Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-1: How many residential structures are within 1,000 feet of the site? What is the distance and direction to the nearest residence?

A-CSC-1: There are 69 residential structures located within 1,000 feet of the property boundary. However, only 12 of these residential structures are located within 1,000 feet of the proposed power plant, cooling tower, or stack structures. The nearest residence to the site property is 55 feet east of the property boundary; this residence is just north of the proposed emergency access drive shown on the site plans. The nearest residences to the power plant building are approximately 580 feet east of the power plant. These residences are located south of the one referenced earlier in this response.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-2:

Provide the property owner and land use for all abutting parcels including property west of the Providence and Worcester Railroad, south of Mill Brook Road, and east of Route 12, where applicable. Provide notice of the application to all abutters.

A-CSC-2:

A list of properties that abut the proposed PRE power plant facility is attached as Exhibit CSC-2-1. Notice is being provided to these property owners. An example of the notice is attached as Exhibit CSC-2-2.

# Plainfield Renewable Energy, LLC Plainfield, CT Abutters List

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24 Tring Hollow Dood	46 Kingle Bood	40 Nivela Road	6/2 Norwich Road	882 Norwich Road	892 Norwich Road	888 Norwich Road	892 Norwich Road	30 Lovers Lane	925 Norwich Road	15 Tarbox Road	77 Tarbox Road	PO Box 311228	8 Comminity Avenue	8 Community Avenue	PO Box 368	863 Norwich Road	PO Box 431	PO Box 87	885 Norwich Boad	PO Boy 132	PO Box 132	DO DOX 132
								Carl & Shirley Laporte														
DeMarara Investment & Real Estate Core	Sara Kranc	Keyin E. Ronna I. Oday	) إن	raul A. & Lisa J. Gadue	Donna J. & Arthur W. Barber	Amanda May	Donna J. & Arthur W. Barber		Albert H. Sr. & Ann M. Wilcox	Dorothy A. Caron	Gordon L. Defosse	Tilcon Minerals, Inc.	Town of Plainfield	Town of Plainfield	JCK Properties, LLC	Nancy L. Lamirande	Joseph Paul & Anthony Fatone	Adolph Shagzda	William F., Sr. & Elaine Garriepy	915 Norwich Road, LLC	915 Norwich Road, LLC	O15 Norwich Road 110
Norwich Road	Norwich Road	872 Norwich Road	882 Norwich Bood	North Post	Norwich Road	888 Norwich Road	892 Norwich Road	904 Norwich Road	925 Norwich Road	15 Tarbox Road	77 Tarbox Road	Tarbox Road	Tarbox Road (Rear)	845 Norwich Road	855 Norwich Road	863 Norwich Road	873 Norwich Road	887 Norwich Road	885 Norwich Road	915 Norwich Road	Tarbox Road	Norwich Road
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#### Via Hand Delivery

November 3, 2006

DeMarara Investment & Real Estate Corp. 34 Tripp Hollow Road Brooklyn, CT 06234

Dear Sir or Madam:

Plainfield Renewable Energy is providing notice of a petition filed with the Connecticut Siting Council that no Certificate of Environmental Compatibility and Public Need is required for the construction and operation of a 37.5 megawatt wood biomass fueled gasification power plant.

The proposed project will be located on property on the north side of Millbrook Road, the former Gallup Quarry, approximately 300 feet from the intersection of Rout 12.

A public hearing on this petition will be held by the Connecticut Siting Council on November 16, 2006 at the Plainfield Town Hall Auditorium, 8 Community Ave., Plainfield at 2:00 and 7:00 p.m.

Yours truly,

Dan Donovan Member, Plainfield Renewable Energy, LLC

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting

Page 1 of 2

Q-CSC-3: Provide a list of biomass providers that intend to provide fuel to PRE. Include the type and quantity of fuel to be provided.

