

Sullivan County Executive Finance Committee Meeting Minutes
1/30/12
Commissioners Conference Room, Newport
PUBLIC SESSION

EFC Members Present: Reps. Philip "Joe" Osgood, Charlene Lovett, John Cloutier, Spec Bowers, Thomas Laware

EFC Members Absent: None

Other Delegation Members Present: Rep. Beverly Rodeschin

Elected Officials and Employees Present: High Sheriff Michael Prozzo, County Administrator Greg Chanis, Facilities Director John Cressy.

Public Present: Former Newport Rep. Peter Franklin

The EFC Chair, Rep. Osgood called meeting to order at 1:00 pm.

Rep. Bowers moved; Rep. Lovett seconded a motion to approve the minutes of the EFC's Executive Session on August 8, 2011 and keep these minutes sealed. Motion approved unanimously by voice vote.

Rep. Lovett moved, Rep. Bowers seconded a motion to approve the minutes of the EFC's Public Session on August 8, 2011. Motion approved unanimously by voice vote.

Rep. Lovett moved, Rep. Laware seconded a motion to approve the minutes of the October 21, 2011 EFC meeting. Minutes approved by a 3-0 voice vote, with Reps. Bowers and Cloutier abstaining because they were both absent.

Mr. Chanis quickly reviewed the tentative process for consideration and approval of Fiscal Year 2013 County Budget (See attached sheet).

Next, he reviewed a proposal for Fiscal Year 2013 in regard to vehicle replacement in the county's vehicle fleet (See attached sheet), and answered questions from EFC members present. Then he reviewed the County's Debt Schedule for Fiscal Year 2012-2016 with EFC.

County Commissioner Ben Nelson entered meeting at 1:32 pm.

Sheriff Prozzo noted that his dept. is actually trading in 6 Chevy Impalas – not 7 as originally indicated in the Fiscal Year 2013 Vehicle Worksheet.

Mr. Chanis said that the figures in the Vehicle Worksheet are tentative, and that the Commissioners EFC, and Full Delegation are not being asked for a vote on their vehicle purchases and trade-ins until later during the Fiscal Year 2013 Budget Process.

Mr. Chanis said he plans to provide detailed info, on county elected officials salaries to the Delegation by the end of this week. Salaries must be set later this year by Delegation.

Next, Mr. Chanis and the EFC discussed a proposed biomass combined heat and power facility at the County's Unity Complex that the Commissioners have been reviewing. EFC saw a slideshow of three biomass facilities in N.H. and Massachusetts that Commissioner Nelson and Mr. Cressy recently visited.

Then Mr. Chanis and Mr. Cressy reviewed a January 25, 2012 proposal for installing a biomass facility for both Sullivan County Health Care (nursing home) and Dept. of Corrections (jail) – not just the nursing home as indicated on the proposal's first page. (See attached five page proposal).

Commissioner Nelson stated that this proposed biomass facility would create more jobs for forestry industry, lessen the county's dependence on oil, and save money.

Mr. Chanis said Rockingham County is in the process of constructing a similar facility, and the U.S. Dept of Agriculture's Forestry Service has encouraged us to consider biomass.

Mr. Chanis continued that the figures in the five-page proposal are tentative, and might actually be reduced if the biomass facility is approved by the Commissioners and Delegation and contracts are written.

Also distributed a November 14, 2011 preliminary feasibility report on the biomass proposal that was prepared by Wilson Engineering Services of Meadville, Penn to EFC.

Mr. Cressy and Mr. Chanis answered several questions about the biomass proposal. Then they said that the biomass facility could be partially financed through a grant from the U.S. Forest Service, if the Commissioners and Delegation approve the facility within the next month.

Specifically Mr. Chanis said that the commissioners may approve the biomass facility at their meeting tomorrow. He then would ask the Delegation Chair, Rep. Rodeschin, to schedule a public hearing and vote on the proposed facility within the next 14 days.

Osgood, indicated that he might schedule an EFC meeting just before the Delegation's public hearing so as to possibly get an EFC endorsement of the biomass facility beforehand. But he wanted more time to study the proposal as of today.

