| 1 2 3 4 | 111 Chalan Santo Papa Hagåtña, Guam 96910 Telephone No.: (671) 47 | & MANN n Bldg. | RECEIVED OFFICE OF PUBLIC ACCOUNTABILITY PROCUREMENT APPEALS DATE: 08 - 21 - 17 TIME: 3.50 DAM PPM BY: MY | | | | | |
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| 5 | Attorneys for Appellant SHANGHAI ELECTRIC | S: | | | | | | |
| 6 | TERRA ENERGY, INC. | POVVER JAPAN | CO., LID. and | | | | | |
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| 8 | BEFORE | TRIC POWER and TERRA NOTICE OF PROCUREMENT APPEAL | | | | | | |
| 9 | IN THE APPEAL OF | | Appeal No. OPA-PA-17- <u>008</u> | | | | | |
| 10 | SHANGHAI ELECTRIC JAPAN CO., LTD. and T | POWER | NOTICE OF PROCEEDS AND A STATE OF THE STATE | | | | | |
| 11 | ENERGY, INC., | ENNA | NOTICE OF PROCUREMENT APPEAL | | | | | |
| 12 | Арр | ellants. | | | | | | |
| 13 | | | | | | | | |
| 14 | | <u>Appella</u> | nt Information | | | | | |
| 15 16 | Name: | Shanghai Eleo Inc. ("SEPJ") | ctric Power Japan Co., Ltd. and Terra Energy, | | | | | |
| 17 | Mailing Address: | 32F Marunou Marunouchi, | chi Building, 2-4-1 Chiyoda-ku, Tokyo, Japan | | | | | |
| 18 | | For purposes | of this Appeal, please direct filings and | | | | | |
| 19 | | corresponden | ice to SEPJ's legal counsel: | | | | | |
| 20 | | | nnor & Mann | | | | | |
| 21 | | 111 Chalan Sa | k of Guam Building nto Papa | | | | | |
| 22 | B | Hagatna, Gua | m 96910 | | | | | |
| 23 | Business Address: | 32F Marunou Marunouchi, | ouchi Building, 2-4-1 ni, Chiyoda-ku, Tokyo, Japan | | | | | |
| 24 | Email Address: | djberman@pa | cificlawyers.law | | | | | |
| 25 | Daytime Contact No.: | 477-2778 | | | | | | |
| 26 | Fax No.: | 477-4366 | | | | | | |
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Appeal Information

- Purchasing Agency: Guam Power Authority A.
- B. Procurement No.: GPA-IFB-070-16, Phase II
- C. Decision being appealed was made on August 3, 2017, by John M. Benavente, P.E., GPA General Manager, which was received by undersigned counsel on August 4, 2017. A copy of said Decision (without exhibits) is attached hereto as Exhibit "1".
- Appeal is made from a Decision on Protest of Method, Solicitation or D. Award.
- E. Names of competing Bidders, Offerors, or Contractors known to Hanwha Energy Corporation and Pacific Petroleum Corporation appellant: ("Hanwha"); Korea Electric Power Corporation and LG CNS Consortium ("KEPCO"); LSIS; Quantum Utility Generation; Sean and NexGeo Consortium; and Pacific Solar Storage ("PSS" or "SolarCity").

Statement Supporting the Appeal

1. **Background**

GPA-IFB-070-16, Phase II, was issued on May 13, 2016. On July 10, 2017, GPA recommended awards to Hanwha and KEPCO. See Exhibit "2". SEPJ was notified that its bids were rejected due to high price in GPA's "Bid Status" dated July 10, 2017. See Exhibit "3". SEPJ timely filed its protest with GPA on July 24, 2017. A copy of the SEPJ protest is attached as Exhibit "4" (without exhibits).

This procurement is for renewable energy resources. The IFB provides that "... GPA intends to acquire a total of 60 MW [Megawatt] of renewable capacity ..." See IFB, Volume I, Introduction, p. 9 of 222. Despite its stated intention to limit the procurement to 60 MW, GPA made four awards for 30 MW apiece. According to the GPA Price Proposal Evaluation, which was attached to GPA's Denial of Procurement Protest, and is attached hereto as Exhibit "5", the lowest bid was that of Hanwha

Energy Corporation and Pacific Petroleum Trading Corporation ("Hanwha") for its Site 2. GPA also determined that Hanwha was the second lowest bidder for its Site 1. GPA determined that the third and fourth lowest bids were from KEPCO for its proposed Site A and Site B.

Hanwha and KEPCO had each submitted two bids for 30 MW apiece, totaling 60 MW for each of those two bidders, which was in accordance with this 60 MW procurement. By accepting the bids for all four projects, GPA doubled the size of the procurement from 60 MW to 120 MW. The effect of this doubling the size of the procurement after bid opening will be discussed in a subsequent section of this appeal.

SEPJ Site 2 was ranked as the fifth lowest bidder by GPA, so the SEPJ Site 2 was first runner-up. One of SolarCity's bids was ranked sixth. However, GPA had refused to make an exception necessary to accept that SolarCity bid. SEPJ Site 1 was ranked seventh, but due to the inability of GPA to accept the SolarCity bid, SEPJ Site 1 is actually sixth among compliant bids. Thus the SEPJ Sites 2 and 1 were the first and second runners-up. Although GPA's procurement denial letter referred to its LEAC rate, there is no requirement in the IFB that a bid be lower than GPA's LEAC rate.

2. GPA's Acceptance Of The Hanwha Bids Violated The IFB

In Part III of its Protest to GPA, SEPJ protested what it claimed was an improper sole source award to Hanwha of a microgrid. In its rejection of SEPJ's protest, GPA stated in paragraph 3 that "... a reading of the entire IFB would indicate that GPA allowed all bidders, including Shanghai Power, to bid on an option for a microgrid." This is incorrect because a microgrid was not even part of what was being procured in the IFB, and any award for a microgrid is improper.

At page 9 of 222 of the IFB (Volume I Commercial Terms & Conditions), the IFB stated "The RI-ESS [Renewable Integration Energy Storage System] must be capable of the following functions for microgrid options (priced option) ...", and lists certain functions. This language is repeated on page 50, but there is no further reference to a

microgrid in the IFB. These statements do not imply that a microgrid is part of the procurement, but only that the submitted projects must be capable of certain functions for microgrid operations.

That language in the IFB generated a whole host of bidder questions. Attached as Exhibit "6" are excerpts from GPA's answers to bidders' questions dated August 10, 2016. The first question regarding the microgrid appears on page 5: "Kindly explain the purpose of microgrid operation of RI-ESS as well as the required function." GPA responded that "GPA's requirements for microgrid are informational. eventually develop plans for and execute projects to establish microgrids supporting major loads ..." (emphasis added). On page 10, another bidder asked a question regarding the microgrid, and GPA made the same exact response. On page 17, a bidder requested GPA to provide further details regarding the microgrid, and GPA provided the same exact response. On page 37, a bidder pointed out that there are no microgrid technical requirements provided in the IFB, and requested GPA to provide all requirements. Once again, GPA gave the same exact response. Other bidders asked similar questions on page 39 and 43, and received the same response from GPA. GPA provided its standard answer in response. It is clear that GPA was merely requesting an informational bid for a microgrid in the event it determined to procure a microgrid in the future. The actual procurement of a microgrid was simply not part of this IFB.

The problem here first came to light when GPA requested its governing entity, the Consolidated Commission on Utilities ("CCU"), for authorization to petition the Public Utilities Commission for approval to award two 30 MW proposals each to Hanwha and KEPCO. A copy of the CCU Resolution No. 2017-25 is attached hereto as Exhibit "7". On page 1 at lines 16-17, the CCU stated that "... in addition to its base proposal, Hanwha submitted a fixed price proposal for a GPA requested microgrid operations option ...", incorrectly assuming that a microgrid was part of what was being procured, as opposed to a mere request for an informational bid. CCU then

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The fixed annual fee for Hanwha's microgrid over a 25 year period totals \$27,223,501, times two microgrids, this total is an astounding \$54,447,002. This is a vast award based on a mere informational bid. SEPJ believes this provides the explanation for Hanwha's impossibly low bid as it detailed in its protest to GPA. One does not have to be paranoid to conclude that Hanwha is receiving preferential treatment from GPA. GPA did not have any right to even consider an arrangement whereby Hanwha would receive \$54,447,002 over 25 years based on a mere informational bid. However, GPA has included Hanwha's microgrid in the Renewable Energy Purchase Agreement ("PPA") as shown by the attached excerpt from the draft PPA as of June 19, 2017. See Exhibit "8". The approval of the PPA was scheduled for approval at CCU meeting on July 25, 2017, see Exhibit "9", which approval did not occur because of this protest.

Further evidence of Hanwha's preferential treatment is found in the other informational bids. Hanwha's two bids (one each for its two projects) are attached as Exhibits "10" and "11". SEPJ's two bids are in a far lower amount. *See* Exhibits "12" and "13". KEPCO's bids are in an amount slightly higher than SEPJ. *See* Exhibits "14" and "15". Hanwha's informational bids are three times higher than the SEPJ and KEPCO informational bids. Thus GPA is attempting to convert an informational bid from Hanwha, which is three times as high as other informational bids, into an award to Hanwha of \$54,447,002. Since a microgrid is not even part of this procurement, this is

an improper sole source award. Both of Hanwha's proposals should be disqualified and rejected.

3. GPA's Action In Doubling The Size Of The Procurement To 120 MW Was Improper And The Procurement Must Be Rebid

In its Protest to GPA, SEPJ protested the action of GPA in doubling the size of the procurement from 60 MW to 120 MW after bid opening. The IFB makes abundantly clear that it is only for 60 MW of renewable energy. There is no hint in the IFB that GPA may award 120 MW.

In its rejection of SEPJ's protest, GPA stated in paragraph 1 that there was no change made to the size of the maximum 30 MW per location, and bidders were not prohibited from submitting as many 30 MW projects as they deemed appropriate. This entirely misses the point. It is only common sense that a vastly larger project may result in efficiencies of scale which result in lower bids. For example, everything else being equal, a 4-bedroom house does not cost 100% more than a 2-bedroom house, and the construction cost per square foot would naturally be lower for a 4-bedroom house. That is the situation here as explained in the Declaration of Diao Xu (General Manager of SEPJ), attached as Exhibit "16", and the Declaration of Dale Gauthier (Vice-President of AECOM, Engineering/Plan/Design for SEPJ), attached as Exhibit "17". Had SEPJ been aware that GPA intended to award 120 MW, it would have bid four 30 MW projects, and due to efficiencies of scale of this much larger project, bid a lower price per unit of renewable energy. SEPJ acknowledges the same is probably true for the other bidders whose bids were rejected due to high price.

There is abundant legal authority that holds that when a government substantially expands the scope of a procurement after bid opening, that action is improper and the procurement must be rebid. For example, in *Cardinal Maintenance Service, Inc. v. U.S.*, 63 Fed. Cl. 98 (2004), the Court of Federal Claims held that the Air Force violated the Competition in Contracting Act (CICA) by materially changing a

contract after awarding it rather than issuing a new procurement. The contract at issue was for custodial services at an Air Force base in Hawaii. The solicitation provided that the Air Force would have the right to expand or contract the quantity and type of custodial services to be provided by the winning bidder following the award. After the initial award, however, the contract was modified eight times. The plaintiff argued that the Air Force violated the CICA by authorizing contract modifications outside the scope of the original contract, and that a new solicitation, affording bidders full and open competition, was required. The court noted that whether the Air Force violated CICA when it modified the contract depended on whether the modifications materially changed the scope of the original contract. The answer, the court held, turned on whether the original contract, as modified, called for essentially the same performance. The court found that the changes in the modification were considerable, and the amount of additional work would nearly double the price of the contract that was awarded. Concluding that the originally awarded contract was materially changed in violation of CICA's competition requirements, the court ruled for the plaintiff and ordered that the government prepare a new procurement. See also Executive Business Media, Inc. v. United States, 3 F.3d 759 (4th Cir. 1993).

In Krygoski Construction Co. Inc. v. United States, 94 F.3d 1537 (Fed. Cir. 1996), the government did the right thing. The Army had solicited bids for the demolition of an abandoned air field that contained asbestos contamination. The Army estimated that the asbestos removal would constitute about 10% of a total contract price of about \$400,000.00, or \$40,000.00. After the contract was awarded, the parties discovered that the asbestos removal work was greatly understated, and that the completion of the contract would require a change in its terms to allow approximately \$360,000.00 in additional asbestos removal costs. *Id.* at 1544. Rather than implement this additional work with a change order, the Army decided to terminate the contract for convenience, and rebid the contract. A different contractor won on the rebid. The original contractor

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objected and sued, arguing that the Army acted improperly in terminating its contract. The court held that the Army had ample justification for conducting a competitive reprocurement. Id. at 1545. In that case, there was not a change in the nature of the work itself, which included asbestos removal, but instead a dramatic increase of the scope of that work in the procurement. Fairness to the bidders and the public interest mandated a reprocurement.

The test is whether the bidders would have expected the expanded scope of the procurement to fall within the contract's changes clause. See AT&T Communications, Inc. v. Wiltel Inc., 1 F.3d 1201, 1205 (Fed. Cir. 1993). There was no way for the bidders here to anticipate that a procurement stated to be for 60 MW would turn out to be a procurement for 120 MW.

