On-Site Information Gathering Guide
Amherst

Question	Source	Answer	Completed
Why did you decide to go through with this project? What drove the project process? Were you motivated by being green?	Interview		
What was your biggest concern when this project was proposed?	Interview		
Why did you choose to install a renewable energy system and not continue using fossil fuels?	Interview		
Why did you choose to install a Biomass system over another renewable system?	Interview		

Cost:

Question	Source	Answer	Completed
Average annual heating oil costs before the project.	RTDE Application	Consumed 6,000 gallons of oil per year. Annual heating cost is $21,000.	9/8/2015
Annual heating/cooling costs after the project			
Project cost presented in feasibility study	RTDE Application	Total projected cost is $275,000. Only 75% was funded, $205,000.	9/8/2015
Actual project cost			
Were grants successfully obtained?			

Any unexpected costs? What were they? Could they have been avoided	Interview & numerical data		
Break-even point presented in feasibility study	RTDE Application	20 years	9/8/2015
Actual break-even point calculated based on current energy cost savings			
Fuel cost with old system?	RTDE Application	$21,000	9/8/2015
Projected fuel cost with new system?	RTDE Application	$11,050	9/8/2015
Projected fuel cost savings?	RTDE Application	$9,940 per year	9/8/2015
Projected Annual Maintenance Cost	Feasibility Study	$2,500/year	9/8/2015
Actual Maintenance Cost			
Maintenance cost of old system			
Was cost a large concern when considering this project?	Interview		
Was it difficult to fund this project?	Interview		
Did you use any grants to fund the project?	Interview		
How hard was it to receive these grants?	Interview		

Savings:

Question	Source	Answer	Completed
Actual annual energy use?			
Amount of energy savings (if any)			
Amount of gas emission savings			
Was the cost savings of heating and cooling a factor in deciding to do the project?	Interview		

Feasibility:

Question	Source	Answer	Completed
Amount of space required presented in feasibility report.	RTDE Application	Silo: 26′ high and 12′ in diameter. New boiler building: 12′ x 24′	9/8/2015
Actual space required			
Actual system energy efficiency	RTDE Application	78%	9/8/2015
New system energy efficiency?	RTDE Application	85%	9/8/2015
Is the system working to its maximum efficiency?	Interview/Bills		
Timeline presented in feasibility study	RTDE Application	Construction start date was Oct,2nd. Anticipated completion date was Nov.26th.	9/8/2015
Actual project timeline			

Was the equipment installed in a non-invasive manner/ location?	Interview		
Did you face any obstacles that made the project take longer than expected?	Interview		
Why did you choose to work with Biomass?	Interview		
How reliable is the biomass source you are working with?	Interview		
Have you had any problems with biomass availability?	Interview		
How frequently is maintenance required? How does this compare to the old system;s maintenance requirements?	Interview		
Does maintenance require turning off of the heating system? If so, for how long? Has this been an obstacle you have faced before?	Interview		

Aesthetics:

Question	Source	Answer	Completed
Does the machinery affect the learning process in the classrooms nearby? (Loud sounds, temperature, bad smell, etc.)	Interview		
Does the machinery detract from the visual, olfactory, or audible appeal of your building?	Interview		
Was there concerns about the silo's aesthetics?	Interview		

Where did you put the silo?/How did you combat the aesthetic issue?	Interview		

Community Support?

Question	Source	Answer	Completed
Where there people in the community that did not support the project? (What were their concerns? What role did they play in the community? Was this a large obstacle for you to overcome in the project process?)	Interview		
Was it difficult to convince people that this was an improvement for the school?	Interview		
How did you gain support for the renovation?	Interview		

Other

Question	Source	Answer	Completed
Have you made other changes to the building? (insulation, structure, etc.)	Interview		
Have you been able to use this technology as a teaching instrument for the children in the school about renewable technologies?			

Case Study:

Question	Source	Answer	Completed
Would you have liked to have been presented with something similar when considering this project?	Interview		

What would you change about the case study to make it more useful?	Interview		

Picture Checklist:

Picture	Comments	Completed
Front of building		
Silo		
Boiler System		
Building Diagram		
Diagram of installation		

On-Site Information Gathering Guide
Southern Berkshire

Question	Source	Answer	Completed
Why did you decide to go through with this project? What drove the project process? Were you motivated by being green?	Interview		
What was your biggest concern when this project was proposed?	Interview		
Why did you choose to install a renewable energy system and not continue using fossil fuels?	Interview		
Why did you choose to install a Biomass system over another renewable system?	Interview		

Cost:

Question	Source	Answer	Completed

Average annual heating oil costs before the project.	BEAM feasibility study	$200,688, 9146 MMBtus oil/year. 81,076 gallons of oil per year	9/8/2015
Project cost presented in feasibility study	BEAM feasibility study _____ Press and community QA Accepted Bid	$1,028,000. Grants: $360,000 DOER, MSBA $195,000 _____ Roof repair included: $7,741,013.00 dollars total MSBA Grant: $2,743,157.00 (39%) DOER Grant: $360,000 (for boile $1,543,662.00	9/9/2015
Were these grants successfully obtained?	Interview		
Any unexpected costs? What were they? Could they have been avoided	Interview & numerical data		
Break-even point presented in feasibility study	BEAM feasibility study	approx. $91,000 fuel savings/year 5.3 years	9/8/2015
Projected Maintenance Cost	BEAM feasibility study	$10,000/year	9/8/2015
Maintenance cost of old system	Interview		
Was cost a large concern when considering this project?	Interview		

Was it difficult to fund this project?	Interview		
Did you use any grants to fund the project?	Interview		
How hard was it to receive these grants?	Interview		