A-CSC-3: The following volume reduction facilities may supply fuel to PRE:

- 1) Company A This company has expressed interest in supplying 43,000 tons per year of separated C&D wood fuel and clean wood fuel. An MOU is being developed.
- 2) Company B This company can generate between 143,000-286,000 tons per year of separated C&D wood fuel and clean wood fuel. Discussions between this company and PRE will commence upon Siting Council approval of the Project.
- 3) Company C This supplier operates a landfill and transfer station and it has signed an MOU to supply the Project with 21,450 tons per year of clean and separated C&D wood fuel.
- 4) Company D This company operates several transfer stations and has expressed interest in supplying 286,000 tons per year of fuel. An MOU is under review.
- 5) Company E This company has signed an MOU to provide 21,000 tons per year of both clean and separated C&D wood fuel.
- 6) Company F This company owns a major rail processing facility and has expressed interest in supplying the Project with 40,000 tons of material annually. Discussions between the company and PRE are underway.
- 7) Company G This company has signed an MOU to provide PRE with 21,000-28,000 tons per year of clean and separated C&D wood fuel.
- 8) Company H This company can supply between 43,000-57,000 tons a year of clean and separated C&D wood fuel. Discussions between the company and PRE are underway.
- 9) Company I This company can supply approximately 36,000 tons per year of separated C&D wood fuel and clean wood fuel. An MOU has been signed.
- 10) Company J This company has the capacity to generate 57,000-85,000 tons per year of clean and separated C&D wood fuel and has expressed an interest in supplying the Project.

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting Page 2 of 2

Company K – This company is a large regional tree service and land clearing company that can provide 43,000-85,000 ton per year of clean fuel chips.

Company L – This supplier potentially can supply PRE with 28,000 tons of separated C&D wood fuel annually and has signed a letter of intent. Company M – This company has signed a letter of intent to provide 114,000 tons per year of separated C&D wood fuel and clean wood fuel.

Municipal Program – PRE has committed to making the facility available to the many towns and cities of the state having difficulty disposing of green waste. Approximately 42,000 tons of the annual fuel requirement has been allocated to municipal supply. An outreach program will be initiated late spring with commitments expected 3rd quarter 2007.

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting

Page 1 of 1

Q-CSC-4:

What is the lifespan of the filter fabric system? How is the filter fabric replaced? Would replacement of the filter fabric require shutdown of plant operations? Is the disposed filter fabric treated as general waste?

A-CSC-4:

Many factors can affect the lifespan of the fabric filter bags. These factors include temperature, abrasion, energy absorption, filtration properties, moist heat, alkaline compounds, mineral acids, and oxygen content. Different filter materials are affected by these factors to varying degrees. The bags are expected to have a lifespan of approximately 5 years. However, there have been cases where bags are ready for replacement after only two years of service. Conversely, there have been instances of bags lasting up to 9 years. Scheduled bag replacements are normally performed during annual boiler outages.

A typical baghouse is designed with multiple modules with the capability to pass the maximum expected gas flow while meeting emissions standards with at least one module out of service. This allows for on-line maintenance of the baghouse. When a bag, or the entire module of bags, are in need of replacement, the module can be isolated from the gas stream and the bags replaced.

Characterization of the bags can be performed prior to disposal. The bag material itself is non-hazardous, and since the ash is non-hazardous, the used bags can be disposed of in landfills as non-hazardous waste.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-5:

Describe the water intake facilities including diameter of piping at intake point, number, location, and size of the pump(s) and pump house, and safeguards for humans, fisheries and wildlife.

A-CSC-5:

The proposed water intake structure is cylindrical in shape. It is expected to be approximately less than 13-inches in diameter and 40-inches long. The main axis of this cylindrical structure will be parallel to the direction of flow and approximately 8 feet deep. Only one water intake structure is required to provide the quantity of water needed for this project.

The final design of the pumps will be performed by the EPC contractor. It is anticipated that two 75-hp pumps will be adequate to supply the necessary water for the power plant and that a third pump may be installed to provide system redundancy.

The pump house for the intake structure will be located on land near the proposed intake structure. The inlet location for this project has changed due to encumbrances on the originally-proposed parcel. The new location is shown on the figures in Exhibit CSC-5-1. These figures replace the corresponding exhibits in the Petition. The pump house will contain the pumps, an air compressor for cleaning off the intake structure, spare parts, and a back-up diesel generator. The approximate size of this structure is expected to be less than 650 square feet.