Rep. Bowers moved, Rep. Cloutier seconded a motion to go into Executive Session Per N.H. RSA 91-A:3.II.d. for discussions regarding preparations for and carrying out of emergency functions. Motion was approved unanimously on a 5-0 roll call vote. (See attached sheet)

John R. Cloutier

Rep. John R. Cloutier
Clerk

Date Approved: May 11, 2012

FY 2013 Vehicle Worksheet
2/16/2012

*Used In
Jan 30 Public
Session*

Vehicle type	Qty	Unit Cost	Sheriff	DOC	SCHC
Impala police (Sheriff)	7	20,410.86	142,876.02		
Express van	1	20,467.00	20,467.00		
Malibu	1	16,237.00			16,237.00
Wheelchair Van	1	45,000.00			45,000.00
Impala Police (DOC)	2	19,790.00		39,580.00	
Equipment swap			27,000.00	3,000.00	
Sub Total Gross Expense Per Department			190,343.02	42,580.00	61,237.00

Estimate

Trade values	Qty	Unit Cost	Sheriff	DOC	SCHC
2008 Impala (Sheriff's)	6	-4,300.00	-25,800.00		
2006 Explorer (Sherriff)	1	-5,000.00	-5,000.00		
2003 Taurus (SCHC)	1	-1,250.00			-1,250.00
2007 Crown Victoria (DOC)	2	-3,400.00		-6,800.00	
1999 Wheelchair Van	1	-5,000.00			-5,000.00
2000 Ford Van (DOC)	1	-1,000.00		-1,000.00	
Sub Total Gross Trade Values			-30,800.00	-7,800.00	-6,250.00
Sub Total Net Expense Per Department			159,543.02	34,780.00	54,987.00

Estimate

Adjustments for Transferred Vehicles	Sheriff	DOC	SCHC
2008 Sheriff's Van to SCHC	-10500		10500
2004 SCHC Van to DOC		2500	-2500
Net Amount Financed Per Department	149,043.02	37,280.00	62,987.00

Total Amount Financed	249,310.02		
Annual Payment @ 2.5% for 4 Years	66,317.12		
Percent of Total per Department	59.78%	14.95%	25.26%
Annual Payment Per Department FY 2013-2016	\$39,645.83	\$9,916.58	\$16,754.71

VI

Option 3 - CHP: ██████████ Capital Cost Estimate

Biomass Boiler	
Line Item	Cost
5.0 mmBtu/hr biomass boiler rated at 150 psig (5,000 lb/hr steam), installed	\$ 527,000
Biomass boiler room piping and specialties, installed	\$ 73,000
Fuel bunker receiving, storage, material transfer, installed	\$ 137,000
Boiler platform, stairs, and ladders installed	\$ 19,000
Multicyclone, installed	\$ 35,000
Sub-total	\$ 791,000
	\$ -
Biomass Boiler Cost	\$ 791,000
General Construction	
Biomass Boiler Building and Chip Storage Pit ¹	\$ 319,000
Site work	\$ 23,500
1,150 ft. of buried steam supply and condensate return piping, installed ²	\$ 298,000
Electrical	\$ 79,000
Mechanical	\$ 109,500
40 kW backpressure steam turbine, installed	\$ 101,000
Steam Condensing Unit, installed	\$ 22,000
Demolish and Remove Dairy Barn	\$ 60,000
Additional Site work (driveway and grading for dairybarn location)	\$ 16,500
Installation of control room/office in biomass building	\$ 8,000
Convert Clever Brooks 150 psig boiler to propane and install in biomass bldg	\$ 29,000
Addition to biomass building to accommodate Clever Brooks Boiler (270sf)	\$ 32,400
Building aesthetic upgrade Pitched Roof and Siding to Boiler and Storage Buildings (\$21	\$ 59,200
4,160V to 480V/277V 3Ø 112kVA Pad Mount Transformer and Service Entrance	\$ 22,500
Propane fired backup generator 100kW 480V/277V 3Ø	\$ 30,000
General Contract Cost	\$ 1,209,600
Sub-Total GC and Boiler Contracts	\$ 2,000,600
<i>Contractor profit overhead and insurance</i> 16%	\$ 320,096
Sub-Total	\$ 2,320,696
<i>Contingency</i> 15%	\$ 348,104
Total GC and Boiler Cost	\$ 2,668,800
<i>Professional Services</i> ³ 12%	\$ 320,256.05
Base Project Cost ^{4,5,6}	\$ 2,989,056

