Environmental Quality Board (EQB) is quite detailed in discussing impacts expected to occur from the project. As publicly announced, the FEIS can be found on the Vía Verde website at **http://www.aeepr.com/viaverde_DIAP2.asp**. The document has also been posted on the EQB webpage since November 29, 2010. PREPA submitted a copy of the Preliminary Environmental Impact Statement and of the said FEIS to the Corps, since parts of those documents have been incorporated by reference to the Joint Permit Application (JPA). With regard to impacts specific to the aquatic resource, additional information is provided further in this correspondence, Item d. Wetlands. After reviewing the information provided in Chapter 6 of the FEIS and the "Wetlands" section of this letter, if the Corps determines further, detailed information will be required, the applicant and its agents request a meeting be scheduled to discuss what additional, specific information is necessary.

We agree the use of National Wetlands inventory maps to ascertain the existence of jurisdictional areas for Puerto Rico, particularly along the north coast, is challenging. Recognizing that fact, Mr. Jorge Coll (Coll Rivera Environmental) determined the extent of waters of the U.S. (WoUS) for the project after completing a detailed field survey. The methodology employed for this site specific field study followed the 1987 Corps of Engineers Wetland Delineation Manual and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region (the Caribbean supplement). In areas where differences between the Manual and the Caribbean supplement occurred, the Caribbean supplement took precedence. The *Jurisdictional Wetlands and U.S. Waters Determination Study – Vía Verde Pipeline, August 2010* and *Vía Verde Wetland Data Determination Forms – Caribbean Islands* sections found in the Preliminary EIS, included with the original JPA submittal, detail the limits of the jurisdictional wetlands. There were areas where a determination was difficult, due to past or recent land use, or other reasons. In those cases, Mr. Coll based his determination on the best information available, interpreted in light of his professional experience and knowledge of the ecology of wetlands in the area, as stated in the Caribbean supplement. The applicant's wetland scientists acknowledge that minor discrepancies may exist and welcome the opportunity to field verify (ground-truth) any questionable wetland signatures during a jurisdictional determination site visit. Since this has been the procedure utilized by the Corp to address challenges, we would like to coordinate the field visits (ground-truth) at your earliest convenience so any concerns can be immediately addressed.

You state that the Alternative Analysis provided with the permit application packet is qualitative and lacks sufficient detail for review. After multiple public meetings were held to discuss the project and involve the public, PREPA published a Public Notice in local newspapers to advise the general public of the availability of the FEIS. The applicant also delivered a copy of this document to the 13 municipalities to benefit from the project and placed the FEIS on its website (**http://www.aeepr.com/viaverde_DIAP2.asp**). Concurrently, the EQB posted the

complete FEIS on its webpage to allow all interested parties to access the document under consideration. Chapter 6 of the FEIS discusses the "Study of Alternatives and Selection of Alignment" PREPA prepared. This Chapter also includes an Annex with Criteria Maps and a Selection Matrix for the pipeline routes that were evaluated. The applicant believes many of the comments directed at the alternatives analysis in the Preliminary EIS were addressed in the FEIS approved by the EQB (which has been available to the general public since November 29, 2010). However, in response to your request, PREPA is rearranging and modifying the Alternative Analysis so it will satisfy the Corps' expectations.

You referred to the U.S. Fish and Wildlife Service letter of December 15, 2010 and asked for clarification on how natural gas will be delivered to the pipeline. As mentioned in PREPA's letter dated December 17, 2010, the evaluation and comments presented by the USFWS were based on the Preliminary (Draft) EIS dated September 9, 2010. Two editions of the EIS (Preliminary and Final) were written, presented and finally approved by all local regulatory agencies. At this time PREPA intends to meet gas delivery requirements for the project using the existing EcoEléctrica Facility. There is no plan to construct a separate barge offload operation. It is the applicant's position that EcoEléctrica will be able to fully meet delivery needs. If the Corps disagrees with this position, a meeting is requested to further discuss these concerns.

Regarding the returned public notices and the list of addresses you provided, PREPA identified updated addresses and hand delivered the documents. The proof of delivery for all delivered letters is attached to this correspondence. We recognize the need for an additional 30-day comment period **exclusively** for these members of the public.

In regard to the concerns of the general public presented in the other letters provided and received by the Corps as part of the PN process, we would like to refer you to Chapter 8 of the FEIS. This Chapter provides a summary of responses related to the comments received from the general public. The Chapter also includes additional responses to comments received from the state regulatory agencies as well as from the Environmental Sub Committee designated by Commonwealth Law 76 of May 5, 2000.

In the following paragraphs we will address the issues you summarized from the comment letters received:

National Marine Fisheries Service (NMFS) – The applicant's agent, BCPeabody Consulting (BCP), is responding to the request for additional information in the NMFS letter dated December 19, 2010. As part of this process, BCP staff met with Mr. Miles M. Croom, NMFS Assistant Regional Administrator, on January 6, 2011. The project, as currently designed, will not result in any impacts to estuarine forested or

seagrass habitats and will likely not require an extended NMFS project review. Direct responses to the NMFS December 19, 2010 letter are included in the Attachment.

It is important to clarify one aspect of the NMFS comment letter that resulted from the public notice. A major concern of NMFS was perceived impact to estuarine forested habitats associated with the Vía Verde Pipeline alignment. There will be no impacts to estuarine forested habitat from construction of the pipeline. To avoid impacts and to protect the estuarine forested habitats, the Horizontal Directional Drilling (HDD) construction approach will be utilized. In addition, PREPA will undertake a detailed supplemental site evaluation at three areas along the alignment to validate that no threatened or endangered species are located in any estuarine forested area and to establish a baseline in these areas. Data collected as a result of this supplemental field work will be provided to the NMFS and the Corps once it becomes available.

US Fish and Wildlife Service (USFWS) – At the present time (with full knowledge of the Corps and the USFWS), the applicant has a team of regional scientific experts conducting site specific, appropriate surveys along the proposed route to determine presence/absence of listed plant and animal species within the project area and the amount of suitable habitat. The survey methodologies developed and the surveys conducted are being carried out by experienced and qualified personnel reviewed by the USFWS. Members of the USFWS staff have been actively involved in the development of the ESA species survey protocols and have participated in some of the field studies. The draft Biological Evaluation (BE) included with the Joint Permit Application will be appended to include the results of all supplemental surveys and will be the basis for future consultations with the Service. Direct responses to the concerns expressed in the USFWS December 15, 2010 letter, are included in the Attachment. Moreover, we must stress that comments presented in the USFWS December 15, 2010 letter appear to be drafted after their evaluation of the Preliminary (Draft) EIS presented back on September 9, 2010 before the EQB. These comments were not based on an evaluation of the FEIS approved on November 30, 2010. A copy of the FEIS was delivered to the USFWS on December 20, 2010.

