

# **Cahill Energy (Barbados) & Government of Barbados**

## **Plasma Gasification Plant**

### **Fact Sheet**

This project presents difficulties in 3 different areas:-

1. Governance
  2. Economic and Financial
  3. Environmental
- MOU with Cahill signed on March 15<sup>th</sup>, 2014 – 2 days before the Debate on the Annual Estimates of Revenue and Expenditure without the Attorney General or the Solicitor General approving that the contract was fit for signature by Ministers of the Crown.
  - Sinckler announced Cahill investing US \$240 million in a Waste to Energy Project at Vacluse, St. Thomas.
  - Mottley indicated in that same debate that Cahill was ONLY formed in August 2012 in Guernsey and was just a shell company on a nameplate with no experience to whom the Government had given a licence to shop for investment.
  - Government attacked Opposition and indicated that it was a credible project and even Bloomberg has carried press releases on the project.
  - The project then went to the Cabinet of Barbados in May 2014 – 2 months later! The Cabinet was asked to rescind a previous decision to go out to tender for waste to energy facilities
  - The Cabinet then agreed that the SSA should NEGOTIATE with Cahill Energy (Barbados) to develop, finance, design, construct, own, operate and maintain a plasma gasification waste-to-energy facility at Vacluse.
  - The Cabinet has not had any further dealings with the Project.
  - Since that time Cahill had 1 Town Hall Meeting at St Thomas Parish Church in Barbados in July, 2014 but the representative of Cahill had also revealed more at an Open House at a Waste to Energy Plant at Tees Valley on July 10<sup>th</sup> 2014 where she stated, among other things the following:-
    - “It cannot get any better than getting paid to take other people’s garbage.”

- She stated that Cahill Energy was written into the laws in Barbados as having legal claim to all of the island's municipal waste (municipal, hospital, shipping and sugar cane).
- Scope of plant is to accommodate 650 tonnes per day
- They expect to receive cash flow of BDS \$3.4 Billion over a 30 year period providing an unlevered rate of return of nearly 19%, as tipping charges are only about BDS \$60 per tonne the project is made feasible by a BDS \$450 per MW electricity price.
- Schedule is 9 months of front end engineering and design and 36 months development and construction with a 2019 Start Date.
- The costs of the project has increased as follows over the last 15 months:
  - In March 2014, Cahill stated that the Waste to Ensrgy Project would cost BDS \$480 million.
  - On July 10<sup>th</sup>, 2014 Cowan said BDS \$512 million
  - In May, 2015 it was reported that it would cost BDS \$600 million
  - June 13<sup>th</sup>, Cahill said in Sunday Sun it would cost BDS \$700 million
- The scale of the project has increased to move from 650 tonnes per day to 1 000 tonnes per day.
- Cowan indicated on June 14<sup>th</sup> 2014 in the Sunday Sun as follows:
  - Cahill has had difficulties raising the investment for the project because of the constant downgrading of Barbados' Credit Rating. Cowan stated, "As soon as we signed the Agreement Barbados' Credit Ratings dropped, not once but several times over a year and we would have investors that were very interested, but the time there was a third credit rating drop they were not interested anymore and we would have to start again with new investors."
  - A flurry of investors have started to arrive – Americans have come and Chinese expected in another 2 weeks; overall there were at least 7 investors expressing interest.
  - Deal expected to be closed by August 15<sup>th</sup>, 2015
  - Construction will start in September, 2015.

- In the same newspaper and on the same page, Minister Dennis Lowe said at variance “It is an expensive endeavor and they have been going through a number of investors. They now have a team of investors who have agreed to finance the project for them and over the next couple of weeks we will be meeting with their engineers, one of whom is on the ground already. We will be going through the final logistical issues to get ready for ground break and construction.

“ We knew that we were on a schedule and you are working in a volatile economic environment. For example, today somebody can say that they are interested in helping fund the project and tomorrow they might come back and say you had a downgrade so we are not interested anymore. And a plant at that level, and that cost, requires a lot of work even to get to the point of construction and I am pleased to say we have been able to scale a lot of those hurdles and we will continue to work to get to groundbreaking.”