VICF

**Base Project - Nursing Home CHP: Heating Jail and Nursing Home
20 Year - 4.0% Bond Financing Estimate**

Sullivan County, NH Complex

Input Variables	Value	Units	Year	Fossil Fuel Cost, Current System	Value of Generated Electricity	Wood Chip Cost	Fuel Oil Cost, w/ Wood System	Added O&M Cost	Net Operating Savings	Annual Financing Payment	Net Cash Flow	Present Value of Net Cash Flow
Project Costs Financed	2,989,056	\$	1	\$ 406,056	\$ 18,260	\$ (76,774)	\$ (40,606)	\$ (26,264)	\$ 280,674	\$ (219,940)	\$ 60,734	\$ 60,734
Financing Term	20	# years	2	\$ 419,456	\$ 18,863	\$ (78,846)	\$ (41,946)	\$ (26,973)	\$ 290,554	\$ (219,940)	\$ 70,614	\$ 68,757
Financing Rate (apr)	4.0%	Percent	3	\$ 433,298	\$ 19,485	\$ (80,975)	\$ (43,330)	\$ (27,701)	\$ 300,777	\$ (219,940)	\$ 80,837	\$ 76,642
Annual Fuel Oil Input	124,940	gal	4	\$ 447,597	\$ 20,128	\$ (83,162)	\$ (44,760)	\$ (28,449)	\$ 311,355	\$ (219,940)	\$ 91,415	\$ 84,392
Year 1 Fuel Oil Average Price	3.25	\$/gal	5	\$ 462,368	\$ 20,792	\$ (85,407)	\$ (46,237)	\$ (29,217)	\$ 322,299	\$ (219,940)	\$ 102,359	\$ 92,011
Wood Chip Usage	1,828	tons/yr	6	\$ 477,626	\$ 21,479	\$ (87,713)	\$ (47,763)	\$ (30,006)	\$ 333,623	\$ (219,940)	\$ 113,683	\$ 99,504
Year 1 Wood Chip Purchase Price	42	\$/ton	7	\$ 493,387	\$ 22,187	\$ (90,081)	\$ (49,339)	\$ (30,816)	\$ 345,339	\$ (219,940)	\$ 125,399	\$ 106,873
Annual Fuel Oil Usage w/ Wood System	12,494	gal/yr	8	\$ 509,669	\$ 22,920	\$ (92,513)	\$ (50,967)	\$ (31,648)	\$ 357,460	\$ (219,940)	\$ 137,520	\$ 114,122
Electricity generated	137,294	kWh/yr	9	\$ 526,488	\$ 23,676	\$ (95,011)	\$ (52,649)	\$ (32,503)	\$ 370,001	\$ (219,940)	\$ 150,061	\$ 121,256
Electricity value	0.133	\$/kWh	10	\$ 543,862	\$ 24,457	\$ (97,577)	\$ (54,386)	\$ (33,380)	\$ 382,977	\$ (219,940)	\$ 163,037	\$ 128,277
Fuel Oil Inflation Rate (apr)	3.3%	Percent	11	\$ 561,810	\$ 25,264	\$ (100,211)	\$ (56,181)	\$ (34,281)	\$ 396,401	\$ (219,940)	\$ 176,461	\$ 135,189
Wood Chip Inflation Rate (apr)	2.7%	Percent	12	\$ 580,350	\$ 26,098	\$ (102,917)	\$ (58,035)	\$ (35,207)	\$ 410,289	\$ (219,940)	\$ 190,349	\$ 141,995
General Inflation Rate (apr)	2.7%	Percent	13	\$ 599,501	\$ 26,959	\$ (105,696)	\$ (59,950)	\$ (36,158)	\$ 424,657	\$ (219,940)	\$ 204,717	\$ 148,698
Electric Inflation Rate (apr)	3.3%	Percent	14	\$ 619,285	\$ 27,849	\$ (108,549)	\$ (61,928)	\$ (37,134)	\$ 439,522	\$ (219,940)	\$ 219,582	\$ 155,302
Added Annual O&M Costs for Biomass Plant	26,264	\$/yr	15	\$ 639,721	\$ 28,768	\$ (111,480)	\$ (63,972)	\$ (38,137)	\$ 454,900	\$ (219,940)	\$ 234,960	\$ 161,810
			16	\$ 660,832	\$ 29,717	\$ (114,490)	\$ (66,083)	\$ (39,166)	\$ 470,810	\$ (219,940)	\$ 250,870	\$ 168,224
			17	\$ 682,639	\$ 30,698	\$ (117,581)	\$ (68,264)	\$ (40,224)	\$ 487,268	\$ (219,940)	\$ 267,328	\$ 174,548
			18	\$ 705,166	\$ 31,711	\$ (120,756)	\$ (70,517)	\$ (41,310)	\$ 504,295	\$ (219,940)	\$ 284,355	\$ 180,784
			19	\$ 728,437	\$ 32,757	\$ (124,017)	\$ (72,844)	\$ (42,425)	\$ 521,909	\$ (219,940)	\$ 301,969	\$ 186,936
			20	\$ 752,475	\$ 33,838	\$ (127,365)	\$ (75,248)	\$ (43,571)	\$ 540,131	\$ (219,940)	\$ 320,191	\$ 193,005
			21	\$ 777,307	\$ 34,955	\$ (130,804)	\$ (77,731)	\$ (44,747)	\$ 558,981	\$ -	\$ 558,981	\$ 328,085
			22	\$ 802,958	\$ 36,109	\$ (134,336)	\$ (80,296)	\$ (45,955)	\$ 578,480	\$ -	\$ 578,480	\$ 330,604
			23	\$ 829,456	\$ 37,300	\$ (137,963)	\$ (82,946)	\$ (47,196)	\$ 598,652	\$ -	\$ 598,652	\$ 333,137
			24	\$ 856,828	\$ 38,531	\$ (141,688)	\$ (85,683)	\$ (48,470)	\$ 619,518	\$ -	\$ 619,518	\$ 335,686
			25	\$ 885,103	\$ 39,803	\$ (145,513)	\$ (88,510)	\$ (49,779)	\$ 641,103	\$ -	\$ 641,103	\$ 338,249
											Net Present Value	\$ 4,264,816