Federal Highways Administration (FHWA) – CMA Architects & Engineers LLP is currently working to collect the detailed pipeline information related to construction within the local highways right-of-way (ROW) as part of the final alignment of the Vía Verde project. The applicant's goal is to have the Waiver Application presented before the local Highway Authority (HA) by January 21, 2011. Requisite coordination will be established with the HA so the Vía Verde waiver Application will be evaluated as soon as it is received, with an effort to have it approved at the local level by the end of January 2011. Simultaneously, a Draft of the Waiver Application will be delivered to the Federal Highway Administration (FHWA) so that any recommendation can be included in the final application to be filed for necessary approval.

Once local approval is secured for the Waiver Application, the final local endorsement and approval will be delivered to the FHWA for necessary approval. Preliminary information secured from the FHWA personnel indicates it will take approximately 30 days to secure the federal approval required.

State Historic and Preservation Office (SHPO) – As recommended by the SHPO, PREPA recently authorized the implementation of a 1B archaeological study aimed to further evaluate the areas and sites recommended in the completed 1A study, included in the Final Environmental Impact Statement approved on November 30, 2010 by the Environmental Quality Board. The results of this additional evaluation will be presented to the SHPO as soon as the 1B report is available.

Efforts related to the 1B Study will be completed by licensed archaeologists Marisol Rodriguez and Carlos Ayes. They are the professionals hired to undertake the efforts related with the recently completed 1A Study.

Environmental Protection Agency (EPA) – The EPA letter is fairly general in nature and is a direct result of the evaluation of the Preliminary EIS presented back on September 9, 2010 before the EQB. The agency's comments are not based on the FEIS (available since November 30, 2010). As previously mentioned, the applicant has iteratively worked to avoid high quality wetlands and other jurisdictional aquatic areas. Although there is some confusion as to what aquatic resources should be classified as "aquatic resources of national importance", the applicant feels the ROW selection process has essentially avoided such resources, by any definition.

The applicant continues to work with the USFWS and the NMFS to address outstanding issues regarding threatened and endangered species. As part of these consultations, both agencies have recommended that supplementary studies and field efforts be undertaken. It has been agreed that upon completion of these studies, a revised and updated BE will be provided to the Corps. This updated document will be sufficient to allow for the completion of the project review.

The concerns expressed by the EPA with respect to the use of Horizontal Directional Drilling (HHD) in karst environments have been addressed in Item e) Horizontal Directional Drilling which follows.

Puerto Rico Engineers and Surveyors Association (CIAPR, in Spanish) - the overall project purpose is to deliver an alternate fuel source to the three existing electric power generating facilities located on the north coast. Attempting to use the Costa Sur complex in combination with the Aguirre Power Plant would be inconsistent with the overall purpose of this project, and therefore is not a practicable alternative. The operational requirements of the Island's electric system preclude PREPA from generating all or most of its energy only on the south coast. It is our understanding the

scope for an alternatives analysis is driven by the Corps' definition of overall project purpose. On that basis, the applicant does not feel this alternative warrants further review.

With regard to other options to deliver alternative fuel sources to the three power plants on the north coast, we note that PREPA cannot reasonably consider the use of other fuels for electric generation, such as coal or nuclear fuels. The use of coal for PREPA's large generating units was not considered due to the limitations imposed by laws already enacted in Puerto Rico, like PR Law 82 of July 19, 2010, among others, and to EPA's new Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, of November, 2010, which regulate carbon dioxide (CO_2) and other greenhouse gases emissions. Even using the newest clean technology for burning coal, the amount of CO_2 emissions is approximately 30% lower when natural gas is burned instead of coal. CO_2 sequestering technology for coal-burning power plants is far from fully developed.

Regarding nuclear fuels, it must be noted that harvesting energy from this type of fuel is expressly excluded by the Puerto Rico Energy Policy established by the Governor's Executive Order OE-1993-57. It must also be noted that the alternatives analysis does consider the use of renewable energy sources to meet PREPA's generating needs, as was requested during the public comment period, and that Puerto Rico's substantial plans to develop renewable generation is discussed in detail in Chapter 4 of the Final EIS, Section 4.4, which was not included in the Preliminary EIS. The Final Environmental Impact Statement developed by PREPA can be found on the Vía Verde website at **http://www.aeepr.com/viaverde_DIAP2.asp**, as well as on the EQB website since November 30, 2010.

Additional information on alternative methods of delivery, such as Gravity Based Structures and Floating Storage and Re-gasification Unit (FSRU), aka: boats and buoys system, is provided for the Corps' consideration in the Attachment. This information was also included in Chapter 4 of the approved FEIS.

PREPA wants to reiterate that, considering the modifications already approved by the Federal Regulatory Commission (FERC), the EcoEléctrica facility will be able to supply the Vía Verde natural gas needs; determined at full capacity, for the San Juan 5 & 6 and Cambalache Combined Cycled Units. Additional product will be available to fuel the Costa Sur 5 & 6 steam units based on PREPA's operating determination. Moreover, approved FERC modifications will allow PREPA to fully utilize available natural gas to fuel its entire north coast facilities based on the capacity established factor, which considers individual heat rates and predetermined fuel mixtures operating characteristics.

Sierra Club – The Sierra Club expressed several concerns that PREPA would like to address. Their first concern involves the number of wetlands and surface waters

allegedly being affected by construction of the pipeline. It is important to stress that all impacts to the wetlands and surface waters will be temporary in nature. Furthermore, some surface waters will not be impacted since they will be crossed using the HDD technology. Also, PREPA will use construction methodologies that will allow the process to advance with minimal impact, such as use of timber mats to gain access for the equipment and using float and pull technique for positioning the pipeline in wetlands. At all times PREPA's concept for this project has included all measures to minimize wetland impacts. More specifically, for forested wetlands, PREPA opted to use HDD technology even when such technology required the investment of additional capital. After the construction and installation of each pipeline segment, wetlands and surface waters will be restored to their original pre-construction state and allowed to naturally recruit with native species. Maintenance and new access roads will not be necessary within wetlands or other areas after construction is completed. All inspections and light maintenance of the pipeline will be conducted using a remote controlled, robotic pipeline inspection gauge (PIG). PIG launchers and receivers will be located outside wetlands and other surface waters.