It is easy to see the mischief which will follow from the government issuing a solicitation for a stated quantity of goods or services, and then greatly increasing the amount after bid opening. When that happens, there is no competition for the larger amount. The government could, for example, issue a procurement for 1,000 computers with the award based on the amount offered per computer, and then increase the award to 10,000 computers at that price per computer. In that case, there is no way of knowing which bidder would have won the procurement for 10,000 computers. In fact, the larger procurement might have prompted a bid from a vendor who had not been interested in bidding on the smaller procurement. See CCL, Inc. v. United States, 39 Fed. Cl. 780, 790 (Ct. Cl. 1997) (non-bidder may protest award that should have been subject to procurement).

As applied to this case, it can be concluded with confidence that due to efficiencies of scale, the bids for a 120 MW procurement would have been less per unit of power than a procurement for 60 MW. The only way to determine how much lower will be a rebid of this procurement for 120 MW.

4. A Crucial Portion Of The Specifications Are Ambiguous And Unfair And The Procurement Must Be Rebid

In its Protest to GPA, SEPJ referenced certain correspondence between KEPCO and GPA. This included a letter dated February 3, 2017 from GPA to KEPCO, marked as Exhibit "6" to SEPJ's Protest, and attached hereto as Exhibit "18". In question 4, KEPCO inquires whether it is possible to interconnect its two Sites with overhead lines. GPA responded by recommending the underground installation of transmission lines based on considerations of reliability. KEPCO responded to GPA by letter dated February 6, 2017, which was attached as Exhibit "3" to the Protest, and is attached hereto as Exhibit "19". In its letter, KEPCO makes clear that despite GPA's recommendation, it based its bid on overhead rather than underground lines. Despite this reservation and apparent lack of agreement between KEPCO and GPA on this and other issues, the GPA Evaluation Committee recommended an award to KEPCO the next day, February 7, 2017. See Exhibit "20", which was attached as Exhibit "5" to the SEPJ protest.

GPA had made its position regarding overhead versus underground transmission lines clear well before the time for bid submission. Attached hereto as Exhibit "21" is an excerpt from GPA's answers to bidder questions dated July 15, 2016. Question 13 on page 4 asked whether interconnection lines may be overhead, or whether they had to be underground. GPA responded that it "... strongly recommends underground lines for interconnection between the renewable generation and GPA power system for their substantially greater reliability, especially during destructive storms and typhoons Guam often experiences relative to overhead lines ...". (emphasis added).

Having said that, SEPJ recognizes that GPA did not rule out the possibility of overhead transmission lines, and that KEPCO's proposals may not be rejected solely because KEPCO utilizes above ground transmission lines. The problem is that

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underground lines are far more expensive to install than above ground lines. On page 54 of the IFB, GPA stated its recommendation for underground lines, and identified the transmission costs per mile of \$1.24M for overhead lines, and \$2.20M per mile for underground. SEPJ estimates that between one-fourth and one-third of the total cost of the bidders' submissions is for the interconnection of the power producing facility and GPA's electric grid. Thus a bidder's choice between above ground lines or underground lines has a massive effect on the amount of its bid.

SEPJ used underground lines in its bid based on GPA's "strong recommendation". SEPJ assumes other bidders likewise provided for underground lines given that their bids were higher than the bids of SEPJ.¹ The failure of GPA to make a clear choice in the IFB between underground lines and above ground lines resulted in the bids not being apple to apple. That means that a bidder which followed GPA's "strong recommendation" to provide underground lines is in effect penalized. That is extremely unfair to bidders, such as SEPJ, that took seriously GPA's strong recommendation that underground lines be utilized. This problem is compounded by the fact that once bidders were qualified, low price is all that counted. Bidders whose bid used expensive underground lines did not get any extra points for this, and would inevitably lose.

Guam procurement law provides in relevant part at 5 GCA § 5211(e) that:

... Bids shall be evaluated based on requirements set forth in the invitation for Bids, which may include criteria to determine acceptability such as inspection, testing, quality, workmanship, delivery and suitability for a particular purpose. Those criteria that will affect the bid price and be considered in evaluation for award shall be <u>objectively measurable</u>, such as discounts, transportation costs, and total or life cycle costs. The Invitation for Bids shall set forth

¹ Pursuant to 2 GAR § 3109(v)(2)(d), the unpriced technical offers of bidders who were not awarded the contract are not available to SEPJ. However, that section does permit inspection when essential to assure confidence in the integrity of the procurement process. The Public Auditor thus has the authority to review other bids that were rejected due to high price to determine whether those bids were based on underground transmission lines.

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the evaluation criteria to be used. No criteria may be used in bid evaluation that are not set forth in the Invitation for Bids. (emphasis added)

This provision is necessary to ensure that bidders are in fact bidding in all respects on the same procurement. This theme is repeated in Guam's procurement regulations. 2 GAR § 4102(a)(1) provides in relevant part that "... Specifications shall be drafted with the objective of clearly describing the territory's requirements". 2 GAR § 3115(d)(2)(A)(ii) provides that a solicitation may be cancelled after bid opening if "... ambiguous or otherwise inadequate specifications were part of the solicitation ..." The Public Auditor has recognized that ambiguous or conflicting IFB requirements mandate that the solicitation be cancelled. See OPA Decision dated March 20, 2015, in *In the Appeal of Pacific Data Systems, Inc.,* OPA-PA-14-007. That ruling is consistent with case law on this issue.

In Inferno Associates v. Division of Administration, 692 So.2d 1280 (La. App. 1997), the state issued an IFB for construction and installation of three medical waste Two bids were submitted. The lowest bidder failed to provide incinerators. specifications for the construction. Although the IFB required that detailed construction specifications be furnished with the bid package, it did not define what was meant by "detailed construction specifications". The hearing officer determined that the IFB was ambiguous as to what information was required, and when it was required. The hearing officer ordered that the solicitation be set aside as a result of this ambiguity. On appeal, the court upheld the decision of the hearing officer, concluding that the evidence demonstrated that the specifications as written could not fairly be used to evaluate the bids. Id. at p. 1284. See also Caber Systems, Inc. v. Dept. of General Services, 530 So.2d 325 (Ct. App. Fla. 1988); Mark Dunning Industries, Inc. v. Perry, 890 F.Supp. 1504 (M.D. Ala. 1995); Gale v. City of St. Paul, 98 N.W.2d 377 (1959).

The point is that bids must be apple to apple. If the specifications are incomplete, as in the *Inferno Associates* case, this is not possible. It is respectfully

The only fair result is that GPA be ordered to clearly decide whether this procurement requires above ground transmission lines or underground transmission lines, and issue a new solicitation so that all bidders will be bidding on the same project.

5. The SolarCity Bid Ranked Number 6 Was Not Accepted By GPA

Although in the GPA Price Proposal Evaluation, Exhibit "5", a SolarCity (also referred to as PSS) bid was ranked number 6, that bid could not be accepted since GPA refused to grant an exemption to SolarCity, which exemption was necessary for that SolarCity bid to be compliant with the IFB.

Attached hereto as Exhibit "22" is a list of bidder questions to which GPA responded on December 9, 2016. In its question on page 2, SolarCity explained that in its bid submission, it understood that it could use the existing GPA transmission line from Dandan transfer station to the Talofofo substation to interconnect with the GPA grid. It acknowledged that possibility was eliminated by Item 1 of Amendment VII to the IFB. SolarCity stated that had it known that the use of the GPA transmission line was not viable, it likely would have pursued other options and proposed a different technical solution. It stated that altering its approach at this point would effectively require it to start over.

For that reason, SolarCity requested an exemption to Item #1 of Amendment VIII. However, GPA's response was that it was unable to grant the requested

exemption. As a result, SolarCity's bid ranked number 6 is contrary to Item #1 of Amendment VIII. Its bid ranked number 6 has no interconnection to the GPA grid, and cannot be considered. This is confirmed by abstract of the SolarCity bid prepared by GPA and attached as Exhibit "23". The less expensive SolarCity bid, ranked as number 6, was noted to be "w/out transmission". The Price Proposal Evaluation should be understood as a ranking based on price, and not as a statement of qualification. As a result, the SEPJ Site 1, which is ranked at number 7 on the Price Proposal Evaluation, should in fact rank as number 6. That means that the SEPJ Sites 2 and 1 are the first and second runners-up.

Ruling Requested

SEPJ requests that the Hanwha bid submission for both of its Sites be disqualified and rejected, and that SEPJ as first and second runner-up be granted an award for its Site 2 and Site 1 in accordance with the terms stated in the SEPJ bid submission.

Alternatively, SEPJ requests that the Public Auditor order a rebid of this procurement due to the expansion of the scope of the procurement after bid opening resulting from GPA's doubling its size from 60 MW to 120 MW, and the failure of GPA to unambiguously state whether it required above ground or underground transmission lines in the IFB, and the resulting inevitable failure of the bidders to submit parallel bids.

Declaration Re Court Action

Pursuant to 5 GCA Chapter 5, unless the court requests, expects, or otherwise expresses interest in a decision by the Public Auditor, the Office of Public Accountability will not take action on any appeal where action concerning the protest or appeal has commenced in any court.

The undersigned party does hereby confirm that to the best of his or her knowledge, no case or action concerning the subject of this Appeal has been

regarding this Appeal or the underlying procurement action.

DATED this 21st day of August, 2017.

Respectfully submitted,

commenced in court. All parties are required to and the undersigned party agrees to

notify the Office of Public Accountability within 24 hours if court action commences

BERMAN O'CONNOR & MANN

Attorneys for Appellants SHANGHAI ELECTRIC POWER JAPAN CO., LTD. and TERRA ENERGY, INC.

Salbum

By:

DANIEL J. BERMAN

Exhibit "1"



GUAM POWER AUTHORITY

ATURIDĀT ILEKTRESEDĀT GUAHAN P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

Tel: (671) 648-3225; Fax: (671) 648-3290

DENIAL OF PROCUREMENT PROTEST

August 3, 2017

Berman O'Connor & Mann Received

AUG 0 4 2017

Time: 11:10 By:

Mr. Daniel J. Berman 111 Chalan Santo Papa Bank of Guam Building, Ste 503 Hagatna, Guam 96910

RE:

Guam Power Authority's Response to Shanghai Power Japan Co., Ltd.'s Protest dated July 24, 2017, for GPA-IFB-070-16, Renewable Energy Resource Phase II

Dear Mr. Berman:

I have reviewed your protest letter dated July 24, 2017, protesting the Guam Power Authority's (GPA) proposed award to Hanwha Energy and Korea Electric Power Co. Ltd. - LG CNS. Your Protest is hereby denied for the following reasons:

1. You indicated in your letter that Shanghai Power Japan Co., Ltd. protested the bid based on its belief that there has been a substantial modification of the terms of the IFB from 60MW to 120MW. A review of the entire IFB indicates that GPA-IFB-070-16, Renewable Energy Resource Phase II, is structured as a multi-step bid, in which bidders must meet the specifications contained in the technical phase, and those that qualify may then submit price proposals for solar bids, not to exceed 30MW per location. There was no change made to change the size of the maximum 30MW per location. Shanghai Power Japan Co., Ltd. Met the requirements of the technical phase I, and submitted two proposals of 30MW each as part of its bid. Nowhere in the bid specifications was this requirement changed, nor was any bidder



prohibited from submitting as many 30MW projects as it deemed appropriate. After bidders meet the specifications contained in Phase I, then selection of the winning bidders is made on price alone. What is clear is that the two proposals submitted by Shanghai Power, SEPJ Site 1 and SEPJ Site 2, based on price are the #5 and #7 bidder at a first-year price of \$.128/kWH for SEPJ Site 2 and \$.1613/kWh for SEPJ Site 1. This compares with the Hanwha Site 2 price of \$.06245/kWh and the Hanwha Site 1 price of \$.06599/kWh, and the KEPCO Site A and Site B price of \$.0855/kWH. In addition, even the least expensive bid submitted by Shanghai Power, the SEPJ Site 2 first year price of \$.128/kWh exceeds GPA's avoided cost and the LEAC rate of \$.105/kWh.