Version: DRAFT
Date Modified: January 30, 2012

V2

Add-Alternate Cost Estimates

Convert Kitchen/Dining Room Rooftop AHU to Steam			
Replace Kitchen/Dining room propane roof top units with steam heated units			\$ 65,000
Piping and interconnection to steam system			\$ 12,000
Sub-Total			\$ 77,000
	<i>Contractor profit overhead and insurance</i>	16%	\$ 12,320
Sub-Total			\$ 89,320
	<i>Contingency</i>	15%	\$ 13,398
Project Sub-Total (Boiler and General Contracts)			\$ 102,718
	<i>Professional Services³</i>	12%	\$ 12,326
Total			\$ 115,044

Interconnect Ahern Building			
Shell and Tube Hx (installed)			\$ 2,500
Steam Piping and Condensate Return (150' trench), installed			\$ 39,000
Condensate receiver and pump, installed			\$ 1,700
3 unit heaters for 4 bay garage installed			\$ 8,500
Sub-Total			\$ 51,700
	<i>Contractor profit overhead and insurance</i>	16%	\$ 8,272
Sub-Total			\$ 59,972
	<i>Contingency</i>	15%	\$ 8,996
Project Sub-Total (Boiler and General Contracts)			\$ 68,968
	<i>Professional Services³</i>	12%	\$ 8,276
Total			\$ 77,244

Additional Boiler Room and Chip Storage Capacity			
Added Bay for 2nd biomass Boiler and Stub Out			\$ 95,700
Added Bay for Chip Storage			\$ 66,120
Added Fuel Bunker Material Handling			\$ 50,000
Additional Site Work (Excavation for footer and foundation)			\$ 7,000
Sub-Total			\$ 218,820
	<i>Contractor profit overhead and insurance</i>	16%	\$ 35,011
Sub-Total			\$ 253,831
	<i>Contingency</i>	15%	\$ 38,075
Project Sub-Total (Boiler and General Contracts)			\$ 291,906
	<i>Professional Services³</i>	12%	\$ 35,029
Total			\$ 326,935
Sum of Add Alternate Estimates			\$ 519,223

Notes:

- 1 - The building is assumed to be a simple pre-engineered building.
- 2 - Exact pipe routes and connections should be evaluated in additional detail.
- 3 - Professional Services includes engineering, permitting, legal, and project management.
- 4 - Assumes that biomass boiler and general contract included in Design Build Contract
- 5 - General contract costs are approximate. A detailed geotechnical study is required to identify final site and building costs.
- 6 - Estimate is based on competitive bidding.

