

Arecibo Waste-to-Energy and Resource Recovery Project Environmental Impact Statement Scoping Summary Report



Prepared by:



Prepared for:



April 2015

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1.0 INTRODUCTION

1.1 Overview

Energy Answers Arecibo, LLC (Energy Answers or the applicant) proposes to construct a waste-to-energy (WTE) generation and resource recovery facility in the Cambalache Ward of Arecibo, Puerto Rico, and may request financial assistance from the United States Department of Agriculture (USDA) Rural Utilities Service (RUS) for the project. Energy Answers has stated that it may request a loan from RUS.

RUS has determined that the agency's decision to finance the proposed project would constitute a major federal action that may have a significant impact upon the environment within the context of the National Environmental Policy Act of 1969 (NEPA) and has also determined that an Environmental Impact Statement (EIS) is the appropriate level of environmental review. Prior to making a decision on Energy Answers' request, RUS must consider possible environmental impacts of the proposed project. RUS will use the NEPA planning process to encourage agency and public involvement in the review of the proposed project and to identify the range of reasonable alternatives.

The EIS will be prepared in accordance with the Council on Environmental Quality's regulations for implementing NEPA (40 CFR Parts 1500–1508), and RUS' Environmental and Policies and Procedures (7 CFR Part 1794). RUS is the lead federal agency, as defined at 40 CFR 1501.5, for preparation of the EIS.

In addition, as part of its broad environmental review process, RUS must take into account the effect of the proposal on historic properties in accordance with Section 106 of the National Historic Preservation Act (Section 106) and its implementing regulation, "Protection of Historic Properties" (36 CFR part 800). Pursuant to 36 CFR 800.2(d)(3), RUS is using its procedures for public involvement under NEPA to meet its responsibilities to solicit and consider the views of the public during the Section 106 review.

Among the alternatives that RUS will address in the EIS is the No Action alternative, under which the proposal would not be undertaken. In the EIS, the effects of the proposal will be compared to the existing conditions in the proposal area. Public health and safety, environmental impacts, and engineering aspects of the proposal will be considered in the EIS.

Any final action by RUS related to the proposal will be subject to, and contingent upon, compliance with all relevant executive orders and federal, state, and local environmental laws and regulations in addition to the completion of the environmental review requirements as prescribed in RUS' Environmental Policies and Procedures, 7 CFR Part 1794, as amended.

1.2 Public Outreach

On April 12, 2013, RUS published in the *Federal Register* a Notice of Intent (NOI) to Prepare a Supplemental Final EIS (SFEIS) in connection with potential impacts related to the proposal by Energy Answers (78 FR 21908). In accordance with 7 CFR 1794.74 and 40 CFR 1502.21, RUS intended to incorporate by reference the 2010 environmental impact analyses and documentation prepared by the Puerto Rico Industrial Development Company (PRIDCO). PRIDCO served as a lead agency in preparation of an EIS prepared under the Puerto Rico Environmental Public Policy Act, Article 4(B)(3), (Law No. 416, September 22, 2004). The EIS is referred to as the PRIDCO EIS in this scoping report.

According to the April 12, 2013, NOI, the SFEIS was scheduled for publication in March 2013 and the public was invited to submit comments on the proposal to prepare an SFEIS, to inform RUS decision-making in its environmental review process.

On November 28, 2014, RUS published in the *Federal Register* a Notice of Cancellation of the SFEIS and Notice of Public Scoping and Intent to Prepare an Environmental Impact Statement (79 FR 70846). Through this notice, RUS announced that it was cancelling its NOI for the SFEIS and announced its intent to conduct public scoping and prepare an EIS. The public was invited to submit comments concerning the public scoping, the NOI, or to participate as a “consulting party” under Section 106. These comments were to be submitted to RUS on or before December 29, 2014.

On January 14, 2015, following the closing of the comment period, RUS published in the *Federal Register* a Notice of Extension of Public Comment Period, Notice of Public Scoping Meeting and Intent to Prepare an Environmental Impact Statement (80 FR 1892). Through this notice, RUS extended the comment period by an additional 30 days from the date of the notice to February 13, 2015. The notice also announced that a public scoping meeting would be held on January 28, 2015, from 3:00– 7:00 p.m. at the *Colegio de Ingenieros y Agrimensores de Puerto Rico, Capitulo de Arecibo, Ave. Manuel T. Guillan 1, Arecibo*. Project-related information was available at RUS’ web site (<http://www.rurdev.usda.gov/UWP-AreciboPuertoRico.html>) and at the *Tribunal General de Justicia, Centro Judicial*, and the *Casa Alcaldia del Municipio de Arecibo*.