Additionally, the Sierra Club expressed concern regarding endangered species. PREPA and their consultants are working closely with USFWS to ensure that all necessary surveys for endangered species are conducted. This will ensure that all endangered and threatened species and their habitat are known and quantified within the pipeline corridor.

The Sierra Club form letters also requested the Corps hold public hearings. PREPA recognizes public hearings are held at the discretion of the District Engineer when a hearing provides additional information that is necessary for a thorough evaluation of pertinent issues not otherwise available. The applicant believes the public meetings already held, the detailed information posted on the Corps, EQB and PREPA websites, and the public notice issued by the Corps, as well as those published by the PREPA, Planning Board and EQB, fully address the Sierra Club's reason for a public hearing. No apparent further benefit would be derived from holding public hearings given their cost and logistics. This is validated by the fact that all comments received for the JPA had already been made at the EQB public process for the FEIS approval. No comments on new matters were received by the Corps.

General public comments – PREPA provided over 1,867 pages of information in the FEIS it prepared. This document is located on the applicant's website (**http://www.aeepr.com/viaverde_DIAP2.asp**) as well as on the EQB webpage. We believe the issues raised in the comments submitted are fully addressed in this document and in particular in Chapter 8. If the Corps has made a determination that a particular issue raised by a member of the public is not addressed, please identify what that specific issue is, and PREPA will work further with you to provide whatever detailed information may be necessary.

We recognize the Corps' responsibility to consider a range of practical alternatives that would meet the overall project purpose. We also recognize that 40 CFR Part 230.10(a) of the Guidelines for Specification of Disposal Sites for Dredged or Fill Material (Guidelines) states that the amount of information needed to make a determination and the level of scrutiny required by the Guidelines is commensurate with the severity of the environmental impact. The Vía Verde project has been designed to avoid any permanent discharge of fill material in the aquatic resource and PREPA is confident it can demonstrate that impacts from the proposed route will be no more than minimal. We remain committed to work closely with the Corps as it identifies specific unanswered issues of concern.

You have advised PREPA that the Corps "... agrees with the comments from the resource agencies and the general public, and reserves the option to request an EIS and hold a PH." We must take issue with such a broad, generic statement that implies every single comment sent in by the public has been determined by the Corps to constitute a pertinent, substantive issue that the applicant must rebut. Given the volume of information we have reviewed on the CD enclosed with your letter, we must ask if this statement (above) represents the Corps' official position for the administrative record. PREPA also recognizes the decision to hold a public hearing is at the discretion of the District Engineer when a hearing would provide additional information that is necessary for a thorough evaluation of pertinent issues. As was discussed above, when we addressed the comments the CIAPR submitted, multiple public meetings were held to present the project and solicit public input during the local established review process. PREPA is not sure what additional, pertinent issues have been identified by the Corps that dictates the need for a public hearing. However, we are prepared to assist the Corps in any way possible to provide whatever information may be necessary to address those issues once they are identified.

In the remaining part of this correspondence we will address the requests you made for information on the following topics:

a. **Alternatives Analysis:** The overall project purpose is to deliver an alternate fuel source to the three existing electric power generating facilities located on the north coast of Puerto Rico. Attempting to use the *Gasoducto del Sur* would be inconsistent with the overall purpose of the project, and therefore is not a practicable alternative. Unless the Corps officially disagrees with our understanding of the scope for an alternatives analysis, and officially notifies PREPA what additional review is required, *Gasoducto del Sur* will not be discussed further.

   Regarding other options to deliver an alternative fuel source to the three power plants, PREPA updated Chapter 4 after multiple public meetings were held and it believes many of the comments directed at the alternatives analysis in the Preliminary DIA have been addressed. The FEIS

can be found on the Vía Verde website at **http://www.aeepr.com/viaverde_DIAP2.asp**, as well as on the EQB webpage.

Additional information on alternative methods of delivery, such as Gravity Based Structures and Floating Storage and Re-gasification Unit (FSRU), aka: boats and buoys system, is provided for the Corps' consideration in the Attachment. Notwithstanding that, PREPA is working on restructuring and reformatting the Alternative Analysis, so that it can be presented in the forthcoming weeks to the Corps using the format that meets its expectations.

b. **Avoidance and Minimization:** The location of the pipeline corridor as proposed has been extensively driven by statutory compliance and/or consideration of the following concerns:

Health, safety, and welfare concerns: - avoidance of major population centers pursuant to a de facto public policy established by the Honorable Governor of Puerto Rico for the design of this project and regulations and constraints for co-locating a utility line within existing rights-of-way under the jurisdiction of the Federal Highway Administration (FHWA). This public policy will be implemented by maintaining a 150 foot clearance between the pipeline and any residential structure, even when not required by the applicable federal regulation for Natural Gas Pipelines (49 CFR).

Use of environmentally sound, minimally invasive construction techniques and methodologies: – the extensive use of horizontal directional drills and trench box cuts, limited sizing of rights-of-way (ROW), allowances for extensive natural vegetative recruitment within the permanent ROW;

Avoidance of existing conservation lands: – lands subject to oversight by the Conservation Trust of Puerto Rico (CTPR), the Department of Natural and Environmental Resources (DNER), and/or by the United States Fish and Wildlife Conservation Service (USFWS); and

Avoidance of historic properties for the Puerto Rico State Historic Preservation Office (SHPO): – realignment of proposed pipeline corridor to avoid impacts to archeological sites of significance and/or historic properties that are listed or potentially eligible for inclusion in the National Register of Historic Places, as required in Section 106 of the National Historic Preservation Act of 1966.

PREPA believes that Avoidance and Minimization standards for the project have been met through re-alignments and design changes; complying with

health, safety, welfare, and public ROW constraints; and adopting environmentally sound, minimally invasive construction techniques and methodologies (HDD, vertical trenches).

Reductions in the size of the proposed pipeline would not reduce and/or minimize impacts to waters of the United States and the aquatic environment. The minimum size equipment required to install smaller diameter pipelines (< 24-inch) is currently proposed and the trench width differential on the near vertical cuts proposed is negligible. The number and distance between valve and PIG locations and access points is regulated by the USDOT Pipeline and Hazardous Materials Safety Administration (PHMSA). The project's direct, indirect, and cumulative impacts have effectively been restricted to the limits of the established construction ROW, with future maintenance limited to within the 50-foot wide permanent utility easement except in wetlands where no maintenance to the utility easement will be done.

c. **Compensatory Mitigation:** From the very beginning of planning for this project, avoidance and minimization were central goals around which alternative routes for the pipeline were reviewed and then selected. Indeed, in the ongoing effort to avoid and minimize, the applicant continues to look at alignment changes in some areas to further this goal. Examples can be found in Chapter 4 of the FEIS PREPA prepared (**http://www.aeepr.com/viaverde_DIAP2.asp**), as well as on the EQB webpage.

