December 1, 2010

Pedro J. Nieves Miranda, Esq.
President
Environmental Quality Board
1308 Ponce de León Ave.
State Road 8838, El Cinco Sector
Río Piedras, Puerto Rico 00921

Attention: Mrs. Brenda Rodríguez, Director
Scientific Advisory Area

Dear Mr. Nieves Miranda, Esq.:

Final Environmental Impact Statement (F-EIS)
JCA-10-0018 CFI
Renewable Energy Generation and Resource Recovery Plant
Energy Answers Arecibo, LLC
State Road PR-2, Km.73.1
Cambalache Ward
Arecibo, Puerto Rico
Case: 2010-114

A copy of the Final Environmental Impact Statement for the referenced project is included for public general inspection. In compliance with the Environmental Notice to be published on Thursday, December 2, 2010 on Primera Hora and El Vocero newspapers. In addition, in compliance with the provisions of Law Number 416 of September 22, 2004, as amended, EQB’s Regulation for the Process of Presentation, Evaluation and Processing of Environmental Documents and EQB’s Resolution Number R-10-26-1.

Cordially,

Joel Meléndez-Rodríguez
Permitting, Environmental and Infrastructure Consultant

Attachment
November 26, 2010

HAND DELIVERY

Pedro J. Nieves Miranda, Esq.
President
Environmental Quality Board
PO Box 11488
San Juan, PR  00910

Re:     Revised Preliminary Environmental Impact Statement (P-EIS)
        Renewable Energy Generation and Resource Recovery Plant

Dear Mr. Nieves Miranda, Esq.:

The Puerto Rico Energy Diversification through Sustainable and Alternative Renewable Energy Policy Act, Law No. 82 of July 19, 2010 established as the public policy of the Government of Puerto Rico the diversification of power sources; the reduction of our dependence on energy sources derived from fossil fuels; the reduction and stabilization of our energy costs; the control of the volatility of electricity cost in Puerto Rico; and the preservation and improvement of our environment, natural resources and quality of life, among others.

Under the above mentioned public policy, on October 25, 2010 this Puerto Rico Industrial Government Company (PRIDCO), as Lead Agency, filed the preliminary environmental document titled Preliminary Environmental Impact Statement (P-EIS) for the Renewable Energy Generation and Resource Recovery Plant project (the Project).

PRIDCO filed the P-EIS with the Environmental Quality Board (EQB) under the Board’s Resolution, R-10-26-1, the Environmental Quality Board Regulation for the Process of Presentation, Evaluation and Processing of Environmental Documents (RPPEPED), Executive Order Number OE-2010-034 (“Executive Order”) and Article 4(B)(3) of Law Number 416 of September 22, 2004, as amended, known as Puerto Rico Environmental Public Policy Law (“Law 416”).

As part of the procedures that are required in the above mentioned legal provisions, the following steps were taken:

- On October 25, 2010, PRIDCO filed with the Board, for its evaluation, the draft P-EIS

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1 About the Expedited Procedure to Rule the Presentation, Evaluation and Processing of Environmental Documents for Energy Projects dated August 12, 2010.
2 Regulation Number 6510 dated August 22, 2002.
3 Executive Order dated July 19, 2010 Administrative Bulletin approved to activate the provisions of Law Number 76 dated May 5, 2000.
for the Project. That same day the document was available on the EQB webpage, PRIDCO, EQB library, EQB Regional Office in Arecibo, and the Arecibo Town Hall.

- PPRIDCO filed a request for a public hearing with EQB, which approved and issued the R-10-38-1 on October 25, 2010, granting PRIDCO’s request regarding the draft P-EIS, as well as an extension to the deadline for comments until the date of the investigative public hearing.

- The draft P-EIS was circulated on October 25, 2010 among several government agencies for evaluation and comments, among them: the Environmental Quality Board, the Municipality of Arecibo, Puerto Rico Aqueduct and Sewer Authority, Puerto Rico Electric Power Authority, Department of Natural and Environmental Resources, Department of Agriculture, Department of Transportation and Public Works/Puerto Rico Highway and Transportation Authority, Institute of Puerto Rican Culture, Puerto Rico Planning Board, Solid Waste Management Authority, Department of Labor and Human Resources, Department of Health, Fire Department, the Energy Affairs Administration, the Puerto Rico Ports Authority, the US Fish and Wildlife Service, the Federal Aviation Administration (FAA), and the US Environmental Protection Agency (EPA), State Historic Preservation Office and the US Army Corps of Engineers.


- On November 8, 2010, the Investigative Public Hearing for the Project was held in the Municipality of Arecibo. The Examiner in charge of the procedures accepted until November 9, 2010 the filing of written comments on the proposed action, to be admitted into the official record for the investigative process.


- In accordance with Part III of R-10-26-1, on November 15, 2010 the Examiner assigned to conduct the Investigative Public Hearing procedures for the title Project presented to this Board the corresponding Report.

- On November 19, 2010, the EQB Honorable Board of Governors issued Resolution R-10-43-1, which adopted the Report and issued several recommendations that should become part of the revised P-EIS to be submitted in accordance with R-10-26-1.

According to the above, the P-EIS for the Project has been revised and it addresses and discusses the recommendations and/or comments made by the EQB Honorable Board of Governors and the Examiner that was assigned to conduct the Investigative Public Hearing proceedings that were held for the Project. The revised P-EIS has been prepared in compliance with the requirements of Law Number 416 and EQB regulations, including the RPPEPED. The P-EIS and its revisions are based on scientifically rigorous technical, environmental and socioeconomic studies, which were conducted to fully comply with current local and federal regulations for the protection of the environment. The corresponding appendices are part of the revised P-EIS are, as well as the document in its digital format. As requested, five (5) printed copies and three (3) discs with the document in its digital format are attached.

Based on the above, PRIDCO respectfully submits for EQB’s consideration the revised P-EIS so that its evaluation can continue in accordance to R-10-26-1, and, consequently, it is determined that the document complies with the dispositions of Law 416.

Once again we want to state the importance of this initiative to address the power needs of the Island and to contribute to its social and economic development; therefore, we thank you beforehand for your prompt assessment of subsequent stages of the Project.

Cordially,

José Ramón Pérez-Riera
Executive Director
This document constitutes the Preliminary Environmental Impact Statement (P-EIS) for the Project known as *Renewable Power Generation and Resource Recovery Plant*, in Cambalache Ward of Arecibo (the Project), proposed by Energy Answers Arecibo, LLC (Energy Answers), a subsidiary of Energy Answers International, Inc. (EAI).

