

**ALLEGANY COUNTY BOARD OF LEGISLATORS
COMMITTEE OF THE WHOLE**

August 10, 2022
Morning Meeting (10 a.m.)

CALL TO ORDER: Chairman Philip G. Stockin called the meeting to order at 10:00 a.m.

LEGISLATORS PRESENT: G. Barnes, J. Burdick, P. Curran, A. Cyr, K. Demick, D. Fanton, G. Hanchett, S. Havey, D.M. Healy, J. Ricci, J. Ricketts-Swales, D. Root, J. Rumpfelt, P. Stockin (Absent: Harris)

OTHERS PRESENT: G. Barr (*Hunt Engineers*), T. Boyde, A. Carrow, S. Cicirello, K. Hooker, C. Knapp, T. Linn, B. Riehle, S. Saglibene (*Hunt Engineers*), D. Scholes, R. Whitney, T. Windus

Public Works Building in Friendship – Geothermal Energy

Public Works Engineer Thomas Windus stated that the purpose of the meeting is to discuss the *Geothermal Energy Option Report* from Taitem Engineering, PC, that was distributed last week, and to answer any questions the Legislators may have. Mr. Windus introduced the following people from Hunt Engineers, Architects, and Surveyors, noting that they were at the meeting to answer any questions and go over what we believe should be the next step:

Michael Saglibene, Project Manager
Gregory Barr, Vice President/Director of M/E/P Engineering

Mr. Windus explained that Taitem is a sub-contractor for Hunt, and they have completed many of these reports. It looks like it may be a little more promising to go with geothermal than what we originally thought. If it is the will of the Board to move in this direction, we may want to possibly drill a sample well and do a schematic design to gain a better understanding of what it may cost to move forward with geothermal. Until a sample well is drilled, you really do not know how much energy you can take in and out of the ground in that location. Mr. Windus turned the meeting over to Greg Barr from Hunt Engineering.

Mr. Barr stated that he has been with Hunt Engineers for over 25 years, and he has been involved with mechanical design for 28 years. Mr. Barr stated that the two things he compared in the report were an estimate on a full design, which is the baseline estimate, and then an estimate projection for a geothermal system. Therefore, this gives us an actual estimate on a set of drawings versus a theoretical estimate based on what somebody believes a geothermal system would cost to install. The schematic designs that Mr. Windus referred to converts the mechanical equipment over to a geothermal platform, projecting the number of wells that we believe we will need, then taking that to our Construction Manager, and getting a good estimate. Mr. Barr explained that when he

refers to a good estimate, they would actually get a current cost of equipment, noting that equipment costs are up 30 percent at the least and some products are even up 50 percent. Mr. Barr is not so confident in the cost estimated that he can recommend that geothermal is the direction to go. He has worked with some that were designed really well and others that were designed poorly. The poorly designed ones are what end up costing people a lot of money. He would definitely want to sit down with the energy consultant that they work with and talk about good practices that are in the design. The second piece would be making sure that all of the effort that was put into the design to make sure all spaces would be comfortable are replicated in the new design that involves geothermal equipment. Mr. Barr stated that he would not want to take a step back in terms of the comfort of the space or quality of the air system.

Mr. Barr gave an overview of the drilling process and mentioned how different conditions may affect the cost. For example, it can be very expensive to drill through bedrock; however, if you are drilling through loose matter, you may have to encase the upper half of a well to grout the drill in place. Legislator Root disagreed with a few of Mr. Barr's comments and indicated that her family business often drills all the way without encasing the well, and Mr. Barr indicated that they had experienced situations where the well has collapsed. Generally, the biggest costs associated with geothermal are drilling the wells, and you really want to avoid poor performing ground conditions or having to drill additional wells, as the equipment setup can get pricey. The mechanical equipment is going to cost the same – geothermal equipment costs a little more upfront, but there is less equipment like boilers, hot water heaters, and piping that's needed in the building so there is this trade off. The added cost with geothermal is the drilling of the wells, and connecting the wells to the building. With the incentives, and push from the State, with the desire that the State wants to see buildings electrified, we want to see this stop and basically say "is this savings really what the County should see." That should really be done with a schematic design and a test well. Mr. Barr believes that is the piece Allegany County should start out with.