V2CF

**Base Project + All Alternates - Nursing Home CHP: Heating Jail and Nursing Home
20 Year - 4.0% Bond Financing Estimate**

Sullivan County, NH Complex

Input Variables	Value	Units	Year	Fossil Fuel Cost, Current System	Propane Cost Offset w/Wood System	Value of Generated Electricity	Wood Chip Cost	Fuel Oil Cost, w/ Wood System	Added O&M Cost	Net Operating Savings	Annual Financing Payment	Net Cash Flow	Present Value of Net Cash Flow
Project Costs Financed	3,508,279	\$	1	\$ 406,056	\$ 11,385	\$ 18,260	\$ (79,044)	\$ (40,606)	\$ (26,264)	\$ 289,788	\$ (258,145)	\$ 31,643	\$ 31,643
Financing Term	20	# years	2	\$ 419,456	\$ 11,761	\$ 18,863	\$ (81,178)	\$ (41,946)	\$ (26,973)	\$ 299,983	\$ (258,145)	\$ 41,838	\$ 40,737
Financing Rate (apr)	4.0%	Percent	3	\$ 433,298	\$ 12,149	\$ 19,485	\$ (83,370)	\$ (43,330)	\$ (27,701)	\$ 310,531	\$ (258,145)	\$ 52,386	\$ 49,667
Annual Fuel Oil Input	124,940	gal	4	\$ 447,597	\$ 12,550	\$ 20,128	\$ (85,621)	\$ (44,760)	\$ (28,449)	\$ 321,445	\$ (258,145)	\$ 63,300	\$ 58,437
Year 1 Fuel Oil Average Price	3.25	\$/gal	5	\$ 462,368	\$ 12,964	\$ 20,792	\$ (87,933)	\$ (46,237)	\$ (29,217)	\$ 332,737	\$ (258,145)	\$ 74,592	\$ 67,051
¹ Estimated Propane Offset	5,175	gal	6	\$ 477,626	\$ 13,392	\$ 21,479	\$ (90,307)	\$ (47,763)	\$ (30,006)	\$ 344,421	\$ (258,145)	\$ 86,275	\$ 75,514
Propane Cost	2.20	\$/gal	7	\$ 493,387	\$ 13,834	\$ 22,187	\$ (92,745)	\$ (49,339)	\$ (30,816)	\$ 356,508	\$ (258,145)	\$ 98,363	\$ 83,831
² Wood Chip Usage	1,882	tons/yr	8	\$ 509,669	\$ 14,290	\$ 22,920	\$ (95,249)	\$ (50,967)	\$ (31,648)	\$ 369,014	\$ (258,145)	\$ 110,869	\$ 92,005
Year 1 Wood Chip Purchase Price	42	\$/ton	9	\$ 526,488	\$ 14,762	\$ 23,676	\$ (97,821)	\$ (52,649)	\$ (32,503)	\$ 381,953	\$ (258,145)	\$ 123,808	\$ 100,042
Annual Fuel Oil Usage w/ Wood System	12,494	gal/yr	10	\$ 543,862	\$ 15,249	\$ 24,457	\$ (100,462)	\$ (54,386)	\$ (33,380)	\$ 395,340	\$ (258,145)	\$ 137,194	\$ 107,944
Electricity generated	137,294	kWh/yr	11	\$ 561,810	\$ 15,752	\$ 25,264	\$ (103,175)	\$ (56,181)	\$ (34,281)	\$ 409,189	\$ (258,145)	\$ 151,044	\$ 115,716
Electricity value	0.133	\$/kWh	12	\$ 580,350	\$ 16,272	\$ 26,098	\$ (105,960)	\$ (58,035)	\$ (35,207)	\$ 423,517	\$ (258,145)	\$ 165,372	\$ 123,362
Fossil Fuel Inflation Rate (apr)	3.3%	Percent	13	\$ 599,501	\$ 16,809	\$ 26,959	\$ (108,821)	\$ (59,950)	\$ (36,158)	\$ 438,340	\$ (258,145)	\$ 180,195	\$ 130,886
Wood Chip Inflation Rate (apr)	2.7%	Percent	14	\$ 619,285	\$ 17,363	\$ 27,849	\$ (111,760)	\$ (61,928)	\$ (37,134)	\$ 453,675	\$ (258,145)	\$ 195,530	\$ 138,291
General Inflation Rate (apr)	2.7%	Percent	15	\$ 639,721	\$ 17,936	\$ 28,768	\$ (114,777)	\$ (63,972)	\$ (38,137)	\$ 469,540	\$ (258,145)	\$ 211,394	\$ 145,581
Electric Inflation Rate (apr)	3.3%	Percent	16	\$ 660,832	\$ 18,528	\$ 29,717	\$ (117,876)	\$ (66,083)	\$ (39,166)	\$ 485,952	\$ (258,145)	\$ 227,807	\$ 152,759
Added Annual O&M Costs for Biomass Plant	26,264	\$/yr	17	\$ 682,539	\$ 19,140	\$ 30,698	\$ (121,059)	\$ (68,264)	\$ (40,224)	\$ 502,931	\$ (258,145)	\$ 244,785	\$ 159,829
			18	\$ 705,166	\$ 19,771	\$ 31,711	\$ (124,327)	\$ (70,517)	\$ (41,310)	\$ 520,495	\$ (258,145)	\$ 262,350	\$ 166,794
			19	\$ 728,437	\$ 20,424	\$ 32,757	\$ (127,684)	\$ (72,844)	\$ (42,425)	\$ 538,665	\$ (258,145)	\$ 280,520	\$ 173,657
			20	\$ 752,475	\$ 21,098	\$ 33,838	\$ (131,132)	\$ (75,248)	\$ (43,571)	\$ 557,462	\$ (258,145)	\$ 299,317	\$ 180,422
			21	\$ 777,307	\$ 21,794	\$ 34,955	\$ (134,672)	\$ (77,731)	\$ (44,747)	\$ 576,906	\$ -	\$ 576,906	\$ 338,606
			22	\$ 802,958	\$ 22,513	\$ 36,109	\$ (138,308)	\$ (80,296)	\$ (45,955)	\$ 597,021	\$ -	\$ 597,021	\$ 341,200
			23	\$ 829,456	\$ 23,256	\$ 37,300	\$ (142,043)	\$ (82,946)	\$ (47,196)	\$ 617,828	\$ -	\$ 617,828	\$ 343,809
			24	\$ 856,828	\$ 24,024	\$ 38,531	\$ (145,878)	\$ (85,683)	\$ (48,470)	\$ 639,352	\$ -	\$ 639,352	\$ 346,432
			25	\$ 885,103	\$ 24,817	\$ 39,803	\$ (149,816)	\$ (88,510)	\$ (49,779)	\$ 661,617	\$ -	\$ 661,617	\$ 349,072
												Net Present Value	\$ 3,913,287