1. **Lead Agency:** Puerto Rico Industrial Development Company (PRIDCO)
2. **Name of Private Entity:** Energy Answers Arecibo, LLC (Energy Answers)
   Box 829
   Garrochales Ward
   Arecibo, Puerto Rico 00652
3. **Title of the Proposed Action:** Renewable Power Generation and Resource Recovery Plant
   Energy Answers Arecibo, LLC proposes the construction and operation of a modern Renewable Power Generation and Resource Recovery Plant (the Plant) within a site of approximately 82 cuerdas west of PR-2, which is part of a 92.76 cuerdas property that housed the old facilities of Global Fibers, Inc. in Cambalache Ward of Arecibo.
   The Plant will have the capacity to: process 2,100 tons per day of Processed Refuse Fuel (PRF); generate a gross amount of approximately 80 Megawatts of electric energy, classifying as an alternate and renewable source of energy; and recover ferrous and non ferrous metals.
4. **Project Need:** The Project responds to the urgent need to develop new energy generation infrastructure that uses alternative sources to petroleum fuels to stabilize the high cost of electricity in Puerto Rico, in accordance with the Energy Reform public policy of the Government of Puerto Rico. The Project also addresses the pressing need to develop reliable and safe infrastructure as part of an integrated management of solid waste, as stated in the Solid Waste Management Authority (SWMA) Dynamic Itinerary for Infrastructure Projects.
5. **Total Estimated Cost of Project:** $500 million (approximately)
6. Total Number of Jobs:  

Construction Phase: 8,287 jobs  
1 (4,283 direct jobs and 4,004 indirect and induced jobs)  
Operation Phase: 825 total jobs (150 direct jobs and 675 indirect and induced jobs). See Appendix I.

7. Responsible Officer:  
Joel Meléndez Rodríguez  
Permitting, Environment and Infrastructure Consultant  
Puerto Rico Industrial Development Company  
#355 FD Roosevelt Avenue Suite 404  
Hato Rey, Puerto Rico 00918

8. Document Identification:  
This document constitutes the P-EIS where the direct, indirect and cumulative environmental impacts are discussed and evaluated as related to the construction and operation of the Project.

9. List of Scientific Staff:  
See Chapter 11 of the P-EIS

10. List of Agencies to which the document was distributed for review and comment:  
See Chapter 12 of the P-EIS

11. Distribution Date:  
November 26, 2010

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1 Construction job estimates are based on factors used by the Puerto Rico Planning Board (PRPB).
# TABLE OF CONTENT

PREAMBLE ...................................................................................................................... i  
LIST OF FIGURES ........................................................................................................ vii 
LIST OF TABLES ........................................................................................................... x  
LIST OF APPENDICES .................................................................................................. xiii 
LIST OF ABBREVIATIONS / UNITS ............................................................................ xiv 
EXECUTIVE SUMMARY ................................................................................................. 1  

1 DESCRIPTION, LOCATION, NEED AND PURPOSE OF THE PROPOSED ACTION .................................................................................................................. 1-1

1.1 Introducción .............................................................................................................. 1-1
1.2 Purpose and Process of Environmental Analysis ...................................................... 1-9
1.3 Project Need ............................................................................................................. 1-10

1.3.1 Development of New Energy Infrastructure that Uses Alternative Sources to Petroleum-Derived Fuels ......................................................................................... 1-12

1.3.2 Development of Reliable and Safe Infrastructure for Solid Waste Management in Compliance with Applicable Laws and Regulations ............................................. 1-14

1.3.2.1 Infrastructure Project Itinerary ........................................................................ 1-16

1.3.2.2 Solid Waste Generation in Puerto Rico ............................................................. 1-18

1.3.2.3 Recycling Rates for Puerto Rico ....................................................................... 1-19

1.3.2.4 Solid Waste Management Capability in Puerto Rico ....................................... 1-21

1.3.2.5 Existing Operating Landfills Overview ............................................................. 1-21

1.3.2.6 Island-wide Landfill Closure Projections ........................................................ 1-22

1.3.2.7 SWMA Projections for Operating Landfills for Years 2015 and 2020 1-24

1.3.2.8 Waste to Energy Projects .............................................................................. 1-25

1.4 Project Description .................................................................................................. 1-25

1.4.1 Site Location ......................................................................................................... 1-27

1.4.2 Raw Material for the Production of PRF ............................................................... 1-32

1.4.3 Main Plant Components ...................................................................................... 1-33

1.4.3.1 Receiving and Handling of PRF Raw Material ................................................. 1-40

1.4.3.2 Production and Storage of PRF ...................................................................... 1-41

1.4.3.3 PRF Combustion ............................................................................................. 1-43

1.4.3.4 Emission Control System .............................................................................. 1-46

1.4.3.5 Management and Recovery of Combustion Residues .................................... 1-48

1.4.3.6 Electric Power Production .............................................................................. 1-50

1.4.3.7 Water Supply for Plant Operation ................................................................... 1-50

1.4.3.8 Alternative Fuels ............................................................................................ 1-52
1.4.3.9 Main Plant Buildings .......................................................... 1-53
1.4.4 Construction and Operation Period ........................................ 1-55
1.4.5 Safety Controls ...................................................................... 1-55
  1.4.5.1 Fire Protection System ...................................................... 1-55
  1.4.5.2 Control Systems .............................................................. 1-56
  1.4.5.3 Ventilation and Air Conditioning Systems ....................... 1-57
  1.4.5.4 Education Program ......................................................... 1-58
  1.4.5.5 MSW Inspection Program ................................................ 1-58
  1.4.5.6 Household Hazardous Waste Collection ........................... 1-59
1.4.6 Flooding Design ................................................................. 1-60
  1.4.6.1 Flood Control Measures ................................................ 1-60
  1.4.6.2 Stormwater Management .............................................. 1-61
1.4.7 Contingency Plans .............................................................. 1-61
1.4.8 Off-site Works ...................................................................... 1-61
  1.4.8.1 Brackish Water Pumping and Transfer Pipeline ............... 1-62
  1.4.8.2 Power Transmission Lines and Improvements to Existing Substation 1-66
1.5 Financing .............................................................................. 1-67
2 DESCRIPTION OF THE EXISTING ENVIRONMENT ......................... 2-1
  2.1 Topography ........................................................................ 2-1
  2.1.1 Regional Topography ......................................................... 2-1
  2.1.2 Local Topography ............................................................. 2-3
  2.2 Geology and Soils ............................................................... 2-6
  2.2.1 Regional Geology .............................................................. 2-6
  2.2.2 Local Geology ................................................................. 2-8
  2.2.3 Structural Geology ............................................................ 2-11
  2.2.4 Sismicity ......................................................................... 2-13
  2.2.5 Soils .............................................................................. 2-15
  2.3 Hydrological Systems .......................................................... 2-20
  2.3.1 Surface Waters ............................................................... 2-20
  2.3.2 Ground Water ................................................................. 2-27
  2.4 Water Quality .................................................................... 2-32
  2.4.1 Surface Water Quality ...................................................... 2-32
  2.4.2 Ground Water Quality ..................................................... 2-35
  2.5 Flood zones ......................................................................... 2-36
  2.6 Meteorology and Air Quality ............................................... 2-37
  2.6.1 Climatology ................................................................. 2-37
2.6.2 Meteorology ................................................................. 2-44
2.6.3 Ambient Air Quality ....................................................... 2-44

2.7 Ecological Resources ...................................................... 2-50
2.7.1 Natural Ecosystems in the vicinity of the Site ..................... 2-50
2.7.2 Terrestrial Flora and Fauna .............................................. 2-51
2.7.3 Critical, Threatened or Endangered Species ..................... 2-55
2.7.4 Wetlands .................................................................. 2-55

2.8 Land Use and Zoning ...................................................... 2-59
2.8.1 Existing Use of the Project Site and Adjacent Areas .......... 2-59
2.8.2 Zoning .................................................................... 2-63

2.9 Infrastructure ................................................................. 2-65
2.9.1 Drinking Water ............................................................ 2-65
2.9.2 Sanitary Sewer System .................................................. 2-66
2.9.3 Storm Sewer ............................................................... 2-68
2.9.4 Electrical Lines ............................................................ 2-70
2.9.5 Communication Systems ................................................. 2-72