Legislator Dwight "Mike" Healy asked what is the life expectancy of a geothermal system. Mr. Barr stated that the actual well field is 50+ years, noting that inert materials and plastic pipe in the ground does not rot. Inside the building, everything is compressor based and we know compressors running every day, or at least part of the day, start wearing down, and those types of things usually have a shorter life span of 20-25 years. Mr. Barr noted that a heat pump is a heat pump whether it uses water that comes from the ground or it uses water that is supplied with a boiler and cooling tower. The only difference is in a geothermal system, they put protection within the heat pump because in the wintertime when you are pulling so much heat out of the ground and the temperature coming into the heat pump is relatively low, you have problems with refrigerants collapsing. Therefore, they have to put protection in a ground source heat pump to prevent that from collapsing.

Legislator Healy asked if there are any additional requirements that would be imposed on us by higher authorities at the state and federal level because we are a government agency, noting that it seems like we always experience additional costs on

every project we do. Many people working in the solar and windmill projects tell Legislator Healy that because it is green, they push the environmental costs associated with the construction phase right out the window, and he was not sure how it might apply to this type of project. Mr. Barr stated that the rebate they identified is the Clean and Green Rebate, and the incentives that are there. In addition to meeting what is considered the minimum efficiencies for equipment or the system energy efficiency ratio or coefficient performance of the heat pump, they actually make you exceed those values by a certain amount. Mr. Barr indicated that we are already a little bit beyond what is baseline requirements because the code makes you take additional steps. Mr. Barr provided a few examples of what those additional steps might entail, noting that all of the things are energy code triggers that make you go back to look at what can be tweaked. So there may be some incremental change to the building that might be necessary to qualify for certain grants.

Legislator John Ricci indicated that Mr. Barr mentioned a big number, and he wondered what is considered a big number. Several years ago, he would have predicted that a geothermal well would cost approximately \$15,000/well, but with what it going on with our industry right now, Mr. Barr believes it would be close to \$25,000, which can really escalate the price if you end up needing four more wells. Getting the right number of wells and getting the test wells so we know exactly what the ground can take will help us figure out exactly what we need to have in the final design. If we discover that we are going to need eight more wells, we just increased the cost of the project another \$200,000. Legislator Ricci asked how they know that surrounding areas will have a similar composition as the test wells, and Mr. Barr indicated that there are geographical surveys that show surface covers and depth of bedrock that cover large areas, which provide a pretty good indication. Mr. Barr referenced a few historical drilling projects that turned out badly when they hit a layer of oil or when a pocket of gas ignited and exploded, noting that he wasn't trying to scare anyone, but caution and expertise do need to be exercised. Mr. Barr stated that a properly constructed well field does not need fixes. They actually have well fields under football fields with million dollar stadium investments and rows and rows of geothermal wells underneath. It was noted that most oil wells are about 1,000 feet, and most water wells are about 200 feet. Legislator Root asserted that it is very important to do a cost benefit analysis. Most of your geothermal wells are not water wells. They are boreholes and you put grout in. Legislator Dwight "Mike" Healy asked how we know the depths of the wells in that area, and Legislator Root stated that New York State has well logs for every well. Legislator Root stated that you are not after water. What you are after is the efficiency of the heat coefficient and how much heat you are going to get out of the ground. Well logs will tell you what the composite of the soil is all the way down to whatever depth you want to go down to, and that will give you your heat coefficients. Mr. Barr agreed and stated that ideally we want to hit bedrock about 30 feet down. Mr. Barr explained that bedrock is the best as it is that dense material that helps heat dissipate into the ground. A test well would give us the information we need. For a schematic estimate, we can estimate the wells, and we can estimate the depth you want to go. Mr. Barr indicated that most projects he has worked on and designed have been

