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RECEIVED
OFFICE OF PUBLIC ACCOUNTABILITY
PROCUREMENT APPEALS
DATE: 10-16-17
TIME: 3:25 ☐AM ☑PM BY:
FILE NO OPA-PA: 17-008

BEFORE THE OFFICE OF PUBLIC ACCOUNTABILITY

IN THE APPEAL OF SHANGHAI ELECTRIC POWER JAPAN CO., LTD and TERRA ENERGY, INC. Appellants.	Docket No. OPA-PA-17-008 **HANWHA ENERGY CORPORATION AND PACIFIC PETROLEUM TRADING CORPORATION'S HEARING BRIEF**

In Shanghai Electric Power Japan's ("Shanghai") original Protest filed on July 24, 2017, and its subsequent Appeal before the Public Auditor filed on August 21, 2017; Shanghai sets forth allegations based on unsubstantiated speculation and innuendo as its basis to disqualify and reject Hanwha's bid.

Hanwha Energy Corporation and Pacific Petroleum Trading Corporation, ("Hanwha") summarizes its position on the issues in this case as follows:

1. **Hanwha never received special treatment in relation to the GPA Multi-Step Bid No. GPA-070-16 ("IFB").**

Shanghai alleges that Hanwha received a special advantage because GPA proceeded with a system impact study. Shanghai Protest (Jul. 24, 2017), p. 2. The allegation is without merit

First, Shanghai claims that GPA failed to notify them that the system impact study would proceed for all bidders is misleading. On Table 1: Bid Schedule, the schedule states that Notification of the successful bidder was to take place on October 21, 2016 [1] and after GPA notified the successful bidders, GPA would proceed with the system impact study. **Exhibit A.** GPA did not extend a "special advantage" to the successful bidders. There is no reason for GPA to proceed with a system impact study for *unsuccessful bidders*. Shanghai cannot point to a specification in the IFB that any unsuccessful bidder would participate in the system impact study simply because such specification existed.

Second, on February 7, 2017, GPA issued Hanwha a Notice of Intent to award after determining that Hanwha is the lowest responsive and responsible bidder whose bid met all the requirements and criteria outlined in the IFB. **Exhibit B** (CCU Resolution 2017-25) (*See also* 5 GCA §5211(g) and 2 GAR § 3109(r)(2)(d)). Further, the system impact study commenced *after* GPA recommended the award to Hanwha for part of the IFB. Id. Both successful bidders participated in the system impact study to determine the conditions and boundaries for the projects to interconnect and operate on the GPA electric grid.

Third, GPA determined that the results of the system impact study would not change the successful bidder's price proposals. Id. In other words, the result of the system impact study would not change the fact that Hanwha was the lowest responsive and responsible bidder and rightly awarded the contract.

Fourth, the CCU Resolution No. 2017-25 provided that upon completion of the system

[1] This date was amended in Amendments 2, 3, 6, and 10. The amended date for notification of successful bidders was February 6, 2017.

impact study a successful bidder who was not able to comply with the conditions of the system impact study may withdraw its bid without penalty. Id. Hanwha did not withdraw its bid and thus is entitled to an award of the contract.

Fifth, GPA hired an independent contractor, Electric Power Systems ("EPS"), to conduct the system impact study based on Hanwha's technical submission. The fact that GPA conducted a system impact study with the two successful bidders does not amount to "special treatment." There was also no "exclusive relationship" between GPA and Hanwha, rather GPA was merely conducting due diligence to further establish the conditions and boundaries for the project as it relates to interconnecting and operating with the current GPA electric grid. The CCU conditioned the award on the results of the system impact study and the PUC approval. Id. On July 10, 2017, GPA issued Hanwha a Letter of Award subject to approval by the Guam Public Utilities Commission.

Contrary to Shanghai's assertion, the facts do not reveal that Hanwha received "special" treatment or benefit for providing its information to GPA's contractor EPS who was contracted to conduct a system impact study. Shanghai's allegation is nothing more than crying over spilled milk and is not grounds to disqualify or reject Hanwha's bid.

2. Hanwha is a responsible bidder.

Guam Procurement Law defines a responsible bidder as a "person who has the capability in all respects to fully perform the contract requirements, and the integrity and reliability which will assure good faith performance." 5 GCA § 5201(f). Factors to be considered in determining responsibility include whether the contractor has: (i) sufficient financial, material, equipment, facility, and personnel resources and expertise, or the ability to obtain the resources necessary to

indicate the contractor's capability to meet all contractual requirements; (ii) a satisfactory record of performance; (iii) a satisfactory record of integrity; (iv) legally qualified to contract in the territory; and (v) supplied all necessary information in connection with the inquiry concerning responsibility. 2 GAR § 3116 (b)(2)(A).

Hanwha submitted evidence to substantiate its ability to comply with the responsibility requirements with its bid submission. *See* IFB Section 2.9.1.4 for specific information requested to support a bidder's bid submission and evidence of Hanwha's ability to perform the requirements as outlined in the IFB. Based on the information provided, GPA appropriately determined that Hanwha was a responsible bidder. Shanghai's assertion that Hanwha is not a responsible bidder is without merit, and contrary to the evidence submitted in Hanwha's bid submission.

Shanghai asserts that Hanwha is not a responsible bidder because its bid price is "incredible, not sustainable, and a misrepresentation of reasonable cost and pricing." Shanghai Protest (Jul. 24, 2017), p. 3. Shanghai completely disregards Hanwha's confirmation of its price submission and its ability to perform under the terms of the IFB with the price bid originally submitted. **Exhibit C.** The only evidence Shanghai presents is Hanwha's price for a project in Turkey.

