

JOHNSON VILLAGE TRUSTEE BOARD MEETING MINUTES  
JOHNSON MUNICIPAL BUILDING  
MONDAY, JULY 11, 2016

**Present:**

Trustees: Gordon Smith, Walter Pomroy, David Goddette, Scott Meyer, Bob Sweetser

Others: Sandy Miller (Interim Manager), Meredith Birkett (Manager), Rosemary Audibert (Clerk), Troy Dolan, William Vere, Victor Vere, TJ Poor, Robert Hoag, Tanya Nuzzo, Stephen Fitzhugh (by phone), Paul Delanoe (by phone), candidate for lineman position

**Note: All votes taken are unanimous unless otherwise noted.**

**1. Call to Order**

Gordy called the meeting to order at 6:00.

**2. Changes, Additions to Proposed Agenda**

It was agreed to add appointment of a Water and Light Commissioner.

**3. Review and Approve Minutes**

**Walter moved to approve the minutes of June 13 and June 27, 2016, Bob seconded and the motion was passed.** (Scott arrived at 6:03.)

**4. Treasurer's Report / Review and Approve Bills and Warrant / Budget Status Report / Action Items**

The board reviewed the budget status report. David asked about the miscellaneous buildings and grounds line item for the fire department. Nothing was budgeted, but over \$400 has been spent. Rosemary said Arjay tends to post things to miscellaneous. It probably really should go in building supplies.

Sandy noted that it seems odd that electric department revenue is 51% of budget when usage is down and rates haven't changed. Meredith wondered if we might have had an increase in usage by customers who are in a higher rate class.

Scott asked if there will be enough money for the water department to get safety equipment they need. They had a budget of \$500 for safety equipment and they have already spent over \$300. Troy said he knows they need some equipment such as hard hats. Sandy said that line is probably not budgeted correctly. Scott said he wants to make sure any equipment needed for safety is bought anyway, even if there is not money in the budget for it. All agreed that should be done. Sandy and Rosemary said we should be able to find the money in other budget areas.

Rosemary said relatives of Frank Sargent are offering a \$100 donation to have bulbs planted at the Cold Spring. They also want \$100 worth of trees planted. The town has asked Rosemary to check with them about exactly where they want the trees, as the letter is somewhat vague. (Tanya Nuzzo arrived at 6:16.)

**5. Conference Call with Atlantic Green Energy and Others**

At 6:16, inventor Paul Delanoe and Steve Fitzhugh (professor of electrical engineering at Norwich University) joined the meeting by phone. Paul said he understands the board had some questions about the technology in the JouleBox and how it can produce power 24/7 without violating the laws of physics. Three motors combine to turn generators producing a total of 90 kW. They are very close to being in perfect balance but it is not over unity. The system uses 120 hp to turn 90

kW. Less watts are used to create the horsepower produced than in most other motors. The formula for hp is torque x RPM/5252. Nothing in that formula says anything about watts. Historically motors that needed more hp added watts. That is not the only way. This motor operates with 95% efficiency. There is loss of 1500. The watts in is 31,500. That wattage is converted to EMF pushing the motor forward. There is 30K of EMF. There also is 30K of back EMF. Most of the back EMF is usually lost to heat. That is why a large 40 hp motor gets so hot. The heat is not from the 5% efficiency that is lost in a 95% efficient motor. Five percent isn't enough heat to get that giant motor hot. They figured out how to redirect the 30K of back EMF that is usually lost as heat and reuse it. Then they just have to add about 8 kW to it. That's how they create more torque without more watts.

Steve said what Paul is calling back EMF is not consistent with the way back EMF is usually defined. He said he doesn't see where the energy comes from. The battery is labeled as 30 kW but it doesn't say how much energy is in the battery. Paul said about 24 kW is constantly pulled off the battery but it stays 100% charged at all times. Steve said that doesn't tell him what the energy capacity of the battery is. He doesn't see how 90 kW can be generated from 24 kW. Paul said 8 kW is added from the battery and the back EMF is captured. That totals 38 kW.