2.10 Archaeological, Historical and Cultural Resources .......... 2-73

2.11 Visual Setting and Odors ............................................... 2-74

2.12 Occupational Safety and Health .................................... 2-78

2.13 Noise ........................................................................ 2-78

2.14 Transportation Means and Traffic .................................. 2-85

2.15 Socioeconomic Aspects ................................................. 2-90
2.15.1 Population ................................................................. 2-94
2.15.2 Households ............................................................... 2-97
2.15.3 Educational Attainment ............................................... 2-97
2.15.4 Employment ............................................................... 2-99
2.15.5 -Per Capita Income ...................................................... 2-99
2.15.6 Median Household Income .......................................... 2-101

2.16 Environmental Justice .................................................. 2-104
2.16.1 Educational Attainment ................................................. 2-108
2.16.2 Median Household Income .......................................... 2-109
2.16.3 Households below the poverty level .............................. 2-111

2.17 Public Services ............................................................... 2-112

3 ENVIRONMENTAL IMPACTS OF PROPOSED ACTION AND MITIGATION MEASURES .................................................. 3-1
3.1 Topography, Geology and Soils .................................... 3-1
3.2 Hydrologic Systems and Water Quality......................................................3-3
3.3 Flood Prone Areas....................................................................................3-8
3.4 Air Quality ..................................................................................................3-8
  3.4.1 Construction Phase.............................................................................3-8
  3.4.2 Operation Phase ...............................................................................3-10
  3.4.3 Applicable Regulatory Requirements .............................................3-10
  3.4.4 Air Quality Impact Analysis ..............................................................3-14
  3.4.5 Additional Impacts Analyses ..............................................................3-22
3.5 Ecological Resources................................................................................3-24
  3.5.1 Flora and Fauna ..............................................................................3-24
  3.5.2 Wetlands ..........................................................................................3-25
  3.5.3 Natural Systems ..............................................................................3-25
  3.5.4 Ecological Risk ................................................................................3-26
3.6 Land Use and Zoning................................................................................3-29
3.7 Infrastructure..............................................................................................3-36
  3.7.1 Potable Water ..................................................................................3-36
  3.7.2 Sanitary Sewer ..............................................................................3-37
  3.7.3 Electric Power ..................................................................................3-37
  3.7.4 Solid Wastes Management Construction during Construction Phase ..3-38
3.8 Archaeological, Historical and Cultural Resources ....................................3-39
3.9 Visual/Aesthetical Resources and Odors ..................................................3-39
3.10 Safety and Health....................................................................................3-40
  3.10.1 Construction Phase .......................................................................3-40
  3.10.2 Human Health ..............................................................................3-40
3.11 Noise Levels............................................................................................3-46
  3.11.1 Noise Levels Impacts During Construction ..................................3-46
  3.11.2 Noise Levels Impacts During Operation .......................................3-47
  3.11.3 Mitigation Measures .....................................................................3-53
3.12 Traffic .......................................................................................................3-53
3.13 Socioeconomic Impacts...........................................................................3-57
3.14 Environmental Justice............................................................................3-61
3.15 Public Services ........................................................................................3-63
4 ALTERNATIVES TO THE PROPOSED ACTION AND LOCATION.............4-64
4.1 Alternatives to the Selected Action..........................................................4-65
  4.1.1 No Action Alternative .....................................................................4-65
  4.1.2 Eolic Energy and Solar Energy.........................................................4-68
LIST OF FIGURES

Figure 1-1: Renewable Power Generation and Resource Recovery Plant .................. 1-2
Figure 1-2: Simplified Renewable Power Generation and Resource Recovery Process
Flowchart .................................................................................................................. 1-3
Figure 1-3: Site and Adjacent Lands Location on USGS Map (1:20,000) .................. 1-5
Figure 1-4: Aerial Photo of SEMASS Plant .............................................................. 1-7
Figure 1-5: Solid Waste Characterization (SWMA 2003) ......................................... 1-17
Figure 1-6: Operating Landfills by the End of 2010 ............................................... 1-22
Figure 1-7: Operating Landfills by the End of Year 2015 ....................................... 1-24
Figure 1-8: Operating Landfills by the End of Year 2020 ....................................... 1-24
Figure 1-9: Aerial Photo of the Site and Adjacent Land ....................................... 1-28
Figure 1-10: Aerial Photo of the Project and Adjacent Land ................................. 1-29
Figure 1-11: Photo of the Site Entrance ................................................................. 1-30
Figure 1-12: Planned Area of Raw Material Collection for the Production of PRF .... 1-32
Figure 1-13: Renewable Power and Resource Recovery Plant Architectural Rendering 1-36
Figure 1-14: Architectural Rendering of the Main Building Interiors and the Plant Process Structures (West View) .......................................................... 1-37
Figure 1-15: Architectural Rendering of the Main Building Interiors and the Plant Process Structures (North View) .......................................................... 1-38
Figure 1-16: Schematic Site Plan ............................................................................. 1-39
Figure 1-17: MSW Receiving and Processing Building ......................................... 1-40
Figure 1-18: PRF Storage Building ........................................................................ 1-43
Figure 1-19: PRF Transfer ..................................................................................... 1-44
Figure 1-20: PRF Combustion in Spreader-Stoker Boiler ....................................... 1-45
Figure 1-21: Emission Control System ................................................................... 1-46
Figure 1-22: Photo of Excedent Brackish Water Discharge – El Vigía Pumping Station1-63
Figure 1-23: Aerial Photo of the Brackish Water Pipeline Route ............................ 1-64
Figure 1-24: Trench Detail for the Installation of the Brackish Water Pipeline ........ 1-66
Figure 1-25: Aerial Photo of the Power Line Route to the Cambalache Substation .... 1-68
Figure 2-1: Topography Map of the Site ................................................................. 2-5
Figure 2-2: Geology of the Study Area .................................................................. 2-9
Figure 2-3: Tsunami Flooding Limit Map in Arecibo ............................................. 2-17
Figure 2-4: Soils Map .............................................................................................. 2-19
Figure 2-5: General Hydrography and Bodies of Water within a 400 meter Radius around the Site ............................................................................................................. 2-23

