

THE PUBLIC UTILITIES COMMISSION

IN THE MATTER Of The Application of Belize Electricity Limited (“BEL”) for Approval by the Public Utilities Commission (the “Commission” or “PUC”) in respect of two (2) Power Purchase Agreements (“PPAs”) with Blair Athol Power Company Limited (“BAPCOL”) and Belize Electricity Limited.

Background

1. In December 2013, the PUC conducted a call for competition in which BAPCOL participated.
2. In March 2015, BAPCOL was named as one of the successful bidders to construct plants having an aggregate AC capacity of 15 MW and to sell such power to BEL. In issuing the award, the PUC stated that *“With respect to intermittent renewable energy projects, the intent is that BEL would collaborate with the developer to execute the best designs, selection of equipment and location of the project sites. In other words, the exact proposal of the bidder may not be the most acceptable solution for the power system and may be altered by agreement. The determining factor for selection then is the comparative terms being offered by the bidder.”*
3. On July 19, 2019, the Commission wrote BAPCOL to inquire whether or not BAPCOL intended to continue with the project. Ambrose Tillett of the PUC indicated in his letter that *“...the PUC would appreciate that BAPCOL is still desirous of executing the proposed projects at a fixed price over the life of the projects or any approval Power Purchase Agreement (PPA) of BZ\$0.17 per kilowatt-hour, and an indication of the earliest expected date at which the projects may be executed and brought into service.”*
4. In response to the letter referred to above, BAPCOL wrote on August 8, 2019 to indicate that they were prepared to move forward with the projects providing that the Government of Belize commits to promulgate an Act that will provide for the exemption of taxes, duties or imposts.
5. On October 17, 2019, the Chair of the PUC at that time, John Avery, wrote to Minister Frank Mena to inform the Minister of BAPCOL’s conditions for moving forward with the projects.
6. On October 25, 2019, the CEO of BEL, John Mencias, responded to John Avery’s letter to indicate that *“We note also that PUC’s expression of confidence in BAPCOL’s ability to construct and operate the solar PV facility. While this may be justified, BEL hereby ask that the PUC share with BEL the information it took into consideration in arriving at this conclusion.”*

7. Seven years following BAPCOL award, BEL, by way of letter dated January 5, 2022, submitted a Draft PPA with BAPCOL for a 7MW Solar Powered Generation Facility in Chan Chen for review and approval by the PUC.
8. In said letter, BEL indicated that *“the US\$0.085 per kWh proposed may be too high and as such the matter is referred to the PUC for recommendation.”* BEL also indicated that it intends to use the final approved version of this PPA as a template for the 8 MW BAPCOL solar facility and will provide that PPA for the PUC’s review in due course. Additionally, BEL noted that it has not received final technical design for either sites and will make this available to the PUC as soon as the designs were received.
9. On January 11, 2022, PUC received a letter from Michael Bowen of BAPCOL in which he indicated that his company is available to discuss the project and model with the PUC to address any concerns. He also indicated that BEL did not address the concern regarding the rate of US\$0.085 per kWh with BAPCOL prior to notifying the PUC of its position.
10. On June 30, 2022, Abraham Teck of the PUC wrote to both BEL and BAPCOL to request further information on seven (7) items which the PUC found to be unclear or lacking from the PPA as follows:
 - (i) Resource assessment – The measured solar resources and related expected power output on an hourly basis and how it feeds into a [typical] dispatch simulation;
 - (ii) Built facility – The technical specifications of the proposed power plant need to be detailed, including structural design parameters;
 - (iii) Grid services – The functionalities required from the Solar PV Developer and the Utility to enable efficient system dispatch, including proposed modalities for forecasting (yearly, monthly intra-day) in aid of dispatch;
 - (iv) Benchmarking and risk assessment – To understand how performance, risk and compensation is weighed in respect of solar PV technologies in competitive markets;
 - (v) Price clearing mechanism – if the project parameters fall outside those determined in (iv) above then the proposed modality for fixing final costs via competition;
 - (vi) Regulatory Cost model – The processing of prudent and reasonable cost information to arrive at a proposed rate; and
 - (vii) Appendices and Exhibits – The PPA in its finished version with all relevant components included in the submission.
11. On August 23, 2022, the PUC met with parties from BEL and BAPCOL to clarify the matters stated in the letter from Abraham Teck.
12. September 23, 2022, Michael Bowen wrote to the PUC and provided further (although not all) information requested by the PUC.