Paul said we have been trained by motor manufacturers just to count watts in and watts out. Watts that go in are converted to EMF and back EMF, creating enormous heat in the motor. Most people don't count the back EMF because they say the EMF and back EMF cancel out. Steve said the output power of the motor is the product of the current in the motor and the back EMF of the motor. The back EMF is not the loss; it's the output power. Paul said the formula of watts in and watts out is not correct. A lot more than 5% is lost in the form of heat and in the JouleBox, that energy is redirected before it is transferred to heat and lost. Steve and Paul disagreed about whether the heat produced is due to more than the 5% loss.

Steve asked how many of these are in the field. Paul said this is new technology. There is one at their office and they have built multiple other motors. They are just now going into production. They don't have any in the field.

Steve said on the one hand Paul says the JouleBox puts 24 kW in and gets 90 kW out but in another place he says 120 hp = 90 kW. And that is not true anyway, because there are losses. Paul said there is a lot more going on than just watts in and watts out. He is using 38 kW to create 30 kW – 8 kW from the battery and the rest from capturing the back EMF. TJ Poor said the claim seems to be that 200 watts are being used to create 1 hp, which equals 746 watts. Paul said electricity is not just watts. Steve disagreed. He said he doesn't see how 746 watts can be generated by only putting in 200 watts.

Walter asked if any independent verification has been done to test this system. What independent verification exists or what existing systems are there with data that can be analyzed? Paul said they have that. Tests were run over a period slightly less than 5 days. On a 20 kW system, the DC batteries stayed fully charged the whole time. Walter asked if there is someone from Intertek, who did the tests, that we can get the raw data from. Paul said no. Walter asked, right now there is no system in the field and no existing system that a third party can independently verify is producing as advertised? Paul said not yet, but there will be relatively soon, probably before the end of the year. Walter asked, their data will be available to other potential customers? Paul said yes.

Walter asked what information Steve would want to be able to say this may work. Steve said he would have to take a look at the report first. He suggested maybe they could send us a JouleBox and we could test it. Paul said no, they won't do that.

The call ended at 7:01.

Tanya suggested that if the village doesn't feel comfortable with a lease then we could start with a power purchase agreement. Then no money would be paid up front. It might be a little more, but it could always be switched over to a lease. It would just be an agreement to sell the village power at maybe 10 cents. At the end of the first month the village would only pay for power received. Once we felt comfortable it was actually producing we could switch over to a lease.

Walter said we were given a warranty document. Isn't that almost like a power purchase? Tanya said it is, but even though there is zero risk, because there isn't another system in the field, the trustees seem to feel there is a risk. If the trustees really believed there was zero risk there would be no reason not to move forward. So if it helps us psychologically to move forward, we can do a power purchase agreement. They will pay all the cost to install the system and if it doesn't work they will pull it out. They are doing power purchase agreements with a couple of other customers.

Bob said he doesn't see where there is anything to lose. Tanya agreed there is nothing to lose.  
(Tanya left at 7:04.)

The board agreed to discuss this further in executive session.

**6. Foreman Report and Action Items**

Troy said the board needs to determine whether the town should be charged for labor and materials for work the village crew did related to paving on School St. He wonders if the village can be reimbursed for time and materials to raise manholes prior to paving. The board agreed Meredith should find out if this expense was included in the grant the town got.

Troy said the village also had a cost of \$1177 for raising manholes on Clay Hill prior to paving. Gordy said during previous paving projects the village has raised manholes and not charged the town for it because we are in the town's right of way. School Street is different because of the grant. Meredith said we can request that the cost of raising manholes be included in future grants. Troy said if we know a paving project that will require this work is coming we can budget for it. Gordy said he thinks communication and cooperation between Meredith and the new town administrator will be helpful for this.

Troy said Pike did some damage during grinding and grading to manholes the village had raised and painted orange. Our crew had to repair them before they could proceed. Our cost for labor and materials was \$1712. They were short-handed and didn't have a spotter, which led to the damage. Sandy said this is contractor error and the contractor should pay for it. The town has the contract so he thinks we should send a bill to the town and they can pass it on to their contractor. The board agreed.

Gordy asked if the village crew has proper gloves to protect against drug paraphernalia when picking up garbage. Troy said they just have leather gloves, but they don't put their hands into the trash. It is a definite problem. They try to handle the trash with the most care possible.

Troy said there were a couple of outages last month related to wind. On the 21<sup>st</sup> a tree fell on a line on Lamoille View and 5 customers experienced an outage for about 30 minutes. On the 27<sup>th</sup> a tree that fell on Foote Brook resulted in a 20-minute outage for about 30 customers. The trees that fell were probably outside the right of way.

