

9.0 SOCIAL IMPACT ASSESSMENT

9.1 Socio-Economic Conditions

As of July 2005, the estimated population of Barbados was 279,254 persons. The population growth rate for 2005 is estimated to be 0.33% with a life expectancy of approximately 71.41 years. 67% of people claim Protestant as their religion and 4% Roman Catholic.

The distribution of the population was such that 48% resided in rural areas and 52% in urban areas. The national language of Barbados is English. Of the school-age population, 100% of those eligible for primary education are enrolled, while 89.8% of those eligible for secondary education are enrolled, based on 2002 estimates. The literacy rate in Barbados is 99.7% for both males and females, based on 2002 estimates.

The main industry in Barbados consists of tourism, sugar cane cultivation and associated activities, light manufacturing and component assembly for export. Offshore banking and related services have also recently become an important source of economic growth.

The Gross Domestic Product (2004 estimate) was \$4.569 billion USD, or \$16,400 USD per person. The GDP real growth rate was 2.3% (2004 estimate).

The labour force is distributed by occupation as follows: services (75%), industry (15%), and agriculture (10%) (1996 estimate). Barbados' main exports are sugar and molasses, rum, other foods and beverages, chemicals, and electrical components. As of 2004, the distribution of export partners was Trinidad and Tobago 14.2%, US 13.9%, UK 13%, Jamaica 7.7%, Saint Lucia 5.8%, Spain 5.8%, and Saint Vincent and the Grenadines 4.6%. Barbados' main imports are consumer goods, machinery, foodstuffs, construction materials, chemicals, fuel, and electrical components. As of 2004, the distribution of import partners was US 31.6%, Trinidad and Tobago 21.6%, UK 7.9% and Japan 5.3%.

9.2 Economic Effects of the Trents Generating Station

The Trents Generating Station will provide 200 - 300 temporary positions during each of the three phases of the construction of the fuel pipeline and site facilities. Approximately 54 long-term positions will become available to effectively operate the power generations facility. The estimated capital cost of the entire works at full capacity will be in the order of \$400 to \$650 million Barbadian dollars, depending on the power generation option chosen.

The demand for power has approximately doubled over the past 25 years due to continued growth in the national economy and an additional 30 MW of power is necessary to meet the energy needs of the island within the next five years. Major infrastructure projects such as

power developments take years to plan, and implement. In developing the Trents site BLPC is planning for the future. This project allows for the continued growth of the Barbados economy.

The following sections outline the components of the consultation process that have been undertaken as part of the Project development to ensure all of the relevant issues identified by the public and the regulatory agencies are included in the study.

9.3 Community Consultation

BLPC has conducted a program of public consultation as part of the EIA process. This program consisted of a 2-day public open house session and contact with the nearby landowners. The objectives of the program were to:

- Provide an opportunity for the public to have meaningful input into key decisions with respect to project development;
- Provide sufficient information about the project to the public in a timely fashion to enable them to respond effectively to the development options being presented to them;
- Obtain environmental and socio-economic information from those most familiar with the area to enable the identification of constraints which may affect site selection;
- Identify issues and concerns of those potentially affected by the Project; and,
- Enhance communication between BLPC and the community.

9.3.1 Public Open House Session

On January 28 and 29, 2006, BLPC conducted open house sessions as part of the public consultation process for the proposed Facilities. BLPC placed an advertisement in local newspapers (The Barbados Advocate and The Nation) from January 23 to 29, 2006, notifying the public about the upcoming open house sessions to discuss the proposed project. A copy of this notice is provided in Appendix H. Notices were also broadcast on the local radio stations, informing listeners about the time and location of the open house events. Three notices were broadcast on Thursday, January 26, 2006 and Friday, January 27, 2006. On each of these days, the notice was broadcast twice between 6:30 and 8:30 am and once between 6:30 and 8:30 pm. These notices were broadcast on the following stations:

- VOB;
- Love FM;
- Gospel 790; and,
- CBC 900.

In addition, approximately 1,000 invitations were mailed out to the local residents, informing them of the open house sessions, and asking them to attend. These letters of invite were sent to the residents of Trents and the surrounding areas, including specific letters to the St. Lucy Church, St. Lucy Secondary School, the Parliamentary representative, the Minister of the Environment, Town and Country Planning, and other government departments. A copy of this mail-out is provided in Appendix H.

The open house sessions were conducted from 3 pm to 6 pm each day, at the proposed site of the Trents Generating Station, in a temporary structure constructed for the event. At each session, representatives from BLPC, the environmental consultants (AMEC Earth & Environmental), and the design engineering consultant (Mott MacDonald EPO Ltd), were on hand to speak to members of the public to provide an overview of the Project, answer questions, and to document concerns or issues that members of the public had.

The information available at the open houses included:

- Posters displaying Project and Environmental information, including:
 - The purpose and description of the Project;
 - A map indicating the proposed location of the custody transfer facility;
 - Aerial photos of the site and the station boundaries;
 - A conceptual illustration of the proposed facilities;
 - An outline of the Environmental Assessment process;
 - What the EIA report will contain, and the types of environmental studies that have been conducted;
 - The types of environmental issues that are specific to the Project; and,
 - The measures that will be implemented to minimize potential effects from the Project.

- A pamphlet handout that summarized the Project and EIA process.

Copies of the posters and the handout pamphlet are provided in Appendix H.

A booklet was maintained at the open houses which attendees were asked to sign. During the January 28 open house, 31 members of the public signed the booklet and during the January 29 open house, 55 members of the public signed the booklet. It is also conservatively estimated that an additional 10 people may have attended on Saturday and another 20 on Sunday who did not sign the booklet (i.e., only one member of a group signed the book, people did not want to sign, etc.).

