WALLINGFORD ENERGY COMMITTEE

Draft Minutes of the September 1, 2015 Meeting

Subject to Approval and Revision

Ken Welch welcomed the committee back from its summer recess and called the meeting to order at 6:40. Present: John Armstrong, Ralph Nimtz, Ken Welch and Jay White.

June Minutes. Ken reported that the committee met on June 2 and that Milt took notes but, in Milt's absence, we have no minutes. In Ken's recollection, most of the June discussion was about Ken's draft for the hydro power section of the Town energy plan. Ken noted that while there have been recent changes in state water quality rules, these only address phosphorous pollution in Lake Champlain and there is no reason to redraft the plan. John suggested that some of the draft was a bit too technical for general audiences. "Send me a draft, John."

WES. Ralph conceded that the energy upgrade project is not 100% complete but that the school is "open for its intended use and has been well-received. Wright Construction did a good job." Jay explained that the biggest remaining problem is balancing to get the ventilation system under control. "Gary has been under a heavy load, but we have a month to six weeks before we have to close the windows and heat the building."

Jay also mentioned that there are a few punch list items such as a better ground for the solar panels. He also explained that there was additional cost when the PV system was switched to microinverters for individual panels rather than one inverter for the entire system. "The real advantage here was safety. When microinverters sense the absence of power from the grid they automatically shut down. This means that crews fixing a power outage aren't surprised to find current on what they assumed was a dead line. It's automatic. You don't have to pull a switch at 3AM."

Jay reported that there are also problems with the new gas fired booster heaters for the dishwashers. "Until that gets fixed — and it will — we're unlikely to avoid peak fees on the school's electric bill."

Pellet Boilers. On August 6 the School Board voted to go back to the voters for $300,000 to replace the oil fired boilers with a pellet system. This change had been part of the original energy upgrade plan but was deleted before the 2014 vote because the Board had been assured that the state would fund new boilers. While there is still a chance that a pellet project would be partially funded by grants, the bond proposal that goes before the voters on September 22 is sized to fully fund the project.

Jay reported that while both of the current boilers work, they are 25 or more years old and are increasingly difficult to maintain. They could be replaced with new oil burners for about $75,000, but the difference in cost is likely to be made up with lower fuel costs. "Our lifecycle analysis showed that the pellet boilers would pay for themselves in five years," Ralph explained, "but that was with $3.50 oil We're currently paying $2.50 at the office — but no one knows how long that price will hold."

Some have questioned whether burning pellets at the school will cause air quality issues. Jay explained that smoke was mostly an issue with small residential pellet burners. "Boilers on the scale we would put into the school use a sophisticated two-stage gasification combustion system and emissions are greatly reduced."

The School Board will be holding an information meeting on Thursday, September 17 at 7PM in the School. Ken expressed his hope that committee members would come to this meeting. John recalled that committee members call voters to urge them to vote yes when the original bond was revoted in April of 2014. There was a consensus to do this again. There was also a consensus to create a fact sheet to guide callers. Ken, Jay and Ralph promised to draw one up.

Community Solar Projects. Ken had heard nothing about whether Suncommon had made progress with a site in East Wallingford and John said that a horse farm owner assured him that she used all of her pasture.

Ralph raised the issue of the unused quarry across the creek from the True Temper factory. "So what if it floods? The valley widens north of town and water can spread out. The level goes up and then it goes down. Why can't the panels and inverters simply be raised off the ground?" Ken said that he was aware of solar developments in flood plains and would investigate what the issues are. [It turns out that almost all of the quarry site is outside FEMA designated flood plains.]

New Business. Ken wondered whether it would be possible to persuade GMP to get the School a Tesla PowerWall. This battery system mounts on a wall and comes in 7.5 and 10 kWh capacities. It stores solar power during the day and feeds it back during the night or during power outages. [According to Wikipedia, "A bigger battery called Powerpack, that could store 100 kWh of electricity, would be available for industrial consumers, reaching a price point of $250/kWh" or $25,000 for a 100kWh system.] John said that if the school gets one it should be put it in the lobby so the children can see it and tell their parents about it. Ralph said that getting the word out is one of the reasons to do energy projects in the school. Ken suggested that we recruit the 6th grade science teacher to make energy projects part of the curriculum. "And we need to have a dashboard," Ken proposed. "We have one,ß" Jay said. "All the consumption data is available for anyone who's interested." John asked whether this was displayed anywhere in the school. "It's just a web page," Jay explained.

Ken said that once we can really document before and after (and with electricity that will be as soon as the propane booster heater was working) "we need to make this school a show place and I'd like to present our experience at the VECAN conference in December. In fact, I'd like all of us to go."

The meeting was adjourned at 7:20. The next meeting will be on Tuesday, October 6 ßat 6:30.

Submitted by John Armstrong.