Notes:
 1 - Assumes a 5,175 gallon propane offset by converting rooftop heating units to steam heat from biomass
 2 - An additional 54 tons of wood chips is included to offset 5,175 gallons of propane

Version: DRAFT
 Date Modified: January 30, 2012

WERC Wood Education and Resource Center

RECOMMENDED

V3

Date Modified: January 25, 2012

Sullivan County, NH Complex

Add-Alternate Cost Estimates

Convert Kitchen/Dining Room Rooftop AHU to Steam			
Replace Kitchen/Dining room propane roof top units with steam heated units		\$	65,000
Piping and interconnection to steam system		\$	12,000
Sub-Total		\$	77,000
	Contractor profit overhead and insurance	16%	\$ 12,320
Sub-Total		\$	89,320
	Contingency	15%	\$ 13,398
Project Sub-Total (Boiler and General Contracts)		\$	102,718
	Professional Services ³	12%	\$ 12,326
Total		\$	115,044

Interconnect Ahern Building			
Shell and Tube Hx (installed)		\$	2,500
Steam Piping and Condensate Return (150' trench), Installed		\$	39,000
Condensate receiver and pump, installed		\$	1,700
3 unit heaters for 4 bay garage installed		\$	8,500
Sub-Total		\$	51,700
	Contractor profit overhead and insurance	16%	\$ 8,272
Sub-Total		\$	59,972
	Contingency	15%	\$ 8,996
Project Sub-Total (Boiler and General Contracts)		\$	68,968
	Professional Services ³	12%	\$ 8,276
Total		\$	77,244

Additional Boiler Room and Chip Storage Canopy			
Added Bay for 2nd biomass Boiler and Sub Out		\$	53,700
Added Bay for Chip Storage		\$	65,130
Added Fuel Bunker Material Handling		\$	50,000
Additional Site Work (Excavation for footer and foundation)		\$	7,000
Sub-Total		\$	218,820
	Contractor profit overhead and insurance	16%	\$ 35,011
Sub-Total		\$	253,831
	Contingency	15%	\$ 38,075
Project Sub-Total (Boiler and General Contracts)		\$	291,906
	Professional Services³	12%	\$ 35,029
Total		\$	326,935
Sum of Add Alternate Estimates		\$	513,223

7 \$ 192,288.00

Notes:

- 1 - The building is assumed to be a simple pre-engineered building.
- 2 - Exact pipe routes and connections should be evaluated in additional detail.
- 3 - Professional Services includes engineering, permitting, legal, and project management.
- 4 - Assumes that biomass boiler and general contract included in Design Build Contract
- 5 - General contract costs are approximate. A detailed geotechnical study is required to identify final site and building costs.
- 6 - Estimate is based on competitive bidding.