A new service was installed for a new customer on Sinclair Rd. A temporary service was installed on Railroad Street so repairs can be made to the fire-damaged house.

Walter asked if Troy has noticed a lot of gypsy moths. They could lead to dying trees. Troy said he has noticed caterpillar damage, but the closest he has seen is in Waterville, not in the village. Walter said he has seen some damage in his yard.

Troy said he ordered an ANSI Class B first aid kit. It is an OSHA requirement. He spoke with G&T Services about some uniforms that don't meet current requirements. They are in the process of changing those out. We got the line tester paid for by the grant.

Troy created an invoice for a pole broken on Main St. and submitted it to Rosemary. He approved a final change order for School Street to raise a catch basin that wasn't originally designed to be raised. The cost was \$1700.

Gordy asked Troy to pass on to the village employees the board's thanks for the work they did on School Street and how they cooperated with the town.

#### **7. *Manager's Report and Action Items***

Gordy welcomed new permanent village manager Meredith Birkett and thanked Sandy for serving as interim village manager for almost a year. Sandy said it has been great working with the village.

We have gotten notification from the Public Service Board that they have approved Certificates of Public Good for two group net metering projects – one for VWSD LLC and one for Johnson GLC Solar, LLC. Sandy said representatives from both firms would like to speak briefly to the board.

Will Vere said his firm wants to offer the net metering credits for their permitted project to the town and village. They will be going to construction on the 150 kW permitted project, which is separate from their RFP proposal. The site is on a sand lot across from Johnson Farm and Garden. Troy said our infrastructure needs to be upgraded for this project. The company pays for all infrastructure upgrades. Gordy asked if it is 3 phase. They said it is single phase. VWSD would like to be on a future agenda for a formal presentation.

Sam Carlson from Green Lantern said he is here to restate the offer Green Lantern made to the village to offer a discount on net metering credits. Based on what the town told him about how much of the total town and village electric usage is the village's, the village should save \$7,600 a year working with Green Lantern and getting a 15% discount on net metering credits. When they sell net metering credits that is a reduction in Johnson Water & Light revenue. If VOJ Water & Light is the offtaker, it offsets some of that loss. It keeps the value of the net metering credit within

the village. They are ready to go with their project. They have their permit and financing and they may go forward with construction in the next 6 weeks. They need to talk more with Troy about interconnection. They hope to work with the village. The village could probably work with both these projects. Neither 150 kW array will offset all expenditures. *(A candidate for the lineman position arrived at 7:36.)*

Scott asked who will pay the cost for the line upgrade. Sam said the estimate they got was around \$31K. It's the developer who pays it. He suggested previously to the board that in order for Green Lantern to continue to offer a 15% discount to the village on the value of net metering credits, the village could consider not applying the overhead stocking fee of around \$5K. He doesn't feel Green Lantern should be charged that when the village is a beneficiary of the project. Or Green Lantern could pay the \$5K and give the village a lower discount, like 12.5%. He sent Sandy an example of an agreement with another town and a template for what the agreement with VOJ would look like.

Walter said he doesn't want to assure either firm they can be on the next agenda. The board will discuss that in executive session. Gordy said it will be an open meeting so they can still come in. Meredith will contact both parties after the board discusses whether to put them on the agenda.

Scott asked why Bob Hoag had come to the meeting. Bob said he wants to find out about his sewer. Troy said Tom Elwood is in charge of that. Sandy said Tom is on vacation. *(Bob left at 7:44.)*

**David moved to enter executive session for contract negotiations and related matters, the premature disclosure of which would put the village at a substantial disadvantage, inviting Meredith, Rosemary, Troy, and TJ Poor to remain, Walter seconded, the motion was passed and the board entered executive session at 7:45. David moved to exit executive session at 8:30, Bob seconded and the motion was passed.**

**David moved to enter executive session at 8:31 to discuss personnel matters, the premature disclosure of which would place the village at a substantial disadvantage. Walter seconded and the motion was passed. Walter moved to exit executive session at 10:20, David seconded and the motion was passed.**

**Walter moved to authorize Meredith to enter into contract negotiations with CRC for dispatch services, seconded by Scott.** Sandy said he would contact Jeff Wright of Vermont Electric Coop about our procedure. **The motion was passed.**

Meredith said Tom got quotes for purchase and installation of two submersible pumps as previously discussed with the board. He recommends purchasing the pumps from Champlin Associates at a cost of \$19,484 and installation by A. Cooper at a cost of \$7,048. Sandy said much of the cost can come out of the 2016 budget and the remainder will need to come from capital reserves.