In addition, individuals who contacted RUS were provided with information on the date and format of the proposed public scoping meeting. Copies of the *Federal Register* notices are provided in **Appendix A**. **Appendix B** contains copies of the newspaper notices and affidavits.

The public scoping meeting was conducted in an open house format with a court reporter available for transcription of verbal comments. The meeting provided the public with the opportunity to learn more about the proposed project and to provide comments on potential environmental issues associated with the project. Overall, 134 attendees registered on the sign in sheets (see **Appendix C**). Additionally, 38 members of the public signed up to provide verbal statements, and 34 people gave verbal comments at the meeting; their comments were transcribed by court stenographer. The transcript is provided in **Appendix D**. There were 46 written comments submitted at the meeting using the comments sheets provided, and an additional 4 prepared comments were submitted at the meeting, including comments from the Puerto Rico Mayor’s Association. Those, along with the comments received via other avenues during the 2014 and 2015 scoping periods are provided in **Appendix E**.

In general, the following concerns were expressed during the public scoping meeting:

- The meeting attendees were upset with the government of Puerto Rico review and approval process of the 2010 PRIDCO EIS and expressed that the proposed project was rushed through without adequate oversight.
- The attendees stated that the air emissions permit issued by the United States Environmental Protection Agency (USEPA) did not adequately protect the health of the community. Particular concerns were expressed with emissions of lead and a high incidence of childhood lead poisoning in the area. Concerns were also expressed that the air dispersion modeling was inadequate and did not use proper data and assumptions.

- Commenters expressed concern that the applicant’s health and safety risk assessment was inadequate and sufficient documentation or explanation was not provided to allow for the community to evaluate the results of the analysis.
- Comments were expressed that the project will prevent or discourage the recycling of municipal solid waste.
- The public expressed concerns that the format of the scoping meeting was not conducive to people providing comments because they were used to the format of public hearings.
- The public expressed concerns about the public notifications for the RUS scoping meeting and the lack of explanation of its purpose.

In addition to the comments received during the scoping meeting, RUS received scoping comments in the form of written letters or emails from private citizens, government agencies, and nongovernmental organizations during the 2014 and 2015 public scoping comment periods. Copies of comment letters and written materials submitted for the record during the two scoping periods are included in **Appendix E** to this report and are also available at: <http://www.rd.usda.gov/publications/environmental-studies/impact-statements/arecibo-waste-energy-generation-and-resource>. Overall, 160 individuals provided comments related to the proposed project during the scoping period with 21 individuals contributing via multiple pathways (e.g., a verbal comment and written comment).

RUS’ Draft EIS (DEIS) will also contain a subsection that summarizes the comments received during the scoping period.

1.3 Public Scoping Timeline

The following timeline summarizes the scoping period events:

April 12, 2013	RUS issued a Federal Register NOI to prepare an SFEIS (78 FR 21908).
November 28, 2014	RUS published in the <i>Federal Register</i> , a Notice of Cancellation of the SFEIS and Notice of Public Scoping and Intent to Prepare an EIS (79 FR 70846).
January 14, 2015	RUS published, in the <i>Federal Register</i> , a Notice of Extension of Public Comment Period, Notice of Public Scoping Meeting and Intent to Prepare an EIS (80 FR 1892).
January 28, 2015	RUS held a public scoping meeting at the <i>Colegio de Ingenieros y Agrimensores de Puerto Rico</i> in Arecibo.
February 13, 2015	Public scoping period ended.

1.4 Project Overview

The proposed facility would process approximately 2,100 tons of municipal waste per day and generate a net capacity of 67 megawatts (MW). The Puerto Rico Electric Power Authority (PREPA) would purchase power generated from the facility. In addition to municipal solid waste, the proposed facility would be designed to combust up to 286 tons per day of auto-shredded residue (ASR), 330 tons per day of tire-

derived fuel (TDF), or 898 tons per day of processed urban wood waste (PUWW) as supplementary fuel. The proposed facility would also recover and recycle 240 tons per day of ferrous metals (such as iron and steel, among others) and nonferrous metals (aluminum, copper, and tin, among others).

The proposed project would also include a system for processing bottom ash. This system is designed to recover ferrous and non-ferrous metals and would produce a granular material known as Boiler Aggregate™. Boiler Aggregate can be used as filler for roadway asphalt and in the manufacturing of concrete blocks, among other applications. Energy Answers also proposes to process the fly ash using a separate and independent system to condition it for disposal in a landfill or reuse as a marketable material.