Each crossing of Corps jurisdictional areas has also undergone a series of reviews to propose construction methods to absolutely minimize any temporary or permanent alterations. A primary method adopted was diagonal drilling from upland to upland, and placing the pipeline crossing outside all Corps jurisdiction. Where trenching was found to be the only practicable method of construction (in the Guidelines definition of the concept), PREPA will ensure the selected contractor takes special precautions regarding the construction area, width of trench, use of native refill material, and minimum requirements for ROW maintenance to be employed.

The 369 acre of temporary impact you identify in your letter is more accurately represented as approximately 152 acres. This is derived from multiplying the length of each expected jurisdictional crossing by the 50-foot width we will operate within when locating the pipeline in WoUS. In addition, it must be remembered that most of the jurisdictional crossings are lands declared wetlands, but historically manipulated for agricultural purposes. These practices will not be allowed in the ROW, allowing native vegetation to become reestablished within one or two growing seasons. The only

exception will be the periodic management of a 50-foot wide ROW in uplands to regulate vegetation with deeply penetrating root systems.

Many of the components of your proposed mitigation and monitoring plan request are already built into the proposed plan. It is on these bases, PREPA does not feel a comprehensive mitigation plan is warranted. However, the applicant is certainly willing to entertain any specific, concrete suggestions the Corps feels are necessary to provide additional measures to those already incorporated into the designs. PREPA has already started working on draft mitigation plans for the different impacts to essential habitats, trees and wetlands. These plans will be turned in for the Corps approval in the forthcoming weeks.

d. **Wetlands**: An assessment and listing of wetland impacts was previously provided in the documentation provided to the USACE. Please reference the Tables listed below:

Table 5- Temporary Impacts to Waters of the US (Page 44 to 46)
Table 6- Temporary Impacts to Wetlands (Page 46 to 50)

Discussions of avoidance and minimization, project design considerations, and best management practices (BMPs) to be used were also included with the original submittal. Additional turbidity and erosion control measures and BMPs to be implemented during the project construction, to avoid and/or minimize wetland impacts in and adjacent to the construction right-of-way, are discussed in Item I - Water Quality section of this document. All these measures will be implemented during the construction phase, since the operation phase carries no impacts. PREPA is currently working to develop a more specific assessment of all possible direct, indirect, and secondary impacts to the jurisdictional wetland areas related to Vía Verde, including both on and off the project impact site, which fall within 300 feet of the development footprint. This assessment will be presented to the Corps in the forthcoming weeks.

e. **Horizontal Directional Drilling (HDD)**: It is recognized due care must be taken to ensure contractors adhere to prudent practices to avoid the accidental release of bentonite mud. The North American Society for Trenchless Technology (NASTT) provides guidance for the analysis and design of tooling essential reduce the incidence of hydro fractures (frac-outs) in karst environments. Hydro fractures, or frac-outs, result when fluid pressures built up in the borehole exceed the overburden effect of the surrounding soil medium. Several drilling factors and procedures will be monitored to preclude the development of hydro fractures. Eight significant factors will be evaluated at each HDD. These include: annular space;

backream rate; borehole pressure; depth of cover; reamer type; reamer diameter; soil composition; and soil density.

To insure the Horizontal Directional Drilling (HDD) operations to be conducted with the Vía Verde Pipeline will comply with all regulatory permits and standards, proper pre-construction geotechnical investigations will be conducted on the *in situ* soil formations along the proposed installation route. Tooling used in HDD installations will then be matched to the soil medium to be encountered

The Frac-Out Plan and will be amended to stipulate lined pits, and all environmental details which depict the sedimentation ponds will be revised.

In summary, HDD operation to be utilized on the Vía Verde pipeline will include proper preconstruction geotechnical investigations, limit drill fluid application rates, utilize an appropriate type reamer to reduce the extent and magnitude of the drilling fluid dispersed, carefully monitor drilling mud pressure increases until the midpoint of the installation is attained, and insure proper containment, recycling, and/or reuse of drilling mud. All HDD operations for the Vía Verde Pipeline will be conducted in accordance with the guidelines and recommendations of the North American Society for Trenchless Technology (NASTT) for karst environments.

f. **Fish and Wildlife Values:** Direct responses to the comments provided by the USFWS (December 15, 2010 letter) and by the NMFS (December 19, 2010 letter) are included in the Attachment.

g. **Threatened and Endangered Species:** Direct responses to the concerns expressed in the USFWS December 15, 2010 letter and in the NMFS December 19, 2010 letter are included in the Attachment.

h. **Cultural resources:** As recommended by the State Historic and Preservation Office, PREPA recently authorized the implementation of a 1B archaeological study aimed to further evaluate the areas and sites recommended in the completed 1A study included in the Final Environmental Impact Statement approved on November 29, 2010 by the Environmental Quality Board. The results of this additional evaluation will be presented to the SHPO as soon as the 1B report is available.

Efforts related to the 1B Study will be completed by licensed archaeologists Marisol Rodríguez and Carlos Ayes. They were the professionals hired to undertake the efforts related with the recently completed 1A Study.

i. **Infrastructure and Utilities:** PREPA will provide all water, water disposal, communications and electrical needs of the project with its own permanent or temporary infrastructure or equipment. There will be no need to coordinate with other agencies and companies, except for the Highway Authority (both federal and state) and the Port Authority, for the use of their infrastructure. Coordination of excavations as required by the Public Service Commission Regulation for Coordination of Excavations and Demolitions will also occur. All excavations will be coordinated through the "One Call Service", by calling 811 and complying with all requirements of the applicable regulation. Regarding the Highway and Ports Authorities, PREPA will comply with all requirements including a waiver from the Highway Authority (federal and state) for locating natural gas pipelines within a highway ROW and a Management of Traffic Plan when major highways and roads are to be impacted.