- 2. Shanghai Power also states that it did not participate in the System Impact Study ("SIS"), which is defined in Section 4.1.1. Only a potential awardee, such as Hanwha and KEPCO, are provided with the opportunity to move forward with the system impact study. The IFB makes it clear that if the costs of system improvements recommended by the SIS consultant exceed the amount that the winning bidder is willing to pay, then the winning bidder may withdraw its bid. There is no benefit that accrues to the winning bidder, it is a requirement before the Purchase Power Agreement (PPA) is signed that the winning bidder agrees to the system improvements required by the SIS.
- 3. Shanghai Power claims that there is an award of a new procurement for a new microgrid. This is not accurate as a reading of the entire IFB would indicate that GPA allowed all bidders, including Shanghai Power, to bid on an option for a microgrid. Hanwha submitted an option bid for a microgrid, and GPA is considering

- whether it will exercise this microgrid option. There is no sole source procurement of a microgrid in the IFB.
- 4. Shanghai Power further claims that both Hanwha and KEPCO have submitted what Shanghai Power considers as "pricing is incredible and not sustainable". That opinion of Shanghai Power is not substantiated in any fashion. Both Hanwha and KEPCO are very large companies in Korea and have the financial ability to proceed forward with the project at the prices submitted. Both Hanwha and KEPCO have submitted letters indicating their ability to proceed forward with the projects at the prices submitted, in letters dated August 1, 2017, and July 29, 2017, copies of which are attached hereto.
- 5. Shanghai Power claims that it had inadequate information to file a protest, despite the fact that it submitted a FOIA request for documents, and by its own admission picked up a voluminous 3,280 pages of bid submission from GPA on a disk, an option used due to the "voluminous" size of the material requested. In addition, many media outlets in Guam have noted the GPA deliberations and reviews in open session at GPA work sessions and meetings, all of which have been publicly noticed, and are open to the public. At no time prior to the protest did Shanghai Power, its representative or its attorney, contact the procurement office or GPA as to the selection of the awardees, Hanwha and KEPCO, which were publicly announced.
- 6. Shanghai Power also claims that the award should be made to Shanghai Power as the "runner up and lowest responsible bidder." A simple review of the bid abstract and the GPA evaluation sheet listing the prices of all bidders, would reveal this is

inaccurate. The two lowest responsible bidders, Hanwha Energy and Korea Electric Power Co. Ltd. - LG CNS compiled fully with the bid requirements and each submitted a proposal for two 30MW sites, Hanwha 1 and 2, and KEPCO A and B. In addition, the evaluation of all the bids indicates that contrary to Shanghai Power Japan Co., Ltd.'s assertion that it is the lowest bidder, that the two proposals submitted by Shanghai Power, SEPJ Site 1 and SEPJ Site 2, based on price are the #5 and #7 bidder at a first-year price of \$.128/kWH for SEPJ Site 2 and \$.1613/kWh for SEPJ Site 1. This compares with the Hanwha Site 2 price of \$.06245/kWh and the Hanwha Site 1 price of \$.06599/kWh, and the KEPCO Site A and Site B price of \$.0855/kWH. In addition, even the least expensive bid submitted by Shanghai Power, the SEPJ Site 2 first year price of \$.128/kWh exceeds GPA's avoided cost and the LEAC rate of \$.105/kWh.

GPA reviewed the bid packages and provided a notice of intent to award to the lowest responsible and **responsive** bidder. A responsive bidder is a person who has submitted a bid which conforms in all material respects to the Invitation for Bids. 5 GCA §5201(g) and 2 GAR, Div. 4, Chap. 3, §3109(n)(2).

7. GPA has determined that Hanwha Energy and Korea Electric Power Co. Ltd. - LG CNS should be awarded the bid for Renewable Energy Resource Phase II, as they were deemed to be the lowest, responsive and responsible bidders. The Hanwha Energy and Korea Electric Power Co. Ltd. - LG CNS bids were responsive to the IFB and complied with the specifications set forth in the IFB. Therefore, GPA hereby finds that there is no merit to the Shanghai Power Japan Co., Ltd.'s claim that the Shanghai Power Japan Co., Ltd. bid was the "runner up and

lowest responsive bidder."

Shanghai Power Japan Co., Ltd. is hereby ON NOTICE that this is the Guam Power Authority's final decision concerning Shanghai Power Japan Co., Ltd.'s July 24, 2017, protest for the above described IFB. You are hereby advised that Shanghai Power Japan Co., Ltd. has the right to seek judicial review.

Sincerely,

JOHN M. BENAVENTE, P.E.

General Manager

Attachments:

- 1. KEPCO Letter (July 29, 2017)
- 2. Hanwha Letter (August 1, 2017)
- 3. GPA Priced Proposal Evaluation
- 4. GPA Bid Abstract

Exhibit "2"



GUAM POWER AUTHORITY

ATURIDÅT ILEKTRESEDÅT GUAHAN P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

July 10, 2017

MEMORANDUM

TO: General Manager

VIA: Supply Management Administrator

FROM: Buyer Supervisor I

SUBJECT: Analysis on Invitation for Multi-Step Bid No.: GPA-070-16 for Renewable Energy Resource

Phase II

Invitation for Multi-Step Bid No.: GPA-070-16 is to procure for Renewable Energy Resource Phase II.

Invitation for Multi-Step Bid No.: 070-16 was officially announced and advertised in the Pacific Daily News and The Guarn Daily Post on May 12, 2016 and May 19, 2016. Eighty-Four (84) prospective bidders expressed their interests by acknowledging receipt of the bid package commencing May 20, 2016 thru October 19, 2016.

Phase II was officially opened and read at 2:00 P.M., January 13, 2017. Seven (7) bidders were deemed qualified to move unto Phase II, namely:

1. LSIS:

Dandan East 30 MW AC All requirements met in Phase I; however, not awarded

due to high price in Phase II.

2. LSIS:

Dandan West 30 MW AC All requirements met in Phase I; however, not awarded

due to high price in Phase II.

3. KEPCO-LG CNS Consortium:

Site A Awarded. All requirements met in Phase I, and one of

overall lowest bidders in Phase II.

4. KEPCO-LG CNS Consortium:

Site B Awarded. All requirements met in Phase I, and one of

overall lowest bidders in Phase II.

5. Hanwha Energy Corporation &

Pacific Petroleum Trading Corp.:

Project A (30 MW)

Awarded. All requirements met in Phase I, and one of

overall lowest bidders in Phase II.

MS GPA-070-16 Renewable Energy Resource Phase II M. Uncangco

EXHIBIT 2

Page 1 of 3

6. Hanwha Energy Contion & Pacific Petroleum Trading Corp.:

Project B (30 MW)

Awarded. All requirements met in Phase I, and one of overall lowest bidders in Phase II.

Quantum Utility Generation

Guam Clean Energy:

Project 1

7.

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

8. Quantum Utility Generation

Guam Clean Energy:

Project 2

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

9. Sean & NexGeo Consortium:

10 MW

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

10. Sean & NexGeo Consortium:

Buy Out

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

11. Shanghai Electric Power Japan Co., Ltd.

Site #1 Inarajan

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

12. <u>Shanghai Electric Power Japan Co., Ltd.</u>

Site #2 Yona

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

13. Pacific Solar Storage 1 (Guam)

Solar City:

With Transmission Extension to Umatac

25 MW

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

14. Pacific Solar Storage 1 (Guam)

Solar City:

Without Transmission Extension

All requirements met in Phase I; however, not awarded

due to high price in Phase II.

In view of the attached analysis and approval of Phase II committee recommendation, I recommend that Hanwha Energy Corporation & Pacific Petroleum Trading Corporation (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.

Should you have any guestions, I can be reached at Ext. 3046.

Jesse T. Reyes

Page 2 of 3

MS GPA-070-16 Renewable Energy Resource Phase II M. Uncangco

Exhibit "3"



GUAM POWER AUTHORITY

ATURIDÅT ILEKTRESEDÅT GUAHAN P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

July 10, 2017

BID STATUS

Diao Xu General Manager Shanghai Electric Power Japan Co., Ltd./ Terra Energy Inc. (Guam) 32F Marunouchi Building

| Chiyo | | 100-6332 | |
|---------|----------------------------------|---|--|
| Dear M | Ir. Xu: | | |
| MULTI | -STEP IN | NVITATION: GPA-070-16 | OPENED: January 13, 2017 |
| DESC | RIPTION | : Renewable Energy Resource | Phase II |
| Γhe fol | _ | the result of the above-mentioned (in its entirety), or partially Insufficient funds; Change of specifications; Best interest of the Government | ed bid. Refer to items checked below y canceled due to: |
| | () () () () () () (X) () | by Section 11 of the General Ter Not meeting the delivery requirer Non-conformance with the speci | nents as stated in the IFB; ications; nance and services to the equipment; |

Bid is recommended for award to: Hanwha Energy Corporation & Pacific Petroleum Trading Corporation (Hanwha) and KEPCO-LG CNS Consortium (KEPCO-LG), each bidder having two proposals for 30MW solar PV projects totaling 120MW of solar PV capacity.

The Guam Power Authority greatly appreciates your interest and participation in our bid.

General Manager

Exhibit "4"

BERMAN O'CONNOR & MANN

Attorneys at Law

Suite 503, Bank of Guam Building 111 Chalan Santo Papa Hagåtña, Guam 96910 Tele. 671-477-2778 Fax 671-477-4366

Website: www.pacificlawyers.law Email: djberman@pacificlawyers.law

July 24, 2017

VIA HAND DELIVERY

Mr. John Benavente General Manager Guam Power Authority Gloria B. Nelson Public Service Building Route 15 Mangilao, Guam 96913



Re: Protest by Shanghai Power Japan Co., Ltd. and Terra Energy, Inc. to Bid Submitted by Hanwha Energy and Korea Electric Power Co. Ltd.-LG CNS in MS GPA-070-16, Renewable Energy Resource Phase II

Dear Mr. Benavente:

This is a protest by Shanghai Electric Power Japan Co., Ltd. ("SPJ") and Terra Energy Inc. ("TEI") to the bids submitted by Hanwha Energy and KEPCO-LG CNS in procurement MS GPA-070-16, Renewable Energy Resource Phase II. This office represents SPJ and TEI. This protest is based upon the following grounds:

I. SUBSTANTIAL MODIFICATION OF TERMS OF IFB: NO NOTICE OF CHANGE TO DOUBLE THE SIZE OF PROJECT

As stated in the IFB at p. 9: "In this Phase II acquisition re-bid, GPA intends to acquire a total of 60 MW of renewable capacity that can meet the following established requirements". The size as stated in the rejection letter to my client has now been increased by a remarkable double amount, or 120 MW. My client had no knowledge, nor benefit of this remarkable change to the IFB during the bid preparation period. My client certainly, and perhaps all other bidders, would have realized substantial economies of scale in cost that would have impacted its price in their bid submission. This decision to double the size was made subsequent to the submission and opening of

\\SHARESERVER\share\wpdocs2\Dan\Terra Energy Inc\Corresp\John Benavente GPA 07242017 final djb.docx





bids, and delivery of pricing on February 7th, 2017 by the Evaluation Committee and is not part of the original IFB specifications. Given that the existing GPA renewable energy project under NRG is only 26 Mwh, the leap from 60 to 120 Mwh is an extraordinary prejudicial and enormous material change to the IFB specifications.

II. SUBSTANTIAL MODIFICATION OF TERMS OF IFB: SYSTEM IMPACT STUDY ("SIS"): NO OPPORTUNITY TO PARTICIPATE OR TO PROCEED ON SIS GIVEN TO SPJ AND TEI

As defined in the IFB at p. 29, Section 4.1.22, CONTRACTOR: The bidder with whom GPA has entered into the Contract. System Impact Study as defined on p. 65, "4.1.1. System Impact Study. The contractor is responsible for the cost of the System Impact Study". This indicates that the "contractor" has been awarded the bid. Under this circumstance, only an awardee shall be afforded the opportunity to move forward with a System Impact Study. As it happened, Hanwha and KEPCO-LG were granted the sole and exclusive opportunity, and did in fact proceed with a System Impact Study, through GPA notification on February 8th, 2017, which allowed only Hanwha/KEPCO to offer their SIS results, all after bidding closed, according to the GPA release of information. The system impact study was proceeding and none of the bidders were notified except for Hanwha and KEPCO-LG. There has to be a disclosure as required by procurement law and the IFB process. The only apparent reason for the non-disclosure is because this special benefit and favor to Hanwha/KEPCO had to be intentionally This special advantage allowed only concealed from the other bidders. Hanwha/KEPCO to privately confirm their pricing through an exclusive relationship with GPA while insuring no transparency was provided to the other bidders. None of the other bidders, including my client, were notified of this benefit provided to the two entities that were awarded the right to the contract.

III. SUBSTANTIAL MODIFICATION OF TERMS OF IFB: AWARD OF NEW PROCUREMENT FOR A SUBSTANTIAL NEW MICROGRID

Without notice to my clients, on June 6, 2017, CCU Resolution No. 2017-25 was adopted for application to the instant GPA procurement. See, Exhibit "1", CCU Resolution 2017-15, dated June 6, 2017. Apart from the substantial modification to approve a doubling of the size of the contract to 120MW after the opening of the bids on January 13, 2017, GPA generated and awarded a sole source procurement for a new Microgrid to the same Hanwha. Id. at p. 1, ln. 16, Whereas No. 5, together with its Ex. "B" thereto ("summary of the Hanwha microgrid operations"). With the Microgrid work, you can potentially split up the sites to make the interconnections much more streamlined and efficient and less expensive. At the time of the bid opening, Hanwha

interconnection pricing was far too low and grossly underpriced, as the GPA written correspondence to KEPCO reveals. The interconnection cost component is 1/3 to ¼ of the whole bid submission cost package, and this sole source procurement award will decrease substantially the bidders' interconnection costs significantly.

IV. NOT RESPONSIBLE BID: HANWHA AND KEPCO/LG CNS PRICING IS INCREDIBLE, NOT SUSTAINABLE AND A MISREPRESENTATION OF REASONABLE COST AND PRICING

LG CNS recently won a bid for a 40 MW energy storage project on Guam. My client roughly values that project at between US\$30 to US\$40 Mwh. But, for the instant procurement, Hanwha and KEPCO are priced at \$85.5 Mwh for 60 MW of capacity with energy storage in GPA 070-16. Accordingly, LG CNS admits themselves through their Phase 2 pricing that it is impossible to build the facility at a price of US\$85.5 Mwh. By stripping out the cost of energy storage pricing from their bid, the actual solar portion of the project will be between \$50 - \$60 Mwh, which is an impossible price. Please contrast this price with the Phase I facility NRG is operating, which is priced at double or US\$190 Mwh, without any energy storage facility. For ease of reference, current energy storage will cost between US\$700K to US\$1MM per MW.