The facility would be located at the former site of the Global Fibers Paper Mill, and it would cover approximately 79.6 acres of the 90-acre parcel. The proposal would include the following facility components: a municipal solid waste receiving and processing building; processed refuse fuel storage building; boiler and steam turbine; emission control system; ash processing and storage building; and other associated infrastructure and buildings. Two other connected actions, which would be constructed by Energy Answers, include an approximately 2.0-mile underground raw water line and a 38-kilovolt (kV) transmission line approximately 0.8 mile in length.

The proposed project would consist of two spreader-stoker boilers, each with a design heat input rate of 500 MMBtu/hr, which translates to an approximate waste feed rate of 1,053 tons per day per boiler. Each boiler would have three auxiliary oil burners to be used to control system temperatures during startup, shutdown, and upset conditions. The boilers would produce steam that would be used to generate electricity using a turbine generator. The proposed project would be capable of extracting some steam for sale at up to 600 pounds per square inch gauge, or condensing all of the steam for reuse using a four cell cooling tower. Electricity would be produced for in-facility usage and for sale to PREPA. An overhead electric transmission line would connect to the preferred electrical interconnection point at the Cambalache Transmission Center (CTC), located at approximately 0.5 mile south of the site. The transmission line and the interconnection point in the CTC would have a voltage of 38 kV. The aerial power line would run on steel poles 70 feet high and spaced approximately 150 feet apart.

Combustion gases from each boiler would be treated to meet emission regulations using an air quality control system (AQCS) consisting of an activated carbon injection system, a dry lime injection system, a circulating dry fluid bed scrubber, a fabric filter baghouse, and a regenerative selective catalytic reduction (RSCR) system for nitrogen oxides (NOx) control. Potable water would be supplied for personnel use and consumption. Cooling tower and boiler makeup water would be obtained from the existing Department of Natural and Environmental Resources (DNER) discharge from Caño Tiburones to the Atlantic Ocean, through an underground force main from the Vigía Pumping Station to the proposed facility.

Table 1 lists the permits that would be required for the proposed project.

Table 1 Permits Required for Proposed Energy Answers Arecibo Facility

Agency	Permit
PR Environmental Quality Board (EQB)	Location Approval of an Air Emissions Source (Rule 201)
US Environmental Protection Agency (USEPA)	Prevention of Significant Deterioration (PSD) Permit (Clean Air Act, Section 40 CFR § 52.21)
PR EQB	Permit to Construct an Air Emissions Source (Rule 203)
PR EQB	Permit for Construction of Non-hazardous Solid Waste Facility
Federal Aviation Administration (FAA)	Determination of No Hazard to Air Navigation (49 U.S.C. §44718)
PR Planning Board	Siting Consultation, Site Development and Preliminary Design Approval
PR State Historic Preservation Office (SHPO)	Consultation under the National Historic Preservation Act (NHPA)
US Advisory Council on Historic Preservation (ACHP)	Section 106 of NHPA
US National Marine Fisheries Service	Section 7 of Endangered Species Act
US Fish and Wildlife Service	Section 7 of Endangered Species Act
PR DNER	Authorization for the Use of Maritime Terrestrial Zone
PR Planning Board	Coastal Zone Management Act Consistency Determination
PR EQB, DNER, PREPA, PRASA, Institute of Puerto Rican Culture, Highway Authority, etc.	Endorsement of the project
PR Energy Affairs Administration	Endorsement of the project
PR Electric Power Authority (PREPA)	Power Connection Approval
PR EQB	Water Quality Certificate
PR Aqueduct and Sewer Authority (PRASA)	Endorsement for construction of water and sewer facilities
PR DNER	Permit for the Construction of a Water Intake
PR DNER	Permit for the Operation of a Water Extraction Franchise (intake)
PR DNER	Survey of Maritime Terrestrial Zone
PR EQB	Wetlands jurisdictional determination and Individual Permit or a Nationwide Permit (Section 404 of CWA)
USEPA	General Consolidated Permit
PR Permits Management Office (OGPe)	General Consolidated Permit
PR Permits Management Office (OGPe)	Rough Grading Permit (Clearing and Grubbing)
PR DNER	Incidental Permit for the Extraction of Materials for the Earth Crust Components
USEPA	NPDES General Stormwater Permit for Construction Activity
Highway Authority/OGPe	Access Approval & Highway Improvements Construction Permit