13. On December 20, 2022, the PUC held a follow up meeting with the parties to once again get an update as to the progress of the projects and the information that remained outstanding.
14. On February 17, 2023, BEL wrote the PUC and provided an updated submission relating to the proposed 7MW solar-powered generation facility, including a revised Draft Power Purchase Agreement, the underlying financial analysis for the proposed purchase price and the technical specifications of the power plant.
15. On March 21, 2023, BEL wrote to the PUC on the subject matter of “***Urgent Need to Issue Request for Proposal for Energy Supply.***” In said letter, Leon Westby advised the PUC that “***If the PUC decides to award BAPCOL the power purchase contract, then the 7MW at Chan Chen will not be subject to a Call for Competition. BEL makes no objection to the PUC proceeding with such an award.***” Furthermore, it indicated that the company intended to construct a 10 MW Solar Farm at Maskall as a part of its own investments.
16. Subsequent to the above letter, the Prime Minister of Belize called a meeting with the PUC, BEL and the Ministry of Public Utilities on April 17, 2023 to discuss the various projects being pursued by the Government of Belize and BEL’s call for competition. At that meeting, it was decided that BAPCOL should be offered to construct the required 8MW in Maskall and the PUC should aim to conclude the PPAs with BAPCOL within thirty days.
17. Subsequently, PUC has received various permutation of these two draft Power Purchase Agreements as follows:
 - (i) PPA dated April 19, 2023 and executed by both BEL and Blair Athol Power Company PV₁ Limited (“BAPCOL PV₁”) for 7 MW of power at Chan Chen;
 - (ii) PPA dated April 19, 2023 and executed by both BEL and Blair Athol Power Company PV₂ Limited (“BAPCOL PV₂”)for 8 MW of power at Maskall;
 - (iii) PPA under cover letter dated 21 April 2023 and executed by BEL only for 7 MW of power in Chan Chen to be produced by Blair Athol Power Company PV₁ Limited;
 - (iv) PPA under cover letter dated 24 April 2023 and executed by BEL only for 8 MW of power in Maskall to be produced by Blair Athol Power Company PV₂ Limited; and
 - (v) Undated PPA under cover letter received from Chairman of BEL, Mr. E. Andrew Marshalleck, received by the PUC on April 26, 2023 by and between BEL and Blair Athol Power Company Limited or BAPCOL.
18. Given that the PPAs received on April 21 and 24, 2023 were executed by both parties, the PUC considered those two agreements as the PPAs that have been filed by the parties.

The key components of the PPAs

19. BEL has indicated that the parties are in agreement with the content of the proposed PPA for BAPCOL PV₁ and BAPCOL PV₂ save and except that the rate is to be finalized by the PUC.
20. The key highlights of the BAPCOL's financial model from which the rate of US\$0.085 per kWh has been derived are as follows:

BAPCoL PV Tariff Model: Consolidated 15MW Solar Contract				25-Years Total
NEO (GWH/Year)	28.28	Closing Fee		
Total Investment Value	\$ 21,241,000	\$ 500,000	\$ 21,741,000	
Economic Life (Yrs)	25			
Rate of Return (PUC)	10.00%			
Year	0	15-Year Initial	10-Year Extension	Total 25-Years
Net Electricity Output (NEO)		462,019,440	146,446,459	608,465,899
COST OF SERVICE				
Depreciation		18,117,500	1,811,750	19,929,250
Return		14,494,000	1,449,400	15,943,400
OPEX		6,026,048	2,679,953	8,706,001
Business Tax		-	-	-
Licence Fees		300,000	100,000	400,000
Total Cost - TBR		38,937,548	6,041,103	44,978,651
Rate {Cost-plus method}		0.0843	0.0413	0.0739