Shanghai's attempt to disparage Hanwha is desperate and disingenuous. If Shanghai wanted to compare price between projects a world away it should also explain that the conditions between the two projects were completely different. For instance, the Turkey project required a flat price and the contract period was fifteen (15) years. The Guam project, on the other hand, included a 1% escalation (as permitted by the IFB) and the term of the purchase agreement was

twenty-five (25) years. *See* IFB Volume II Section 1 & Volume II Section 2.1. A ten (10) year difference is a substantial difference when factoring pricing and financing options. Simple economics dictates that long-term stable income projects get better financing conditions (lower rates). Additionally, Shanghai overlooks a U.S. tax credit available to developers entitled the Solar Investment Tax Credit ("ITC"). The ITC provides a thirty (30%) percent federal tax credit against the tax liability of a commercial and utility investor in a solar energy project. In effect, solar developments in the United States (including Guam) can avail of the tax credit and factor the credit in their profitability models when determining the price. The tax credit makes a solar investment in Guam cheaper than projects in other countries. Nonetheless, Shanghai failed to provide any evidence to support its claim that Hanwha's pricing is irresponsible and this allegation should be deemed meritless.

Shanghai also asserts that Hanwha engaged in instances of fraud and corruption. Appendix P of Hanwha's bid submission provides that there are no claims against Hanwha for fraud or any other claim. **Exhibit D.** Shanghai's claim of fraud and corruption without any merit. The allegations are nothing more than speculation and a desperate attempt to disparage Hanwha's integrity in the hope of Shanghai ultimately being awarded the bid.

In its appeal to the Public Auditor, Shanghai further alleges that Hanwha received preferential treatment from GPA. Shanghai Appeal (Aug. 21, 2017) p. 5. The allegation implies that GPA and Hanwha were working together for Hanwha's benefit. Shanghai once again failed to provide any evidence that Hanwha received preferential treatment. Instead, Shanghai continuously relies on speculation and innuendo to disparage Hanwha by highlighting the total cost for the entire 25 year period. The evidence in the record indicates otherwise. The IFB

called for bidders to submit an optional price for Microgrid operations. Hanwha submitted an optional Microgrid price proposal, just like all the other bidders, including Shanghai. Shanghai conveniently fails to provide the language in Amendment VIII dated November 10, 2016, GPA further provides that,

> 4. For those proposals indicating capabilities for ancillary services including but limited to Microgrid Operation, Generation Scheduling, Economic Load Dispatch, Spinning Reserve, Firm Dispatchability, Load Frequency Control, Demand Response Control, and Automatic Generation Control participation, please price these offerings as an option that GPA may consider outside the main proposal.
>
> a. GPA will consider the optional pricing provided as the initial starting point for negotiating for these ancillary services with a Proponent/Bidder receiving an award under the non-optional bid scope.
>
> b. Any acceptance for ancillary services is at GPA's option.

Amendment VIII explicitly states GPA had full authority under the terms specified to accept or deny any Microgrid proposal and all options for pricing. Hanwha, Shanghai, and KEPCO submitted their respective price bids for the option *before the bid opening*. GPA decided to award the Microgrid based on the System Impact Study results that came out in May for which Hanwha had no way to anticipate the results and therefore no reasoning for Hanwha to expect that GPA would award Hanwha for the power production and also make an award for the Microgrid. The bottom line is with or without the Microgrid project, Hanwha's aggregate price per MW is still substantially lower than any other bidder, and significantly lower than Shanghai's bid. No matter how you slice or dice the price bids, Hanwha's bid price remains the lowest most responsive and responsible bidder. With or without the Microgrid option, GPA's decision to award Hanwha the contract for power production should stand. In the event the

Public Auditor finds that GPA did not have the authority to award the Microgrid, Hanwha will still be the lowest most responsive and responsible bidder and was rightfully awarded the contract for the energy production as outlined in the IFB.

3. Cancellation and Rebid is contrary to the Guam Procurement Law.

The Guam Procurement Law provides that, "[i]f prior to an award it is determined that a solicitation or proposed award of a contract is in violation of law, then the solicitation or proposed award shall be: (a) canceled; or (b) revised to comply with the law." 5 GCA § 5451.

Shanghai requests that the Public Auditor "cancel" the proposed award and rebid. This request is contrary to the law. The proposed award must either be canceled or revised. Cancelling a proposed award is unfair to the bidding process but more so to the successful bidders. Shanghai now knows the successful bidders pricing and strategy. Cancelling will only grant Shanghai another unfair bite at the apple, contrary to the procurement policy of treating all bidders fairly. 5 GCA § 5001(b)(4). In this case, the only fair way to proceed is to revise the proposed award and respect the original IFB specifications.

In this case, if the Public Auditor finds that GPA erroneously awarded 120MW contract contrary to the IFB, the Public Auditor should require GPA to revise the proposed award and make an award according to the original IFB specifications. The same argument applies to the award of the Microgrid. If the Public Auditor finds that GPA erroneously awarded the Microgrid project, the Public Auditor should require GPA to revise and make an award according to the original IFB specifications and related amendments. In both instances, Hanwha remains the lowest responsive, and responsible bidder should be awarded a contract under the terms of the IFB.

In summary, Shanghai's allegations are not supported by any factual evidence but are merely speculation and innuendo and a desperate attempt to stop the award of this IFB. Based on the lack of evidence there are no grounds to disqualify and reject Hanwha's bid. Shanghai does not provide any basis to cancel the bid. Thus the bid should stand. The Public Auditor should dismiss this case in its entirety and find that GPA properly determined that Hanwha's bid was, in fact, the lowest most responsive and responsible bidder and award the bid accordingly.

