Dan,

Here is the status of the energy auditing work this afternoon. It is confidential because it discusses competing contractors:

I wanted to be sure that any energy audit conducted in conjunction with a geothermal rebate meets the requirements of CEEF (Connecticut Energy Efficiency Fund). Residential rebates must have a form signed by an approved auditor.

From the CL&P website, their 2011 form does not require an audit by an approved contractor. But there are other initiative requirements for the $150 per ton rebate. Their website refers applicants to [www.WiseUseCt.org](http://www.WiseUseCt.org)

One must call, which I did. Doreen said I needed to provide the CL&P account number first. Jean sent it to me and I gave it to Doreen. She said they would have a representative call me back in 5 to 7 days, but that it would mainly be about savings for lighting.

CL&P’s Mark Foley gave me commercial supervisor Jim Motta’s number again. When I called Jim, & asked for Ian Russell who worked with us in Hartford, I had a return call from Carl, who said Ian no longer works there. Carl said there is no specific list of contractors required. The ones on the Small Business Energy Advantage Approved Contractors list I had are mainly for lighting. I did call Alliance Energy Solutions, but Mike said they do lighting. Energy Solutions only has a form, and New England Energy Mgmt had a long list of names.

Carl said to use the energy audit to determine tightness of building and submit form requesting $150 to him. It should include an energy loss calculation, which he can have reviewed for us.

Since only 23 commercial projects have been approved for rebate by Clean Energy Fund, they give more flexibility than for residential that is subsidized for $75 audits.

I called Peter Harding again, and he returned my call this morning. He and Greg Lehman have two blower door kits, and he will send us a proposal by Wednesday to conduct blower door tests, and use infrared imaging. They will not perform weatherization at that time, but will submit an envelope leakage report on where it might be required. Greg might bid the weatherization at a later time. They will also submit an estimate for a follow up post blower door test if needed.

To help with your bidding requirements I also contacted the Brookfield auditor Energy PRZ 203-942-4446. The receptionist said they only do residential, but I said it is similar, and we would pay without the $75 co-pay policy, please give us a proposal. So Bob will email me, and we can select one. I also know a fellow from Poughkeepsie who is good too, but probably quite busy. I will be at an AHSRAE meeting in Mass. On Wednesday, but expect to forward one or both proposals to you Thursday.

I see that the CL&P form is for Commercial and Industrial but Carl understands our Institutional fits in here too. As a government building, we will Buy American.

Wendy kindly sent me the 46 meg pdf file of the As Built drawings.

I have contacted two engineering companies (one from Albany I mentioned), and asked if they could submit proposals for the heat loss / heat gain calculations. One asked if I preferred room by room and I said Yes. The other was from Rochester who performed an eQuest for me last year. I am waiting to see if they each want me to send them the pdf. I did email Keith McCormick at N&S today inquiring especially about a technician who can assist with the ClimateMaster VIPs. My originally planned tech is not available.

I began studying the pdf myself, and have these preliminary findings for checking against the actual heat loss calculations when performed, and for Blower Door Analysis:

|  |  |  |
| --- | --- | --- |
| *PDF page number* | *Floor description* | *Floor Elevation* |
| 12 | Upper Floor Plan | 747.5’ |
| 11 | Main Floor Plan - Adults | 738 |
| 10 | Lower Floor Plan - Children | 727 |
| 9 | Storage Floor Plan | 717 |
| 8 | Mechanical Room | 706 |

Here are Area summaries:

|  |
| --- |
| The Upper Floor has area of approximately 2029 sq. ft. from the original building and 1444 sf from the addition, including the two story Open Space. Total = 3473 sf. |
| Main Floor for Adults has 4036 sf new and 1837 sf original = 5873 sf. |
| Lower Floor for Children has 4127 sf |
| Storage Space is unconditioned, except for a gas heater. Area = 2360 sf. |
| Mechanical Room now has the Fire Protection Tank rotated 90 degrees. Also unconditioned. If length is for the entire building, area = 1080 sf |

Totals: Original 2029 + 1837 = 3866 sf.

New (conditioned) 1444 + 4036 + 4127 = 9607 sf. Total conditioned = 13,473 sq. ft.

Unconditioned = 2360 + 1080 = 3440 sq. ft. Grand total = 16,913 sq. ft.

The existing system of 37.5 tons nominal capacity has Heating Capacity of about 30 tons = 360,000 btu/hr. (from the earlier 3 page report). Rule of Thumb showed if 10,000 sq ft. would use 200,000 btu/hr.,13,473 or 15,000 s.f. for high ceilings, should use 300,000 btu/hr. So equipment is just slightly oversized by 20%. *End of Status Report*.