Agency	Permit
PR OGPe	Construction Permit for Facility Structures
PR OGPe	Construction Permit for Site Fill / Site Improvements / Site Infrastructure
PR OGPe	Permits for Transmission Structures
PREPA	Endorsement of Substation Construction
PREPA	Permits for Transmission Structures
PRASA	Endorsement for the use of water and sewer facilities
PR EQB	Permit for the construction of a wastewater treatment system without discharges to a body of water
PR EQB	Permit to Operate an Air Emissions Source
PR EQB	Permit for the Operation of a Non-Hazardous Solid Waste Facility
Fire Department	Permit to Store Flammable Liquids
PRASA	Use Permit (Occupancy Permit)
Fire Department	Endorsement for OGPe Use Permit
Fire Department	Fire Prevention Inspection Certificate
Department of Health	Endorsement for OGPe Use Permit
PR OGPe	Permits for Hydrostatic Tanks Test
PRASA	Pretreatment Permit
PR EQB	Permit for the Operation of a wastewater treatment system without discharges to a body of water
Department of Health	Sanitary License
USEPA	Spill Prevention, Containment and Cleanup Plan (CWA, 33 U.S.C. §1321 (j)(a))

2.0 SCOPING COMMENTS

An overview of the public concerns expressed during the public scoping meeting is presented in Section 1.2, *Public Outreach*, and a summary of comments received during the 2014 and 2015 public scoping periods, catalogued by general topic, is provided in **Table 2**. Issues potentially relevant to the scope of the RUS EIS will be considered by RUS during development of the DEIS.

As noted in Section 1.2 and Table 2, many commenters expressed that the public was unaccustomed to the format of the scoping meeting and requested additional public scoping meetings and extension of the scoping period. After reviewing and considering the comments received during the entire scoping process, RUS determined that the public has been afforded several avenues to provide comments and input into the scoping process and that RUS has received substantive comments that will inform the DEIS preparation. RUS will provide the public timely updates on the process and ensure that there is

adequate time for the DEIS review. RUS will also hold public hearings in Puerto Rico for the DEIS. Therefore, RUS does not intend to extend the scoping period and hold additional scoping meetings.

Table 2 Summary of Scoping Comments Received by RUS

Subject Area	Comment Summary
<p>NEPA Process (EIS scope, public information process, need for project)</p>	<p><i>Purpose and Need</i></p> <ul style="list-style-type: none"> • Commenters objected to the classification of the project as a renewable energy activity because they stated that it should be clearly defined as a municipal waste incinerator or with the more refined term of a WTE system. • Commenters questioned the purpose of and need for the project, noting that the RUS EIS must establish the evidence that the demand for solid waste disposal exists (or would exist) for the proposed project. • Commenters questioned the need for the project, stating that there is an excess of installed energy capacity in Puerto Rico and, with declining population, less may be required in the future. Commenters also stated that the project would produce energy that is less than 1% of the energy produced on the island. • Commenters questioned the viability and need for the incineration facility and stated that the PRIDCO EIS used outdated population estimates from 2006, that there are one million fewer people than the projection included in the document, and that the reduced population translates to one million tons less of waste. • Commenters stated the need for new comments from local and federal agencies regarding project need and impact as a major solid waste management project and a minor energy generation project. • Commenters stated that the need identified in the previous EIS as it relates to the 2010 Executive Order declaring an energy emergency no longer exists, nor is an energy emergency identified in Executive Order 2013-038. <p><i>Public Involvement</i></p> <ul style="list-style-type: none"> • Prior to the extension of the scoping period and the public meeting, commenters requested public meeting(s) in Puerto Rico; that the scoping meeting notice and the EIS must be in Spanish to allow for a more transparent permitting and review process; and that public outreach and participation must be expanded. • Commenters noted that the format of the scoping meeting was confusing and not conducive to people providing comments because they were used to the format of public hearings. Commenters also stated that a description of the proposed project was not available at the scoping meeting. • Commenters requested additional public scoping meetings and