Submitted this 16th day of October 2017.

CAMACHO CALVO LAW GROUP LLC

VINCENT C. CAMACHO
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Attorneys for Interest Parties
HANWHA ENERGY CORPORATION and
PACIFIC PETROLEUM TRADING
CORPORATION

EXHIBIT A

Table 1: Bid Schedule

Bid Process Milestone		From Date	To Date
Bid Announcement		5/12/2016	08/04/2016
Submit Questions		5/12/2016	6/23/2016
Pre-Bid Conference		**5/26/2016 10:00 A.M. (Guam Standard Time)**	
Cut Off Date for Receipt of Questions		**6/23/2016 4:00 P.M.**	
GPA Review and Answer Questions		6/23/2016	7/14/2016
Bidders Prepare Technical Proposals		05/12/2016	8/4/2016
Cut Off Date for Receipt of Technical Proposals (Unpriced)		**8/4/2016 4:00 P.M. (Guam Standard Time)**	
Step One	Technical Proposal Evaluation	8/08/2016	8/19/2016
	Notification of Qualified Bidders (Short List)	8/24/2016	8/26/2016
Step Two	**Cut Off Date for Receipt of Priced Proposals**	**9/28/2016 4:00 P.M. (Guam Standard Time)**	
	Opening of Priced Proposals (Public Opening)	**9/29/2016 2:00 P.M. (Guam Standard Time)**	
	Evaluation of Priced Proposals	10/03/2016	10/14/2016
	Notification of Successful Bidder(s)	10/21/2016	
System Integration Study by Others		TBD	TBD
Contract Negotiation		TBD	TBD
Contract Approval & Recommendation to Award (GPA Mgmt & CCU)		TBD	TBD
Public Utilities Commission Review		TBD	TBD
Contract Signing		TBD	

1.1. Invitation for Bid (IFB) Document Organization

Invitation for Bid documents are organized into five separate volumes, as follows:

Volume I: Commercial Terms and Conditions
Volume II: Technical Qualification Proposal Requirements
Volume III: Draft Renewable Energy Purchase Agreement
Volume IV: Bid Scoring Mechanism
Volume V: Appendices

In addition, the IFB documents include two sets of electronic spreadsheets (Microsoft Excel Workbooks):

- Qualitative Scoring Workbook.xls
- Priced Proposal Workbook.xls

EXHIBIT B

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 2017 - 25

RESOLUTION RELATIVE TO APPROVAL OF THE PHASE II RENEWABLE ENERGY ACQUISITION AWARD TO HANWHA ENERGY CORPORATION & PACIFIC PETROLEUM TRADING CORP. AND KEPCO-LG CNS CONSORTIUM FOR UP TO 120MW OF RENEWABLE ENERGY CAPACITY

WHEREAS, in May 2016 GPA announced GPA Multi-Step Bid No: GPA- 070-16 for 60MW of Renewable Energy Resource capacity with ESS for ramp control; and

WHEREAS, in January 2017 GPA obtained the price bids and determined Hanwha Energy Corporation & Pacific Petroleum Trading Corp. (Hanwha) and KEPCO-LG CNS Consortium (KEPCO-LG) to be the lowest responsive bidders with each bidder having two proposals for 30MW solar PV projects totaling 120MW of solar PV capacity; and

WHEREAS, Bidders provided $/MWH price proposals for the energy and ramp controls to include interconnection costs of each 30MW proposal. **Exhibit A** provides a summary of the energy price proposals; and

WHEREAS, in addition to the base proposal, Hanwha submitted a fixed price proposal for a GPA requested microgrid operations option, which would include the capability of energy shifting, required for a 60MW award, through an energy storage system of 40MW/65MWH during peak solar days for discharge during GPA peak periods; and

WHEREAS, GPA is considering the Hanwha microgrid operations option to improve management of system generation and dispatching which would be in addition to the proposed energy rate. **Exhibit B** provides a summary of the Hanwha microgrid operations; and

WHEREAS, GPA evaluates bidder's price proposal against GPA's variable operating costs primarily made up of fuel costs; and

WHEREAS, GPA has determined that Hanwha and KEPCO-LG proposals would provide substantial savings to GPA over the term of the contracts based on current and projected LEAC rates; and

WHEREAS, the table below represents the projected savings of potential award cases subject to the completion of the system impact studies and bidders' acceptance of the requirements generated from the study. **Exhibit C** contains case summaries; and

CASE	Description	Project Size	5 Year Projected Savings On Current LEAC ($115/MWH)	5 Year Projected Savings on Projected LEAC	Present Value Utility Cost Savings thru Contract Term
1	Hanwha Proposal 1 Only (30MW) and KEPCO Proposal 1&2 (60MW)	90 MW	$ 38,752,618	$ 72,670,440	$ 313,466,966
2	Hanwha Proposal 1&2 (60MW) and KEPCO Proposal 1&2 (60MW)	120MW	$ 43,290,919	$ 88,266,040	$ 417,315,926

WHEREAS, GPA considers renewable energy as an effective hedge against rising fuel oil prices; and

WHEREAS, the bid prices proposed are an excellent fuel hedge as the bidders' energy prices are fixed with escalations no more than 1% annually for all proposals. **Exhibit D** summarizes GPA historical LEAC; and