- Cahill Energy approached Jacob Securities of Canada to issue a Confidential Information Memorandum (CIM) which they did in March 2015, entitled “Barbados Waste Power Generation Project”
- The cover letter of the CIM signed by W. Tyler Hand states as follows:
  - Cahill Energy has chosen to sell the company Cahill Energy Barbados (CEB) and “to use the funds raised to promote its own project development business”
  - It reflects in Paragraph 2 immediately after announcing the sale, Cahill’s agreement with the Government of Barbados BUT states that “the Protocol itself does not provide for the project to comply with any specific environmental standards”.
  - The 1<sup>st</sup> stage of the Process requires entities interested “to submit a written, not binding letter of intent for acquisition” referred to as the initial bidding.
  - The 2<sup>nd</sup> Stage will be “due diligence and binding letters to bid”. Participants in the 2<sup>nd</sup> Stage must be “ready to negotiate and sign a binding definitive agreement , pursuant to terms consistent with the quoted acquisition of CEB or the project. Quotations shall not be subject to any further substantial due diligence... and shall not be subject to financing terms and conditions, and you must

have all corporate approvals. According to the assessment of the offer Cahill will decide whether to proceed with final negotiations.

- Details of the CIM are as follows:
  - Section 2 – Investment Highlights
  - Section 3 – Overview of Barbados
  - Section 4 - Project Highlights
  - Section 5 – Cahill Plasma Gasification
  - Section 6 – Plasma Gasification Project Financial Analysis
- Section 2 states once deleveraged (debt free) it is expected that IRR of 21% higher than acquisition cost.
- Section 4 provides in greater detail as follows:
  - GOB signed 2 contracts with Cahill both of 30 years duration –
    - Implementation Agreement; and
    - Power purchase agreement
- The **Implementation Agreement** is divided into 2 parts:-
  - Part 1 provides for the development, construction, operation and maintenance of the project
  - Part 2 deals with the arrangements for the supply of waste for the Project
- Part 1 states as follows:-
  - Cahill has the exclusive development rights of waste-to-energy plants in Barbados over the term of the contract, 30 years
  - Cahill is exempt from all taxation –
    - NO Corporation Tax
    - NO VAT
    - NO Capital Gains
    - NO Transfer Tax on shares or property
    - NO Withholding Tax on Interest and Dividends
    - NO Import Duties on Waste, tires and other supply items
    - NO Export Duties on goods of project terminated
- Government must compulsorily acquire the land at Vauclose for the project site and give to CEB and transfer it free of cost
  - Cahill must be allowed to drill water wells on the land without charge or tax, permission is normally required from BWA.
  - GOB to supply water infrastructure to the plant free of charge. i.e. pipeline, construction and commissioning

- Cahill will be allowed to create rainwater lagoons on the site
- GOB must deliver the Environment Impact Assessment on the facility
- GOB must provide a leachate treatment plant adjacent to the facility
- GOB must represent and warrant to provide the following municipal waste and biomass waste each day made up of 550 tonnes of municipal waste and 450 tonnes of biomass waste (King Grass locally known as Elephant Grass)
- GOB must collect, transport, sort and deliver all municipal waste
- GOB must purchase and/or cultivate, harvest, store, dry, crush, collect, transport and deliver all biomass waste
- If GOB fails to deliver the contracted waste or biomass they must compensate Cahill for loss of earnings
- GOB must bear the cost of connecting to the national electricity grid including debugging and ensure that Barbados Light and Power must test and debug grid connection and do so in accordance with existing rates at applicable to industrial facilities.
- Revenue to Cahill will come from tipping fees:
  - BDS \$60/tonne for municipal/industrial and commercial waste
  - BDS \$100/tonne tyres
  - BDS \$500/tonne hazardous waste
  - If calorific value of waste falls below the target value of 12-14 Mj/kg the processing fee will increase from 5-13%
- Handling costs will increase every 3 years to reflect operational and maintenance costs of CEB
- Any delays to the project will not affect revenue earnings
- GOB must establish an income reserve account equal to 6 months of its expected waste disposal cost. This must be done in 3 tranches with the 1<sup>st</sup> on the conclusion of the financing and with the 3<sup>rd</sup> before the commercial operation of the plant. This reserve will hold BDS \$4.8 million according to the tables in the

document. (Please note that there is likely to be 3 years between financing and commercial operation.)