KEPCO, in a email dated February 1, 2017, after opening of pricing, continued to communicate with the GPA regarding interconnect cost matters, including fundamental matters such as a) the need for one or two sets of transmission lines to each 30MW site, b) how to measure the distance from Pagat substation to Marbo substation, c) the possibility of utilizing overhead lines for interconnect, d) asking the GPA to provide cost assumptions for "common cost" interconnect matters and e) asking the GPA to provide cost estimates for the "indirect upgrades" required for interconnection. See, Exhibit "2", KEPCO email dated February 1, 2017, attached. GPA should have realized that KEPCO priced this project with multiple uncertainties and caveats and expected to resolve it at a later time; and more importantly, the communication from KEPCO should have been rejected as a passed deadline of bid submission unauthorized communication which required all bidders to receive a copy.

KEPCO, in a separate letter dated February 6, 2017 to John Benavente and Jamie Pangelinan, KEPCO conceded on page 2 of the letter that there are uncertainties to their pricing with respect to interconnection costs and that they are "willing to discuss such matters with you in good faith with the ultimate goal of finding a mutually acceptable approach that will enable us to successfully move forward with the contemplated project". See, Exhibit "3", KEPCO Letter dated February 6, 2017, attached. Clearly KEPCO did not have sufficient information to properly price the project and expects flexibility from the GPA towards future change order requests or pricing renegotiation.

AECOM, EPC for SPJ and TEI, who are the largest power project engineering and development contractors in the world with over 280GW of experience, provide a comparison of Hawaii solar/wind costs and price for an example. In Hawaii, the PPA costs are established at approximately US\$139 Mwh and US\$110 Mwh for renewable energy contracts with energy storage. See, Exhibit "4", AECOM letter dated July 23, 2017, attached. Given Hawaii's comparable labor market, higher price of shipping and costs of materials, and more importantly parallel geographic island conditions, no credence can be placed in Hanwha/KEPCO bid price of US\$62.45 and US\$85.5 Mwh, respectively. No assumptions should be allowed in Guam that non-resident alien construction labor on H-1 or H-2 visa status will be allowed from Korea. Instead, the prevailing bidder will have to use local labor or imported more expensive labor from the USA mainland, which SPJ and TEI have secured from Black Construction Corporation and incorporated into its bid submission.

KEPCO has very little to no solar development experience. Its renewable energy experience exists almost exclusively of wind power. LG CNS is a subsidiary of LG Corporation, which provides information technology services and consumer electronics and other hardware, but has no solar power production experience. The bid scoring worksheet places an important value on the experience of bidders, and both KEPCO and LG CNS have almost none when it comes to solar energy production. In contrast, SPJ and its parent company, State Power Investment Corporation, have 1.3 and 7.11 Gigawatts of developed capacity to date, which is the most of any bidder on this project.

Hanwha recently won a 1 GW solar tender in Turkey where they bid US\$69.9 per Mwh. Please bear in mind that this solar contract is placed in the Turkish desert, where land is nearly free, and construction labor freely available and extremely inexpensive, with sun hour and civil work conditions which are significantly more friendly (less expensive) than Guam. The Turkish project has no energy storage component. The price by Hanwha for Guam project with energy storage of \$62.45 is far less than their Turkish project without energy storage and a 1 GW scale (16.7 times the Guam project Therefore, Hanwha represented and asserted price in their bid, which GPA intends to award, but is not possible to sustain. Please see public information from the internet this attached Exhibit on point, https://www.pv-tech.org/news/hanwha-q-cells-and-kalyon-enerji-win-1gw-solar-ten der-in-turkey.

In contrast, SPJ and TEI bid submission and pricing for both the Yona and Inarajan projects have no such uncertainty as a result of their documented historical proof of strength, local knowledge and a secured labor force within their development consortium. The SPJ and TEI bids have observed and incorporated in to their bids the challenges with developing and operating the existing NRG 26 Mwh solar plant in

Guam. My clients affirm that they will not increase pricing or negotiate for an increase in pricing for both projects.

V. LACK OF NOTICE AND UPDATE INFORMATION AFTER JANUARY 13, 2017 BID OPENING: SECRET CORRESPONDENCE WITH WINNING BIDDERS

Prior to July 10, 2017, there had been no official notification provided to SPJ or TEI on the status of the project since the January opening of bids and relevant pricing. By keeping the award secret after January 13, 2017, KEPCO (in particular) started a private request for information process with GPA on an exclusive basis that kept the other bidders and the public out and away from participation. See, KEPCO letter dated February 6, 2017, and KEPCO email dated February 1, 2017, attached Exhibits "2" and "3". A preliminary decision was made on February 7th to award to KEPCO/LG and Hanwha but apparently the GPA was still working with KEPCO on confirming pricing up to Feb 6, 2017. See, Exhibit "5", GPA's Eval. Committee, to GM, dated February 7, 2017, attached. This secret trading of information and extraordinary requests for detailed cost/pricing information was accepted by the GPA when all that was asked for was a simple yes or no confirmation. See, Exhibits "2", "3" and "6", KEPCO/GPA irregular RFI correspondence, and KEPCO irregular RFI GPA response and KEPCO priced proposal clarification, at last page, attached. Strangely, even the CCU Resolution . No. 2017-25 was not posted on the public internet site, and only was revealed by GPA in response to my clients' Sunshine Act request. None of the February 2017 secret correspondence, emails and requests for information were copied to all other bidders.

On June 29, 2017, both Hanwha and KEPCO were notified of award and both parties proceeded with media notification in their home country of Korea and energy industry media; however, there was no official Decision of Award made by the GPA until July 10, 2017. Based on website and public information from media sources in Guam and overseas, SPJ and TEI were not provided any formal notice, prior to July 10, 2017, of the rejection of their bid or the Notice of Award to the prevailing bidders KEPCO and Hanwha. Official notifications were only made to the prevailing bidders on July 10th as well as the official rejection letters to the other bidders, including SPJ and TEI, nearly two weeks after Hanwha and KEPCO were notified. Through the Sunshine Act request, it was further revealed that the GPA submitted another identical notification of award to Hanwha and KEPCO on July 10, 2017, we believe, in order to make the award and rejection notifications to all bidders consistent.

VI. LOWEST RESPONSIBLE BIDDER: FAILURE TO COMPLY WITH LAWS AND REGULATIONS: ¶17(e), p. 196 IFB

KEPCO and Hanwha have been implicated in public instances of fraud and corruption on procurement matters involving their executives. Please see public information sources from the internet on this point that may be provided on request.

The General Terms and Conditions of GPA's Sealed Bid Solicitation and Award spell out in detail the requirements of the bidders. Paragraph 17 of the Terms and Conditions spell out the Standard for Determination of The Lowest Responsible Bidder. Under ¶17(e) at p. 196 of IFB, KEPCO and Hanwha are not compliant because they have had incidences of criminal misconduct with respect to laws and regulations relative to procurement. The disclosure of this information by the parties is not apparent in their bid submission.

Under ¶23 of the Terms and Conditions, at Award, Cancellation, & Rejection, an award shall be made to the lowest responsible and responsive bidder, whose bid is determined to be the most advantageous to the Government, taking into consideration the evaluation factors set forth in this solicitation. Although this provision may allow for the Government to waive minor irregularities, Hanwha and KEPCO's lack of responsibility noted in this Protest are significant and should not be deemed minor in nature.

SJP and TEI collaborated with its development and consulting partners submitted bids for two projects with pricing prepared by the partners with the most international and local experience of any of the bidders, including KEPCO/LG and Hanwha. SPJ and TEI's rigorous and professional process is fully compliant with the GPA's Bid Specifications and other Solicitation Requirements with pricing independently determined with ample international and local support and expertise. Further, their local contractor, Black Construction Corporation, has a ready labor force and is not impacted by the current H2B labor crisis on Guam.

VII. UNAVAILABLE INFORMATION FOR PROTEST GROUNDS

On July 13, 2017, my client delivered FOIA request for the production and delivery of the Hanwha and KEPCO bid submissions. *See* Exhibit "8", SJP and TEI FOIA letter dated July 12, 2017. On July 19, 2017, GPA responded that the bid submissions were available for pick-up upon payment. However, no delivery by email transmission or pdf image was allowed, offered or completed.

Only on July 20, 2017, my clients through my law office were able to pick-up the voluminous 3,280 pages of bid submission from GPA on a disk. As GPA is aware, a 3

day weekend holiday beginning Thursday evening took place in Guam. The deadline for procurement protest is July 24, 2017. In GPA's Sunshine response, there is no information provided on the SIS process engaged after February 2017 to present, including the SIS report and related correspondence, of the system impact study and details of the actual study. All SIS documents should have been provided. Accordingly, my clients reserve their rights to supplement their grounds for procurement protest based upon their continuing review of the voluminous, and difficult to timely obtain, Hanwha and KEPCO bid submissions to GPA on MS GPA-070-016.

REQUEST FOR ACTION AND RELIEF

For any or all of the above reasons, the bids submitted by Hanwha and KEPCO should be rejected in their entirety; and, the award should be made to SPJ and TEL as the runner up and lowest responsible bidder. We look forward to hearing from you as circumstances may permit.

Respectfully submitted,

FOR

Daniel J. Berman

Attachments: As stated.

Exhibit "5"

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Exhibit "6"



GUAM POWER AUTHORITY

ATURIDÅT ILEKTRESEDÅT GUAHAN P.O. BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

August 10, 2016

AMENDMENT NO.: IV

TO

INVITATION FOR MULTI-STEP BID NO.: GPA-070-16

FOR

RENEWABLE ENERGY RESOURCE - PHASE II

Prospective Bidders are hereby notified of the following Bid Milestone dates and responses to the indicated inquiries from potential bidders. Please note the numbering system corresponds to the total number of questions received from all bidders in the order they were received. Additional responses shall be forthcoming.

Guam Solar Solutions, LLC dated June 23, 2016:

QUESTION:

5. Volume I, Commercial Terms and Conditions, Page 2 (Page 10 of 222), Paragraph 5. The fourth sentence states: "GPA will perform a comprehensive evaluation of each bid against GPA's operation cost and select the Bidder(s) with the most qualified bids based on the submitted power price and minimum quarantees." Please define GPA's operation cost.

RESPONSE:

Renewable bids compete with GPA operating cost for Generation (all power plants) including but not limited to variable O&M and fuel costs using the Ventyx/ABB Strategist software application. The evaluation compares the difference in total system costs between the case without Phase II Renewable Energy Bids and with Bidder proposed costs and energy guarantees singly and in combination. To meet the avoided cost standard, the Bidder's proposed costs and operational guarantees must result in an equal or lower total system cost when included in the GPA generation mix than the GPA system without the proposed renewable energy system.

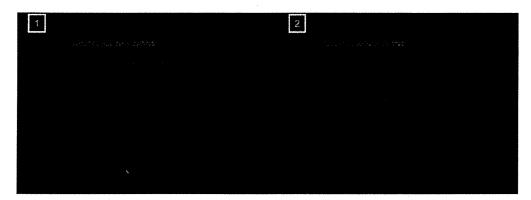
The Table below shows the estimated Range of Average Generation Production Costs under High and Low Fuel Price Scenarios. In addition, the GPA TOU report filed with the PUC Day time Marginal Costs with and without Cabras 3 as between \$110/MWh to \$160/MWh and \$128/MWh to \$178/MWH, respectively from the hours of 8 am to 5 pm.

| ESTIMATED | Danas | Units | Fiscal Ye | Fiscal Year | | | | |
|-----------------------------------|-------|--------|-----------|-------------|----------------|----------|----------|----------|
| RANGE OF AVERAGE GENERATION | Range | Units | 2016 | 2017 | 2018 2019 2020 | | | 2021 |
| | MAX | \$/MWH | \$ 84.33 | \$101.99 | \$122.86 | \$171.37 | \$195.02 | \$214.33 |
| PRODUCTION COST | MIN | \$/MWH | \$ 56.69 | \$ 68.95 | \$ 81.21 | \$108.69 | \$122.15 | \$131.84 |

EXHIBIT 6

QUESTION:

51. If we need to show average power generation (MW), do we need to change average power generation by keeping 1% ramp rate in case the time unit changes?



RESPONSE:

The 1% ramp rate still applies if the time unit changes.