21. In reviewing the model submitted by BAPCOL and BEL, the PUC discovered an error in the calculation, as the spreadsheet only accounted for the first five years of the ten year extension period.
22. Additionally, the PUC, made the following corrections:
- (i) Reduce the Licence Fees from US\$20,000 to US\$5,000, to reflect the fact that there is only one licensee;
 - (ii) Reduce the Investment value from US\$3,625,000 to \$0 and removed any associated returns on investment and depreciation.
23. Given these corrections, the rate has been further reduced from US\$0.085 to US\$0.0593 per kWh over twenty-five (25) years as follows:

BAPCoL PV Tariff Model: Consolidated 15MW Solar Contract			25-Years Total
NEO (GWH/Year)	28.28	Closing Fee	
Total Investment Value	\$ 17,617,500	\$ 500,000	\$ 18,117,500
Economic Life (Yrs)	25		
Year	0	15-Year Initial	10-Year Extension
Net Electricity Output (NEO)		462,019,440	289,268,185
COST OF SERVICE			
Depreciation		18,117,500	18,117,500
Return		14,494,000	14,494,000
OPEX		6,026,048	5,786,754
Business Tax		-	-
Licence Fees		75,000	50,000
Total Cost - TBR		38,712,548	5,836,754
Rate (Cost-plus method)		0.0838	0.0202
			0.0593

24. In a Special Meeting of the Commission on June 6, 2023, the two PPAs between BEL and BAPCOL have been approved at the rate of \$0.059 per kWh, subject to the following:

- a. The PPA shall be between BEL and BAPCOL, as the holder of the Licence. Thereafter, BAPCOL may choose to assign the PPA to BAPCOL PV₁ and BAPCOL PV₂, in accordance with relevant provisions in said Licence.
- b. The PUC considers that the PPAs will remain incomplete if the Exhibits referred to in Article 3.5 are not attached.
- c. Clauses 9.5.1 to 9.5.4 appear to be out of sequence and would be best placed in BEL's Grid Code or an exhibit.
- d. Article 12 would be best placed in BEL's Dispatch Code or an exhibit.
- e. The PPAs needs to include end-of-term rights, either to decommission the plants or to transfer the plant as paid-up assets to the Government of Belize after the 25 years.
- f. The result of early termination needs to be more clearly defined, particularly where such termination is triggered by BEL.
- g. At the end of year 14, the parties are to review the PPAs to consider whether the additional investment value of US\$3,625,000 and the OPEX of US\$5,836,754 are warranted.
- h. BAPCOL shall guarantee its peak performance ratio for each operating year including the extension period of 10 years. The PPA shall make provisions for an adequate remedy in the event of any default in the peak performance ratio.

DECISION OF THE COMMISSION

BELIZE:

ORDER made by the Public Utilities Commission, in exercise of the powers conferred upon it by the Public Utilities Commission Act, Chapter 223 of the Laws of Belize, the Electricity Act, Chapter 221 of the Laws of Belize and all other powers thereunto enabling.

Decision
and
Order.

1. By this Decision and Order, the Commission approves BEL's application made on 21 April 2023 for the approval of 7 MW of power in Chan Chen to be produced by Blair Athol Power Company Limited and BEL's application of 24 April 2023 for 8 MW of power in Maskall to be produced by Blair Athol Power Company Limited.
2. The Commission hereby Orders BEL and Blair Athol Power Company Limited to amend the draft Power Purchase Agreements as follows:
 - (i) The Term of the PPAs shall be for fifteen (15) years and thereafter for an extension of an additional ten (10) years.
 - (ii) The rate for the PPAs shall be US\$0.0593 per kWh for twenty-five (25) years.
 - (iii) The Parties shall modify the PPAs to the extent as indicated in paragraph 24 of the Decision.
3. The duly signed PPAs, inclusive of all relevant documents, exhibits and attachments, shall then be filed before the Commission within a period of 60 days from the date of this Order.

BY ORDER dated this 7th day of June, 2023


DEAN MOLINA
CHAIRMAN

PUBLIC UTILITIES COMMISSION