Subject Area	Comment Summary
	<p>extension of the scoping period.</p> <ul style="list-style-type: none"> • Commenters requested additional public scoping meeting(s) during off-working hours to facilitate public participation. • Commenters asked that RUS provide proof of the public announcements in local media. • A commenter stated that RUS should solicit expertise from other agencies. • Commenters requested an additional scoping meeting without the applicant being present. • Commenters stated that the RUS point of contact had not been functioning because the public had not received responses to their emails or voicemails and because the RUS website changed and did not function for a few days. <p><i>Process</i></p> <ul style="list-style-type: none"> • Commenters expressed objection to RUS’ plan to incorporate by reference the PRIDCO EIS. • Commenters questioned why RUS is the lead federal agency for the EIS and why USEPA, USACE, or FEMA did not also require an EIS. <p><i>Permits</i></p> <ul style="list-style-type: none"> • Commenters expressed that the Prevention of Significant Deterioration (PSD) permit issued by the USEPA was not protective of the health of the community and would not provide emissions sufficient controls.
Proposed Project and Alternatives	<p><i>Alternative to Waste-to-Energy</i></p> <ul style="list-style-type: none"> • Commenters stated that other alternatives with less environmental and health impacts such as waste management alternatives (reducing, reusing, and recycling) and energy generation alternatives (such as solar and wind) must be analyzed. • Commenters stated that it was important for the EIS to analyze the recent demonstration of the viability of profitable recycling alternatives for the island's solid waste problem. Municipalities such as Carolina and Guaynabo export recycled materials from solid waste, make a profit, and provide jobs to people. • Commenters stated the need to evaluate the project in the context of current local policy regarding waste management and the hierarchy established in Article 3 of Law No. 70 of September 18, 1992, as well as subsequent policy statements from the Puerto Rican executive and legislative branches. • Commenters stated the need to reassess the impact on municipalities that would not be able to implement effective reduction and recycling programs because of possible fines and penalties to be imposed through the Solid Waste Authority, as

Subject Area	Comment Summary
	<p>specified in the Waste Delivery and Support Agreement.</p> <p><i>Alternate Waste Processing Technologies</i></p> <ul style="list-style-type: none"> • Commenters stated that, although the proposed project is primarily a solid waste management strategy, the PRIDCO EIS does not evaluate well-known and available alternatives, such as solid waste reduction, reuse, and recycling. • Commenters stated that the alternatives analysis in the EIS should examine how the infrastructure choice to handle solid wastes would compare to other infrastructure alternatives that would favor lower carbon impacts and those alternatives should include recycling. • Commenters discussed that, if the proposed project commits Puerto Rico to a particular solution for its solid waste disposal and closes out many local recycling, reuse, and reduction of waste initiatives, the EIS should present a more comprehensive analysis of alternatives. <p><i>Alternatives to Water Supply</i></p> <ul style="list-style-type: none"> • Commenters noted that no alternative to water supply was evaluated as part of the PRIDCO EIS, and the document needs to be revised and updated to include the analysis. <p><i>Disposal of Ash</i></p> <ul style="list-style-type: none"> • Commenters requested including the existing ash disposal requirements in Arecibo in impact assessment, including ash disposals from Safetech Corporation Carolina and the Battery Recycling Company Inc. • Commenters stated that there is a need to conduct an ash characterization, disposal, and fate and transport study to define health and environmental risks and to define and make public an ash management and disposal strategy. • Commenters recommended conducting a chemical analysis of the ashes under an accredited laboratory to ensure the reliability of the results and their impacts on public health.
Solid Waste	<ul style="list-style-type: none"> • Commenters stated that the implementation of the proposed project, when acceptable recycling rates have not yet been attained and no reduction, reuse, or recycling plans are in place, would jeopardize the effective implementation of reducing, reusing, and recycling efforts. • The commenters stated that the impact assessment in the previous EIS regarding the effect on reduced contamination on landfills is highly overstated and lacks precision and quantifiable data and that the ash disposal on landfills would have a higher concentration of contaminants than regular municipal waste stream on a per volume basis. The commenters also noted that, because the information regarding the handling of this residual ash was not discussed as part of the PRIDCO EIS, the conclusion in