Environmental Impact Statement
Renewable Power Generation and Resource Recovery Plant
Cambalache Ward in Arecibo, Puerto Rico
Figure 2-6: Rio Grande de Arecibo Basin ................................................................. 2-24
Figure 2-7: North Coast of Puerto Rico Aquifer Map ........................................ 2-29
Figure 2-8: North Coast Aquifer Arecibo Area ...................................................... 2-30
Figure 2-9: Location of Wells within a 460 meter radius from the limits of the Project site. .................................................................................................................. 2-34
Figure 2-10: Flood Zone Map (FEMA) ................................................................. 2-38
Figure 2-11: Annual Average Precipitation in Puerto Rico .................................. 2-40
Figure 2-12: Annual Average Temperature in Puerto Rico .................................... 2-43
Figure 2-13: Wind Rose for the Cambalache Station (PREPA) .............................. 2-45
Figure 2-14: Natural Ecosystems in the Vicinity of the Project ............................. 2-53
Figure 2-15: National Wetland Inventory ............................................................... 2-57
Figure 2-16: Jurisdictional Areas within the Project Site ....................................... 2-58
Figure 2-17: Residential and Quiet Zones Nearest to the Project Site ................. 2-61
Figure 2-18: Land Use Map ..................................................................................... 2-62
Figure 2-19: Zoning Map ....................................................................................... 2-64
Figure 2-20: PRASA Water Infrastructure ............................................................. 2-67
Figure 2-21: PRASA Wastewater Infraestructure ............................................... 2-69
Figure 2-22: PREPA Power Transmission System ............................................... 2-71
Figure 2-23: Picture taken from north facing the Project site and the Former Central Cambalache Sugar Mill .............................................................. 2-75
Figure 2-24: Picture taken from west to the Project site and the Former Cambalache Sugar Mill ......................................................................................... 2-76
Figure 2-25: Picture taken from southeast to the Project site ............................... 2-76
Figure 2-26: Picture taken from the Project site to the former Cambalache Sugar Mill . 2-77
Figure 2-27: Picture taken from road PR-10 to the Project site and the former Cambalache Sugar Mill ......................................................................................... 2-77
Figure 2-28: Location of Noise Receptors ............................................................ 2-81
Figure 2-29: Project Site Access Roads ............................................................... 2-89
Figure 2-30: Statistical Region of Reference ...................................................... 2-92
Figure 2-31: Wards in Arecibo ............................................................................. 2-93
Figure 2-32: Ward Population in Arecibo ............................................................ 2-95
Figure 2-33: Per Capita Income in 1999 ............................................................... 2-100
Figure 2-34: Median Household Income ............................................................. 2-102
Figure 2-35: Households below Poverty Level .................................................... 2-103
Figure 2-36: Population Density ........................................................................... 2-107

Environmental Impact Statement
Renewable Power Generation and Resource Recovery Plant
Cambalache Ward in Arecibo, Puerto Rico

viii
Figure 2-37: Educational Attainment of the Population 25 Years of Age and Older .... 2-108
Figure 2-39: Median Household Income ................................................................. 2-111
Figure 3-1: Distance from the Receptors to the Nearest Construction Areas ............ 3-48
Figure 3-2: Distance from the Receptors to the Main Noise Source during the Operation Phase ........................................................................................................................................................................ 3-52
Figure 4-1: Illustration of the Mass Burn and PRF Systems ........................................ 4-77
Figure 4-2: Map showing Sites Considered for the Location of the Renewable Power Generation and Resources Recovery Plant ...................................................................................................................... 4-83
Figure 4-3: Site Selection Diagram Process .................................................................... 4-84
Figure 4-4: Suitability Model Results ............................................................................. 4-91
Figure 5-1: Location of Projects Evaluated within the Rio Grande de Arecibo Watershed 5-95
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table Number</th>
<th>Table Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>Power Cost in Puerto Rico and USA</td>
<td>1-13</td>
</tr>
<tr>
<td>1-2</td>
<td>Projected Waste Generation in Puerto Rico</td>
<td>1-19</td>
</tr>
<tr>
<td>1-3</td>
<td>SWMA Published Standard Recycling Rate Distribution for 2006</td>
<td>1-20</td>
</tr>
<tr>
<td>1-4</td>
<td>SWMA Published Standard Recycling Rate Distribution for 2007</td>
<td>1-21</td>
</tr>
<tr>
<td>1-5</td>
<td>Projected Sources of Raw Materials for the PRF</td>
<td>1-33</td>
</tr>
<tr>
<td>1-6</td>
<td>Summary of the Projected Plant Characteristics</td>
<td>1-35</td>
</tr>
<tr>
<td>1-7</td>
<td>Floor Area of the Plant Main Buildings</td>
<td>1-54</td>
</tr>
<tr>
<td>1-8</td>
<td>Tanks to be Installed in the Plant</td>
<td>1-54</td>
</tr>
<tr>
<td>2-1</td>
<td>Allowable Compression Capacity of Piles</td>
<td>2-12</td>
</tr>
<tr>
<td>2-2</td>
<td>Normal Precipitation (inches) in the Arecibo Station, 1971-2000</td>
<td>2-39</td>
</tr>
<tr>
<td>2-3</td>
<td>Maximum, Average and Minimum Temperature (ºF) in the Arecibo Station, 1971-2000</td>
<td>2-41</td>
</tr>
<tr>
<td>2-4</td>
<td>National Ambient Air Quality Standards (NAAQS)</td>
<td>2-46</td>
</tr>
<tr>
<td>2-5</td>
<td>Ambient Air Quality Data</td>
<td>2-49</td>
</tr>
<tr>
<td>2-6</td>
<td>Existing Natural Systems within the Site and Adjacent Areas up to a Distance of 400 meters from the Property Limits</td>
<td>2-51</td>
</tr>
<tr>
<td>2-7</td>
<td>Existing Filtration Plant in Arecibo</td>
<td>2-66</td>
</tr>
<tr>
<td>2-8</td>
<td>Arecibo Regional Wastewater Treatment Plant</td>
<td>2-68</td>
</tr>
<tr>
<td>2-9</td>
<td>Receptors Identification</td>
<td>2-80</td>
</tr>
<tr>
<td>2-10</td>
<td>Environmental Quality Board’s Noise Emission Limits [dB(A)] [Noise Level Exceeded in 10% of the Measurement Period (L10)]</td>
<td>2-82</td>
</tr>
<tr>
<td>2-11</td>
<td>Noise Abatement Criteria (NAC) Hourly A-Weighted Sound Level in Decibels (dBA)</td>
<td>2-83</td>
</tr>
<tr>
<td>2-12</td>
<td>Noise Level Exceeded in 10% of the Sampling Period (L10) in dB(A)</td>
<td>2-84</td>
</tr>
<tr>
<td>2-13</td>
<td>Noise Level Exceeded in 10% of the Sampling Period (L10) in dB(A) for Additional Receptors</td>
<td>2-84</td>
</tr>
<tr>
<td>2-14</td>
<td>Airports within a Fifty (50) Miles Radius from the Project Site</td>
<td>2-86</td>
</tr>
<tr>
<td>2-15</td>
<td>Population and Density</td>
<td>2-94</td>
</tr>
<tr>
<td>2-16</td>
<td>Ward Population in Arecibo by age</td>
<td>2-96</td>
</tr>
<tr>
<td>2-17</td>
<td>Regional Population Forecast</td>
<td>2-97</td>
</tr>
<tr>
<td>2-18</td>
<td>Educational Attainment</td>
<td>2-98</td>
</tr>
<tr>
<td>2-19</td>
<td>Labor Statistics</td>
<td>2-99</td>
</tr>
<tr>
<td>2-20</td>
<td>Per Capita Income</td>
<td>2-101</td>
</tr>
<tr>
<td>2-21</td>
<td>Households with Incomes below the Poverty Level</td>
<td>2-104</td>
</tr>
</tbody>
</table>
Table 2-22: Population and Density ................................................................. 2-107
Table 2-23: Educational Attainment .............................................................. 2-109
Table 2-24: Per Capita Income ........................................................................ 2-110
Table 2-25: Households with Incomes below Poverty Level ......................... 2-112
Table 3-1: PSD Applicability ............................................................................ 3-12
Table 3-2: Ambient Air Quality Standards, PSD Increments, Significant Impact Levels, and Significant Monitoring Concentrations ......................................................... 3-15
Table 3-3: Source Stack Parameters and Emission Data ................................ 3-18
Table 3-4: Model Results – Significant Impact Levels Evaluation .................. 3-20
Table 3-5: Model Results - Cumulative Impact Levels .................................... 3-21
Table 3-6: Preliminary Risk Levels ................................................................ 3-44
Table 3-7: Risk Indices .................................................................................... 3-44
Table 3-8: Estimated Noise Level Impact during Pile Driving Activities .......... 3-47
Table 3-9: Equipment Noise Sources .............................................................. 3-49
Table 3-10: Estimated Noise Level Impact during Daytime Project Operation ............................ 3-50
Table 3-11: Estimated Noise Level Impact during Nighttime Project Operation .................. 3-51
Table 3-12: Summary of Incoming and Outgoing Vehicles from the Project .......... 3-55
Table 3-13: Vehicle Type Distribution ............................................................ 3-55
Table 3-14: Total Investment in Construction ................................................ 3-58
Table 3-15: Employment Coefficients and Income Multipliers for Construction ...... 3-58
Table 3-16: Employment Generated During Construction Phase .................. 3-59
Table 3-17: Income Generated During Construction Phase ............................ 3-59
Table 3-18: Employment Generated by Operations ......................................... 3-60
Table 3-19: Personal Income Generated during Operations ........................... 3-60
Table 3-20: Fiscal Revenue ............................................................................. 3-61
Table 3-21: Fiscal Impact During Operations ................................................ 3-61
Table 4-1: Environmental and Operational Parameters of the PRF Technology .... 4-76
Table 4-2: Sites that were studied for the Site Location .................................... 4-81
Table 4-3: Exclusion Criteria ......................................................................... 4-85
Table 4-4: Exclusion Analysis Result: Sites that were not Included .................. 4-86
Table 4-5: Inclusion Criteria ........................................................................... 4-87
Table 4-6: Inclusion Analysis Results .............................................................. 4-88
Table 4-7: Criteria Utilized in the Suitability Analysis Phase ......................... 4-89
Table 4-8: Suitability Analysis Results ............................................................ 4-90
Table 5-1: Model Results – Cumulative Impact Levels Operation Scenario at 110% ... 5-98
Table 5-2: Summary of Assessed Projects Located within Río Grande de Arecibo Basin where the Project Site is Located