Walter said originally the board was told switching to these pumps would be cheaper. With the installation cost, buying these pumps will be more expensive by \$4-5K. Sandy said the advantage

of these is that they are submersible. Walter agreed that in the long term that will be an advantage. They will survive the next flood.

**David moved to purchase 2 submersible pumps at a cost of \$19,484 from Champlin Associates with installation by A. Cooper at a cost of \$7,048 for a total cost of \$26,532 and the motion was seconded and passed.** Walter said we should ask Tom what will happen to the old pumps and if we can get money for them.

The village has received a preliminary water and sewer allocation application for Dunham Rentals, LLC off St. John's Street. They have paid the fees. Tom has reviewed it and recommends they use blueboard to prevent line freezing. Arjay, the project designer, said that is already in their plans. Scott asked, why use blueboard rather than just digging deep enough? Gordy said he thinks there is some obstacle, maybe another pipe. Walter asked why we make this condition when it is their lateral and not our responsibility. Sandy said because we like to protect property owners. **Walter moved to approve the preliminary water and sewer allocation application for Dunham Rentals, LLC, conditional on obtaining a town highway permit and using blueboard to prevent line freezing as well as the usual conditions. The motion was seconded and passed.**

Copies of the May 2016 Power Bill Summary were distributed.

The Monthly Water System Operation Report for June was submitted to the state.

Vermont Electric Cooperative is asking for an amendment to their CPG changing the project from a group net metering project to a non-group net metering project with no other changes to the project. The request came to us from the Public Service Board. Meredith will check with VPPSA to see if there is a difference in rate.

**Walter moved to appoint Meredith Birkett the Johnson VPPSA board member and the motion was seconded.** Walter will continue as alternate. **The motion was passed.**

**Walter moved to appoint Meredith Birkett Water and Light Commissioner for the Village of Johnson, David seconded and the motion was passed.**

Gordy will check with Eric to see if the selectboard is interested in splitting the cost of AEDs. David said he would like to see if any grants are available to help pay for them. Sandy said they are either specifically excluded or included in the PACIF grant program; he can't remember which. We can check.

The selectboard agreed to let the Boy Scouts use the additional space they requested. We are waiting to receive facility use forms from them.

Bob reported on the meeting at LCSD with Kim Marble and her neighbors, the Whittemores. The meeting got the parties talking to each other. They made some agreements. The Whittemores have put up a fence and it now prevents the animals from getting to the water. Bob thinks the village should come up with a policy related to animals. Kim Marble also would like to see the village adopt some kind of ordinance. Scott said some people within the village have as much as 3 acres but others have really tiny properties. He doesn't know how to develop an ordinance that reflects

that variation. Sandy said South Burlington's ordinance addresses lot size. The board agreed to review the South Burlington ordinance.

We have received two draft agreements from Brian Monaghan related to the Valley Ridge project – one between the village and Valley Ridge and one between the village and Grenier Engineering. Grenier is completing design work and putting together a bid package. Jake Loeffler spent \$2600 to get preliminary approval last August; then the village basically told him to stop while we figured out what to do with the project. Sandy suggested looking at our ordinance. He thinks it would be fair to extend the preliminary approval for another year if that is legally possible. The board agreed. The board will review the agreements and they will be sent to Loeffler and Grenier for their review. The board can then approve them in August if everyone is okay with them.

The village center designation re-application was submitted. Susan was having some trouble posting it on the website. She and Rosemary are going to work on that tomorrow.

Scott said people are getting confused about the village center designation, form based code, the town/village unified plan and flood zone maps. We need to make a better effort to convey in bulleted form what all these things mean for people residing in the village and town. A lot of misinformation is starting to be spread. People are wondering what the lines on the maps mean with regard to their properties. Gordy said Brownfields is an additional thing that could be confused. Sandy said the existing village municipal development plan, which is still in effect, is another. Scott said when Bob Hoag showed up at a Planning Commission meeting he was told his questions were about the wrong topic and that a different topic was being discussed. David suggested a direct mailing with a link to information on the website. Meredith said she will try to draft a short description of what each thing is. Scott said the town, village and Planning Commission need a consistent message, and when people show up at a meeting their concerns should be heard and not just dismissed.