Subject Area	Comment Summary
	<p>the PRIDCO EIS regarding decreased impact on landfills is false and misleading.</p> <ul style="list-style-type: none"> Commenters asked whether solid waste would be imported from off of the island because the 2,100 tons required by the proposed project would not be generated on the island.
Soils and Geology	<p><i>Contamination</i></p> <ul style="list-style-type: none"> Commenters noted that using ash deposit as fill would contaminate the soils. Commenters noted that the proposed project would contaminate the agricultural area surrounding the proposed facility with dioxins and heavy metals.
Water Resources	<p><i>Impacts to Floodplains</i></p> <ul style="list-style-type: none"> Commenters expressed concern over the potential flooding impacts from constructing the plant in the floodplain of the Rio Grande de Arecibo River and potential for contamination. Commenters stated that locating an incineration facility within the floodzone of one of Puerto Rico’s main rivers should be questioned particularly when the PR DNER has identified the area as the ecologically rich last miles of the Arecibo River. Commenters stated that the location of the proposed ash landfill should be made known to the residents and whether or not the site has ever been affected by flooding. Commenters stated the need to assess the impacts of channeling of the Rio Grande de Arecibo by the U.S. Army Corp of Engineers, specifically impacts on the river’s water levels, speed, and concentration at any given moment, but particularly on major events such as hurricanes because it is within FEMA’s flood zone. Commenters noted that, according to FEMA, the location of the proposed project is under a "no-use" area because of floods. Commenters noted that the selection of the recycling of sanitary waters was done without an analysis of the ecological effects of reducing freshwater input into coastal wetlands and coastal waters while increasing marine influence on the coastal zone. Commenters also stated that assurances are needed to the effect that the water withdrawal can be sustained without irreversible change in salinity or functioning of coastal wetlands. <p><i>Impacts to Ecosystems and Potable Water</i></p> <ul style="list-style-type: none"> Commenters noted that no hydrology and hydraulics (H/H) study was presented in the PRIDCO EIS to evaluate the impact of water extraction from the Caño Tiburones Reserve. Commenters noted that any proposed additional extraction from the Caño Tiburones requires a new H/H water study to evaluate the accumulated impact of the Dos Bocas extraction during the past decade, as well as the impact of future extractions that may be required

Subject Area	Comment Summary
	<p>from the Superaqueduct system.</p> <ul style="list-style-type: none"> • Commenters also noted that, in February 2014, the PR DNER denied the applicant’s request to extract water from Caño Tiburones because of the environmental impacts such an extraction would impose on the natural ecosystem. The commenters asked, if the alternative source to Caño Tiburones would be under the Autoridad de Acueductos y Alcantarillados (Water and Sewer Authority), how would the water shortage to 5,250 families be mitigated. • Commenters asked how the changes to the water temperature would be avoided with the outflow of the water that cools the plant. • Commenters stated the need to assess the impact on the existing water project ordered by USEPA through a settlement in Court with the Municipality of Arecibo to mitigate and control water discharges and flood control on the Rio Grande de Arecibo in La Puntilla Sector located 3 to 5 miles downstream from the proposed project.
Air Quality	<p><i>Impacts on Human Health</i></p> <ul style="list-style-type: none"> • Commenters stated that the USEPA PSD permit is inadequate and that it allows burning of toxic wastes. They stated that EPA did not adequately address the emissions of lead from the facility and pointed to a high incidence of childhood lead poisoning in the surrounding community. • Commenters also noted that, since 2011, USEPA declared an area of 4 kilometers around the lead smelter facility a nonattainment area for lead. • Commenters noted that the air emissions from garbage trucks transporting waste from one corner of the island to get to the Arecibo site were not accounted for in the PRIDCO EIS. • Commenters noted that there were inadequate emission controls on the stacks. • Commenters questioned the indirect impact of use of limestone (impacts from quarrying) on air quality. • Commenters cited problems from incinerators in other countries and used Syracuse, New York, ash dispersion problem as an example. <p><i>Impact Assessment Methodology</i></p> <ul style="list-style-type: none"> • Commenters stated that the explanation of emissions during periods of shutdown and startup is extremely limited in the PRIDCO EIS and needs to be studied and explained in detail. • Commenters noted that the EIS should include a health risk assessment including impact of nanoparticles.

Subject Area	Comment Summary
	<ul style="list-style-type: none"> • Also see comments under <i>Public Health and Safety</i>.
Acoustic Environment	<p><i>Facility and Traffic Noise</i></p> <ul style="list-style-type: none"> • Commenters stated that the previous EIS disregards the noise impact that would be caused by the operation of the facility, particularly the dramatic increase in garbage trucks in the area that will transit through PR-2. • Commenters stated the need to conduct a new noise level study that accounts for predictable noise polluting activities that would be expected and the impact on quiet zones and residential areas.
Biological Resources	<p><i>Protected/Special Species</i></p> <ul style="list-style-type: none"> • Commenters stated that the EIS must analyze the impacts from the ashes and other chemicals on the Puerto Rican parrot, an endangered species. <p><i>Protected Lands/Reserves</i></p> <ul style="list-style-type: none"> • Commenters stated that the EIS must analyze the impact of the quality of water discharge on the river and its ecosystems, especially on the Ceti in Arecibo’s Rio Abajo Natural Reserve forest.
Land Resources	<ul style="list-style-type: none"> • Commenters noted that the project is within 1 mile of an airport. • Commenters noted that the project location is not in a rural area, but a residential area with educational institutions that may be affected by the project. • Commenters noted that, in the area of the proposed project, there is productive land used for agriculture.
Visual Resources	<ul style="list-style-type: none"> • Commenters noted that there are no renditions of the visual impact of the project on the region and particularly from reference points outside property boundaries. • Commenters stated that there would be visual impacts from the waste collection centers and that the project would bring more waste to the surrounding areas.
Transportation	<ul style="list-style-type: none"> • Commenters stated that the transport of the ash represents an additional impact. • Also see comments under <i>Noise and Air Quality</i>.
Cultural Resources/Historic Properties	<ul style="list-style-type: none"> • Commenters noted that the areas of potential effects of the project extend beyond the archaeological surveyed areas included in the PRIDCO EIS and that the documentation is insufficient to evaluate the potential effects on historic properties. A commenter also noted that no studies have been conducted in the areas where the pipelines that are to bring water to the plant from Caño Tiburones would be installed and that the segment along PR 681 crosses areas that are archaeologically sensitive.