Pacific Energy Corp. Inquiry dated June 23, 2016:

| N • | IFB Reference (Volume / Clause / page | Request for Clarification |
|--------|---|--|
| 5 | Priced Proposal Workbook / ESS Micro-Grid Option Price | Coursellation Communicated this opportunity and desire with some of its largest customers who might need additional energy security. Any cost information provided by Bidders is notional and not binding. GPA has initiated these discussions on the topic of microgrids with the Department of the Navy and Guam Waterworks Authority. GPA will be providing Solar PV generation with Energy Storage provisions on Department of Defense property as part of its Renewable Energy Acquisition Phase III Bid. Additionally, GPA has generation facilities close to DOD facilities. The circumstances provide an excellent opportunity to provide microgrid capability for customers with strong requirements for energy security. Additionally, GPA provides, operates, and maintains the backup generation for the critical water and wastewater facilities of the Guam Waterworks Authority. GPA is building the capability to remotely control these generators under SCADA to quickly place these GWA facilities on backup generation for riding through typhoons or for interruptible load. Until PROPONENTS specify a point of interconnection with GPA's power system grid, we cannot have a meaningful discussion on specifics. Each interconnection may have unique opportunities and issues for integration of the renewable energy and energy |

storage system. For firm power renewable energy systems, microgrids simply becomes providing the capability to serve a subset of distribution feeders served by the GPA substation the PROPONENT's facility interconnects with. For variable generation systems, there is an interplay between the amount of energy generated by the facility and the amount of energy that can be stored by the facility's ESS. Both are subject to the ability to segregate GPA loads from the entire GPA grid and onto the PROPONENT's facilities and the location of GPA conventional generation to serve those loads islanded from the majority of GPA's power system. GPA's informational questions on the topic of microgrids include: Has the Bidder developed or is developing a microgrid project? o What is the project scope? o What are the expected project costs? o How was or will the microgrid project be tested? o How are the microgrid hierarchical levels of control designed and implemented? (http://www.nrel.gov/esi/assets/pdfs/agct_day3_reilly.pdf) On June 11, 2014 the IEEE SA Board approved the PAR (IEEE P2030.7). Standard for the Specification of Microgrid Controllers. O How has the bidder been involved in the development of this standard? O What inputs have the bidder provided or considering providing in the development of this standard? QUESTION: The IFB requires a 1% ramp rate per minute. Could you please explain the exact mathematical definition on this requirement? (e.g. Evaluation using power output per absolute minute or magnitude evaluation using maximum and minimum output measure during one minute) RESPONSE: The initial evaluation will be based on a one (1) minute average of the MW. GPA reserves the right to re-evaluate the penalties for failure to meet the ramp rate requirement if excursions are excessive within the 1 minute. Technical QUESTION: Qualification The IFB requires various functions of the hybrid solution (PV+ESS). Does the model Proposal consider additional benefits for implementing such functions besides the revenue of Requirements / 6 the generated electricity sales? 2.2.2.1 / RI-ESS Technical RESPONSE: Requirements / No. The model evaluates energy and price based on its proposed hourly dispatch. Page 4 ~ 6 Load frequency control and demand response control are reserve markets for frequency control. Does GPA have any unit service price regulation for such functions? RESPONSE: No. GPA doesn't have any unit service price regulation for such load frequency control and demand response control functions.

Are there any relevant environmental constraints concerning the use of storage devices?

a. Any chemical element that shall be avoided or not permitted in the area?

RESPONSE:

GPA is not aware of any relevant environmental constraints concerning the use of storage devices on Guam.

QUESTION:

- 11. Reference Item: Commercial Terms & Conditions Renewable Energy Resource Phase II Page 9 of 222, Paragraph Three, Fourth Bullet Point 1. Introduction The RI-ESS must be capable of the following functions for micro grid operations (priced option):
 - o Generation Scheduling, Economic Load Dispatch and Load Frequency
 - Control functions
 - o Demand Response Controls.

Concerning "Load frequency control":

a. Could you provide a sample actuation profile (sensitivity, typical P(f) curve, ...)

RESPONSE:

GPA's requirements for microgrid are informational. GPA will eventually develop plans for and execute projects to establish microgrids supporting major loads. GPA has communicated this opportunity and desire with some of its largest customers who might need additional energy security. Any cost information provided by Bidders is notional and not binding.

GPA has initiated these discussions on the topic of microgrids with the Department of the Navy and Guam Waterworks Authority. GPA will be providing Solar PV generation with Energy Storage provisions on Department of Defense property as part of its Renewable Energy Acquisition Phase III Bid. Additionally, GPA has generation facilities close to DOD facilities. The circumstances provide an excellent opportunity to provide microgrid capability for customers with strong requirements for energy security.

Additionally, GPA provides, operates, and maintains the backup generation for the critical water and wastewater facilities of the Guam Waterworks authority. GPA is building the capability to remotely control these generators under SCADA to quickly place these GWA facilities on backup generation for riding through typhoons or for interruptible load.

Until PROPONENTS specify a point of interconnection with GPA's power system grid, we cannot have a meaningful discussion on specifics. Each interconnection may have unique opportunities and issues for integration of the renewable energy and energy storage system. For firm power renewable energy systems, microgrids simply becomes providing the capability to serve a subset of distribution feeders served by the GPA substation the PROPONENT's facility interconnects with. For variable generation systems, there is an interplay between the amount of energy generated by the facility and the amount of energy that can be stored by the facility's ESS. Both are subject to the ability to segregate GPA loads from the entire GPA grid and onto the PROPONENT's facilities and the location of GPA conventional generation to serve those loads islanded from the majority of GPA's power system.

GPA's informational questions on the topic of microgrids include:

- Has the Bidder developed or is developing a microgrid project?
- o What is the project scope?
- o What are the expected project costs?
- o How was or will the microgrid project be tested?

RESPONSE:

- 1. Work defines here as the work performed during the construction period. The bidder must obtain the required insurances during the construction and operation period.
- 2. Contractor shall furnish certificates of insurance and waiver of subrogation endorsement to GPA prior to commencement of work showing evidence of such coverage, including the statement to the effect that cancellation or termination of the insurance shall not be effective until at least (30) days after receipt of written notice to GPA. At all times Contractor's insurance shall be primary to any other insurance that may be carried by GPA. The statement of limits of insurance coverage shall be construed as in any way limiting the Contractor's liability under this agreement. GPA hall be an additional insured on all liability coverage and certificates of insurance shall clearly indicate such.
- 3. No. This change is not acceptable.

| | · | | | |
|-----|------------------|------------|--|---|
| 10 | Volume I | 45 of | 4.38 Contractors and Subcontractors | QUESTION: |
| | | 222 | Insurance | We would like GPA to confirm if this excess liability |
| | | | 3. Excess Liability with limits of | includes the coverage of both General Liability and |
| | | | US\$5,000,000 or higher | Auto Liability, as it is sometimes difficult to obtain |
| | - | | | Auto Liability up to the limit of US\$5M depending on a |
| | | | | country. |
| RES | PONSE: | L | | - Oddiniy. |
| | | ishility h | ave different coverage limits. These are s | given in section 4.38 of Volume I, page 45 of 222. |
| Gen | iciai and Auto L | Jabilly 11 | ave different coverage limits. These are g | iver in section 4.36 or volume i, page 45 or 222. |
| 13 | Volume I | 46 of | 4.38.4 Waiver of Subrogation | QUESTION: |
| ' | Voidinio | 222 | from all loss or damage to the | We believe that this is likely to be Contractor's |
| | | 222 | Premisesthat any such loss or | |
| | | | | indemnity provision rather than insurance waiver of |
| | | | damage may be due to or result from | subrogation. |

RESPONSE:

The bidder must comply with this requirement.

the negligence of GPA.....

| 15 Vol | ume II | 50 of 222 | The RI-ESS must be capable of the following functions for micro grid operations(priced option) | QUESTION: We would like GPA to provide further details of technical requirements regarding RI-ESS in order to calculate the price option. |
|--------|--------|--------------|--|--|
|--------|--------|--------------|--|--|

Contractor.

RESPONSE:

GPA's requirements for microgrid are informational. GPA will eventually develop plans for and execute projects to establish microgrids supporting major loads. GPA has communicated this opportunity and desire with some of its largest customers who might need additional energy security. Any cost information provided by Bidders is notional and not binding. GPA has initiated these discussions on the topic of microgrids with the Department of the Navy and Guam Waterworks Authority. GPA will be providing Solar PV generation with Energy Storage provisions on Department of Defense property as part of its Renewable Energy Acquisition Phase III Bid. Additionally, GPA has generation facilities close to DOD facilities. The circumstances provide an excellent opportunity to provide microgrid capability for customers with strong requirements for energy security.

Additionally, GPA provides, operates, and maintains the backup generation for the critical water and wastewater facilities of the Guam Waterworks authority. GPA is building the capability to remotely control these generators under SCADA to quickly place these GWA facilities on backup generation for riding through typhoons or for interruptible load.

Further, GPA's responsibility can be released to the extent of insurance coverage. In case of loss caused by GPA's negligence but not covered by insurance, GPA is still responsible for that loss against

Until PROPONENTS specify a point of interconnection with GPA's power system grid, we cannot have a meaningful discussion on specifics. Each interconnection may have unique opportunities and issues for integration of the renewable energy and energy storage system. For firm power renewable energy systems, microgrids simply becomes providing the capability to serve a subset of distribution feeders served by the GPA substation the PROPONENT's facility interconnects with. For variable generation systems, there is an interplay between the amount of energy generated by the facility and the amount of energy that can be stored by the facility's ESS. Both are subject to the ability to segregate GPA loads from the entire GPA grid and onto the PROPONENT's facilities and the location of GPA conventional generation to serve those loads islanded from the majority of GPA's power system.

GPA's informational questions on the topic of microgrids include:

- Has the Bidder developed or is developing a microgrid project?
 - o What is the project scope?
 - o What are the expected project costs?
 - o How was or will the microgrid project be tested?
 - How are the microgrid hierarchical levels of control designed and implemented? (http://www.nrel.gov/esi/assets/pdfs/agct_day3_reilly.pdf)
- On June 11, 2014 the IEEE SA Board approved the PAR (IEEE P2030.7), Standard for the Specification of Microgrid Controllers.
 - o How has the bidder been involved in the development of this standard?
 - What inputs have the bidder provided or considering providing in the development of this standard?

| | T | T = = = | T | |
|-----|-----------|--------------|--|---|
| 16 | Volume II | 53 of 222 | 2.2.3 Proven Technology The proposed resource technology and key components must have a minimum of one (1) year of operating experience in commercial utility application. If the proposed technology is a "scale up" of an existing facility, the operational performance data for the smaller plant must be at least 1/10 the proposed plant size or larger. | Specific requirements for Proven ESS Technology, despite the resulting intermittency from renewable sources of energy, are not given. The Bidder would like to suggest consideration be given to the importance of RI-ESS as a mitigation technology as well as the challenges of EPC/O&M for a large scale utility-connected Energy Storage Facility. QUESTION: In this light, would GPA be willing to consider the following requirements in its evaluation and scoring? - One of the bidder's members must have a utility-connected ESS EPC reference greater than or equal to the bidder's proposed MW scale ESS (GPA will not consider behind-meter ESS reference.) - An added requirement stating that the Bidder shall provide ESS O&M reference and its assets along with operation profile data as evidence. - An added requirement stating that Bidder shall demonstrate experience in interfacing with Utility SCADA, AGC and GFC. Otherwise, Bidders may be disqualified in the technical evaluation. |
| DEC | PONSE: | | L | disquained in the technical evaluation. |
| | | uea the s | same criteria and standards provided in th | a hid dagumente |
| | | | same criteria and standards provided in th | |
| 18 | Volume II | 53 of 222 | 2.3.2 The bidder will also provide the expected minimum (also in MWh) to be delivered each year of the contact period, at a 95% | QUESTION: We would like GPA to clarify what "confidence level 95" refers to. Does it mean Probability 95 of Annual Energy Production (AEP)? |

QUESTION:

Price Offer Worksheets

9.2 Please provide the proposed terms and conditions, including applicable availability and performance guarantee requirements, required of the Bidder in providing the O&M services price in the Buy-Out Price offer worksheet.

RESPONSE:

The proposed terms and conditions, including applicable availability and performance guarantee requirements, required of the Bidder in providing the O&M services price in the Buy-Out Price offer worksheet will be negotiated during the time that GPA will exercise the buy-out option.

QUESTION:

9.3 There are no micro grid technical requirements provided in the IFB. Please provide all requirements including hourly load profiles, duration of operation, and frequency of service for the request micro grid operation to be priced.

RESPONSE:

GPA's requirements for microgrid are informational. GPA will eventually develop plans for and execute projects to establish microgrids supporting major loads. GPA has communicated this opportunity and desire with some of its largest customers who might need additional energy security. Any cost information provided by Bidders is notional and not binding.

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- Has the Bidder developed or is developing a microgrid project?
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 (http://www.nrel.gov/esi/assets/pdfs/agct_day3_reillv.pdf)
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 - o How has the bidder been involved in the development of this standard?
 - o What inputs have the bidder provided or considering providing in the development of this standard?

QUESTION:

| 7. | IFB Volume II | Section 1 | Generation Power Fluctuations | As stated in 1. OVERVIEW that "significantly reduce the impact of intermittent ("non-firm") renewable energy generation power fluctuations on GPA's power system frequency Is there a quantitative index of the expected range of renewable generation power fluctuations? |
|----|---------------|-----------|-------------------------------|--|
|----|---------------|-----------|-------------------------------|--|

RESPONSE:

The primary application for the RI-ESS is ramp rate control. The ESS should also be able to respond within 200 milliseconds to drop in PV inverter output or ramp rate greater than 1% per minute to support the secondary applications - power frequency regulation, voltage regulation, storage capability, reactive power control and ride-through and synchronization capabilities as specified in section 2.2 of Volume II and the "Voltage_Frequency_RideThrough.xlsx" file. Additional details will be identified by the System Impact Study.