Table 6-1: Required Permits and Endorsements by Regulatory Agencies

Table 11-1: Staff that Participated in the Preparation of the P-EIS
LIST OF APPENDICES

Appendix A: Preliminary Geotechnical Recommendations Study
Appendix B: Hydrological and Hydraulic Study
Appendix C: Environmental Air Quality Impact Study
Appendix D: Flora and Fauna Study
Appendix E: Jurisdictional Wetland Study
Appendix F: Archaeological Phase IA-IB Study
Appendix G: Noise Study
Appendix H: Traffic Study
Appendix I: Socioeconomic and Economic Impact Study
Appendix J: Environmental Justice Study
Appendix K: Human Health Risk Evaluation
Appendix L: Ecological Risk Evaluation
Appendix M: Site Selection Study Update
Appendix N: Alternatives for Process Water Supply Study
Appendix O: Letters to / from Agencies
Appendix P: Public Participation
Appendix Q: Consultant Certifications
Appendix R: Answers to Comments in the Environmental Quality Board Interlocutory Resolution R-10-41-1, from Agencies and General
## LIST OF ABBREVIATIONS / UNITS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>°C</td>
<td>Celsius Degree</td>
</tr>
<tr>
<td>°F</td>
<td>Fahrenheit Degree</td>
</tr>
<tr>
<td>°N</td>
<td>North Degree</td>
</tr>
<tr>
<td>AADT</td>
<td>Annual Average Daily Traffic</td>
</tr>
<tr>
<td>ACFM</td>
<td>Actual Cubic Feet per Minute</td>
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<tr>
<td>AERMOD</td>
<td>Atmospheric Dispersion Modeling (Model that predicts the environmental concentrations over land using AERMET, AERSURFACE and AERMAP programs)</td>
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<tr>
<td>AQCS</td>
<td>Air Quality Control System</td>
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<tr>
<td>ArcGIS</td>
<td>Geographical Information System Program used for spatial analysis.</td>
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<tr>
<td>ASL</td>
<td>Above Sea Level</td>
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<tr>
<td>ASR</td>
<td>Automotive Shredder Residue</td>
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<tr>
<td>Ba</td>
<td>Bajura clay soil</td>
</tr>
<tr>
<td>BACT</td>
<td>Best Available Control Technology</td>
</tr>
<tr>
<td>BA™</td>
<td>Boiler Aggregate™</td>
</tr>
<tr>
<td>bpf</td>
<td>blows per foot</td>
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<tr>
<td>BTU/hr</td>
<td>British Thermal Unit per Hour</td>
</tr>
<tr>
<td>BTU/lb</td>
<td>British Thermal Unit per Pound</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CaCO₃</td>
<td>Calcium Carbonate</td>
</tr>
<tr>
<td>CcD</td>
<td>Caracoles loam 5%-20% slopes</td>
</tr>
<tr>
<td>CcE</td>
<td>Caracoles loam 20%-40% slopes</td>
</tr>
<tr>
<td>CDP</td>
<td>Comprehensive Development Plan</td>
</tr>
<tr>
<td>CEMS</td>
<td>Continuous Emission Monitoring System</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>cfs</td>
<td>cubic feet per second</td>
</tr>
<tr>
<td>CFU</td>
<td>Colony Forming Unit</td>
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<tr>
<td>CI</td>
<td>Compression Ignition</td>
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<tr>
<td>CLOMAR</td>
<td>Conditional letter of Map Amendment Request</td>
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<tr>
<td>cm</td>
<td>centimeter</td>
</tr>
<tr>
<td>cm/s</td>
<td>centimeters per second</td>
</tr>
<tr>
<td>CMRS</td>
<td>Commercial Mobile Radio Service</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon monoxide</td>
</tr>
<tr>
<td>Co</td>
<td>Coloso silty clay loam soil</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>COPCs</td>
<td>Contaminant of Potential Concern</td>
</tr>
<tr>
<td>COPEC</td>
<td>Contaminant of Potential Ecological Concern</td>
</tr>
<tr>
<td>CSM</td>
<td>Conceptual Site Model</td>
</tr>
<tr>
<td>CTC</td>
<td>Cambalache Transmission Center</td>
</tr>
<tr>
<td>dB</td>
<td>decibels</td>
</tr>
<tr>
<td>dBA</td>
<td>A-weighted decibels</td>
</tr>
<tr>
<td>DEM</td>
<td>Digital Elevation Model</td>
</tr>
<tr>
<td>DL</td>
<td>Developable Land (zoning classification of land use)</td>
</tr>
<tr>
<td>DLHR</td>
<td>Department of Labor and Human Resources</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>DNER</td>
<td>Department of Natural and Environmental Resources</td>
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<tr>
<td>DS-2</td>
<td>Nonhazardous Solid Waste</td>
</tr>
<tr>
<td>DSC</td>
<td>Distributed Control System</td>
</tr>
<tr>
<td>DSCFM</td>
<td>Dry Standard Cubic Feet per Minute</td>
</tr>
<tr>
<td>DTC</td>
<td>Diagnostic and Treatment Center</td>
</tr>
<tr>
<td>DTPPW</td>
<td>Department of Transportation and Public Works</td>
</tr>
<tr>
<td>EAC-PR</td>
<td>Groundwater test well located at Site</td>
</tr>
<tr>
<td>EAI</td>
<td>Energy Answer International</td>
</tr>
<tr>
<td>EBSLs</td>
<td>Ecological Based Screening Level</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EJ</td>
<td>Environmental Justice</td>
</tr>
<tr>
<td>ELA</td>
<td>Commonwealth of Puerto Rico</td>
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<tr>
<td>ELCR</td>
<td>Excess Lifetime Cancer Risk</td>
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<tr>
<td>ELV</td>
<td>End of Life Vehicles</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>EQB</td>
<td>Environmental Quality Board</td>
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<tr>
<td>ESAs</td>
<td>Environmentally Sensitive Area</td>
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<td>ESC</td>
<td>Erosion and Sediment Control (Plan)</td>
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<td>F-EIS</td>
<td>Final Environmental Impact Statement</td>
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<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<td>FIRM</td>
<td>Flood Insurance Rate Map</td>
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<tr>
<td>FLO-2D</td>
<td>Hydraulic Analysis Model</td>
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<tr>
<td>FYIP</td>
<td>Four-Year Investment Plan</td>
</tr>
<tr>
<td>GAP</td>
<td>Gap Analysis Program – US Geological Survey Program that contains a comprehensive collection of information about the soil cover in Puerto Rico, distribution and natural history of vertebrates, and management areas.</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>gpm</td>