Meredith will work on drafting the previously discussed policies. Sandy gave her guidance on where to start.

Sandy said attorney Monaghan's opinion was that in the event of removal of danger trees by the village no public hearing would be required and the tree warden would not need to be involved. The attorney also said the village can appoint a tree warden. The village can have control over village trees that are not in the town right of way if we have a tree warden. The village might want to consider appointing the same person who is the town tree warden. If an issue with a tree came up and the village had a tree warden then it would be a village action that addressed it. Sandy feels Duncan was incorrect when he said the village action regarding the trees by the yellow house was moot.

The selectboard discussed whether VTrans should be released from the current cost allocation model with regard to ongoing monitoring at the former Cyprus Industrial site. They decided not to release VTrans and Sandy recommends that the trustees make the same decision. He contacted Katrina Mattice, who indicated there would be no significant impact to releasing VTrans. The Petroleum Cleanup Fund will still pay for 100%. It is just a matter of taking VTrans out of the loop so we would take care of all administration. The board agreed to have Meredith let VTrans know that the village concurs with the town's position on the matter.

The board reviewed a logo design David had gotten from a local business. The board agreed that it looked good except for one of the buildings, which did not look like the actual building in that spot. They agreed to ask for that part of the design to be changed.

Mark Woodward submitted an application for an excess water adjustment. **Walter moved to adjust Mark Woodward's water and sewer bills for 74 Lower Main West to 3 times the average of the last 3 months (3 times \$181.27 for sewer and 3 times \$99.41 for water), David seconded and the motion was passed.**

Michael Bradley also submitted an excess water adjustment application. **Walter moved to adjust Michael Bradley's water and sewer bills for 94 Pearl St. to 3 times the 3-month average water bill of \$26.06 and 3 times the 3-month average sewer bill of \$35.36, David seconded and the motion was passed.**

Sandy said at the joint meeting with the selectboard in April, Duncan and Eric had suggested that the village consider taking over town roads or the town consider taking over storm drains and sidewalks, largely because of the assertion that Duncan made that the village would not be eligible for stormwater funding. Sandy contacted Clean Water State Revolving Fund program manager Terisa Thomas and learned that the village is eligible for stormwater funds through this program. Stormwater projects need to be designed and engineered. They will give us funding for half the project. As long as the project is constructed within 5 years they forgive 50% of the design costs. They loan money at 2% over 20 years.

Walter said that is the revolving fund, not the Structures Grant. The School St. project is being funded by the Structures Grant. Sandy said there are several different programs. It is true that we are not eligible for a Structures Grant because we don't own the roads. But we could go to the Clean Water State Revolving Fund. Walter said the Structures Grant is the best way to do anything. Sandy agreed, because it provides 80% funding.

Gordy said he and Eric had discussed going together with Meredith and the new town administrator to meet local groups such as Johnson Works, the college and the Studio Center, to show a spirit of cooperation. Gordy said he suggested that he, Eric, Meredith and the new town administrator sit down together first to go over work procedures. He wants to really push for cooperation between the two positions.

Meredith said Sandy had already invited her to meet with Johnson Works tomorrow. Walter said that would just be a meet and greet, with no major issues discussed. He has no problem with that. He thinks it would be good for Meredith to get out and meet people soon so they can put a face to her name. If there are discussions of substance, he agrees it would be good for the two board chairs and the two administrators to go together, but if Meredith wants to have a quick chat with someone like the college president, he doesn't think waiting for the 4 people to find a date to go together should slow her down. David agreed she should not wait.

Gordy said Eric had also suggested we have a joint meeting of the two boards and the two new administrators so everyone could meet the administrators and the boards could discuss what they are thinking of doing related to the ideas that came out of the community meeting.



David said he will introduce Meredith to the JSC president.

Gordy asked Meredith what her work schedule will be. She said she plans to work full days consistently Monday-Wednesday and to work on alternating Thursdays.

8. *Adjourn*

**The meeting was adjourned at 11:28.**

*Minutes submitted by Donna Griffiths*

UNAPPROVED