QUESTION:

| 7 | . | • | |
|------------------|-----------|----------------------|--|
| 7. IFB Volume II | Section 1 | Micro Grid Operation | As stated in 1. OVERVIEW that "the RI-ESS must be capable of the following functions for micro grid operations (priced option)" In micro grid operation condition, will the RI-ESS be controlled by GPA or the power developer? What's the estimated typical continuous isolated operation time of the mirco grid? What's the estimated frequency of micro grid operation per annum? |

RESPONSE:

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 - O How has the bidder been involved in the development of this standard?
 - o What inputs have the bidder provided or considering providing in the development of this standard?

QUESTION:

| YOLU I | 1011. | , | 1 | 1 |
|--------|---------------|-----------------|-------------------------|--|
| 8. | IFB Volume II | Section 2.2.2.1 | Guaranteed Success rate | As stated in 2.2.2.1 RI-ESS Technical Requirements that "ESS shall have 1% ramp rate control within one minute of the project nameplate renewable capacity with the guaranteed success rate for the contract period." What is the definition of the term "guaranteed success rate"? What's the required minimum guaranteed success rate for the contract period? |
| | I | 1 | ţ | |

RESPONSE:

- The guaranteed success rate is a percentage of the time that the output of ESS is within the 1% ramp rate.
- The bidder will provide this rate for each contract period as part of the Technical Data in the Qualitative Scoring Worksheet. This is for evaluation purposes.

QUESTION:

| 10. | IFB Volume III | Article Two | Renewable Energy Type | In the table of Commercial Terms on Page 9, please explain the meaning of "Unit Contingent (solar) and associated RECs" in the 7 line of the table. |
|-----|----------------|-------------|--------------------------|---|
|-----|----------------|-------------|--------------------------|---|

RESPONSE:

- "Unit Contingent" means that the Renewable Energy is intended to be supplied from the Facility as it is
 produced, subject to the Guaranteed Availability requirement set forth in Section 4.7, on page 88 of 222.
- "Associated RECs" means the purchased Renewable Energy and Renewable Energy Credits associated with it.

QUESTION:

6. What is the requirement for the grid distribution?

RESPONSE:

This shall be determined by the system impact study.

QUESTION:

7. Who will be the one to perform the grid connection work? Will it be done by GPA, or appointed by GPA's vendor or is it up to the selected bidder to decide?

RESPONSE:

Selected bidder shall secure the required services with GPA's approval.

QUESTION:

9. When the renewable energy system does not produce any power, what is the maximum time allowed before the RI-ESS system it kicks in?

RESPONSE:

The primary application for the RI-ESS is ramp rate control. The ESS should be also be able to respond within 200 millisecond to drop in PV inverter output or ramp rate greater than 1% per minute to support the secondary applications - power frequency regulation, voltage regulation, storage capability, reactive power control and ride-through and synchronization capabilities as specified in section 2.2 of Volume II and the "Voltage_Frequency_RideThrough.xlsx" file. Additional details will be identified by the System Impact Study.

QUESTION:

10. How does the pricing structure work for the RI-ESS micro grid operation? The attached form for the pricing section for the Micro Grid Price Offer Worksheet does not indicate what size of system the price should be based on. Should it be MW or output Mwh? Please provide more guidelines on the pricing structure.

RESPONSE:

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 - o How was or will the microgrid project be tested?
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- On June 11, 2014 the IEEE SA Board approved the PAR (IEEE P2030.7), Standard for the Specification of Microgrid Controllers.
 - O How has the bidder been involved in the development of this standard?
 - o What inputs have the bidder provided or considering providing in the development of this standard?

QUESTION:

11. Regarding the buy-out section pricing, the price offer worksheet does not indicate the percentage of buy-out of the renewable energy power plant, but the bid document mentions we should give options for GPA to buy-out at the following percentage: 25%, 50%, 75% and 100%. Are required to offer 100% or one of the other options?

RESPONSE:

GPA is requiring the bidder to provide buy-out prices at all the percentages in the Qualitative Scoring Worksheet.

QUESTION:

Since there are so many pricing options (pricing offer based on Mwh, pricing offer for Buy-out, pricing offer for Micro-grid system) for this second phase bid, how will GPA evaluate the price?
Will GPA evaluate the price based on the output without RI-ESS system, or the combination of the price of RI-ESS system and the regular output of the power from the renewable energy power plant? Also, how will the buy-out price be considered when selecting the final bidder?

RESPONSE:

GPA will evaluate the price (\$/MWH) and select the winning bid based on the output of the Renewable Energy plant and the RI-ESS. The buy-out price will not be evaluated in the determination of the selected bid.

QUESTION:

15. One of the bid requirements is that the bidder has to provide Good Standing Certificate, but if the company is from an overseas country that does not have such thing in the company's registered residence, how can the bidder can meet this requirement?

RESPONSE:

Certificate of Good Standing are issued by the Secretary of State (or equivalent agency responsible for filing entities and maintain state business licensing records) in which the entity is formed, or in which it has qualified as a "Foreign Entity". Alternately, a document certified and witnessed by an equivalent of U.S. Notary Public that states:

TABLE 1: Fuel Oil Forecast (Low & High)

| | LOW CASE | | | | HIGH CASE | | | |
|------|--|---|-----------------------------|-------|--|---|-----------------------------|-------|
| Year | Residual Fuel Oil (2% Sulfur) | Residual Fuel Oil (1.19% Sulfur) | Gas Oil (0.5% Sulfur) | ULSD | Residual Fuel Oil (2% Sulfur) | Residual Fuel Oil (1.19% Sulfur) | Gas Oil (0.5% Sulfur) | ULSD |
| 2016 | 3.86 | 4.98 | 7.67 | 7.97 | 5.27 | 6.47 | 10.55 | 11.00 |
| 2017 | 4.45 | 5.61 | 8.57 | 8.89 | 6.18 | 7.44 | 11.97 | 12.44 |
| 2018 | 5.41 | 6.63 | 9.89 | 10.22 | 7.84 | 9.18 | 14.32 | 14.84 |
| 2019 | 6.71 | 8.00 | 11.72 | 12.07 | 10.11 | 11.56 | 17.59 | 18.15 |
| 2020 | 7.89 | 9.23 | 13.17 | 13.51 | 12.15 | 13.69 | 20.16 | 20.72 |
| 2021 | 8.78 | 10.17 | 14.05 | 14.36 | 13.85 | 15.46 | 22.00 | 22.51 |
| 2022 | 9.21 | 10.64 | 14.71 | 14.96 | 14.84 | 16.51 | 23.50 | 23.94 |
| 2023 | 9.64 | 11.10 | 15.28 | 15.55 | 15.86 | 17.59 | 24.93 | 25.39 |
| 2024 | 10.13 | 11.64 | 15.96 | 16.23 | 16.88 | 18.66 | 26.32 | 26.81 |
| 2025 | 10.72 | 12.27 | 16.77 | 17.06 | 17.89 | 19.73 | 27.71 | 28.22 |
| 2026 | 11.35 | 12.94 | 17.61 | 17.92 | 18.96 | 20.86 | 29.15 | 29.70 |
| 2027 | 11.90 | 13.54 | 18.52 | 18.85 | 19.91 | 21.88 | 30.71 | 31.29 |
| 2028 | 12.41 | 14.11 | 19.32 | 19.66 | 20.79 | 22.82 | 32.07 | 32.67 |
| 2029 | 12.96 | 14.71 | 20.16 | 20.52 | 21.74 | 23.83 | 33.51 | 34.14 |
| 2030 | 13.52 | 15.31 | 21.02 | 21.39 | 22.69 | 24.85 | 34.97 | 35.63 |
| 2031 | 14.14 | 15.98 | 21.97 | 22.37 | 23.76 | 25.99 | 36.60 | 37.29 |
| 2032 | 14.78 | 16.68 | 22.95 | 23.36 | 24.85 | 27.15 | 38.28 | 39.00 |
| 2033 | 15.46 | 17.42 | 24.00 | 24.43 | 26.02 | 28.41 | 40.07 | 40.83 |
| 2034 | 16.17 | 18.19 | 25.10 | 25.55 | 27.25 | 29.72 | 41.95 | 42.75 |
| 2035 | 16.95 | 19.03 | 26.30 | 26.77 | 28.60 | 31.15 | 44.01 | 44.85 |
| 2036 | 17.74 | 19.89 | 27.51 | 28.01 | 29.96 | 32.60 | 46.10 | 46.98 |
| 2037 | 18.52 | 20.73 | 28.70 | 29.23 | 31.30 | 34.02 | 48.14 | 49.06 |
| 2038 | 19.37 | 21.64 | 30.00 | 30.55 | 32.76 | 35.57 | 50.37 | 51.34 |
| 2039 | 20.28 | 22.62 | 31.40 | 31.97 | 34.33 | 37.24 | 52.77 | 53.78 |
| 2040 | 21.23 | 23.65 | 32.86 | 33.46 | 35.97 | 38.98 | 55.28 | 56.34 |

All other Terms and Conditions in the bid package shall remain unchanged and in full force.

JOHN M. BENAVENTE, P.E.

General Manager

Exhibit "7"



rates; and

27

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

| 1 | <u>RESOLUTION NO. 2017 - 25</u> |
|-----------------------|--|
| 2 3 4 5 6 | 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 |
| 7 | WHEREAS, in May 2016 GPA announced GPA Multi-Step Bid No: GPA- 070-16 for |
| 8 | 60MW of Renewable Energy Resource capacity with ESS for ramp control; and |
| 9 | WHEREAS, in January 2017 GPA obtained the price bids and determined Hanwha Energy |
| 10 | Corporation & Pacific Petroleum Trading Corp. (Hanwha) and KEPCO-LG CNS Consortium |
| 11 | (KEPCO-LG) to be the lowest responsive bidders with each bidder having two proposals for 30MW |
| 12 | solar PV projects totaling 120MW of solar PV capacity; and |
| 13 | WHEREAS, Bidders provided \$/MWH price proposals for the energy and ramp controls to |
| 14 | include interconnection costs of each 30MW proposal. Exhibit A provides a summary of the |
| 15 | energy price proposals; and |
| 16 | WHEREAS, in addition to the base proposal, Hanwha submitted a fixed price proposal for |
| 17 | a GPA requested microgrid operations option, which would include the capability of energy |
| 18 | shifting, required for a 60MW award, through an energy storage system of 40MW/65MWH during |
| 19 | peak solar days for discharge during GPA peak periods; and |
| 20 | WHEREAS, GPA is considering the Hanwha microgrid operations option to improve |
| 21 | management of system generation and dispatching which would be in addition to the proposed |
| 22 | energy rate. Exhibit B provides a summary of the Hanwha microgrid operations; and |
| 23 | WHEREAS, GPA evaluates bidder's price proposal against GPA's variable operating costs |
| 24 | primarily made up of fuel costs; and |
| 25 | WHEREAS, GPA has determined that Hanwha and KEPCO-LG proposals would provide |
| 26 | substantial savings to GPA over the term of the contracts based on current and projected LEAC |

RESOLUTION NO: 2017-25

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) | 12 0MW | \$ 43,290,919 | \$ 88,266,040 | \$ 417,315,926 |

and

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;

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



81 82

Aves:

WHEREAS, GPA would like to proceed with an approval to award a potential total of 49 120MW of renewable energy capacity contracts subject to the completion of the System Impact 50 51 Study. NOW, THEREFORE, BE IT RESOLVED, by the CONSOLIDATED COMMISSION 52 ON UTILITIES, the GOVERNING BODY of the GUAM POWER AUTHORITY as 53 FOLLOWS: 54 1. The CCU authorizes GPA to petition the PUC for approval to award Phase II Renewable 55 Acquisition Bid of two 30MW proposals each to Hanwha Energy Corporation & Pacific 56 Petroleum Trading Corp. and KEPCO-LG CNS Consortium as required under the PUC 57 Procurement Protocol. 58 2. The CCU authorizes GPA to contract Hanwha Energy Corporation & Pacific Petroleum 59 Trading Corp. and KEPCO-LG CNS Consortium for renewable energy subject to System 60 Impact Studies and PUC approval. 61 RESOLVED, that the Chairman certifies and the Board Secretary attests to the adoption of 62 this Resolution. 63 DULY AND REGULARLY ADOPTED AND APPROVED THIS 6 DAY OF JUNE 64 2017. 65 66 67 Certified by: Attested by: 68 69 70 71 EORGE BAMBA Chairperson Consolidated Commission on Utilities 73 Consolidated Commission on Utilities 74 I, J. George Bamba, Secretary for the Consolidated Commission on Utilities (CCU), as 75 evidenced by my signature above do certify as follows: 76 The foregoing is a full, true, and accurate copy of the resolution duly adopted at a regular 77 meeting of the members of Guam Consolidated Commission on Utilities, duly and legally held 78 at a place properly noticed and advertised at which meeting a quorum was present and the 79 members who were present voted as follows: 80

RESOLUTION NO: 2017-25

| 83 84 | Nays: | |
|----------|----------|---|
| 85 | | |
| 86 | Absent: | |
| 87 | • | _ |
| 88 | Abstain: | 0 |

EXHIBIT A

Summary of Bid Proposals

Hanwha Energy Corporation & Pacific Petroleum Trading Corp.