j. **Cumulative Impacts:** As indicated earlier, wetlands impacts during construction have been repeatedly evaluated to minimize direct aquatic resource impacts. Also, as mentioned, native vegetation should reestablish naturally after construction and site restoration. Many of the proposed temporary wetland impacts within the ROW are to agricultural fields or farmlands; which while designated as wetlands are routinely maintained, planted, harvested, and drained. The post construction ROW will have restrictions on the types of activities allowed during the active life of the project thereby improving wetland quality and functions in these areas. Temporal loss of wetland function during construction will be addressed and will be weighed against the net gains associated with restricted activities and elevated levels of protection afforded within the post construction ROW. Potential aquatic resource impacts at some distance in time, or reasonably certain to occur are difficult to imagine, much less predict. PREPA will evaluate cumulative impacts considering other major projects like PR-10 and PR-22, even when a preliminary assessment was made and it was determined that no cumulative impact will occur. This assessment will be presented to the Corps within the forthcoming weeks.

k. **Map depicting staging areas and access roads**: PREPA is working with the contractor, Gulf Interstate Engineering (GIE)/Ray Engineering, to procure the information the Corps requested regarding the proposed staging areas and the access roads. This information is incorporated in the Erosion and Sedimentation Control (CES) Plan. The data will be presented to the Corps as soon as it becomes available.

l. **Water quality**: A discussion of the measures to avoid accidental leaks of bentonite mud into aquatic environments associated with the HDDs has been included in Item e) above. Turbidity and erosion control measures are

addressed in the project Stormwater Pollution and Prevention Plan (SWPPP). BMPs for individual pipeline installation methods have been include in the FEIS and the JPA document. Additional construction notes have also been provided on the Environmental Detail Sheets.

The following additional measures turbidity and erosion control measures and BMPs may be implemented during the project construction to avoid and/or minimize sediment entering the water body from the construction right-of-way.

Temporary Erosion and Sediment Control: - The Contractor shall install sediment barriers across the entire construction right-of-way at all flowing waterbody crossings in accordance with an EQB approved CES Plan. The Contractor shall install sediment barriers immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Where waterbodies are adjacent to the construction right-of-way, the Contractor shall install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way.

The Contractor shall place all spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings in the construction right-of-way at least 10 feet from the water's edge or in additional extra work areas. No trench spoil, including spoil from the portion of the trench across the stream channel, shall be stored within a waterbody unless the crossing cannot be reasonably completed without doing so.

The Contractor shall install and maintain sediment barriers around spoil piles to prevent the flow of spoil into the waterbody. Spoil removed during ditching shall be used to backfill the trench usually with a backhoe, clamshell or a dragline working from the waterbody bank. Sand, gravel, rockshield, or fill padding shall be placed around the pipe where rock is present in the channel bottom. As required, monthly inspections will be scheduled by an independent professional engineer to ensure the control measures and practices included in the approved CES Plan are followed and observed. A compliance Monthly Report will be prepared and provided to the EQB as required by the applicable regulation.

Trenching - The following requirements apply to all waterbody crossings except those being installed by non-flowing open cut crossing methods. All equipment and materials shall be on site before trenching in the active channel of all waterbodies. All activities shall proceed in an orderly manner without delays until the trench is backfilled and the stream banks stabilized.

The Contractor shall not begin in-stream activity until the in-stream pipe section is complete and ready to be installed in the waterbody. The Contractor shall use trench plugs at the end of the excavated trench to prevent the diversion of water into upland portions of the pipeline trench and to keep any accumulated upland trench water out of the waterbody. Trench plugs must be of sufficient size to withstand upslope water pressure.

The Contractor shall conduct as many in-stream activities as possible from the banks of the waterbodies. The Contractor shall limit the use of equipment operating in waterbodies to that needed to construct each crossing. This will be done in full compliance with the approved CES Plan for the Vía Verde Project. As indicated previously, monthly inspections will be scheduled by an independent professional engineer to ensure the control measures and practices included in the approved CES Plan area followed and observed. A compliance Monthly Report will be filed before the EQB as required by the applicable regulation.

Trench Dewatering - During the course of construction activities, the open pipeline trench will, on occasion, accumulate water, either from groundwater intrusion or precipitation. The trench may be periodically dewatered, as necessary to prevent sedimentation of perennial waterbodies or rivers and allow for proper construction. Generally, a pump will be placed alongside the trench with an intake hose suspended into the water-filled trench. In areas with a very high water table and soils prone to sloughing, a well point system may have to be installed. Water may be pumped from the trench into vegetated upland areas within the ROW to prevent sediment-laden water from flowing directly into any waterbody. All dewatering areas will include suitable temporary turbidity and erosion controls. If adequately vegetated areas are too far removed from the dewatering site, the water may be discharged into straw bale or sediment fence containment areas, or into sediment bags.

The Contractor shall preserve as much vegetation as possible along the waterbody banks while allowing for safe equipment operation. Clearing and grubbing for temporary vehicle access and equipment crossings shall be carefully controlled to minimize sediment entering the waterbody from the construction right-of-way. This will be done in accordance with the CES Plan approved for the Vía Verde Project. Clearing and grading shall be performed on both sides of the waterbody prior to initiating any trenching work. All trees shall be felled away from watercourses. Plant debris or soil inadvertently deposited within the high water mark of waterbodies shall be promptly removed in a manner that minimizes disturbance of the waterbody bed and bank. Excess floatable debris shall be removed above the high water mark from areas immediately above crossings. Vegetation adjacent to waterbodies

which are to be installed by horizontal directional drill or boring methods shall not be disturbed except by hand clearing as necessary for drilling operations.

Grading - The construction right-of-way adjacent to the waterbody shall be graded so that soil is pushed away from the waterbody rather than towards it when possible. To minimize disturbance to woody riparian vegetation within extra workspaces adjacent to the construction right-of-way at waterbody crossings, the Contractor shall minimize grading and grubbing of waterbody banks. Grubbing shall be limited to the ditchline plus an appropriate width to accommodate the safe installation of vehicle access and the crossing to the extent practicable and in accordance with the approved CES Plan approved for the Vía Verde Project.

Pipe Installation - The following requirements apply to all waterbody crossings except those being installed by the non-flowing open cut crossing method. A "free stress" pipe profile shall be used at all minor, intermediate, and major waterbodies with gradually sloping stream banks. The "box bend" pipe profile shall be used for intermittent and major waterbodies with steep stream banks. The trench shall be closely inspected to confirm that the specified cover and that adequate bottom support can be achieved, and shall require construction inspection and on-site approval prior to the pipe being installed. Such inspections shall be performed by visual inspection and/or measurement by PREPA and or by its designated construction manager. In rock trench, the ditch shall be adequately padded with clean granular material to provide continuous support for the pipe. The pipe shall be pulled into position or lowered into the trench and shall, where necessary, be held down by weights, as-built recorded and backfilled immediately to prevent the pipe from floating.