a maximum of 400 feet, and that seems to be the standard and what we will probably base the County's well on. We would have to guess how many feet per ton that we have to expect the ground to take, and there are some standards for vertical wells versus a horizontal pipe distribution. With the incentives, the push from the State, and with the ability to simplify the payback from 17 years to five years with the incentives, it seems like something the County may want to consider. Mr. Barr indicated that he would suggest that the County consider doing a schematic design to get a real idea of the cost of the system. If we have an add on for additional wells, and if that looks like it is an acceptable piece, then Mr. Barr suggested the County drill a test run and validate exactly how many wells will be needed. Legislator Dwight Fanton asked what the cost of drilling a 400-foot well would be, and Mr. Barr indicated, that depending on who you talk to, it could be anywhere from \$12 to \$65 a foot, and you are realistically looking at \$15,000-\$25,000. Mrs. Root stated that there are a lot of rules and regulations to abide by when drilling and you have to make sure that you follow all of them. There are many different types of grout and some have a better co-efficient than others do. Legislator Dwight "Mike" Healy stated that he is wholeheartedly behind a new Public Works shop project, and if the geothermal will work well, that is good too. However, Legislator Healy expressed concern about the site, noting that it "leaves a lot to be desired," and he is concerned that the current location might not be the best option. Legislator Healy wants to make sure we invest in the right location.

Public Works Engineer Tom Windus suggested bringing a proposal to do the schematic design and test well to the next Public Works Committee then we will have more information. Legislator Cyr remarked that before we get too far in the weeds with 100 different questions, he supports Mr. Windus' proposal and moving forward with drilling the test well. Mr. Windus suggested having Hunt prepare the proposal for the schematic design. They will get three different quotes for drillers, they will hire them to do that work for us, and then, that way, we will have a report that comes back for us. Those present agreed that Mr. Windus should plan to bring a proposal to the next Public Works Committee meeting.

Executive Session

A motion was made by Legislator Rumfelt, seconded by Legislator Hanchett, and carried to enter into executive session at 10:30 a.m. to discuss the medical, financial, credit or employment history of a particular corporation, or matters leading to the appointment or employment of a particular corporation for the Sheriff's Office. Immediately following discussion, a motion was made by Legislator Rumfelt, seconded by Legislator Havey, and carried to end the executive session and return to the regular meeting at 11:27 a.m.

Contract with PrimeCare Medical

A motion was made by Legislator Fanton, seconded by Legislator Havey, and carried authorizing Allegany County to enter into an agreement with PrimeCare Medical

of New York, Inc., for the provision of jail medical services at the Jail subject to the review and approval of its terms and conditions by the County Attorney. The initial term of the agreement will be for one year commencing on August 11, 2022, at 12:00 a.m. and terminating on August 11, 2023, at 12:00 a.m., and there shall be an option for two additional one-year terms at a cost mutually agreeable to the parties. The County shall pay PrimeCare Medical of New York, Inc., \$1,132,674.67 for services performed during the initial term of this agreement. The contract is currently in its final review with PrimeCare Medical, and it will be distributed to Board members as soon as it possibly can, and the Memorandum of Explanation will be distributed to everyone at the conclusion of this Committee of the Whole. Legislator Dwight "Mike" Healy asked for confirmation that our County Attorney would give the agreement a final review, and Ms. Carrow indicated that she would. **Prepare Resolution** *(Resolution to come off the floor at the August 10 Board meeting.)*

Upcoming Committee of the Whole Meetings

The next Committee of the Whole meetings will be held at the following dates and times:

Wednesday, August 10, 3:00 p.m.

Wednesday, August 17, 10:00 a.m. (This meeting was canceled)

Wednesday, August 17, 3:00 p.m.

Wednesday, August 24, 3:00 p.m.

ADJOURNMENT:

There being no further business to come before the committee, the meeting was adjourned at 11:32 a.m. on a motion by Legislator Rumfelt, seconded by Legislator Cyr, and carried.

Respectfully submitted,

Brenda Rigby Riehle, Clerk of the Board
Allegany County Board of Legislators