WHEREAS, renewable energy is sustainable energy and good for the island; and

WHEREAS, Public Law 29-62 sets renewable goals under the Renewable Portfolio Standards (RPS); and

WHEREAS, the award of 120MW is projected to increase GPA's ratio of renewable energy to sales up to 23% by 2020. **Exhibit E** is a projected RPS outlook; and

WHEREAS, the system impact study is an iterative and complicated process that will set the conditions and boundaries for the project to interconnect and operate on the GPA electric grid system; and

WHEREAS, the system impact study will not change the bidders' priced proposals; and

WHEREAS, the bid documents allow the bidders to withdraw any proposal without penalty if the bidder cannot comply with the system impact study within the bidders' priced proposals; and

RESOLUTION NO: 2017-25

WHEREAS, GPA would like to proceed with an approval to award a potential total of 120MW of renewable energy capacity contracts subject to the completion of the System Impact Study.

NOW, THEREFORE, BE IT RESOLVED, by the CONSOLIDATED COMMISSION ON UTILITIES, the GOVERNING BODY of the GUAM POWER AUTHORITY as FOLLOWS:

1. The CCU authorizes GPA to petition the PUC for approval to award Phase II Renewable Acquisition Bid of two 30MW proposals each to Hanwha Energy Corporation & Pacific Petroleum Trading Corp. and KEPCO-LG CNS Consortium as required under the PUC Procurement Protocol.
2. The CCU authorizes GPA to contract Hanwha Energy Corporation & Pacific Petroleum Trading Corp. and KEPCO-LG CNS Consortium for renewable energy subject to System Impact Studies and PUC approval.

RESOLVED, that the Chairman certifies and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED AND APPROVED THIS 6 **DAY OF** JUNE **2017.**

Certified by:

JOSEPH T. DUENAS
Chairperson
Consolidated Commission on Utilities

Attested by:

J. GEORGE BAMBA
Secretary
Consolidated Commission on Utilities

I, J. George Bamba, Secretary for the Consolidated Commission on Utilities (CCU), as evidenced by my signature above do certify as follows:
The foregoing is a full, true, and accurate copy of the resolution duly adopted at a regular meeting of the members of Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

Ayes: 5

Nays: 0

Absent: 0

Abstain: 0

EXHIBIT A

Summary of Bid Proposals

Hanwha Energy Corporation & Pacific Petroleum Trading Corp.

Contract Year	Proposal 1		Proposal 2	
	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)
1	$ 62.45	72,005.00	$ 65.99	72,005.00
2	$ 63.08	71,831.00	$ 66.65	71,831.00
3	$ 63.71	71,245.00	$ 67.32	71,245.00
4	$ 64.35	70,865.00	$ 67.99	70,865.00
5	$ 64.99	70,485.00	$ 68.67	70,485.00
6	$ 65.64	70,306.00	$ 69.36	70,306.00
7	$ 66.30	69,724.00	$ 70.05	69,724.00
8	$ 66.96	69,344.00	$ 70.75	69,344.00
9	$ 67.63	68,693.00	$ 71.46	68,693.00
10	$ 68.31	68,780.00	$ 72.17	68,780.00
11	$ 68.99	68,202.00	$ 72.89	68,202.00
12	$ 69.68	67,821.00	$ 73.62	67,821.00
13	$ 70.37	67,440.00	$ 74.36	67,440.00
14	$ 71.08	67,252.00	$ 75.10	67,252.00
15	$ 71.79	66,678.00	$ 75.85	66,678.00
16	$ 72.51	66,296.00	$ 76.61	66,296.00
17	$ 73.23	65,915.00	$ 77.38	65,915.00
18	$ 73.96	65,722.00	$ 78.15	65,722.00
19	$ 74.70	65,151.00	$ 78.93	65,151.00
20	$ 75.45	64,770.00	$ 79.72	64,770.00
21	$ 76.21	64,388.00	$ 80.52	64,388.00
22	$ 76.97	64,190.00	$ 81.33	64,190.00
23	$ 77.74	63,623.00	$ 82.14	63,623.00
24	$ 78.52	63,241.00	$ 82.96	63,241.00
25	$ 79.30	62,859.00	$ 83.79	62,859.00

KEPCO-LG CNS Consortium

Contract Year	Proposal 1		Proposal 2	
	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)
1	$ 85.50	74,542.29	$ 85.50	74,542.29
2	$ 86.35	73,974.68	$ 86.35	73,974.68
3	$ 87.22	73,604.26	$ 87.22	73,604.26
4	$ 88.09	73,233.84	$ 88.09	73,233.84
5	$ 88.97	73,058.88	$ 88.97	73,058.88
6	$ 89.86	72,493.01	$ 89.86	72,493.01
7	$ 90.76	72,122.59	$ 90.76	72,122.59
8	$ 91.67	71,752.18	$ 91.67	71,752.18
9	$ 92.58	71,573.23	$ 92.58	71,573.23
10	$ 93.51	71,011.34	$ 93.51	71,011.34
11	$ 94.44	70,640.93	$ 94.44	70,640.93
12	$ 95.39	70,270.51	$ 95.39	70,270.51
13	$ 96.34	70,087.58	$ 96.34	70,087.58
14	$ 97.31	69,529.68	$ 97.31	69,529.68
15	$ 98.28	69,159.26	$ 98.28	69,159.26
16	$ 99.26	68,788.84	$ 99.26	68,788.84
17	$ 100.25	68,601.94	$ 100.25	68,601.94
18	$ 101.26	68,048.01	$ 101.26	68,048.01
19	$ 102.27	67,677.59	$ 102.27	67,677.59
20	$ 103.29	67,307.18	$ 103.29	67,307.18
21	$ 104.33	67,116.29	$ 104.33	67,116.29
22	$ 105.37	66,566.34	$ 105.37	66,566.34
23	$ 106.42	66,195.92	$ 106.42	66,195.92
24	$ 107.49	65,825.51	$ 107.49	65,825.51
25	$ 108.56	65,630.64	$ 108.56	65,630.64

EXHIBIT B

Summary of Hanwha Energy & Microgrid Operations Bid Proposal for 60MW Award

Hanwha Energy Corporation & Pacific Petroleum Trading Corp.