<td>gallons per minute</td>
</tr>
<tr>
<td>hab/km²</td>
<td>amount of inhabitants per square kilometer</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutant</td>
</tr>
<tr>
<td>HCL</td>
<td>Hydrogen chloride</td>
</tr>
<tr>
<td>HDD</td>
<td>Horizontal Direct Drilling</td>
</tr>
<tr>
<td>HEC-HMS</td>
<td>Hydrologic Engineering Center's Hydraulic Modeling System</td>
</tr>
<tr>
<td>HF</td>
<td>Hydrogen Fluoride</td>
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<tr>
<td>H-H</td>
<td>Hydraulic and Hydrological Study</td>
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<tr>
<td>HHRRA</td>
<td>Human Health Risk Assessment</td>
</tr>
<tr>
<td>HHRAP</td>
<td>Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities</td>
</tr>
<tr>
<td>HI</td>
<td>Heavy Industrial (zoning classification for land use)</td>
</tr>
<tr>
<td>HP</td>
<td>Horsepower</td>
</tr>
<tr>
<td>IPC</td>
<td>Institute of Puerto Rican Culture</td>
</tr>
<tr>
<td>K</td>
<td>Kelvin (thermodynamic temperature scale)</td>
</tr>
<tr>
<td>kg</td>
<td>kilogram</td>
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<tr>
<td>km</td>
<td>kilometer</td>
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<tr>
<td>km/h</td>
<td>kilometers per hour</td>
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</table>
km\(^2\) square kilometers (area)
KOP Key Observation Point
KV kilovolts
KVA kilovolts-amperes
KW kilowatts
KW/H kilowatts per hour
KWh/ton kilowatts hour per ton
L\(_{10}\) Level of noise exceeded 10% of the time
lb/day pounds per day
LCD Liquid Crystal Display
Leq Equivalent Continuous Sound Level
LI-2 Light Industrial 2 Zoning (zoning classification for land use)
LiDAR Light Detection and Ranging
LOS Levels of Service
LPRA Laws of Puerto Rico Annotated
LS Landfill System
m meter
m\(^2\) square meters (area)
m\(^3\) cubic meters (volume)
m\(^3\)/s cubic meters per second (volume)
MACT Maximum Achievable Control Technology
MBAS Methylene-Blue Active Substances
MCL Maximum Contaminant Level
MG million gallons
mg/L milligrams per liter
mg/m\(^3\) milligrams per cubic meter
mgd million gallons per day
mi\(^2\) square miles (area)
ml milliliters (volume)
MMBTU/hr Million British Thermal Units per Hour
mph miles per hour
MSP Material Separation Plan
MSW Municipal Solid Waste
MVA megavolts-amperes
MW megawatts
MW/H megawatts per hour
MWC Municipal Waste Combustion
NAAQS National Ambient Air Quality Standards
NEPA National Environmental Policy Act of 1969, as amended
NESHAP National Emission Standards for Hazardous Air Pollutants
NFPA National Fire Protection Association
NO\(_2\) Nitrogen dioxide
NOAA National Oceanic and Atmospheric Administration
NOI Notice of Intent
NOx Nitrogen oxides
NPDES National Pollutant Discharge System
NRCS  Natural Resources Conservation Service
NSPS  New Source Performance Standards
NSR  New Source Review (EPA Program for atmospheric pollution permitting)
NTU  Nephelometric Turbidity Unit
NWI  National Wetland Inventory
O₂  Oxygen
O₃  Ozone
OCC  Old Corrugated Cardboard
OCMA  Office of the Commissioner of Municipal Affairs
OSHA  Occupational Safety & Health Administration
Pb  Lead
PCBs  Polychlorinated Biphenyls
PCDDs  Polychlorinated Dibenzodioxins
PCDFs  Polychlorinated Dibenzofurans
PDF™  Process Derived Fuel
P-EIS  Preliminary Environmental Impact Statement
pH  Potential of Hydrogen - measure of acidity
PM₁₀  Particulate matter with diameter of 10 micrometers or less
PM₂.₅  Particulate matter with diameter of 2.₅ micrometers or less
PMO  Permits Management Office
POT  Municipal Land Use Plan (Plan de Ordenamiento Territorial)
ppm  parts per million
PPP  Public-Private Partnerships
PR- #  State Road – “#”
PR  Puerto Rico
PRASA  Puerto Rico Aqueduct and Sewer Authority
PREPA  Puerto Rico Electric Power Authority
PRF™  Processed Refuse Fuel™
PRHTA  Puerto Rico Highway and Transportation Authority
PRIDCO  Puerto Rico Industrial Development Company
PRPB  Puerto Rico Planning Board
PRTRB  Puerto Rico Telecommunications Regulatory Board
PSD  Prevention of Significant Deterioration
psig  pounds per square inch gauge
PUT  Land Use Plan (Plan de Uso de Terrenos)
PUTPR  Puerto Rico Land Use Plan (Plan de Uso de Terrenos de Puerto Rico)
Qa  Alluvial plain deposits or alluvial soils
Qbq  Beach deposits
Qcd  Cemented dunes
Qd  Sand deposits
Qdt  Transitional deposits
Qf  Surficial deposits
Qs  Swamp deposits
QTs  Blanket deposits
R-0  Low density Residential Use (zoning classification of land use)
RCAP  Regulation for the Control of Atmospheric Pollution
REC  Renewable Energy Certificates
RGA  Rio Grande de Arecibo (Arecibo Main River)
RPA  Regulations and Permits Administration
RPM  Revolutions per Minute
RPPEPED EQB Regulation for the Process of Presentation, Evaluation and Processing of Environmental Documents
SCS  Soil Conservation Service
SHPO  State Historic Preservation Office
SILs  Significant Impacts Levels
SLERA  Screening-Level Ecological Risk Assessment
SMC  Significant Monitoring Concentration
SO₂  Sulfur dioxide
SPCCP  Spill Prevention Control and Countermeasures Plan
SPSWM  Strategic Plan for Solid Waste Management
SPT  Standard Penetration Test
SRCRS  Selective Regenerative Catalytic Reduction System
SWMA  Solid Waste Management Authority
SWPPP  Stormwater Pollution Prevention Plan
Tay  Aymamon Limestone Formation
Tca  Camuy Formation and Aymamon Limestone
TDF  Tire Derived Fuel
TDF  Tire-Derived Fuel
To  Toa silty clay loam
tpa  tons per year
tpd  tons per day
tph  tons per hour
TS  Transfer Stations
TSD  Total Dissolved Solids
umhos/cm  micromhos-standard unit (conductivity unit)
US  Urban soil (zoning classification of land use)
USA  United States of America
USACE  United States Army Corps of Engineers
USD  United States Department of Agriculture
USDOT  United States Department of Transportation
USEPA  United States Environmental Protection Agency
USFWS  United States Fish and Wildlife Service
USGS  United States Geologic Survey
V  volts
VOC  Volatile Organic Compound
VOC  Volatile Organic Compounds
WQSR  Water Quality Standards Regulation
WTE  Waste To Energy
μg/m³  micrograms per cubic meter
EXECUTIVE SUMMARY