The Contractor shall provide sufficient approved lifting equipment to perform the pipe installation in a safe and efficient manner. As the coated pipe is lowered in, it shall be prevented from swinging or rubbing against the sides of the trench. Only properly manufactured slings, belts and cradles suitable for handling coated pipe shall be used. All pipes shall be inspected for coating flaws and/or damage as it is being lowered into the trench. Any damage to the pipe and/or coating shall be repaired.

Backfilling - The following requirements will apply to all waterbody crossings except those being installed by the non-flowing open cut crossing method. Trench spoil excavated from waterbodies shall be used to backfill the trench across waterbodies. After lowering-in of the pipeline has been completed, but before backfilling, the line shall be re-inspected to ensure that no skids, brush, stumps, trees, boulders or other debris is in the trench. If discovered, such materials or debris shall be removed from the trench prior to backfilling.

For each waterbody crossed, the Contractor shall install a trench breaker at the base of slopes near the waterbody and in full accordance with the CES Plan approved, unless otherwise directed by the Project Engineer based on site specific conditions. The base of slopes at intermittent waterbodies shall be assessed on-site and trench breakers installed only where necessary. Slurred muck or debris shall not be used for backfill. At locations where the excavated native material is not acceptable for backfill or must be supplemented, the Project Engineer shall review and approve any granular material to be used.

If specified in the Construction Drawings, the top of the backfill in the stream shall be armored with rock riprap or biostabilization materials as appropriate as described in the approved CES Plan by the EQB.

Stabilization and Restoration of Stream Banks and Slopes: - The stream bank contour shall be re-established. All debris shall be removed from the streambed and banks. Stream banks shall be stabilized and temporary sediment barriers shall be installed within 24 hours of completing the crossing if practicable and as required in the approved CES Plan. Approach slopes shall be graded to an acceptable slope for the particular soil type and surface run off controlled by installation of permanent slope breakers. Where considered necessary, the integrity of the slope breakers shall be ensured by lining with erosion control blankets. Immediately following reconstruction of the stream banks, the Contractor shall, at the discretion of the Project Engineer, install a native seed mix to aid in bank stabilization.

If the original stream bank is excessively steep and unstable and/or flow conditions are severe or if specified on the Construction Drawings, the banks shall be stabilized with rock riprap, gabions, stabilizing cribs or bio-stabilization measures to protect backfill prior to reestablishing vegetation. Stream bank riprap structures, if required, shall consist of a layer of stone underlain with approved filter fabric or a gravel filter blanket. Rip rap shall extend from the stabilized streambed to the top of the stream bank, where practicable, native rock shall be utilized. The Contractor shall remove equipment bridges as soon as possible after final clean up.

m. Water **Quality Certification (WQC) and Coastal Zone Management (CZM) Consistency Certificate:** These certificates were requested through submittal of the JPA. In regard to the CZM, the applicant was advised the Puerto Rico Planning Board is already working on the evaluation and final approval of the CZM Certification. In relation to the WQC, PREPA will present all necessary documentation before the EQB. We will keep you

informed as we work with the Environmental Quality Board and Planning Board, CZM office.

You also requested information pursuant to Section 176(c) of the Clean Air Act regarding emissions that may result from the project. Section 6.18.2 of the FEIS approved on November 30, 2010 by the Environmental Quality Board considered a summary of Air Impacts related with the proposed conversion of PREPA's power plants located in the northern part of Puerto Rico. The results achieved through the analysis represent a significant reduction in the criteria's pollutants covered under the federal and state regulations.

Emission estimates developed were based on the AP-42 Emission Factors and based on a 100% percent operating load. All emission factors considered in the analysis included in the FEIS will be validated once contracts related with the plants fire box modifications are issued. Emission factors will be specifically evaluated considering specific design considerations associated with the particular burners and fire box configuration selected.

In the event that, after detailed evaluation and fire box design considerations, it is determined any of the plant modifications are affected by the applicable Prevention of Significant Deterioration (PSD) regulations or by the New Source Performance Standards, necessary pollution control strategies will be considered by PREPA. These additional/new pollution controls, if required, and /or modifications related to the existing operating conditions if needed, will be part of the operation permits requested and part of Title V permit conditions for said facilities.

To assist in the evaluation of the analysis developed below please find three tables that summarize the changes (reduction / increases) related with the modifications of the Cambalache Combine Cycle plant as well as the Palo Seco and San Juan Steam Plants. These are the plants that will be connected to the Vía Verde Pipeline Project.

Table # 1 Palo Seco Steam Plant PSD Emissions Evaluation

Preliminary PSD Analysis for Palo Seco Units 3 & 4 Fuel S, % 1.5						
Pollutants	Existing Allowable Emissions (One Unit)* (ton/yr)	Existing Allowable Emissions Units 3 & 4 (ton/yr)	Projected NG Emissions (ton/yr)**	Increment Netting (ton/yr)	PSD Significant Emission Rate (ton/yr)	PSD, Yes or No
PM	979.00	1,958.00	32	-1,925.8	25	No
PM10	118.00	236.00	129	-107.3	15	No
SO2	13,554.00	27,108.00	10	-27,097.8	40	No
H2SO4	602.80	1,205.60	16	-1,190.0	7	No
Nox	2,417.00	4,834.00	4,740	-94.3	40	No
CO	288.00	576.00	1,422	845.9	100	Yes
VOC	44.00	88.00	93	5.1	40	No
Pb	0.24	0.48	0	-0.5	0.6	No
Fluoride	2.16	4.32	-	-	3	-

Table # 2 San Juan Steam Plant PSD Emissions Evaluation

Preliminary PSD Analysis for San Juan Units 7, 8, 9, 10 & San Juan Combined Cycle Units 5 & 6									
Pollutants	SJ 7, 8, 9, & 10		SJCC5 & 6		*Total Emissions NG Conversion (ton/yr)*	PSD Significant Emission Rate (ton/yr)	*Existing Allowable Emissions***	Increment Netting	PSD Applicability
	Natural Gas Emission Factors * (lb/106 scf)	Emissions NG Conversion (ton/yr)	Natural Gas Emission Factors (lb/106 scf)	Emissions NG Conversion (ton/yr)					
PM	1.9	32.87	1.94	28.19	*61.07*	25	*2,946.22*	-2,885.15	No
PM10	7.6	131.49	6.73	97.94	*229.43*	15	*1,430.51*	-1,201.08	No
SO2 **	0.6	10.38	3.47	50.45	*60.84*	40	*7,619.76*	-7,558.92	No
H2SO4	0.92	15.9	5.31	77.26	*93.15*	7	*1,592.26*	-1,499.11	No
NOx	280	4,844.52	326.4	4,748.62	*9,593.14*	40	*6,739.20*	2,853.94	Yes
CO	84	1,453.36	83.64	1,216.83	*2,670.19*	100	*1,654.73*	1,015.46	Yes
VOC	5.5	95.16	2.14	31.16	*126.32*	40	*190.7*	-64.38	No
Pb	n/a	n/a	n/a	n/a	*n/a*	0.6	*3.54*	-	-
Fluoride	No info	No info	No info	No info	*No info*	3	-	-	-