	Proposal 1					Proposal 2				
Contract Year	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)	MicroGrid Operations Fixed Annual Fee	Microgrid Cost, $/MWH (based on Guarantee)*	Adjusted Rate	Annual Price ($/MWH)	Guaranteed Net Annual Generation (MWH/YR)	MicroGrid Operations Fixed Annual Fee	Microgrid Cost, $/MWH (based on Guarantee)*	Adjusted Rate
1	$ 65.99	72,005.00	1,287,082	$ 17.87	83.86	$ 62.45	72,005.00	1,287,082	$ 17.87	80.32
2	$ 66.65	71,831.00	1,264,710	$ 17.61	84.26	$ 63.08	71,831.00	1,264,710	$ 17.61	80.69
3	$ 67.32	71,245.00	1,244,969	$ 17.47	84.79	$ 63.71	71,245.00	1,244,969	$ 17.47	81.18
4	$ 67.99	70,865.00	1,225,229	$ 17.29	85.28	$ 64.35	70,865.00	1,225,229	$ 17.29	81.64
5	$ 68.67	70,485.00	1,206,804	$ 17.12	85.79	$ 64.99	70,485.00	1,206,804	$ 17.12	82.11
6	$ 69.36	70,306.00	1,188,380	$ 16.90	86.26	$ 65.64	70,306.00	1,188,380	$ 16.90	82.54
7	$ 70.05	69,724.00	1,171,271	$ 16.80	86.85	$ 66.30	69,724.00	1,171,271	$ 16.80	83.10
8	$ 70.75	69,344.00	1,155,479	$ 16.66	87.41	$ 66.96	69,344.00	1,155,479	$ 16.66	83.62
9	$ 71.46	68,693.00	1,139,686	$ 16.59	88.05	$ 67.63	68,693.00	1,139,686	$ 16.59	84.22
10	$ 72.17	68,780.00	1,123,894	$ 16.34	88.51	$ 68.31	68,780.00	1,123,894	$ 16.34	84.65
11	$ 72.89	68,202.00	1,108,101	$ 16.25	89.14	$ 68.99	68,202.00	1,108,101	$ 16.25	85.24
12	$ 73.62	67,821.00	1,093,625	$ 16.13	89.75	$ 69.68	67,821.00	1,093,625	$ 16.13	85.81
13	$ 74.36	67,440.00	1,079,149	$ 16.00	90.36	$ 70.37	67,440.00	1,079,149	$ 16.00	86.37
14	$ 75.10	67,252.00	1,064,672	$ 15.83	90.93	$ 71.08	67,252.00	1,064,672	$ 15.83	86.91
15	$ 75.85	66,678.00	1,051,512	$ 15.77	91.62	$ 71.79	66,678.00	1,051,512	$ 15.77	87.56
16	$ 76.61	66,296.00	1,038,352	$ 15.66	92.27	$ 72.51	66,296.00	1,038,352	$ 15.66	88.17
17	$ 77.38	65,915.00	1,025,191	$ 15.55	92.93	$ 73.23	65,915.00	1,025,191	$ 15.55	88.78
18	$ 78.15	65,722.00	1,012,031	$ 15.40	93.55	$ 73.96	65,722.00	1,012,031	$ 15.40	89.36
19	$ 78.93	65,151.00	998,871	$ 15.33	94.26	$ 74.70	65,151.00	998,871	$ 15.33	90.03
20	$ 79.72	64,770.00	987,026	$ 15.24	94.96	$ 75.45	64,770.00	987,026	$ 15.24	90.69
21	$ 80.52	64,388.00	975,182	$ 15.15	95.67	$ 76.21	64,388.00	975,182	$ 15.15	91.36
22	$ 81.33	64,190.00	963,338	$ 15.01	96.34	$ 76.97	64,190.00	963,338	$ 15.01	91.98
23	$ 82.14	63,623.00	951,493	$ 14.96	97.10	$ 77.74	63,623.00	951,493	$ 14.96	92.70
24	$ 82.96	63,241.00	939,649	$ 14.86	97.82	$ 78.52	63,241.00	939,649	$ 14.86	93.38
25	$ 83.79	62,859.00	927,805	$ 14.76	98.55	$ 79.30	62,859.00	927,805	$ 14.76	94.06

EXHIBIT C

Proposal Evaluation Summary

CASE	Description	Project Size	5 Year Projected Savings On Current LEAC ($115/MWH)	5 Year Projected Savings on Projected LEAC	Present Value Utility Cost Savings* thru Contract Term
1	Hanwha Proposal 1 Only (30MW) and KEPCO Proposal 1&2 (60MW)	90 MW	$ 38,752,618	$ 72,670,440	$ 313,466,966
2	Hanwha Proposal 1&2 (60MW) and KEPCO Proposal 1&2 (60MW)	120MW	$ 43,290,919	$ 88,266,040	$ 417,315,926

