Government Building Energy Audits
Submission for 10 points (5/14 total buildings = 35%)
Town of Bedford
07/05/22

Attached are the ASHRAE energy audit energy reports for 5 municipal buildings.

Here is the listing with the specifics for each (which can be found in the attached energy audits for each building):

Property Name	Energy Current Date	Source EUI (kBtu/ft²)	Total GHG Emissions Intensity (kgCO2e/ft²)	Total GHG Emissions (Metric Tons CO2e)	Energy Audit	Type of Energy Audit	Square Feet Building
301 ADAMS ST (hwy garage)	03/31/2021	238.2	9.2	43.6	Yes	ASHRAE Level II	4740
307 BEDFORD RD (police dpt)	03/31/2021	588.1	14.0	41.9	Yes	ASHRAE Level II	3000
321 BEDFORD RD (Town House)	03/31/2021	100.6	1.1	18.9	Yes	ASHRAE Level I	16958
425 Cherry St	03/31/2021	118.6	2.2	21.8	Yes	ASHRAE Level I	10000
74 MAIN ST (BHCH)	03/31/2021	59.8	2.5	24.8	Yes	ASHRAE Level I	10075

Three buildings' energy audits didn't specify what ASHRAE level they were. Using the included "ASHRAE and CEC Energy Study Level Comparison" document below, we were able to figure out which level they would be. Below is where one can locate the specific ASHRAE requirements.

321 Bedford Rd
Level 1 - "Estimate savings from utility rate change": Various scenarios with estimated savings can be found on pages 25-28 in the "Option Summary" tables
Level 1 - "Compare EUI to that of similar sites": Energy Source Profiles can be found on pages 13-17
Level 1 - "Summarize utility data": Found on pages 3-8

425 Cherry St
Level 1 - “Estimate savings from utility rate change”: Various scenarios with estimated savings can be found on pages 19-29 in the “Option Summary” tables
Level 1 - “Compare EUI to that of similar sites”: Energy Source Profiles can be found on pages 13-17
Level 1 - “Summarize utility data”: Found on pages 3-8

74 Main Street
Level 1 - “Estimate savings from utility rate change”:
Level 1 - “Compare EUI to that of similar sites”:
Level 1 - “Summarize utility data”: Found on pages 2-

By Square Feet
52386 Sq feet of total 11 buildings
44773 Sq of 5 audited buildings
44773/52386 = **85%**

ASHRAE and CEC Energy Study Level Comparison

fComparison of ASHRAE Level I, II, III Energy Audits and the Clean Energy Communities (CEC) Energy Studies

Process	I	I+ CEC Energy Study	II	III
Conduct Preliminary Energy Analysis (PEA)	●	●	●	●
Conduct walk-through survey	●	●	●	●
Identify low-cost/no-cost recommendations	●	●	●	●
Identify capital improvements	●	●	●	●
Review M&E design, condition and O&M practices			●	●
Measure key parameters			●	●
Analyze capital measures (savings & costs)		●		●
Analyze capital measures (including interaction)			●	●
Discuss and review recommendations with owners/operators		●	●	●
Conduct additional testing/monitoring				●
Perform detailed system modeling				●
Provided schematic layouts for recommendations				●
Report	**I**	**I+ CEC Energy Study**	**II**	**III**
Estimate savings from utility rate change	●	●	●	●
Compare EUI to that of similar sites	●		●	●
Summarize utility data	●	●	●	●
Estimate savings if EUI met target			●	●
Estimate low-cost / no-cost savings		●	●	●
Perform detailed end-use breakdown		●	●	●
Estimate capital project costs and savings		●	●	●
Complete building description and equipment inventory		●	●	●
General description of considered measures		●	●	●
Recommended M&V method			●	●
Financial analysis of recommended EEMs		●	●	●
Description of recommended measures		●	●	
Detailed description of recommended measures				●
Detailed EEM cost estimates				●

2022 Municipal Buildings Spreadsheet

https://docs.google.com/spreadsheets/d/1vuXoT5qrc5DEnJ4vMDxmzWPaKYJwoJob/edit?usp=sharing&ouid=111453752525408753778&rtpof=true&sd=true

Property Name	Energy Current Date	Source EUI (kBtu/ft²)	Total GHG Emissions Intensity (kgCO2e/ft²)	Total GHG Emissions (Metric Tons CO2e)	Type of Energy Audit	Square Feet Building	Square feet (found from the audit)	Square Feet Parking or Repair Services or treatment plant
1 ADAMS ST (Depot Plaza Train Station Bldg)	03/31/2021	302.0	12.0	18.0	N/A	1500	N/A	
21 Park Ave	04/30/2021	94.4	5.5	11.0	N/A	2000	N/A	1750
301 ADAMS ST (hwy garage)	03/31/2021	238.2	9.2	43.6	ASHRAE Level II	4740	9,000	11060
307 BEDFORD RD (police dpt)	03/31/2021	588.1	14.0	41.9	ASHRAE Level II	3000	8,000	
(Recreation Garage - Milk Bldng)	03/31/2021	145.0	6.6	19.7	N/A	100	N/A	2900
321 BEDFORD RD (Town House)	03/31/2021	100.6	1.1	18.9	ASHRAE Level I	16958	17,000	
425 Cherry St	03/31/2021	118.6	2.2	21.8	ASHRAE Level I	10000	10,000	
60 Haines Rd (pool house)	08/31/2020	260.7	3.1	13.2	N/A	4200	N/A	
74 MAIN ST (BHCH)	03/31/2021	59.8	2.5	24.8	ASHRAE Level I	10075	N/A	
(Bedford Memorial Park)	04/30/2021	15.6	0.4	1.6	N/A	3600	N/A	
RD - Wastewater Treatment Plant	Not Available	Not Available	Not Available	Not Available	N/A	123	N/A	4108
CRUSHER RD (DPW garage)	04/30/2021	1972.4	94.1	27.3	N/A	290	N/A	2610
NORTH ST (Katonah Pool House)	03/31/2021	212.6	2.5	11.4	N/A	4600	N/A	
ROUTE 35 WATER PLNT	04/30/2021	356.7	5.9	114.9	N/A		N/A	19530

Description of Implementation

The Town is submitting for 16 points and has proof that 85% (by square footage) of Bedford's municipal buildings have ASHRAE level I, II or III audits. Using the included excel table below, "2022_Municipal_Buildings", the total building count is 14. We have not counted3 of the buildings in the square footage percentage. Both 60 Haines Road and North St are seasonal pool houses that are not heated or cooled. The third building is our water processing plant, listed on the spreadsheet as the Route 35 Water Plant. These buildings' energy used is concentrated on water processing, not heating and cooling. This information can be found in column L in the spreadsheet. Calculating the percentage of buildings by the total square feet of the remaining 11 buildings would be 44773/52386 which is 85%. See the Calculations Details in the summary document.

Three of the buildings' reports did not state what level of ASHRAE level they were. Using the attached "ASHRAE and CEC Energy Study Level Comparison" document, we were able to figure out which level they would be. Included in the summary document are the specific locations in the reports for the qualifications needed for ASHRAE Level I.