| | Proposal 1 | osal 1 | Proposal 1 Proposal 2 | ocal 2 |
|--------------|--------------------------|------------------------|-----------------------|--------------|
| | * | Guaranteed | | Constants |
| | | Net Annual | | Net Annual |
| Contract | Annual Price (\$/MWH) | Generation (MWH/VR) | Annual Price | Generation |
| 1 | \$. 67.4E | 72 DOE OO | φ | (11) (12) CT |
| 2 | | 71 831 00 | 5 22 22 | 71 021 00 |
| 3 | | 71,245,00 | | 71 245 00 |
| 4 | 3 | 70,865.00 | | 70,865.00 |
| 5 | \$ 64.99 | 70,485.00 | | 70,485.00 |
| 9 | \$ 65.64 | 70,306.00 | \$ 69.36 | 70,306.00 |
| 7 | \$ 66.30 | 69,724.00 | | 69,724.00 |
| _∞ | \$ 66,96 | 69,344.00 | | 69,344.00 |
| 6 | \$ 67.63 | 68, 693.00 | \$ 71.46 | 68,693.00 |
| 10 | | 68,780.00 | | 68,780.00 |
| 11 | \$ 68.99 | 68,202.00 | \$ 72.89 | 68,202.00 |
| 12 | 89.69 \$ | 67,821.00 | \$ 73.62 | 67,821.00 |
| 13 | \$ 70.37 | 67,440.00 | \$ 74.36 | 67,440.00 |
| 14 | | 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 |
| 138 | \$ 73.96 | 65,722.00 | \$. 78.15 | 65,722.00 |
| 13 | \$ 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 |
| 77 | | 64,190.00 | \$ 81.33 | 64,190.00 |
| 23 | \$ 77.74 | 63,623.00 | \$ 82,14 | 63,623.00 |
| 24 | | 63,241.00 | \$ 82.96 | 63,241.00 |
| 22 | \$ 79,30 | 62,859.00 | \$ 83.79 | 62,859.00 |

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| | Tichosal T | Jodi 1 | Propo | Proposal 2 |
|----------|--------------|------------|--------------|------------|
| | | Guaranteed | | Guaranteed |
| i | | Net Annual | | Net Annual |
| Contract | Annual Price | Generation | Annual Price | Generation |
| Year | S I | (MWH/YR) | (\$/MWH) | (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 | 26'88 \$ | 73,058.88 |
| 9 | \$ 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 | | 71,752.18 |
| 9 | \$ 92.58 | 71,573.23 | \$ 92.58 | 71,573.23 |
| 23 | \$ 93.51 | 71,011.34 | \$ 93.51 | 71,011.34 |
| 11 | | 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 | | 68,048.01 | \$ 101.26 | 68,048.01 |
| 13 | | 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 | | |
|---------------|---------------------------|--------------------------|-------------------------|------------------------|------------------|
| , i | | | | | |
| | | Guaranteed NetAnnuali | MicroGrid Operations | Company of the Company | |
| Contract Year | Annual Price (\$/MW/H) | (MWHVR) | Fixed AnnualiFee | (bassion Guarantee) | Adjusted Rate |
| 1 | \$ 65.99 | | 1,287,082 | \$ 17.87 | 83.86 |
| 2 | \$ 66.65 | 71,831.00 | 1,264,710 | .\$ 17.61 | 84.26 |
| ET) | \$ 67,32 | 71,245,00 | 1,244,969 | \$ 17.47 | 84.79 |
| 4 | \$ 67.99 | 70,865.00 | 1,225,229 | \$ 17,29 | 85.28 |
| 5 | \$ 68.67 | 70,485.00 | 1,206,804 | 17.12 | 85.79 |
| Ð | \$ 69.36 | 70,306.00 | 1,188,380 | 5, 16,90 | 86,26 |
| 7 | \$ 70.05 | 69,724.00 | 1,171,271 | \$ 16,80 | 86.85 |
| 8 | \$ 70.75 | 69,344,00 | 1,155,479 | '\$ 15.66' | 87.41 |
| 6 | \$ 71.46 | 68,693.00 | 1,139,686 | \$ 16.59 | 88.05 |
| 30 | \$ 72.17 | 68,780.00 | 1,123,894 | \$ 16,34 | 88.51 |
| = | \$ 72.89 | 68,202,00 | 1,108,101 | \$ 16.25 | 89.14 |
| 12 | \$ 73.62 | 67,821.00 | 1,093,625 | \$ 16,13 | 89,75 |
| 13 | \$ 74.36 | 67,440.00 | 1,079,149 | \$ 16.00 | 30.35 |
| 14 | \$ 75,10 | 67,252.00 | 1,064,672 | \$ 15,83 | 90.93 |
| 1.5 | \$ 75.85 | 66,678.00 | 1,051,512 | 15.37 | 91.62 |
| 16 | \$ 76.61 | 66,296.00 | 1,038,352 | \$ 15,66 | 92.27 |
| 17 | \$ 77,38 | 65,915.00 | 1,025,191 | \$ 15.55 | 92.93 |
| 18 | \$ 78,15 | 65,722.00 | 1,012,031 | \$ 15.40 | 93.55 |
| 19 | \$ 78.93 | 65,151,00 | 998,871 | \$ 15,33 | 94.26 |
| 50 | \$ 79.72 | 64,770.00 | 987,026 | \$ 15.24 | 94,96 |
| 21 | \$ 80,52 | 64,388,00 | 975,182 | \$ 15.15 | 79:56 |
| 77 | \$ 81.33 | 64,190.00 | 963,338 | \$ 15.01 | 96,34 |
| 23 | \$ 82.14 | 63,623.00 | 951,493 | | 97.10 |
| 24 | \$ 82.96 | 63,241.00 | 939,649 | 5. 14.86 | 97.82 |
| 25 | \$ 83.79 | 62,859.00 | 927,805 | \$ 14.76 | 98.55 |
| | | | | ١ | |

| | | | Proposal 2 | | |
|-------------------------|---------------|--|----------------------------------|--|----------|
| Annuel Price (\$MWH) | Prilos VH) | Gueranbad Bedanasa Beranos Beranos Beranos | Microcrid Operations Fixed | Micrograd Cook STAWH (President | Adjusted |
| ٠Ş | 62.45 | 72,005.00 | 1,287,082 | \$ 17.87 | 80.32 |
| ٠ | 63.08 | 71,831.00 | 1,264,710 | 1 | 80.69 |
| ٧x | 63.71 | 71,245.00 | 1,244,969 | \$ 17.47 | 81.18 |
| 45 | 64.35 | 70,865.00 | 1,225,229 | \$ 17.29 | 81.64 |
| U) | 64.99 | 70,485.00 | 1,206,804 | \$ 17.12 | 82.11 |
| \$ | 65.64 | 70,306.00 | 1,188,380 | 06.91. \$ | 82.54 |
| s, | 66.30 | 69,724.00 | 1,171,271 | \$ 16.80 | 83.10 |
| s | 96.99 | 69,344.00 | 1,155,479 | \$ 16.66 | 83:62 |
| 15 | 67,63 | 68,693.00 | 1,139,686 | \$ 16.59 | 84.22 |
| ş | 68.31 | 68,780.00 | 1,123,894 | \$ 16.34 | 84,65 |
| 15 | 68.99 | 68,202.00 | 1,108,101 | \$ 16.75 | 85,24 |
| ٠٠ | 69.68 | 67,821.00 | 1,093,625 | \$ 16.13 | 85,81 |
| 1/2 | 70.37 | 67,440.00 | 1,079,149 | \$ 15.00 | 86,37 |
| ₩. | 71.08 | 67,252.00 | 1,064,672 | \$, 15.83 | 16'98 |
| \$ | 71.79 | 66,678.00 | 1,051,512 | \$ 15.77 | 87.56 |
| | 72.51 | 66,296.00 | 1,038,352 | \$ 15,66 | 88.17 |
| 45 | 73,23 | 65,915.00 | 1,025,191 | \$ 15.55 | 88.78 |
| ↔ | 73.96 | 65,722.00 | 1,012,031 | \$ 15.40 | |
| 47 | 74.70 | 65,151.00 | 998,871 | \$ 15.33 | . 90,03 |
| \$ | 75.45 | 64,770,00 | 987,026 | \$ 15.24 | 90.69 |
| 5 | 76.21 | 64,388,00 | 975,182 | \$ 15.15 | 91.36 |
| | 76,97 | 64,190,00 | 963,338 | \$ 15.01 | 91,98 |
| 20 | 77.74 | 63,623.00 | 951,493 | \$ 14,96 | 92.70 |
| ş | 78.52 | 63,241.00 | 939,649 | | 82'66 |
| \$ | 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 | | |
| | Hanwha Proposal 1&2 (60MW) and | 30 10/00 | 3 30,732,616 | \$ 72,670,440 | \$ 313,466,966 |
| 2 | KEPCO Proposal 1&2 (60MW) | 120MW | \$ 43,290,919 | \$ 88,266,040 | \$ 417,315,926 |



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 | Year5 | TOTALS |
|---|---------------|---------------|---------------|---------------|----------------|-------------------------|
| Hanwha Proposal 1 Energy Rate (\$/MWH) | 62,45 | 63.08 | 63.71 | 64.35 | 64,99 | |
| Energy Guarantee (MWH) | 72,005 | 71,831 | 71,245 | 70,865 | 70,485 | 54 5 7 5 5 F |
| KEPCO Proposal 1 Energy Rate (\$/MWH) | 85.50 | 86.35 | 87.22 | 88.09 | 88.97 | |
| Energy Guarantee (MWH) | 74,542.29 | 73,974.68 | 73,604.26 | 73,233.84 | 73,058.88 | |
| KEPCO Proposal 2 Energy Rate (\$/MWH) | 85.50 | 86.35 | 87.22 | 88.09 | 88.97 | |
| Energy Guarantee (MWH) | 74,542.29 | 73,974.68 | 73,604.26 | 73,233.84 | 73,058.88 | |
| Phase II Energy Costs (120MW) | 5 17,243,315 | 5 17,307,136 | \$ 17,378,202 | \$ 17,462,478 | \$ 17,581,025 | \$ 86,972,157 |
| Current LEAC Rate ¹ (\$/MWH) | 115 | 115 | 115 | | 115 | INTERNACIONAL PROPERTY. |
| Current Energy Costs | \$ 25,425,302 | \$ 25,274,741 | \$ 25,122,155 | \$ 24,993,259 | \$. 24,909,317 | \$ 125,724,774 |
| Proposed Savings | \$ 8,181,987 | \$ 7,967,605 | \$ 7,743,953 | \$ 7,530,781 | \$ 7,328,292 | |

| | 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 | 5 9,789,491 | \$ 13,466,799 | \$ 16,401,056 | \$ 16,013,695 | \$ 15,999,399 | \$ 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,



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

5 Year Sample Calculation of Project Costs & Savines

| Contract Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | TOTALS |
|---|---------------|---------------|---------------|---------------|----------------|----------------|
| Hanwha Proposal 1 Energy Rate (\$/MWH) | 62.45 | 63.08 | 63.71 | 64.35 | 64.99 | |
| Energy Guarantee (MWH) | 72,005 | 71,831 | 71,245 | 70,855 | 70,485 | |
| Hanwha Proposal 2 Energy Rate (\$/MWH) | 65.99 | 56.65 | 67.32 | 67.99 | 68.67 | 100 |
| Energy Guarantee (MWH) | 72,005 | 71,831 | 71,245 | 70,865 | 70,485 | |
| Hanwha Microgrid Operations Option | \$ 2,574,164 | \$ 2,529,420 | \$ 2,489,938 | \$ 2,450,458 | \$ 2,413,608 | |
| KEPCO Proposal 1 Energy Rate (\$/MWH) | 85.50 | 86.35 | 87.22 | 88.09 | 88.97 | |
| Energy Guarantee (MWH) | 74,542.29 | 73,974.68 | 73,604.26 | 73,233,84 | 73,058.88 | |
| KEPCO Proposal 2 Energy Rate (\$/MWH) | 85.50 | 86.35 | 87.22 | 88.09 | 88.97 | |
| Energy Guarantee (MWH) | 74,542.29 | 73,974.68 | 73,604.26 | 73,233.84 | 73,058.88 | 100 |
| Phase II Energy Costs (120MW) | \$ 24,569,089 | \$ 24,624,093 | \$ 24,664,354 | \$ 24,731,048 | \$.24,834,838 | \$ 123,423,421 |
| Current LEAC Rate ¹ (\$/MWH) | 115 | 115 | 115 | 115 | 115 | |
| Current Energy Costs | \$ 33,705,877 | \$ 33,535,306 | \$ 33,315,330 | \$ 33,142,734 | \$ 33,015,092 | \$ 166,714,339 |
| 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 | TOTAL5 |
|----|---|---------------|---------------|---------------|---------------|---------------|----------------|
| 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 | 6,4 <i>7</i> 9,101 | 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

| | FUEL |
|-----------|--------------|
| EFFECTIVE | RATE |
| DATES | (\$ 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 |
| L | |