- There is a “Make Whole” provision, i.e. should the GOB default

The **POWER PURCHASE AGREEMENT** provides as follows:

- Period of the agreement will be extended beyond the 30 years for the period similar to any delay no matter the cause
- GOB, rather than Barbados Light and Power, is responsible and must purchase directly or only through for the purchase of all power supplied by the project
- Cahill’s guaranteed income includes:
  - A Capacity Payment
  - A Fixed Price of BDS 45 Cents/unit input power
  - Prices will increase every 3 years to reflect CEB’s increases in operating and maintenance costs
- GOB has agreed that the project outputs is better than any other forms of electricity and must enjoy the right of priority scheduling
- Cahill has no obligation to a minimum output capacity nor will it be liable to the GOB for penalties because it failed to generate electricity
- CEB may schedule Downtime for the plant for 35 days a year

In respect of Raw Materials

- “The project will be flexible enough to deal with the normal fluctuations of raw ingredients and can take full advantage of high calorific value material such as tyres stacked on neighbouring islands”
- Minister Dennis Lowe denied the need for any importation of garbage or tyres in a debate on the Municipal Solid Waste tax on April 13<sup>th</sup> 2014 in the House of Assembly.

**Private and Confidential**

May 26, 2015

Cahill Energy Limited  
First Floor, Tudor House, Le Bordage  
St Peter Port, Guernsey  
GY1 1DB

**Attn: M. E. Clare Cowan, CEO**

**Re: Waste to Energy Plant, Vacluse, St. Thomas, Barbados Preparation for Investor Due Diligence**

Dear Clare:

To date we have identified three Corporations based on the mandate you gave my firm, Holtspur Associates, due to our connections with the China Development Bank (CDB). As per the mandate, through CDB, we identified two corporations that were interested in evaluating the above referenced opportunity and potentially participating in the acquisition process being conducted on your behalf by Jacobs Securities. These two companies are COMPLANT and Sinohydro. As you are aware, Sinohydro was just approached via the CDB and were very positive about this opportunity. However, they have only had a short window in which to evaluate the opportunity before the June 5, 2015 deadline.

The following is an outline on the two Companies that are interested in the Cahill Energy Barbados (CAB) project and that are currently determining their response for the June 5, 2015 deadline.

COMPLANT was established in November 1959. In April 2009, COMPLANT was 100% merged into State Development and Investment Corporation as a wholly-owned subsidiary. COMPLANT is organized to implement China-aided economic and technological projects. COMPLANT has established friendly relationships with governments, industry and commercial sectors in over 100 countries and regions. Winning various acknowledgements, it has successfully finished a great number of foreign works and complete-plant projects.

SINOHYDRO was established in China as a state-owned hydropower project contractor during the 1950's and continues to extend its business lines along the construction chain. SINOHYDRO is a driving force behind China's industrial development, playing a leading role in enterprise technical innovations, management system reforms and international business development. With 130,000 employees, it has a versatile professional team providing one-stop services of financing, engineering, purchasing, implementation and project management of power, water conservancy, transport infrastructure and civil works projects such as public/private buildings or facilities that comprise key points of local economic development.





Sincerely,

C. Kill 

Chris Killamey.

Holtspur Associates.



## Waste-to-energy Dangers

- There are two by-products of gasification. Syngas from the organic waste and slag from inorganic waste like glass, concrete and metal.
- When syngas is collected and cleaned for production of energy or industrial feedstocks, pollutants within the gas can escape.
- Potential emissions will include particulate matter, nitrogen oxide, sulfur dioxide and trioxide, mercury, dioxins and furans, and hydrochloric acid. (the latter two are highly toxic and carcinogenic).
- Hydrogen halides, hydrogen sulfide, and metals are also sometimes emitted.
- Plasma gasification for the commercial burning of municipal waste is still relatively new and the plant being proposed in Barbados will be the largest of its kind in the world.
- If there is the importation of tyres this will be of extreme interest to the Environmental Health dept. of the Ministry of Health, regarding the possibility of importing mosquito borne diseases, including malaria and yellow fever.

- Importation of garbage to make up volume required could also have grave Public Health consequences. Currently, garbage from ships and aeroplanes is not permitted to leave our sea or air ports.
- Caustic soda solution - a very dangerous and corrosive chemical is also used in the process, how will this be disposed? In the proposed rainwater lagoons? A problem that has caused major environmental issues in Jamaica, which is >25 times the size of Barbados.