

WALLINGFORD ENERGY COMMITTEE

Minutes of the December 6, 2016 Meeting

Ken Welch called the meeting to order at 6:35. Present: John Armstrong, Doug Blodgett, Milton Moore, Ken Welch and Jay White.

November Minutes. Jay moved (and Doug seconded) that the November minutes be approved. There were no objections.

Button Up Day ... was somewhat disappointing. Only five households attended, many doughnuts were left over but those who did attend were awarded audits. Ken will distribute the remainder.

EV Grant. "We have \$1,500 left in the grant," Ken explained, "but in order to use it we need to submit an invoice from a vendor before the end of the year."

School Energy Dashboard. One use for this money would be for a system to monitor the school's electrical usage and solar generation. Obviously this would help with building management, but it was the consensus of the committee that a simple version of these data displayed in a corridor at the school could have educational and motivational usefulness. A dashboard could also function as a way of informing the public about ongoing energy efficiency efforts at the school.

Ken suggested that we see if Rainforest Automation's [Eagle Energy Gateway](#) or even their [EMU Energy Monitoring Unit](#) would meet our needs. These devices have the advantage of low cost and an automatic smart meter interface with no need for installation. They share two limitations. Neither can monitor solar generation and both only monitor global usage for the entire building. The only way to identify which circuits are triggering high loads is to observe the effect of turning appliances and other loads off and on. While this is practical in a house, it would be difficult to do in a building as big as the school. And while SameSun did install an internet-connected monitor of the school's solar generation, it would be difficult if not impossible to integrate this with a Rainforest consumption monitor to create a simultaneous display on a single screen.

John explained that Efficiency Vermont installed a PowerWise Systems [SiteSage Energy Management System](#) in his home when he installed a heat pump in 2014. "The system works well," he reported, "so I called Christian Gilbert, the fellow I worked with at PowerWise, to see what they could do. SiteSage systems do require installation, but the systems collect information from induction loops around conductors in an electric box so they do not require an actual disturbance of the building wiring. They can monitor both usage and generation and SiteSage can generate a simple display comparing generation and use. Other screens can provide more detailed information on individual circuits. All of this information can be shown on daily, weekly and monthly timelines. Christian said he would obviously need detailed informa-

tion but thought they could provide something for \$2,000 to \$5,000. He assured me that they have plenty of experience with schools.”

Ken asked John to contact Christian and see what he could do for \$1,500 to \$2,000. “The important thing would be to be able to look at lighting, HVAC and the kitchen, either the entire room or at individual appliances.” The committee discussed resources other than the remainder of the recent EV grant. “Don’t we have money available from our annual budget and also from some energy audits some years ago,” John asked. Milton agreed.

Jay offered to supply some electrical drawings from the '50's and '70's with the proviso that there had been many changes since. “I think there are entire electrical boxes that are no longer used. The building used to have electric heat. There is, however, only one service entrance for both parts of the building. The older school is now wired from a sub panel fed from the main box for the entire building.”

[On December 8 Ken and John visited the school and worked with Gary Fredette to photograph and inventory the electrical circuits. John reported this information to Christian who came up with a proposal in time for the EV deadline.]

Energy Plan. Jay reminded us that [Act 174](#) has a heavy reliance on mapping. “If we as a town want to have input, we’ll need to do some detailed mapping.” Doug volunteered that he could supply maps [but John discovered at a [December 12 workshop](#) at Rutland Regional Planning Commission that regional commissions would supply towns and municipalities with detailed local maps of resources and utilization in the editable [GIS](#) digital format].

Ken added that the Act reinforces a strong role for the regional planning commissions. “As I’ve said before, energy planning should really be a regional rather than local function, and we don’t have to file an Act 174 plan. But if we don’t we’ll be at the mercy of the RRPC and the PSB.” Doug agreed. “We’ll only have input if we identify the wishes of the people of the town.”

The meeting was adjourned at 7:40 PM. The next meeting will be on Tuesday, January 3 at 6:30.

— Submitted by John Armstrong.