Concrete bollards will be installed upstream of the intake structure to limit the potential for damage due to floating or submerged debris. Permanent navigational markers will be utilized to mark the location of the intake structure to safeguard boaters and swimmers. The intake structures are not anticipated to be a safety hazard for land-based wildlife. The intake structure is designed specifically to protect fish. A cylindrical wedge-wire screen has been specified for the intake structure. This screen has a slot opening of 0.125-inch to prevent fish entrainment and a maximum inlet velocity of less than 0.4-feet per second to prevent fish impingement. At inlet velocities of 0.5 fps or less, juvenile fish can swim up to the intake screen and safely swim away without getting stuck to the screen openings.

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting

Page 1 of 1

Q-CSC-6:

When will PRE determine if noise control measures are necessary? Does PRE intend to install a Butler type metal turbine building as assumed in the noise study? Would use of this building type require additional noise mitigation treatments beyond those included in the building specifications?

A-CSC-6:

PRE will make a final determination on the necessary noise control measures when an equipment procurement provider is selected. At this time, PRE does intend to specify a pre-engineered "Butler-type" building for the power generation facility. Based upon manufacturer's data and experience, it is anticipated that this type of building will reduce the noise generated inside of it to a level that will comply with applicable noise regulations at the nearest receptors without any additional acoustical tiles or other noise mitigation treatments. To assure compliance with the noise regulations from noise generated by the exterior fans, acoustical treatment to reduce the noise levels by about 10 dBa may be implemented.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-7:

Has PRE submitted the water diversion permit with CT DEP? If so, when?

What concerns did the CT DEP have with the water diversion request?

A-CSC-7:

The water diversion permit application has not yet been submitted to the DEP. PRE expects to submit its application in November 2006. During the permit preparation process, PRE has met with the DEP's Inland Water Resources Unit and the Fisheries Unit. The Inland Water Resources personnel wanted to ensure that other water supply sources had been evaluated prior to selecting surface water diversion from the Quinebaug River. After the initial meeting, the DEP seemed satisfied with the water supply sources. The Fisheries Unit wanted to ensure that the Project was alleviating fish entrainment and impingement in the intake structure. After the initial meeting, the DEP was satisfied that the selection of a cylindrical wedge wire screen intake structure would be adequate to protect the local fish populations.

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting

Page 1 of 1

Q-CSC-8: What is the size of the on-site propane storage tank?

A-CSC-8: PRE has elected not to utilize propane as had been originally

contemplated. Instead, PRE will use biodiesel, a renewable fuel, for start-

up fuel at the facility. The on-site biodiesel storage tank will be

approximately 10,000 gallons, to accommodate typical deliveries and the

needs of the facility.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-9:

What were the topographic issues at the Agway Property (p. 89) that

rendered that site nonviable?

A-CSC-9:

The Agway property is partially bisected by a gully with a change in grade

of approximately 30 feet.

Plainfield Renewable Energy LLC Petition 784

Witness: Mike Whiting

Page 1 of 1

Q-CSC-10: What was the result of PRE's consultation with SHPO regarding cultural

resources on and around the parcel?

A-CSC-10: PRE will provide the SHPO response upon its receipt.

Plainfield Renewable Energy LLC Petition 784

Witness: Dan Donovan

Page 1 of 1

Q-CSC-11: Describe the electrical interconnection, specifically the number and heights of additional towers in the existing ROW. Would the ROW require expansion? Would any of the new towers be installed within wetland areas?

A-CSC-11: PRE initiated the ISO-New England interconnection process in July of this year and the Project is now at the transmission line preliminary design phase under the direction of CL&P. Based on discussions with ISO-NE and CL&P, the interconnection between the Project and the Fry Brook substation will consist of the following

- An overhead section of approximately 1,200 feet with supporting structures that will be approximately 60 feet in height. This section will span the neighboring Environmental Land Use Restriction Area (the "ELUR") for approximately 300 feet and all wetlands located on the adjacent properties owned by the Town of Plainfield and a private commercial landowner. This overhead span will be supported by approximately 6 wooden pole structures, none of which will be located in the ELUR.
- Based on CL&P's recommendation, the remaining transmission line tap of approximately 700 feet will be buried underground along the CL&P ROW with a private commercial landowner, and will not require poles.

The current transmission tap design may require a new ROW over properties owned by the Town of Plainfield and a private commercial landowner north of the Town parcel in order to avoid cable burial in a wetlands area. PRE estimates the length of this section over the wetlands area to be less than approximately 900 feet. The buried cable portion will use the existing CL&P ROW and will not require its expansion. The Project is working with CL&P to ensure that a potential modification to the existing CL&P ROW to permit cable burial is obtained from a private commercial landowner.