EXHIBIT C

CASE 1 - Hanwha Proposal 1 (30MW) and KEPCO Proposal 1&2 (60MW)

5 Year Sample Calculation of Project Costs & Savings

	Contract Year	Year 1	Year 2	Year 3	Year 4	Year 5	TOTALS
1	Hanwha Proposal 1 Energy Rate ($/MWH)	62.45	63.08	63.71	64.35	64.99	
2	Energy Guarantee (MWH)	72,005	71,831	71,245	70,865	70,485	
3	KEPCO Proposal 1 Energy Rate ($/MWH)	85.50	86.35	87.22	88.09	88.97	
4	Energy Guarantee (MWH)	74,542.29	73,974.68	73,604.26	73,233.84	73,058.88	
5	KEPCO Proposal 2 Energy Rate ($/MWH)	85.50	86.35	87.22	88.09	88.97	
6	Energy Guarantee (MWH)	74,542.29	73,974.68	73,604.26	73,233.84	73,058.88	
7	Phase II Energy Costs (120MW)	$ 17,243,315	$ 17,307,136	$ 17,378,202	$ 17,462,478	$ 17,581,025	$ 86,972,157
8	Current LEAC Rate[1] ($/MWH)	115	115	115	115	115	
9	Current Energy Costs	$ 25,425,302	$ 25,274,741	$ 25,122,155	$ 24,993,259	$ 24,909,317	$ 125,724,774
10	Proposed Savings	$ 8,181,987	$ 7,967,605	$ 7,743,953	$ 7,530,781	$ 7,328,292	$ 38,752,618

	Year	2019	2020	2021	2022	2023	TOTALS
11	Projected LEAC Rate[2] ($/MWH)	122.27	140.02	154.63	154.03	159.65	
12	Projected Energy Costs	$ 27,032,806	$ 30,773,935	$ 33,779,259	$ 33,476,173	$ 34,580,424	$ 159,642,597
13	Proposed Savings	$ 9,789,491	$ 13,466,799	$ 16,401,056	$ 16,013,695	$ 16,999,399	$ 72,670,440

STRATEGIST CASE SUMMARY

	Base Case (No Phase II)	Case 1 (90MW)	SAVINGS
Present Value Utility Cost[3] ($000)	6,896,417	6,582,950	313,467

Notes:

1. The Currrent LEAC is used in this case evaluation to demonstrate minimum savings potential with $115/MWH LEAC rate presently proposed for next LEAC period.

2. Projected LEAC is based on STRATEGIST software output that analyzes generation costs for various generation resources and its operating characteristics. This LEAC is based on load and fuel forecasts done by LEIDOS in 2016.

3. Present Value Utility Cost is an evaluation of generation operating costs in the STRATEGIST software. This is used to determine cost impact of generation resources and their operation variables (efficiency, fuel costs, capacity, etc.) based on energy requirements.

EXHIBIT C

CASE 2 - Hanwha Proposal 1&2 (60MW) and KEPCO Proposal 1&2 (60MW)

5 Year Sample Calculation of Project Costs & Savings

	Contract Year	Year 1	Year 2	Year 3	Year 4	Year 5	TOTALS
1	Hanwha Proposal 1 Energy Rate ($/MWH)	62.45	63.08	63.71	64.35	64.99	
2	Energy Guarantee (MWH)	72,005	71,831	71,245	70,865	70,485	
3	Hanwha Proposal 2 Energy Rate ($/MWH)	65.99	66.65	67.32	67.99	68.67	
4	Energy Guarantee (MWH)	72,005	71,831	71,245	70,865	70,485	
5	Hanwha Microgrid Operations Option	$ 2,574,164	$ 2,529,420	$ 2,489,938	$ 2,450,458	$ 2,413,608	
6	KEPCO Proposal 1 Energy Rate ($/MWH)	85.50	86.35	87.22	88.09	88.97	
7	Energy Guarantee (MWH)	74,542.29	73,974.68	73,604.26	73,233.84	73,058.88	
8	KEPCO Proposal 2 Energy Rate ($/MWH)	85.50	86.35	87.22	88.09	88.97	
9	Energy Guarantee (MWH)	74,542.29	73,974.68	73,604.26	73,233.84	73,058.88	
10	Phase II Energy Costs (120MW)	$ 24,569,089	$ 24,624,093	$ 24,664,354	$ 24,731,048	$ 24,834,838	$ 123,423,421
11	Current LEAC Rate[1] ($/MWH)	115	115	115	115	115	
12	Current Energy Costs	$ 33,705,877	$ 33,535,306	$ 33,315,330	$ 33,142,734	$ 33,015,092	$ 166,714,339
13	Proposed Savings	$ 9,136,788	$ 8,911,213	$ 8,650,976	$ 8,411,687	$ 8,180,254	$ 43,290,919

	Year	2019	2020	2021	2022	2023	TOTALS
14	Projected LEAC Rate[2] ($/MWH)	122.27	140.02	154.63	154.03	159.65	
15	Projected Energy Costs	$ 35,836,916	$ 40,831,807	$ 44,795,805	$ 44,391,646	$ 45,833,287	$ 211,689,461
16	Proposed Savings	$ 11,267,827	$ 16,207,714	$ 20,131,451	$ 19,660,599	$ 20,998,449	$ 88,266,040

STRATEGIST CASE SUMMARY

	Base Case (No Phase II)	Case 2 (120MW)	SAVINGS
Present Value Utility Cost[3] ($000)	6,896,417	6,479,101	417,316

Notes:

1. The Currrent LEAC is used in this case evaluation to demonstrate minimum savings potential with $115/MWH LEAC rate presently proposed for next LEAC period.