This document constitutes the Environmental Impact Statement (P-EIS) for the Renewable Power Generation and Resource Recovery Plant Project (Plant or Project). The lead agency for the Project is the Puerto Rico Industrial Development Company (PRIDCO), while Energy Answers Arecibo, LLC (Energy Answers) is the owner (Owner) and the private entity in charge of its development, construction and operation.

This P-EIS is filed with the Environmental Quality Board (EQB) in compliance with: (1) the provisions of Executive Order OE-2010-034 of August 12, 2012, (2) Resolution 10-26-1 issued by the EQB, regarding the Expedited Procedure to Rule the Presentation, Evaluation and Processing of Environmental Documents for Energy Projects, (3) Article 4(B)(3) of Law Number 416 of September 22, 2004 as amended, known as “Environmental Public Policy Law”, and (4) Law Number 76 of May 5, 2000.

As part of the procedures required by the laws mentioned above, the following steps were completed:

- On October 25, 2010, PRIDCO filed with EQB for its evaluation the draft P-EIS for the Project. That same day the document was available on the EQB webpage, PRIDCO, EQB library, EQB Regional Office in Arecibo, and the Arecibo Town Hall.

- PRIDCO filed a request for a public hearing with EQB, which approved and issued R-10-38-1 on October 25, 2010, granting PRIDCO’s request regarding the draft P-EIS, as well as an extension to the deadline for comments until the date of the investigative public hearing.

- The draft P-EIS was circulated on October 25, 2010 among several government agencies for evaluation and comments, among them: Environmental Quality Board, Municipality of Arecibo, Puerto Rico Aqueduct and Sewer Authority, Puerto Rico Electric Power Authority, Department of Agriculture, Department of Transportation and Public Works/Puerto Rico Highway and Transportation Authority, Institute of Puerto Rican Culture, Puerto Rico Planning Board, Solid Waste Management
Authority, Department of Health, Fire Department, and the Energy Affairs Administration.


- On November 8, 2010, the Investigative Public Hearing for the Project was held in the Municipality of Arecibo. The Examiner in charge of the procedures accepted until November 9, 2010 the filing of written comments on the proposed action to be admitted into the official record for the investigative process.


- In accordance with Part III of R-10-26-1, on October 15, 2010 the Examiner assigned
to conduct the Investigative Public Hearing procedures for the title Project presented to this Board the corresponding Report.

- On November 19, 2010, the EQB Honorable Board of Governors issued Resolution R-10-43-1, which adopted the Report and issued several recommendations that had to be part of the revised P-EIS to be submitted in accordance with R-10-26-1.

The draft P-EIS for the Project was revised accordingly, to include and discuss the recommendations of the Honorable Board of Governors of the EQB and of the Review Panel that was assigned to conduct the Investigative Public Hearing proceedings that were held for the Project.

The revisions to the draft P-EIS filed on October 25, 2010 constitute the environmental document hereby submitted and identified as P-EIS of November 24, 2010. This P-EIS has been prepared in compliance with the requirements of Law Number 416 and EQB regulations, including the Regulation for the Presentation, Evaluation and Processing of Environmental Documents. The P-EIS and its revisions are based on scientifically rigorous technical, environmental and socioeconomic studies, which were conducted to fully comply with current local and federal regulations for the protection of the environment. The revised P-EIS includes Appendix R (Responses to Comments in the EQB Interlocutory Resolution), where comments from the EQB Interlocutory Resolution (R-10-43-1) are answered, including the Review Panel Report, comments from agencies to the draft P-EIS and comments from the Public Hearing process. The corresponding appendices, as well as the digital format document to be uploaded to the EQB webpage, are part of the P-EIS.

**Description of the Proposed Action**

The Project consists of the construction of a Renewable Power Generation and Resource Recovery Plant (Plant or Project), to convert solid waste into electricity in an industrial site of approximately 82 cuerdas, that was used in the past as a paper mill and is located at Km 73.1 of State Road PR-2 in Cambalache Ward of Arecibo. The generated electricity will be purchased by the Puerto Rico Electric Power Authority (PREPA) through the terms
stipulated in the purchase and sale agreement that was signed between PREPA and the Owner (Power Purchasing and Operating Agreement), and will be transmitted or injected into the Island distribution system.

**Energy Situation and Solid Waste Management in Puerto Rico**

- There is an urgent need to develop new energy generation infrastructure that uses alternative sources to petroleum fuels to stabilize the high cost of electricity in Puerto Rico, thereby reducing fossil fuel emissions associated with climate change in accordance with the public policy established in the Government of Puerto Rico Energy Reform.

- The Project addresses the urgent need to develop reliable and environmentally safe infrastructure as part of an integrated management of solid waste and in accordance with the policy established in the Dynamic Itinerary for Infrastructure Projects of the Puerto Rico Solid Waste Management Authority (SWMA).

- The solid waste management system in Puerto Rico serves seventy-eight (78) municipalities that generate about four (4) million tons per year of residential, commercial and industrial residues.

- EPA Region 2 noted that: (1) the management and disposal of solid waste has long been a challenge in Puerto Rico; (2) the problem is compounded by the limited space available in an island community and the delicate balance of ecosystems of Puerto Rico; (3) Puerto Rico residents generate more solid waste than residents in the States, and recycling rates are lower; (4) much of the solid waste volume generated in the Island ends up in one of the 30 landfills, most of which do not meet state or federal requirements for landfills; and (5) that the solution is a comprehensive plan for the integrated management of solid waste.

- In 2007, SWMA developed an Itinerary for Infrastructure Projects (Itinerary) to implement strategies for the development of infrastructure to handle solid waste in Puerto Rico for the next 25 years;
• According to the SWMA, there will be 30 operational landfills by the end of 2010, 14 in 2015 and 13 in 2020; only one will be operating limitedly on the north coast.

• In order to successfully implement the strategy of diverting waste from disposal in landfills, the Itinerary recommends the development of two facilities with thermal processing technology with a combined processing capacity of approximately 2,910 tons per day.