— RECOMMENDED —

V306

**Base Project + Propane Conversion + Ahern Building - Nursing Home CHP: Heating Jail and Nursing Home
20 Year - 4.0% Bond Financing Estimate**

Input Variables	Value	Units	Year	Fossil Fuel Cost, Current System	Propane Cost Offset w/Wood System	Value of Generated Electricity	Wood Chip Cost	Fuel Oil Cost, w/ Wood System	Added O&M Cost	Net Operating Savings	Annual Financing Payment	Net Cash Flow	Present Value of Net Cash Flow
Project Costs Financed	3,181,345 \$		1	\$ 406,056	\$ 11,385	\$ 18,260	\$ (79,044)	\$ (40,606)	\$ (26,264)	\$ 289,788	\$ (234,089)	\$ 55,699	\$ 55,699
Financing Term	20 # years		2	\$ 419,456	\$ 11,761	\$ 18,863	\$ (81,178)	\$ (41,946)	\$ (26,973)	\$ 299,983	\$ (234,089)	\$ 65,894	\$ 64,161
Financing Rate (apr)	4.0% Percent		3	\$ 433,298	\$ 12,149	\$ 19,485	\$ (83,370)	\$ (43,330)	\$ (27,701)	\$ 310,531	\$ (234,089)	\$ 76,442	\$ 72,475
Annual Fuel Oil Input	124,940 gal		4	\$ 447,597	\$ 12,550	\$ 20,128	\$ (85,621)	\$ (44,760)	\$ (28,449)	\$ 321,445	\$ (234,089)	\$ 87,356	\$ 80,645
Year 1 Fuel Oil Average Price	3.25 \$/gal		5	\$ 462,368	\$ 12,964	\$ 20,792	\$ (87,933)	\$ (46,237)	\$ (29,217)	\$ 332,737	\$ (234,089)	\$ 98,648	\$ 88,675
Estimated Propane Offset	5,175 gal		6	\$ 477,626	\$ 13,392	\$ 21,479	\$ (90,307)	\$ (47,763)	\$ (30,006)	\$ 344,421	\$ (234,089)	\$ 110,332	\$ 96,570
Propane Cost	2.20 \$/gal		7	\$ 493,387	\$ 13,834	\$ 22,187	\$ (92,745)	\$ (49,339)	\$ (30,816)	\$ 356,508	\$ (234,089)	\$ 122,419	\$ 104,333
Wood Chip Usage	1,882 tons/yr		8	\$ 509,669	\$ 14,290	\$ 22,920	\$ (95,249)	\$ (50,967)	\$ (31,648)	\$ 369,014	\$ (234,089)	\$ 134,926	\$ 111,969
Year 1 Wood Chip Purchase Price	42 \$/ton		9	\$ 526,488	\$ 14,762	\$ 23,676	\$ (97,821)	\$ (52,649)	\$ (32,503)	\$ 381,953	\$ (234,089)	\$ 147,864	\$ 119,480
Annual Fuel Oil Usage w/ Wood System	12,494 gal/yr		10	\$ 543,862	\$ 15,249	\$ 24,457	\$ (100,462)	\$ (54,386)	\$ (33,380)	\$ 395,340	\$ (234,089)	\$ 161,251	\$ 126,872
Electricity generated	137,294 kWh/yr		11	\$ 561,810	\$ 15,752	\$ 25,264	\$ (103,175)	\$ (56,181)	\$ (34,281)	\$ 409,189	\$ (234,089)	\$ 175,100	\$ 134,146
Electricity value	0.133 \$/kWh		12	\$ 580,350	\$ 16,272	\$ 26,098	\$ (105,960)	\$ (58,035)	\$ (35,207)	\$ 423,517	\$ (234,089)	\$ 189,428	\$ 141,308
Fossil Fuel Inflation Rate (apr)	3.3% Percent		13	\$ 599,501	\$ 16,809	\$ 26,959	\$ (108,821)	\$ (59,950)	\$ (36,158)	\$ 438,340	\$ (234,089)	\$ 204,251	\$ 148,360
Wood Chip Inflation Rate (apr)	2.7% Percent		14	\$ 619,285	\$ 17,363	\$ 27,849	\$ (111,760)	\$ (61,928)	\$ (37,134)	\$ 453,675	\$ (234,089)	\$ 219,586	\$ 155,305
General Inflation Rate (apr)	2.7% Percent		15	\$ 639,721	\$ 17,936	\$ 28,768	\$ (114,777)	\$ (63,972)	\$ (38,137)	\$ 469,540	\$ (234,089)	\$ 235,451	\$ 162,148
Electric Inflation Rate (apr)	3.3% Percent		16	\$ 660,832	\$ 18,528	\$ 29,717	\$ (117,876)	\$ (66,083)	\$ (39,166)	\$ 485,952	\$ (234,089)	\$ 251,863	\$ 168,891
Added Annual O&M Costs for Biomass Plant	26,264 \$/yr		17	\$ 682,639	\$ 19,140	\$ 30,698	\$ (121,059)	\$ (68,264)	\$ (40,224)	\$ 502,931	\$ (234,089)	\$ 268,842	\$ 175,536
			18	\$ 705,166	\$ 19,771	\$ 31,711	\$ (124,327)	\$ (70,517)	\$ (41,310)	\$ 520,495	\$ (234,089)	\$ 286,406	\$ 182,089
			19	\$ 728,437	\$ 20,424	\$ 32,757	\$ (127,684)	\$ (72,844)	\$ (42,425)	\$ 538,665	\$ (234,089)	\$ 304,576	\$ 188,550
			20	\$ 752,475	\$ 21,098	\$ 33,838	\$ (131,132)	\$ (75,248)	\$ (43,571)	\$ 557,462	\$ (234,089)	\$ 323,373	\$ 194,923
			21	\$ 777,307	\$ 21,794	\$ 34,955	\$ (134,672)	\$ (77,731)	\$ (44,747)	\$ 576,906	\$ -	\$ 576,906	\$ 338,606
			22	\$ 802,958	\$ 22,513	\$ 36,109	\$ (138,308)	\$ (80,296)	\$ (45,955)	\$ 597,021	\$ -	\$ 597,021	\$ 341,200
			23	\$ 829,456	\$ 23,256	\$ 37,300	\$ (142,043)	\$ (82,946)	\$ (47,196)	\$ 617,828	\$ -	\$ 617,828	\$ 343,809
			24	\$ 856,828	\$ 24,024	\$ 38,531	\$ (145,878)	\$ (85,683)	\$ (48,470)	\$ 639,352	\$ -	\$ 639,352	\$ 346,432
			25	\$ 885,103	\$ 24,817	\$ 39,803	\$ (149,816)	\$ (88,510)	\$ (49,779)	\$ 661,617	\$ -	\$ 661,617	\$ 349,072
												Net Present Value	\$ 4,291,254