2. Projected LEAC is based on STRATEGIST software output that analyzes generation costs for various generation resources and its operating characteristics. This LEAC is based on load and fuel forecasts done by LEIDOS in 2016.

3. Present Value Utility Cost is an evaluation of generation operating costs in the STRATEGIST software. This is used to determine cost impact of generation resources and their operation variables (efficiency, fuel costs, capacity, etc.) based on energy requirements.

EXHIBIT D
Historical LEAC Summary

EFFECTIVE DATES	FUEL RECOVERY RATE ($ per Kwh)
10/01/00	0.053613
04/01/01	0.053613
10/01/01	0.048625
04/01/02	0.042901
10/01/02	0.048831
04/01/03	0.048831
10/01/03	0.062333
04/01/04	0.059753
10/01/04	0.059753
01/01/00	0.073010
01/01/00	0.088918
01/01/00	0.098589
02/01/07	0.108893
08/13/07	0.123957
03/01/08	0.150467
06/01/08	0.170440
10/01/08	0.187750
12/01/08	0.171050
02/01/09	0.157630
05/01/09	0.136450
08/01/09	0.129670
02/01/10	0.150460
08/31/10	0.124650
02/01/11	0.161530
08/01/11	0.192220
02/01/12	0.191980
04/01/12	0.192310
02/01/13	0.209271
08/01/13	0.182054
02/01/14	0.172986
08/01/14	0.176441
11/01/14	0.146666
02/01/15	0.102054
08/01/15	0.104871
02/01/16	0.086613
08/01/16	0.086613
02/01/17	0.105051
08/01/17*	0.115725

**Proposed LEAC Rate*

EXHIBIT E

Projected Renewable Energy & Renewable Portfolio Standards (RPS) for 120 MW Phase II Award

RPS PROJECTIONS

	Net Metering Renewable Energy (MWH)	NRG Renewable Energy (MWH)	GPA Wind Turbine (MWH)	Phase II - Hanwha, 60MW (MWH)	Phase II - KEPCO, 60MW (MWH)	Phase III, 40MW (MWH)	Total Renewable Production (MWH)	GPA Total Sales (MWH)	% Projected Renewable Production vs. Sales	RPS % (By End of Year)
2015	8,034	17,597					25,630	1,536,927	2%	5%
2016	19,559	48,221	474				68,253	1,584,685	4%	5%
2017	25,271	51,627	482				77,380	1,546,044	5%	5%
2018	40,393	51,412	482				92,287	1,554,108	6%	5%
2019	57,629	51,133	482	110,334	-		219,578	1,557,331	14%	5%
2020	57,629	50,992	482	143,840	112,165		365,108	1,558,272	23%	8%
2021	57,629	50,601	482	142,668	130,325	80,510	462,215	1,547,800	30%	8%
2022	57,629	50,393	482	141,908	129,087	80,175	459,674	1,544,574	30%	8%
2023	57,629	50,083	482	141,148	128,288	79,740	457,370	1,544,540	30%	8%
2024	57,629	49,781	482	140,791	127,830	79,520	456,032	1,550,854	29%	8%
2025	57,629	49,599	482	139,627	126,689	78,911	452,937	1,566,472	29%	10%
2026	57,629	49,391	482	138,866	125,890	78,585	450,843	1,577,646	29%	10%
2027	57,629	49,122	482	138,105	125,091	78,102	448,531	1,597,005	28%	10%
2028	57,629	48,987	482	137,739	124,624	77,631	447,092	1,614,448	28%	10%
2029	57,629	48,612	482	136,582	123,492	77,348	444,145	1,620,517	27%	10%
2030	57,629	48,411	482	135,821	122,693	77,023	442,058	1,631,977	27%	15%
2031	57,629	48,147	482	135,059	121,894	76,604	439,814	1,644,069	27%	15%
2032	57,629	48,017	482	134,683	121,418	76,393	438,622	1,661,486	26%	15%
2033	57,629	47,649	482	133,534	120,295	75,808	435,397	1,670,464	26%	15%
2034	57,629	47,451	482	132,772	119,496	75,495	433,324	1,684,195	26%	15%
2035	57,629	47,191	482	132,009	118,696	75,083	431,090	1,698,373	25%	25%

Notes:

1. Sales is from 2016 forecast for 2017-2035 (LEIDOS Jan. 2016 Forecast)
2. Net Metering projection is from LEIDOS Forecast for 2017 thru 2019 and fixed thereafter
3. NRG (Phase I) production is based on contract guarantees from 2017 thru 2035
4. Phase II is based on Project Guarantees **for 120MW.** Phase III renewable projections are based NRG contract guarantees.
5. GPA wind turbine assumes average capacity factor since commissioning (20%) from 2017 thru 2035
6. DSM values are not included.

