 - Straughan will compare to other systems, for example air pollution, when fossil fuels and oils are used, there are minimized risk of methane leaks
 - Noise pollution- shore term transient issue (David Comis)
 - Compare the decibel level and how long it takes to install versus the constant production from a power plant (Delegate Charkoudian)
- Task 12:
 - Community scale of information exists in other states
 - David Comis mentioned a site in Clarksburg, Montgomery County that was planned
 - Denmark has combined heat and power systems to compare too
 - Since geothermal heat pumps use existing ground heat, it works well for Denmark
 - Parallels in systems- combined versus geothermal, however combined uses diesel and fossil fuels, the use of geothermal systems leads to decarbonizing (Delegate Charkoudian)
 - Combined systems may help with financing- review the Massachusetts case study and pilot program to understand financing
 - Department of Env. Inflation Reduction Act- rebate could pay for heat pumps in low income and medium income housing- conversion of gas in right of way areas
 - Rate based infrastructure with rebates to make affordable within the state
 - DOE grant in state- Delegate Charkoudian to discuss with MEA a pilot program possibility as study progresses

11:35am- Key Assumptions by ICF (David P.)

- Tasks 2 and 4
 - Achievable study process
 - Help guide policy with data for cost savings and cost effectiveness
- Assumptions
 - New construction- compare to mid-Atlantic assumptions for Air Source Heat Pump and Natural Gas
 - Some outliers- only Montgomery County discussing need to be electric
 - Non-Natural Gas- Delegate Charkoudian to review 'bracketed' language
 - Grid Updates with increased electrical needs, how much should policies point to geothermal to help reduce grid impact
 - Do we have to get rid of natural gas- peak energy change and cost of winter heating versus summer cooling. Geothermal will change peak energy seasons and energy demands
 - Cost savings for families versus greater community good
 - Is there a need for stat incentives to make geothermal cost worthy for consumers who may have a larger buy in or change in electricity costs
- Discussion running long- will create a secondary meeting for the continual discussion of natural gas and economic factors impacting the study
 - Discuss importance of incentivizing to reduce energy peaks

MES: we will organize a meeting to continue this conversation on Economics within 2 weeks for those who would like to attend. The next full workgroup meeting will be Mid-September, a doodle will be sent to Workgroup Members to fill out.

12:05pm- Questions and Adjournment

Attachments: Straughan Slides, ICF Slides