PRE plans to install three to four wooden pole structures approximately 60 feet in height in the parcels owned by the Town of Plainfield and a private commercial landowner in order to avoid approximately 900 feet of cable burial through this wetlands area. <u>See</u> Exhibit CSC-11-1.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin Page 1 of 1

Q-CSC-12: The site plan depicts the electrical line traversing the Environmental Land Use Restriction area. Describe the extent of clearing and soil disturbance in this area.

A-CSC-12: As described in A-CSC-11, the electrical line will pass over the ELUR and therefore will not require any soil disturbance. Supporting structures will be located outside of the ELUR. Although the ELUR contains few large trees, it is possible that the final electrical line design may require tree trimming or tree removal in the ELUR to avoid the possible contact of branches with the line.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 1

Q-CSC-13: Does the site contain contaminated soil? Would excavated soil need waste characterization prior to disposal or specialized handling if used on site?

A-CSC-13: The PRE Site will be purchased from a larger parcel of land, which includes an Environmental Land Use Restriction (ELUR) area. There are no contaminated soils on the PRE Site. The ELUR is not part of the PRE Site and will not be disturbed during construction or operation of the PRE facility. No special handling or soil characterization procedures are expected to be necessary for the soils within the anticipated limits of construction.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 1 of 2

Q-CSC-14: Provide a diagram that assigns a number to each on-site wetland.

Describe the impacts and mitigation measures to each wetland. Describe the size of the buffer between each wetland area and limits of construction, where applicable.

A-CSC-14: A diagram that assigns a unique identification number (W1 – W6) to each on-site wetland is attached as Exhibit CSC-14-1. A description of the impacts, mitigation measures, and buffer size for each wetland follows.

For all wetlands areas, silt fence will be installed prior to commencing construction activities in the immediate vicinity of the wetlands. The silt fence will both protect and delineate the wetlands limits.

For clearing and construction activities near the edge of wetlands, a smaller piece of equipment will be utilized, when necessary, to minimize impacts. Furthermore, clearing and construction activities near the edge of wetlands will be performed during the winter months when the ground is frozen, when possible, to minimize the potential for disturbing soil and vegetation.

Detention basins constructed around the existing, isolated wetlands will be planted with palustrine emergent wetland plants to out-compete invasive wetlands plants.

W1 – This wetland area is located in the southwestern corner of the parcel. It was probably part of the larger wetlands to the west prior to the construction of the Providence & Worcester Railroad tracks. No impacts to this wetland are anticipated. Wetland W1 is more than 65 feet from the anticipated limits of construction.

W2 – This wetland area is also located in the southwestern corner of the parcel. No impacts within the wetland are anticipated. A retaining wall will be constructed to the south of the proposed truck tippers to alleviate the need to disturb the wetlands. Construction activities will likely go right up to the edge of the wetlands.

Plainfield Renewable Energy LLC Petition 784

Witness: Scott Atkin

Page 2 of 2

W3 – This wetland is located near the southern end of the property. It appears to have been formed during the construction of Mill Brook Road. In evaluating the site, Kleinschmidt USA's biologist described this wetland as being "extremely degraded". Approximately 260 square feet of

wetlands will be disturbed during the construction of the site access drive. A detention basin is being constructed adjacent to this wetland as a means of both compensation and as restoration. The flow of stormwater into this area is anticipated to expand the size and enhance the overall quality of wetland W3.

W4 – Wetland W4 is located near the railroad tracks on the western side of the property. No impacts to this wetland are anticipated. A retaining wall will be constructed along the edge of the paved uncovered wood storage area. Construction activities will likely go right up to the edge of the wetlands.

W5 – This wetland is located just south of the proposed covered wood storage area. No impacts to this wetland are anticipated. A stormwater basin will be constructed around this wetland which should expand its size and enhance its overall quality. This wetland area is approximately eight feet from proposed grading activities.

W6 – This wetland area is located along the northern edge of the proposed facility. Approximately 2,200 square feet of wetlands will be disturbed as part of the construction of the northern emergency access drive. Mitigation measures will consist of excavating a small area adjacent to the filled area and then planting with suitable wetland tree, shrub, and herb species.