Table # 3 Cambalache Combine Cycle Plant PSD Emissions Evaluation

Preliminary PSD Analysis Cambalache 1, 2 & 3						
Pollutants	Emission Factors (lb/106 scf)*	Emissions NG Conversion (ton/yr)	PSD Significant Emission Rate (ton/yr)	Baseline Actual Emissions (ton/yr)	Increment Netting	PSD Applicability
	Cambalache 1,2 & 3					
PM	1.94	21.15	25	113.9	-92.76	No
PM10	6.73	73.46	15	290.45	-216.99	No
SO2	3.47	37.84	40	780.23	-742.39	No
H2SO4	5.31	57.94	7	182.24	-124.3	No
NOx	326.4	3561.47	40	120.28	3,441.18	Yes
CO	83.64	912.63	100	207.75	704.87	Yes
VOC	2.14	23.37	40	71.8	-48.43	No
Pb	n/a	n/a	0.6	0.12		n/a
Fluoride	No info	No info	3	-		No info

The construction and maintenance activities associated with this project will use conventional construction equipment and procedures. We do not feel this activity will

contribute more than *de minimis* direct and indirect pollutant emissions above levels already existing due to regular private and commercial road transportation activities.

In summary, the applicant and its consultants remain most willing to do what we can to help the Corps review pertinent issues and information relevant to the Corps regulatory review under its' decision making criteria. If the information provided in this letter does not fully address your request for a comprehensive and detailed response, please do not hesitate to let us know. We remain committed to continuing to provide information as the review process moves forward to enable the Corps to expeditiously complete its evaluation process.

Cordially,

Francisco E. López García, Head
Environmental Protection and
Quality Assurance Division

ATTACHMENT - Public Notice Comment letters

Sierra Club Form Letter/Email:

Issue - there appeared to be two versions of a form letter. For the purpose of this response we place both in this category. The first, a Spanish version, was comprised of four principle issues:

a. Request denial of a permit because impacts outweigh benefits.
b. Request a public hearing for the single reason that the project is extensive and the public must have the opportunity to learn about impacts and express an opinion
c. Request an Environmental Impact Statement be prepared because 32 Threatened and Endangered Species may be impacted
d. Expressed concern that the local review process was "rushed"

PUERTO RICO ELECTRIC POWER AUTHORITY (PREPA) response –

a. With respect, the statement that impacts outweigh benefits is vague and does not provide a specific substantive concern we can respond to. The FEIS posted on the Via Verde webpage provides a detailed analysis of the project and presents information on the steps PREPA will take to minimize impacts. In aquatic areas the pipe will be placed with no permanent impact, and we expect the environment to fully grow back within one or two seasons. In the upland sections, only a 50-foot wide corridor will be maintained to regulate the growth of large, deep rooted vegetation. The initial 100-foot wide construction and maintenance corridors required to safely install and maintain the pipeline will be allowed to revegetate and will be utilized in the reforestation / mitigation areas for the project. Further details of the construction steps, and benefits the pipeline will provide, can be found in the FEIS.
b. The reason(s) for holding a public hearing as requested in the form letter have already been met and addressed. First, the public notice and the information posted on both PREPA's and the US Army Corps of Engineers' (Corps) website provide detailed information to the public about the project. Multiple public meetings were also held by PREPA across the island as part of the local review process (as evidenced by several of the comments submitted by people who participated in those meetings). The public notice issued by the Corps clearly has provided the public the opportunity to express opinions, as did the multiple public meetings PREPA participated in.
c. PREPA is working closely with the US Fish and Wildlife Service (USFWS) and the Corps to address possible effects the project may have on listed Threatened and Endangered Species and/or critical habitat. The list of 32 species initially identified by the USFWS was never meant to be a final determination of those species presence. Instead, it was a guidance list that was used by the biologist contracted by PREPA to undertake a Flora and Fauna Study. The study and its findings were included in the FEIS. Also, the list has been used as PREPA works collaboratively with both

agencies in a supplementary effort to identify what species may actually be found within four specifically identified sections of the project corridor and what the true potential for effect may be. PREPA believes the Corps, through its review authority and consultation with USFWS, will fully supplement the Biological Assessment included in the FEIS, approved by the EQB, and will also consider it adequate, allowing the completion of the evaluation under the JPA.

d. PREPA disagrees with the opinion that the local process was rushed. It questions what direct knowledge many of the individuals who submitted the form letter/email actually have regarding the process conducted by the Commonwealth agencies regarding the project. As we are all aware, the public comment process completed by the EQB, as well as the Planning Board, provided ample opportunity to all interested parties to participate in said process and provide any comments prior to the final approval of the EIS drafted and approved on November 30, 2010. The commenting period of thirty days allowed for the EIS by the EQB, as requested by PREPA, was equal to the period required by the EQB regulations.

Puerto Rico Engineers and Surveyors Association (CIAPR, in Spanish)

Issues – the CIAPR sent in two letters (Nov and Dec) and a 22 page evaluation of the Preliminary Environmental Impact Statement (DIA-P). Points raised by CIAPR that appear to be pertinent to this project include:

a. Concurrence that with today's technology it is possible to build and install a safe pipeline, provided that appropriate measures are taken during the design, manufacture of pipe and components, construction and operation.
b. The possibility of using buoys and / or transfer platforms, particularly in the areas of San Juan, Aguirre and Arecibo should be reassessed.
c. A request that the three alternative land routes considered in the Alternatives Analysis be depicted on maps.
d. Converting the South Coast complex (Costa del Sur) by modifying permits, converting the boilers, possibly constructing a second tank, and increasing frequency supplied. Parallel with this project, converting the Port of "Las Mareas" (formerly Phillips Petroleum Corporation (PPC)) to receive gas (LNG) by modifying connection points, additional piping, constructing a storage tank and dredging the west side of the bay. To supply Aguirre from this port, it would take only one route (approximately 5 km.), primarily using abandoned cane fields and an old train route. With these two changes CIAPR estimates 73% of the production capacity of electric power to gas Puerto Rico could be achieved.