EXHIBIT E

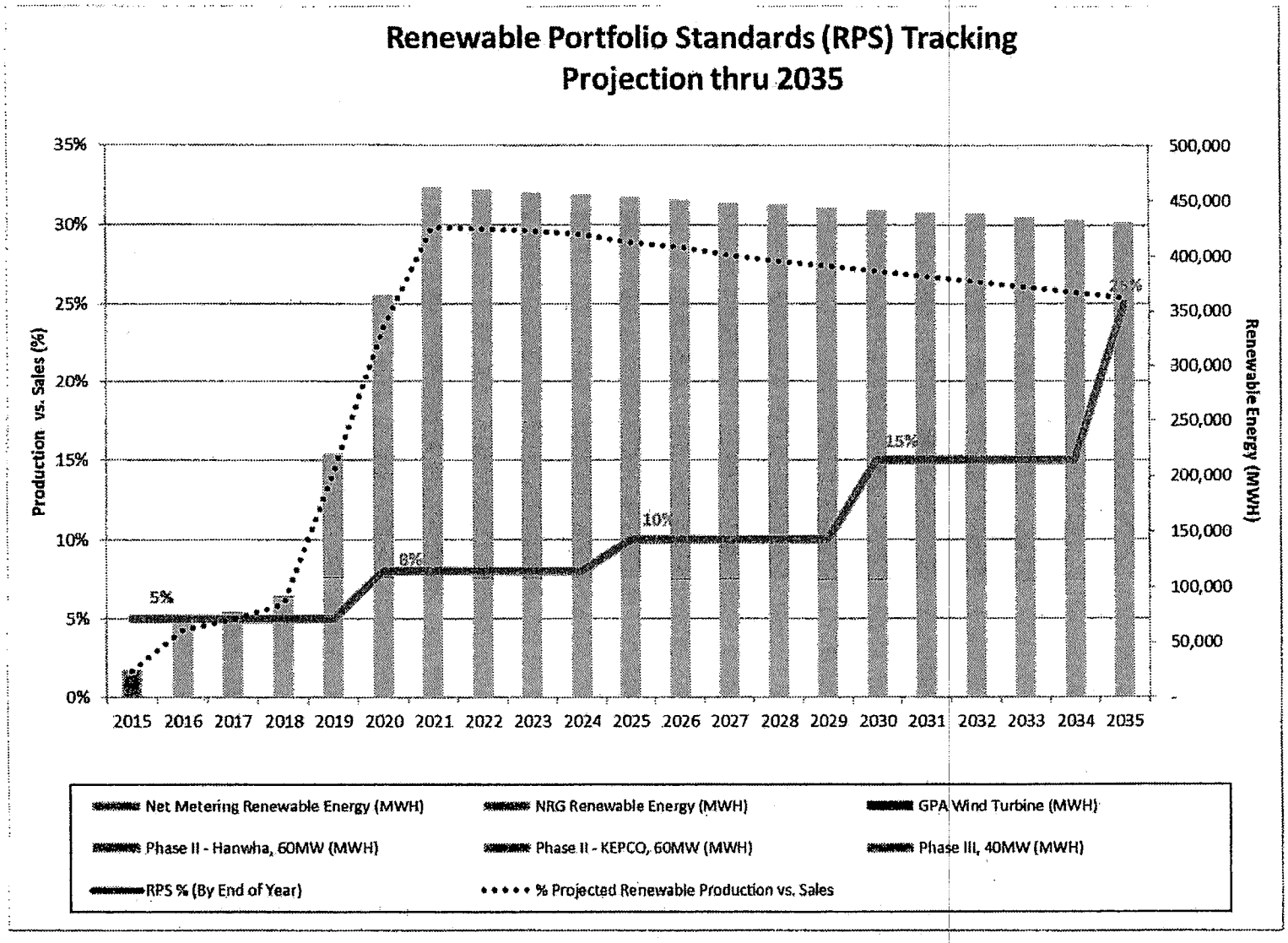
Renewable Portfolio Standards (RPS) Tracking
Projection thru 2035
Production vs. Sales (%)
Renewable Energy (MWH)
35%
30%
25%
20%
15%
10%
5%
0%
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
5%
8%
10%
15%
25%
2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035
Net Metering Renewable Energy (MWH)
NRG Renewable Energy (MWH)
GPA Wind Turbine (MWH)
Phase II - Hanwha, 60MW (MWH)
Phase II - KEPCO, 60MW (MWH)
Phase III, 40MW (MWH)
RPS % (By End of Year)
% Projected Renewable Production vs. Sales

EXHIBIT C

Hanwha Energy
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February 6, 2017

Reference to Invitation for Bid: GPA-070-16
Renewable Energy Resource – Phase II

ATTN: Jamie Pangelinan
Supply Management Administrator

Guam Power Authority
Gloria B. Nelson Public Service Building
688 Route 15 Fadian, Mangilao, Guam

Dear Jamie Pangelinan,

In response to the clarification letter sent by GPA on January 27, Hanwha would like to clarify that all transmission costs and interconnection costs have been included in the final pricing that was proposed during the price proposal. GPA's clarification letter refers to the transmission costs from Dandan to Talofofo Substation. However, Amendment VIII from GPA states "GPA will entertain a 34.5 KV overhead interconnection from Dandan Substation to Umatac Substation". Hanwha Energy has decided that it would be best for Hanwha and GPA to connect to Umatac Substation to avoid potential conflicts with the ongoing 40MW ESS project at Talofofo Substation. Hanwha has also included in their price proposal ALL the expected operational upgrade costs for Umatac substation as stated in Amendment IX issued by GPA. To re-iterate, the price proposed by Hanwha is all-inclusive of the transmission costs and Umatac operational upgrade costs except for any unforeseeable costs that may arise after the completion of the System Impact Study.

If any additional clarification is needed, please note that Hanwha Energy or Pacific Petroleum Trading Corp. will be available to answer any questions.

Ik-Pyo Kim
General Manager
Head of Business Development
HANWHA ENERGY CORPORATION

EXHIBIT D

Appendix P. Information on Outstanding Claims

The Bidder or any of its subsidiaries (including any off-balance sheet entities in which Bidder has an interest) is involved in no outstanding claims.