Subject Area	Comment Summary
	<ul style="list-style-type: none"> • Commenters requested to become consulting parties to the Section 106 process.
Public Health and Safety	<ul style="list-style-type: none"> • Commenters noted that Arecibo and Hatillo, adjacent cities have among the highest prevalence of asthma (~16%) and very high mortality, both well above the national averages. • Commenters noted that the fact that Arecibo is a non-attainment area should also constitute an important element of the environmental justice evaluation in the EIS. • Commenters expressed concerns that the project would increase air pollution in a community that has already suffered for more than 10 years from the impact of contaminating industries and stated the need for a cumulative analysis of the contamination. • Commenters noted that Human Health Risk Assessment (HHRA) referenced in the PRIDCO EIS document must be revised because it is based on incomplete information. The commenter expanded that the need for a revised HHRA is because it must be based on an updated waste characterization study for Puerto Rico and not the SEMASS facility in Massachusetts, include a cumulative impact analysis, and incorporate local studies made by Colegio de Médicos de Puerto Rico and the Centers for Disease Control. • Commenters stated that the EIS should include a health risk assessment including heavy metals such as mercury. • Commenters stated that risk assessment procedures established by the World Health Organization should be used. • Commenters stated that the project represents a threat not only to human health but also to agriculture because the smoke stack of an incinerator disperses pollutants such as dioxin, which affects agriculture and cattle and concentrates in animal fat. Commenters noted that more than 25,000 people depend on the areas of Arecibo, Hatillo, and Camuy, which is Puerto Rico’s “Dairy Belt,” for their living. • Commenters noted that the entire food chain would be contaminated. • Commenters stated that the EIS must specify the health risks to the workers at the WTE plant. • A commenter asked how the applicant would manage a fire. Another commenter noted the need for contingency plan in case of a fire because SEMASS had a fire that lasted for 3 days that required several fire departments and the neighbors were confined to their houses for days because of the toxic emissions.
Socioeconomics and Environmental Justice	<ul style="list-style-type: none"> • Commenters questioned the projection of jobs in the PRIDCO EIS and stated that, compared to similar facilities in the United States, the number seemed to be overstated. Commenters stated that a more in-depth analysis of job creation from the project is

Subject Area	Comment Summary
	<p>needed.</p> <ul style="list-style-type: none"> • Commenters stated that the PRIDCO EIS used outdated population estimates from 2006. They stated that there are one million fewer people than the projection included in the document and that the reduced population translates to one million tons less of waste. • Commenters stated that a large proportion of the money invested would not benefit the economy of Puerto Rico because it would go to the purchase of technology off-island. • Commenters stated the need to conduct an in depth and thorough environmental justice study as required by NEPA and Council on Environmental Quality regulations, specifically taking into account the persistent siting of contaminating and polluting industries and activities in the Arecibo Region within economically depressed communities. • Commenters stated that the proposed project violates the principles of environmental justice because incinerators are disproportionately sited in poor or rural communities and areas of least political power. • Commenters noted that the proposed project would impact eco-tourism in places such as the Cuenca de Caño Tiburones, Bosque Cambalache, and Playa Posa as well as universities, schools, and day care facilities. • Commenters noted that the proposed project would not benefit the economy in the area.
Climate Change	<ul style="list-style-type: none"> • Commenters stated that the proposed project’s contribution to global climate change must be evaluated because incinerators emit significant quantities of direct greenhouse gases (GHGs), including carbon dioxide and nitrous oxide, that contribute to global climate change and because their greatest contribution to climate change is through undermining waste prevention and recycling programs, and encouraging increased resource extraction. • Commenters stated the need to assess the emissions of GHGs that would be associated with the proposed project during its lifetime. This includes both direct and indirect emissions attributable to the construction and operation of the incinerator (including the transportation of solid wastes and ash wastes to and from the facility) • A commenter noted that the RUS EIS must discuss the impacts of the proposed project on broader foreign policy objectives, including a comprehensive strategy to address climate change. • Commenters stated the need to assess the emissions of GHGs and their interrelationship with dust from the Sahara Desert, which has been flown in by air currents over the entire island of Puerto