PREPA response –

a. PREPA appreciates CIAPR's acknowledgement that a pipeline can be installed safely if appropriate measures are taken during construction and installation. We want to emphasize that the pipeline will adhere to all

safety standards set by the Pipeline and Hazardous Materials Safety Administration (PHMSA) and/or 49 CFR 192 regulations.

b. PREPA has conducted a thorough analysis of the alternative of using buoys and/or transfer platforms and this analysis is in Chapter 4 of the FEIS. Additional information for consideration is:

Gravity-Based Structure

GBS technology is potentially useable in water depths from about 60 to 85 feet, in areas with appropriate seafloor topography and substrates for placement of the structure. In addition, GBS facilities must be located in areas with no substantial shipping activities. Use of this technology involves the transfer of LNG to the terminal from a carrier located directly alongside the terminal. GBS terminals involve LNG storage in tanks within the GBS structure and, thus, allow continuous gas transportation out of the terminal, even when LNG carriers are not offloading at the terminal. A critical requirement of GBS terminals is the unloading of LNG from the carrier to the terminal using articulated loading arms under a range of wind and wave conditions. These arms have movement limits that can be exceeded by high winds and large waves.

Availability is also limited by the wind and wave forces reacting against the ship and the fixed GBS structure. GBS structures are typically constructed using steel or concrete. Use of this technology requires construction of the GBS structure at a graving dock at a coastal location. Following construction, the GBS structure is towed to the location of the terminal and placed on the sea bottom. The topside facilities, including vaporization facilities, unloading facilities and other terminal components, are then installed on the top of the GBS structure. The conditions suitable for a GBS have not been identified in the region, and if such a site were available, the environmental impacts are not likely to be lower than the proposed PREPA project. Also, as considered in the FEIS for Vía Verde, the receiving and regasifying system could be installed offshore and a holding tank of CNG could be installed on land. This alternative also has significant environmental impacts and thus, was not the selected alternative.

Issues of concern for a GBS option:

- Increased security risks, i.e. terrorism
- Interruption to delivery and operation due to inclement weather
- High construction costs due to requirement for more than one structure (to serve three separate power plants)
- Does not address principal public concern over safety of pipeline since pipeline still needed to deliver gas to onshore facility and/or to other facilities from point of delivery

- Significant environmental impacts to sensitive marine environment including coral reefs
- Additional impacts to T&E species (marine and anadromous) and/or critical habitat
- Risks to, or conflict with, commercial sea traffic,
- Time required to complete the construction and permit process will be 5 to 7 times longer that the Construction and Permit process associated with Via Verde.

Floating Storage and Re-gasification Unit

The FSRU technology involves the use of specialized ships as LNG terminals. Use of this technology involves the transfer of LNG to the ship from a carrier located directly alongside the FSRU. This technology involves the use of mooring facilities using anchor leg systems and swiveling connections to allow the movement of the ship in response to changing wind and current conditions. They generally need to be located in areas with water depths of at least 160 feet to allow for a flexible gas pipeline connection between the FSRU and the subsea sendout pipeline. The specialized ships include all required terminal facilities, including vaporization units, offloading facilities, gas storage, and other components. FSRU systems have some significant operational limitations based on wind and wave conditions and potential adverse effects on the use of the loading arms and mooring systems under poor conditions. Although FSRU's have been proposed, no FSRU has been constructed and operated in North America. The conditions suitable for a FSRU have not been identified in the region, and if such a site were available, the environmental impacts are not likely to be lower than the proposed PREPA project.

In some locations, an offshore receiving terminal may provide a better alternative due to the use of existing offshore facilities and pipelines, easier access for LNG tankers, and more flexibility to adapt to regulated exclusion zones. None of these apply at any of the three power facility sites. There are also some possible drawbacks or hurdles such as limited or distant access to natural gas distribution pipelines, lack of onshore services and in most instances, higher initial investments. One key issue is that offshore facilities are "new". Crude oil has been produced, stored and transported from offshore fields for many decades. Advances in technology, marine operations know how, safety and environmental protection, and onshore support for construction and maintenance are among the many aspects of accumulated experience that can be and are being borrowed from the crude oil industry in support of offshore LNG development. However, the newness of offshore LNG introduces new complexities, costs, and questions about feasibility.

A number of distinct challenges affect offshore LNG operations. Marine operations for offshore LNG facilities present new and different hazards and design specifications that must be dealt with and accommodated. This can increase the cost associated with LNG import operations. If subsea pipeline connections must be developed, additional design and cost considerations are introduced. Offshore LNG operations also face a different jurisdictional environment under the Deepwater Port Act (DWPA).

Issues: building two or more offshore facilities would not remove the safety concerns expressed by the public since interior pipelines would still be required to transport compressed natural gas between power plants. Costs of constructing multiple facilities would far exceed cost of a single pipeline for delivery to multiple locations. Increased risk associated with exposed facilities, i.e. terrorism, vs. buried pipeline. US Coast Guard (USCG) requires a 500m safety zone surrounding an offshore LNG terminal and the facility must be located away from shipping fairways and other areas of activity on the Outer Continental Shelf (OCS) to avoid interference.

Issues of concern for a FSRU option:

- Increased security risks, i.e. terrorism
- Interruption to delivery and operation due to inclement weather
- High construction costs due to requirement for more than one structure (to serve three separate power plants)
- Does not address principal public concern over safety of pipeline since pipeline still needed to deliver gas to onshore facility and/or to other facilities from point of delivery
- Significant environmental impacts to sensitive marine environment including coral reefs
- Additional impacts to T&E species (marine and anadromous) and/or critical habitat
- Risks to, or conflict with, commercial sea traffic,
- Time required to complete the construction and permit process will be 5 to 7 times longer that the Construction and Permit process associated with Via Verde.

c. The Attachments (Anejos) in Chapter 4, FEIS includes in section 4.1 "Mapas de Criterios" which depict the land routes considered for the project.

d. The overall project purpose is to deliver an alternate fuel source to the three existing electric power generating facilities located on the north coast. Attempting to use the Costa Sur complex in combination with the Aguirre Power Plant would be inconsistent with the overall purpose of the project, and therefore is not a practicable alternative. It is not practicable because generating most of the energy the island needs on the south coast would create a situation which destabilizes the electrical system and