Notes:
 1 - Assumes a 5,175 gallon propane offset by converting rooftop heating units to steam heat from biomass
 2 - An additional 54 tons of wood chips is included to offset 5,175 gallons of propane

Version: DRAFT
 Date Modified: January 30, 2012

SULLIVAN COUNTY NH – STATE / COUNTY DELEGATION

MOTION AND VOTING SHEET

DATE: 1-30-12 TIME: 2:53 PM

MOTION MADE: To go into Executive Session Per N.H. RSA 91-A:3.II,d for discussions regarding preparations for and carrying out of emergency functions

MOTION MADE BY: Rep. Spec Bowers

MOTION SECONDED BY: Rep. John Cloutier

MOTION: CARRIED DEFEATED OR, TIED

WAS THERE DISCUSSION? YES NO

TYPE OF VOTE (Either / Or of the following)

VOICE VOTE - YES **NO**

ROLL CALL If roll call vote, check mark name below

REPRESENTATIVE NAME	YES	NO
Bowers, Spec	<input checked="" type="checkbox"/>	
Cloutier, John	<input checked="" type="checkbox"/>	
Cunningham, Steve		
Gagnon, Ray		
Howard, Thomas J		
LaCasse Sr., Paul		
Laware, Thomas	<input checked="" type="checkbox"/>	
Lefebvre, Benjamin		
Lovett, Charlene Marcotte	<input checked="" type="checkbox"/>	
Osgood, Joe	<input checked="" type="checkbox"/>	
Schmidt, Andy		
Smith, Steven		
Rodeschin, Beverly		

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