Subject Area	Comment Summary
	<p>Rico on an increasing regular basis.</p>
<p>Energy Use and Sustainability</p>	<ul style="list-style-type: none"> • Commenters stated that WTE wastes energy, recovering energy by burning costs more energy, and the use of raw material (if available) to replace burnt products would require even more energy.
<p>Cumulative Impacts</p>	<ul style="list-style-type: none"> • Commenters expressed concerns that the project would increase air pollution in a community with existing polluters, including a lead smelter facility that is located approximately 2,000 feet from the project location. Commenters stated the need for a cumulative analysis of the contamination. • Commenters stated that a comprehensive cumulative impact analysis that considers impacts on ecologically sensitive and environmentally rich areas of the Arecibo Region is needed.
<p>Project Finances and Use of Public Funds</p>	<ul style="list-style-type: none"> • Commenters questioned the use of the public funds for the project because there is an excess of installed energy capacity in Puerto Rico and with declining population may require less in the future. Commenters also stated that the project would produce energy that is less than 1% of the energy production on the island. • Commenters questioned whether the location of the project, Arecibo, meets the criteria of rural as defined under 7 USC 1926 (D) (13). • Commenters stated that Title 7 U.S.C. 1926 funds would not be available when the proposed project violates compliance with the Safe Drinking Water Act. • A commenter noted that 7 CFR, Subtitle B, Chapter XVII, Subpart D, Section 1700, establishes that, if funds are already invested producing energy, RUS is required to determine whether a debt exists for such technology. From there, RUS is required to evaluate whether the applicant has a private interest that endangers public use. • Commenters requested that RUS make public the entire information regarding the financial aid solicited by the applicant. • A commenter noted that, if RUS is interested in subsidizing a project that truly supports agriculture, it should withhold loans from the applicant and provide assistance for clean water in Arecibo. • Commenters stated that overall costs of the project must be reassessed in the light of lower oil prices and the benefits of a municipal waste incineration facility in lieu of other alternatives with less environmental and health impacts such as waste management alternatives (reducing, reusing, and recycling) and energy generation alternatives such as solar and wind. • Commenters asked who would have the financial liabilities if the project goes bankrupt.

Subject Area	Comment Summary
PRIDCO EIS	<ul style="list-style-type: none"> • Commenters stated that the public review period for the PRIDCO EIS was inadequate. • Commenters stated that the PRIDCO EIS document must be revised because it is based on incomplete and outdated information.
Additional Studies	<ul style="list-style-type: none"> • Commenters stated that, because the applicant proposes to change the topography of the area and would impact public wetlands for private economic benefit, the public deserves a cost/benefit analysis for such a tradeoff. • Commenters noted that, at a minimum, a new waste characterization study should be completed to better assess the type of pollutants and amounts that can be expected to be released, thus allowing for a better assessment of the environmental and health impacts. Commenters also noted that the study would provide the specific volumes of recyclables and toxic materials that would enter the incineration waste stream and also determine the project’s viability. • Commenters also noted that no studies have been conducted in the areas where the pipelines that are to bring water to the plant from Caño Tiburones are to be installed and that the segment along PR 681 would cross areas that are archaeologically sensitive. • Commenters suggested that RUS require the applicant to use the most advanced scientific model, known as the leaching environmental assessment framework, to consider the impacts of the ash disposal. • Commenters requested a new noise level study that accounts for noise polluting activities that could be expected and the impact on quiet zones and residential areas. • Commenters noted that no H/H study was presented in the previous EIS document to evaluate the impact of water extraction from the Caño Tiburones Reserve.

APPENDIX A Federal Register Notice(s)

APPENDIX B Newspaper Notices and Affidavits

APPENDIX C Scoping Meeting Sign-in Sheets

APPENDIX D Scoping Meeting Transcript

APPENDIX E Scoping Comment Forms, Letters, and Emails