Members of the public who signed the booklet were also asked to document any comments, potential concerns or issues they may have with the Project. The following table summarizes the issues that were identified by the attendees. A response to the issue or a reference to the

appropriate section of the EIA which addresses the issue is also provided in the table. Where there were multiple questions or comments about the same issue (i.e., noise), it is only summarized once in the table. Overall, the Project was considered positive by the majority of the members of the public who attended. Copies of the sign-in and comment sheets from the open houses are provided in Appendix H.

Table 9-1 Comments Received / Addressed Through Open House Session

Comments / Questions	Response
Project is a good idea	No response required.
Open House was informative and well planned/organized.	No response required.
Expected more consultation during early stages	The facility design and the final decision on the site selection have just recently been completed to a point where BLPC are confident that this Project is viable. It would not have been appropriate to begin consultation with the public until these details were known.
What type of pipeline will run between Checker Hall and the site?	A description of the pipeline is found in Section 4.4 of the EIA.
Project is good for the St. Lucy area	No response required.
Concern expressed about the potential for explosions	With the design of the facility, there is insignificant risk from explosion. Other types of accidental events or malfunctions that could potentially occur are addressed in the EIA (Section 8.5).
Questions regarding emissions from the station and the potential impact on the surrounding area.	This issue is addressed in the EIA (Sections 5.2 and 8.1).
Questions regarding noise generated by the station and the potential effect on the surrounding receptors (St. Lucy's Church, St. Lucy's school, local residents)	This issue is addressed in the EIA (Sections 5.3 and 8.2).
Questions regarding vibrations generated by the station.	This issue is addressed in the EIA (Section 8.2).
Questions regarding the site selection or the suggestion of alternative sites for the station.	BLPC conducted a thorough evaluation of a number of sites that were suitable for the new generating facility. The two primary factors that had to be considered were that the site needed to be large enough to accommodate the facility and the landowner must be willing to sell the property. The site at Trents met those requirements.
Question about sparks from the stack causing fires.	With the design of this facility, there is no potential for sparks from the stack.
Question regarding stack height affecting birds.	There is no evidence that stacks of this height and nature have any significant effect on bird mortality or behaviour.
Is there a plan to have additional residential areas nearby?	No future residential developments in proximity to the plant have been identified.
Plant should be constructed and operational as soon as possible	BLPC agrees and looks forward to obtaining the necessary approvals to begin construction at the site. The target date to have the facility in-service is 2008.
Project is necessary for development and secure power supply	Agree.
Questions regarding the treatment of wastewater from the facility.	This issue is addressed in the EIA (Section 8.4).

9.4 Regulatory Consultation

Consultation with the Barbados regulatory authorities was completed to confirm the issues and requirements of the various agencies.

The consultation for this Project was initiated by the submission of a Terms of Reference (TOR) Report for the Environmental Impact Assessment to the Barbados Town and Country Planning Department. The TOR have been reviewed, revised and approved by the TCDPO on November 3, 2005, and are included in Appendix E. Subsequent consultations were then held with members of this committee, as well as other regulators, to review the proposed scope of work and responses to the comments, to describe the specific work plan for the baseline data collection program, and to obtain specific Project related information. These consultations were held with the following individuals:

- Dr. John Mwansa - Barbados Water Authority about groundwater resources. - The closest potable well is at Alleyndale. Trents site is in zone 3 water area. There is poor water yield in the Trents area and it will not be possible to obtain fresh water. Brackish water is available with TDS of 1,000 to 10,000 ppm.
- Alex Ifill – Barbados Water Authority on presence of local wells. - Fairfield sugar factory had a well to the east of the plant site. Factory is now closed, BWA have no information on water quality. Fresh water source in the area will be difficult to obtain.
- Jeffrey Headley – Environmental Protection Dept. regarding RAMCID. - RAMCID has been replaced by a review committee for the EIA.
- Therese Yarde – Environmental Protection Dept. regarding EIA scope. – Meeting with the EIA team to discuss the EIA scope of study. Key issues discussed were air, noise and wastewater discharge.
- Lisa Senhouse – Environmental Protection Dept. regarding EIA scope. – See meeting with Therese Yarde above.
- Anthony Headley – Environmental Protection Dept. regarding EIA scope. - See meeting with Therese Yarde above.
- Sharon Griffith – Department of Transportation for traffic study and issues. – A traffic count study was completed in the vicinity of the project to assess the potential effects of the project.
- Mitchison Beckles - Grantley Adams Airport regarding high stacks. – The plant is outside of the aircraft zone but will require stack lights and possibly markings. This will need to be reviewed by the airport authority once the application is made to TCPDO.

- Kevin Farmer – Barbados Museum on known historical resources. There are no known archaeological artefacts on the Trents site.
- Barton Clarke – Ministry of Agriculture and Rural Development on rural development issues.
- William Gollop – Barbados National Trust on significant heritage features.
- Mr. Fort – Ministry of Tourism regarding developments in area. – No developments planned in the immediate area of the plant.
- Leo Brewster – Coastal Zone Management Unit regarding the use of the Arawak wharf. – Information was provided on the project and the use of the wharf, that there will be no modifications to the pier except the attachment of a pipeline. BLPC should consider a near shore assessment prior to start-up to confirm condition.
- Chesterfield Mayer – Barbados Fire Service regarding fire protection in the Trents area. The closest fire hall is located at Ashton Hall approximately 4km to the south of the Trents site.
- Jenn Beggs – Barbados Turtle Study Group regarding turtle nesting on the beach at Arawak Cement. Turtles are known to nest on that section of beach. Suggested contacting University prior to commencing any work on the beach to identify presence of nests and to move them