Savings:

Question	Source	Answer	Completed
Amount of energy savings (if any)	Berkshire Regional Press	Roof Insulation	
Amount of gas emission savings (Projected)	Beam feasibility study	85% reduction, decreased by 801.4 tons annually, 24,042 tons lifetime of equipment	9/8/2015
Was the cost savings of heating and cooling a factor in deciding to do the project?	Interview		

Feasibility:

Question	Source	Answer	Completed

Amount of space required presented in feasibility report.	BEAM feasibility study _____ RDK Draft Boiler & Roofing Replacement Study 2015	25′ by 30′ area. Existing boiler room was not large enough. Space to the west side of the school, adjacent to the underground oil tanks was recommended. _____ Existing boiler room with reconfiguration plus space for 12′ diameter, 25-30′ tall silo outside	9/8/2015
Actual space required			
Timeline presented in feasibility study	RDK-Dietz Boiler Feasibility Study	December 2014 (design phase)-September 31 2015 (end construction) Construction phase May 4,2015-September 31,2015	9/8/2015
Actual project timeline	Interview		
Was the equipment installed in a non-invasive manner/ location?	Interview		
Did you face any obstacles that made the project take longer than expected?	Interview		

Why did you choose to work with Biomass?	Interview		
How reliable is the biomass source you are working with?	Interview		
Have you had any problems with biomass availability?	Interview		
How frequently will maintenance be required? (projected)	BEAM feasibility study	Daily: alerts checked Weekly: adjusting fuel input, checking burnout and exhaust stack temperatures. Ash removal: every 300 to 500 hours of operation. Potential 5-10 year replacement: Auger Potential 10-20 year replacement: pumps, burn pot	9/8/2015
How does this compare to the old system's maintenance requirements?	Interview		
Does maintenance require turning off of the heating system? If so, for how long? Has this been an obstacle you have faced before?	Interview		

<u>Aesthetics:</u>

Question	Source	Answer	Completed
Does the machinery affect the learning process in the classrooms nearby? (Loud sounds, temperature, bad smell, etc.)	Interview		
Does the machinery detract from the visual, olfactory, or audible appeal of your building?	Interview		
Were there concerns about the silo's aesthetics?	Interview		
Where did you put the silo?/How did you combat the aesthetic issue?	Interview		

Community Support?

Question	Source	Answer	Completed
Where there people in the community that did not support the project? (What were their concerns? What role did they play in the community? Was this a large obstacle for you to overcome in the project process?)	Interview		
Was it difficult to convince people that this was an improvement for the school?	Interview		
How did you gain support for the renovation?	Interview		

Other:

Question	Source	Answer	Completed
Have you made other changes to the building? (insulation, structure, etc.)	Interview		
Have you been able to use this technology as a teaching instrument for the children in the school about renewable technologies?	Interview		

Case Study:

Question	Source	Answer	Completed

Would you have liked to have been presented with something similar when considering this project?	Interview		
What would you change about the case study to make it more useful?	Interview		

Picture Checklist:

Picture	Comments	Completed
Front of building		
Silo		
Boiler System		
Building Diagram		
Diagram of installation		

On-Site Information Gathering Guide
Sudbury

Question	Source	Answer	Completed
Why did you decide to go through with this project? What drove the project process? Were you motivated by being green?	Interview		
What was your biggest concern when this project was proposed?	Interview		
Why did you choose to install a renewable energy system and not continue using fossil fuels?	Interview		
Why did you choose to install a Biomass system over another renewable system?	Interview		

Cost:

Question	Source	Answer	Completed

Average annual heating oil costs before the project.			
Annual heating/cooling costs after the project			
Project cost presented prior to implementation			
Actual project cost			
Any unexpected costs? What were they? Could they have been avoided	Interview & numerical data		
Break-even point presented in feasibility study (if applicable)			
Actual break-even point calculated based on current energy cost savings			
Fuel cost with old system?			
Projected fuel cost with new system?			
Projected fuel cost savings per year?			
Projected Maintenance Cost			
Actual Maintenance Cost			
Maintenance cost of old system			
Was cost a large concern when considering this project?	Interview		
Was it difficult to fund this project?	Interview		
Did you use any grants to fund the project?	Interview		
How hard was it to receive these grants?	Interview		

Savings:

Question	Source	Answer	Completed

Amount of energy savings (if any)			
Amount of gas emission savings			
Was the cost savings of heating and cooling a factor in deciding to do the project?	Interview		

Aesthetics:

Question	Source	Answer	Completed
Does the machinery affect the learning process in the classrooms nearby? (Loud sounds, temperature, bad smell, etc.)	Interview		
Does the machinery detract from the visual, olfactory, or audible appeal of your building?	Interview		

Community Support?

Question	Source	Answer	Completed
Where there people in the community that did not support the project?(What were their concerns? What role did they play in the community? Was this a large obstacle for you to overcome in the project process?)	Interview		
Was it difficult to convince people that this was an improvement for the housing development?	Interview		
How did you gain support for the renovation?	Interview		

Other:

Question	Source	Answer	Completed

Unit A.C manufacturer and model			
Have you made other changes to the building? (insulation, structure, etc.)	Interview		
Have you been able to use this technology as a teaching instrument for the children in the school about renewable technologies?	Interview		

Case Study:

Question	Source	Answer	Completed
Would you have liked to have been presented with something similar when considering this project?	Interview		
What would you change about the case study to make it more useful?	Interview		

Picture Checklist:

Picture	Comments	Completed
Front of building		
Silo		
Boiler System		
Building Diagram		
Diagram of installation		