• Specifically, the Itinerary recommends the development of a facility with a capacity of 1,350 tons per day in the Northwest Region, to be operational in 2012, and a facility with a capacity of 1,560 tons per day in the Northeast Region, which would be operational in 2013.

EAI develops environmentally safe power generation and resource recovery systems and has been owner and operator of these systems. EAI technology distinguishes itself because EAI plants are designed to maximize the recovery of materials and energy from the municipal solid waste stream. EAI’s main goal is to eliminate waste or achieve "zero disposal" through maximum recovery of resources or materials that are perceived as waste. To achieve this goal, EAI designed and developed the system for the production of PRF. The Project responds to various urgent and serious needs in Puerto Rico regarding energy generation, solid waste, economic development, environmental protection, and efficient use of land.

A plant such as that proposed by the Project would have enough capacity to: (1) meet the estimated demand for solid waste disposal as established for the Northwest Region in the Dynamic Itinerary, (2) assist with the management of commercial waste of the region, and (3) add to the existing recovery and recycling infrastructure.

The Plant will be able to:

• Generate a gross amount of 80 Megawatts of energy, classifying as an alternative renewable energy source;

• Process 2,100 tons per day (based on a seven-day week) of Processed Refuse Fuel™
Renewable Power Generation and Resource Recovery Plant
Cambalache Ward in Arecibo, Puerto Rico

- Recover and recycle 280 tons per day of ferrous metals (such as iron and steel, among others) and nonferrous metals (aluminum, copper, tin, etc.);

- Control combustion emissions by using an emission control system evaluated and approved by the EPA.

The Plant will consist of the following components (see Figure ES-1):

- Component 1: Receiving of Solid Waste
  - A reduction in the amount of solid waste generated by communities, industry and government will be actively promoted through effective programs to reduce, recycle and compost.

- Component 2: Production of PRF
  - This component includes weighing, unloading and inspection of the solid waste that will arrive to the Plant mostly in trucks, which will vary in type and size.
  - In addition, solid waste is shredded to form the PRF, after an initial ferrous metal recovery process.
  - In this stage, the PRF is subjected to a process of detection and recovery of ferrous and nonferrous materials through industrial magnets.

- Component 3: Renewable Power Generation
  - In the third stage the combustion of PRF takes place in spreader-stoker boilers that produce steam and generate electricity using a steam turbine, thus constituting an alternative and renewable source of energy production.
  - EAI's patented technology includes the use of grates in the boiler, where a stream of distribution air will blow the PRF into the boiler, therefore resulting in a highly efficient suspended combustion, which in turn results in a reduction
in ash generation. The process will generate two (2) types of ashes, representing a total of approximately 20% (by weight) of the PRF that will be processed at the Plant.

- It is at this stage that the Emission Control System evaluated and approved by the EPA is activated. This Emission Control System constitutes the Maximum Achievable Control Technology (MACT) and the Best Available Control Technology (BACT).

- It is at this stage that the conditioning of fly ash occurs, resulting in a material that has been consistently proven as non-hazardous by analytical methods (Toxicity Characteristic Leaching Procedure, TCLP), has a consistency similar to that of mortar, has the capacity to harden as cement, and has been found able to be effectively reused or safely disposed of as a landfill cover material.

- The bottom ash, once collected, will be processed through a proprietary EAI technology that produces Boiler Aggregate™. This aggregate has been effectively used as a material that allows the ventilation of landfill gas, for road paving and other construction-related products.

Figure ES-1: Simplified Renewable Power Generation and Resource Recovery Process Flowchart
Part of the Project is also the completion of several off-site tasks to:

- Provide 2.1 MGD brackish water for the cooling tower and boiler steam production, to be pumped from the surplus that the Department of Natural and Environmental Resources (DNER) discharges from Caño Tiburones into the ocean, and will be transferred by force line from El Vigía Pump Station to the Plant; and

- Connect the power production of the Plant to the PREPA distribution network. PREPA determined that the best interconnection point would be the Cambalache Transmission Center (CTC), located at approximately 0.5 miles south of the Plant site.

- Floodway limits have been revised to follow the perimeter of the proposed development, and to reclassify the land as Zone AE outside the floodway, where the provisions of Section 7.03 of Regulation #13 apply. The proposed amendment would require a change to the topography of the area between the Project site and the river channel, for a maximum ground elevation of 3.5 meters-msl, and to provide greater flow area along the river bank. The letter requesting the amendment to the FEMA Flood Map was filed with the PRPB on October 8, 2010.

The main characteristics of the existing environment in the Project site area include:

- The existing environment in the area where the Project will be located is primarily rural with isolated industrial areas and small residential settlements.

- Land use was dominated until the early 1980s by the former Cambalache Sugar Mill activities. Later land use continued to be agricultural (hay), with some industrial developments. Currently, there are several abandoned steel-framed industrial structures occupying the site. The nearest residence is located at 569 meters from the center of the site, but there are no residential areas or tranquility zones near the site.

- The topography within the site and the areas around it is typical of valleys and is essentially flat, with elevations ranging from 1 to 7.5 meters above mean sea level. Earth crust movement and artificial fill deposit are included as part of the proposed
action. However, those activities will not result in a significant environmental impact because the topography was previously impacted during construction of the paper mill.

- There are five (5) percolation ponds for the storing of stormwater runoff and process water from the paper mill. It is proposed to cut their top or berms to an elevation of 3.5 meters above mean sea level. The resulting environmental impact will not be significant.

- There are no rivers or creeks within the site. However, the Río Grande de Arecibo (RGA) is adjacent to the west side of the site. No direct or significant impact to the RGA due to the construction of the Project is anticipated. The minimum 5-meter strip of land measured from the edge of the river will be kept, as required by Law Number 49 of January 4, 2003, as amended.

- The Jurisdictional Wetland Study concluded that there are approximately 2.49 cuerdas (2.42 acres) of jurisdictional water bodies within the site, including an area of 1.52 cuerdas (1.48 acres) of unused artificial stormwater channels, and 0.97 cuerdas (0.94 acres) of the area where these channels overflow. It is anticipated that these will be modified as part of the Project. However, the modifications will not result in a significant environmental impact as these areas were artificially created.

- The Flood Insurance Rate Map shows that the site is located within a floodway Zone AE, and the base flood level is 5.2 msl (17.06 feet).

- Brownfield vegetation typical of abandoned industrial areas can be observed in the site and adjacent properties, where herbaceous species are dominant, mostly grasses with some woody species. All identified species are common and widely distributed on areas near large rivers of the Island. None of the species of flora and fauna identified in the study areas are considered as critical, threatened or endangered under state and federal regulations. Although the vegetative cover within the Project area will decrease and some short term displacement of fauna species will occur, it is possible that some of these species will return to the site after completion of the construction phase of the Project. Therefore, no significant environmental impact on the flora and fauna found
within the site is expected.

- Regarding the cultural resources, through the data obtained during the file investigation and the negative results of stratigraphic cuts (Phase IB) conducted, it was concluded that the Project does not affect cultural resources as included in the National Register of Historic Places. Therefore, no significant or cumulative impacts to cultural impacts will occur from the proposed action.

- The Plant will be connected to PRASA potable water lines and the sanitary trunk located in State Road PR-2 adjacent to the site. There will be no significant impact to the existing infrastructure as it has ample capacity to meet the needs of the Project.