EXHIBIT E

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

RPS PROJECTIONS

| ſ | | | | | т- | 1 | T | | _ | | · | т— | _ | | | | | | | | | , - | ī - | _ |
|-----------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | RPS % (BV | | Year) | 25 | 26. | 8 | 2% | 5% | 88 | 88 | 8% | 88 | 8% | 10% | 10% | 10% | 10% | 10% | 15% | 15% | 15% | 15% | 15% | 25% |
| % Projected | Renewable | Production | vs. Sales | 2% | 4% | | | 14% | 23% | 30% | | | 29% | 29% | 29% | | 28% | 57% | 27% | 27% | 26% | 26% | 26% | 25% |
| | GPA Total | Sales | (MMH) | 1,536,927 | 1.584.685 | 1.546.044 | 1,554,108 | 1,557,331 | 1,558,272 | 1,547,800 | 459,674 1,544,574 | 1,544,540 | 1,550,854 | 1,566,472 | 1,577,646 | 1,597,005 | 1,614,448 | 1,620,517 | 1,631,977 | 1,644,069 | 1,661,486 | 1,670,464 | 1,684,195 | 1,698,373 |
| Total | Renewable | Production | (MWH) | 25,630 | 68,253 | | | 219,578 | 365,108 | 462,215 | 459,674 | 457,370 | 456,032 | 452,937 | 450,843 | TES'890 | 447,092 | 444,145 | 442,058 | 439,814 | 438,622 | 435,397 | 433,324 | 431,090 |
| | Phase III, | 40MW | (MWH) | | | | | | | 80,510 | 80,175 | 79,740 | 79,520 | 116'84 | 585'82 | 78,102 | 77,631 | 77,348 | 77,023 | 76,604 | 26,363 | 75,808 | 75,495 | 75,083 |
| Phase II. | KEPCO, | SOMW | (MWH) | | | | | ٠ | 112,165 | 130,325 | 129,087 | 128,288 | 127,830 | 126,689 | 125,890 | 125,091 | 124,624 | 123,492 | 122,693 | 121,894 | 121,418 | 120,295 | 119,496 | 118,696 |
| Phase II- | Hanwha, | BOMW | (MMH) | | | | | 110,334 | 143,840 | 142,668 | 141,908 | 141,148 | 140,791 | 139,627 | 138,866 | 138,105 | 137,739 | 136,582 | 135,821 | 135,059 | 134,683 | 133,534 | 132,772 | 132,009 |
| GPA | Wind | Turbine | (MWM) | | 474 | 482 | 482 | 482 | 482 | 482 | 787 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 | 482 |
| NRG | Renewable | Energy | (MWH) | 17,597 | 48,221 | 21,627 | 51,412 | 51,133 | 50,992 | 50,601 | 50,393 | 50,083 | 49,781 | 49,599 | 49,391 | 49,122 | 48,987 | 48,612 | 48,411 | 48,147 | 48,017 | 47,649 | 47,451 | 47,191 |
| Net Metering | Renewable | Energy | (MWH) | 8,034 | 19,559 | 25,271 | 40,393 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 | 57,629 |
| | | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |

Note:

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.

Renewable Energy (MWH) 500,000 450,000 900,000 400,000 350,000 250,000 150,000 100,000 50,000 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 GPA Wind Turbine (MWH) munces Phase III, 40MW (MWH) Renewable Portfolio Standards (RPS) Tracking Projection thru 2035 * * * * * 5 Projected Renewable Production vs. Sales MESSER Phase II. - KEPCO, GOMW (MWH) SENSOR NRG Renewable Energy (MWHI) Makina Net Metering Renewable Energy (MWH) emonum Phase II - Hanwha, GOMW (MWH) RPS % (By End of Year) K 35% 30% 25% Production vs. Sales (%) 10% 25 8

EXHIBIT E

Exhibit "8"

From: Francis J Iriarte

To:

; (Hansung Kim); (Ik Pyo Kim); ; John J Cruz, Jr.; Andrew Park (andypark@ppcguam.com); Jennifer G Sablan Cc:

Subject: DRAFT PPA

Date: Monday, June 19, 2017 5:59:00 PM Attachments: Phase II PPA Final Draft Hanwha.docx

Hello Daejin,

Please see attachment for the draft PPA. We are providing it in Word format to allow Hanwha to edit it.

Francis



INVITATION FOR MULTI-STEP BID

NO.: GPA-070-16

RENEWABLE ENERGY RESOURCE

PHASE II

Volume III

Draft Renewable Energy Purchase Agreement

| GPA | Contract No. | |
|-----|--------------|--|
| | | |

RENEWABLE ENERGY PURCHASE AGREEMENT

BETWEEN GUAM POWER AUTHORITY AND

HANWHA ENERGY CORPORATION & PACIFIC PETROLEUM TRADING CORP.

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APPENDIX A

CONTRACT PRICE AND MINIMUM PRODUCTION

| Contract Year | Annual Price (\$/MWH) | Guaranteed Net Annual Generation (MWH/YR) |
|------------------|-----------------------------|---|
| 1 | 65.99 | 72,005 |
| 2 | 66.65 | 71,831 |
| 3 | 67.32 | 71,245 |
| 4 | 67.99 | 70,865 |
| 5 | 68.67 | 70,485 |
| 6 | 69.36 | 70,306 |
| 7 | 70.05 | 69,724 |
| 8 | 70.75 | 69,344 |
| 9 | 71.46 | 68,693 |
| 10 | 72.17 | 68,780 |
| 11 | 72.89 | 68,202 |
| 12 | 73.62 | 67,821 |
| 13 | 74.36 | 67,440 |
| *** | | |
| 14 | 75.10 | 67,252 |
| 15 | 75.85 | 66,678 |

| 0 | Annual Price | Guaranteed Net Annual Generation |
|------------------|-----------------|----------------------------------|
| Contract Year | (\$/MWH) | (MWH/YR) |
| 16 | 76.61 | 66,296 |
| 17 | 77.38 | 65,915 |
| 18 | 78.15 | 65,722 |
| 19 | 78.93 | 65,151 |
| 20 | 79.72 | 64,770 |
| 21 | 80.52 | 64,388 |
| 22 | 81.33 | 64,190 |
| 23 | 82.14 | 63,623 |
| 24 | 82.96 | 63,241 |
| 25 | 83.79 | 62,859 |
| 26 | | |
| 27 | | |
| 28 | | |
| 29 | | |
| 30 | | |

ESS MICRO GRID

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 1 | 1,287,082 |
| 2 | 1,264,710 |
| 3 | 1,244,969 |
| 4 | 1,225,229 |
| 5 | 1,206,804 |
| 6 | 1,188,380 |
| 7 | 1,171,271 |
| 8 | 1,155,479 |
| 9 | 1,139,686 |
| 10 | 1,123,894 |
| 11 | 1,108,101 |
| 12 | 1,093,625 |
| 13 | 1,079,149 |
| 14 | 1,064,672 |
| 15 | 1,051,512 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 1,038,352 |
| 17 | 1,025,191 |
| 18 | 1,012,031 |
| 19 | 998,871 |
| 20 | 987,026 |
| 21 | 975,182 |
| 22 | 963,338 |
| 23 | 951,493 |
| 24 | 939,649 |
| 25 | 927,805 |
| | |
| | |
| | |
| | |
| | |

Exhibit "9"



CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority | Guam Waterworks Authority P.O. Box 2977 <u>Hagatna</u>, Guam 96932 | (671) 648-3002 | guamccu.org

Regular Board Meeting CCU Conference Room, Gloria B. Nelson Public Service Building 5:30 p.m., July 25, 2017

AGENDA

| 1. | CALL T | OORDER |
|----|--------|---|
| 2. | APPRO | VAL OF MINUTES |
| | 2.1 | June 6, 2017 |
| | 2.2 | July 6, 2017 |
| 3. | COMMU | UNICATIONS |
| | 3.1 | Public Comments (2 min. per person) |
| 4. | NEW B | USINESS |
| | 4.1 | GPA |
| | 4.1.1 | GM Report Update |
| | 4.1.2 | Financials |
| | 4.1.3 | RATIFICATION OF POLL VOTE: Resolution 2017-27 Relative to Procurement of Additional Ultra Low Sulfer Fuel |
| | 4.1.4 | Resolution 2017-28 Approval of Phase II Power Purchase Agreement |
| | 4.1.5 | Resolution 2017-29 Relative to Zero Tolerance Drug Policy |
| | 4.1.6 | Resolution 2017-30 Relative to Establishment of Business MasterCard |
| | 4.1.7 | Resolution 2017-31 Relative to Lease of Additional Storage Tank from Tristar Terminals |
| | 4.1.8 | Resolution 2017-32 Relative to Contract Ext. for GPA Fuel Bulk Storage Facility |
| | 4.2 | GWA |
| | 4.2.1 | GM Report Update |
| | 4.2.2 | Financials |
| | 4.2.3 | Resolution 42-FY2017 Relative to Zero Tolerance Drug Policy |
| | 4.2.4 | Resolution 43-FY2017 Relative to Funding of Yigo & Astumbo Reservoir Constr Project |
| | 4.2.5 | Resolution 44-FY2017 Relative to Route 2 Sewer Line Replacement Project |
| | 4.2.6 | Resolution 45-FY2017 Relative to On-site Representative/CM Umatac-Merizo WWTP Design Build Proj |
| | 4.2.7 | Resolution 46-FY2017 Relative to Change Order D-Series Well Rehabilitation Project |
| | 4.2.8 | Resolution 47-FY2017 Relative to Design Services Northern District WWTP Upgrades |
| | 4.2.9 | Resolution 48-FY2017 Relative to Funding Agat-Santa Rita WWTP ConstrMgmtContract |
| | 4.2.10 | Resolution 49-FY2017 Relative to Ratification of Expenditures for Chlorine Contract |
| | 4.2.11 | Resolution 50-FY2017 Relative to Additional Purchase of Membrane Modules for Ugum WTP |
| | 4.2.12 | Resolution 51-FY2017 Relative to Refunding of 2010 Series GWA Water&Wastewater Sys.Rev.Bonds |
| | | |

5. OLD BUSINESS

- 6. ANNOUNCEMENTS
 - 6.1 Next CCU Meetings: GWA Work Session: Aug 16; GPA Work Session: Aug 17; CCU Meeting: Aug 22
- 7. ADJOURNMENT



Exhibit "10"

Invitation for Bid: GPA-070-16 Renewable Resource Acquisition for the Guam Power Authority PRICE OFFER WORKSHEET

| | FINIOL OFF LICENTOTATION. | | | | |
|---|---|--|--|--|--|
| istructions: idder shall fill in the highlighed fi | structions: der shall fill in the highlighed fields. | | | | |
| | | | | | |
| 1. Bidder's Name: | | | | | |
| | Hanwha Energy Corporation & Pacific Petroleum Trading Corp. | | | | |
| 2. Bid Reference No.: | 1 | | | | |
| (Refers to Bidder's Bid No. | if bidder is submitting more than one bid, otherwise enter "N/A") | | | | |
| 3. Contract Term, Years: | 25 | | | | |
| 4. Price Offer Entry: | | | | | |

Enter the Micro Grid Operation function for ESS price into the table below including licenses and O&M.

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 1 | 1,287,082 |
| 2 | 1,264,710 |
| 3 | 1,244,969 |
| 4 | 1,225,229 |
| 5 | 1,206,804 |
| 6 | 1,188,380 |
| 7 | 1,171,271 |
| 8 | 1,155,479 |
| 9 | 1,139,686 |
| 10 | 1,123,894 |
| 11 | 1,108,101 |
| 12 | 1,093,625 |
| 13 | 1,079,149 |
| 14 | 1,064,672 |
| 15 | 1,051,512 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 1,038,352 |
| 17 | 1,025,191 |
| 18 | 1,012,031 |
| 19 | 998,871 |
| 20 | 987,026 |
| 21 | 975,182 |
| 22 | 963,338 |
| 23 | 951,493 |
| 24 | 939,649 |
| 25 | 927,805 |
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Exhibit "11"

Invitation for Bid: GPA-070-16 Renewable Resource Acquisition for the Guam Power Authority PRICE OFFER WORKSHEET

| 2.00 | PRICE CITIENTO INC. I.E. |
|--|---|
| nstructions: idder shall fill in the highlighed fields. | |
| | |
| 1. Bidder's Name: | |
| | Hanwha Energy Corporation & Pacific Petroleum Trading Corp. |
| 2. Bid Reference No.: | 2 |
| (Refers to Bidder's Bid No. if bidder is | submitting more than one bid, otherwise enter "N/A") |
| 3. Contract Term, Years: | 25 |
| | |
| 4. Price Offer Entry: | |

4. Price Offer Entry:

Enter the Micro Grid Operation function for ESS price into the table below including licenses and O&M.

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 1 | 1,287,082 |
| 2 | 1,264,710 |
| 3 | 1,244,969 |
| 4 | 1,225,229 |
| 5 | 1,206,804 |
| 6 | 1,188,380 |
| 7 | 1,171,271 |
| 8 | 1,155,479 |
| 9 | 1,139,686 |
| 10 | 1,123,894 |
| 11 | 1,108,101 |
| 12 | 1,093,625 |
| 13 | 1,079,149 |
| 14 | 1,064,672 |
| 15 | 1,051,512 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 1,038,352 |
| 17 | 1,025,191 |
| 18 | 1,012,031 |
| 19 | 998,871 |
| 20 | 987,026 |
| 21 | 975,182 |
| 22 | 963,338 |
| 23 | 951,493 |
| 24 | 939,649 |
| 25 | 927,805 |
| | |
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Exhibit "12"

Invitation for Bid: GPA-070-16 Renewable Resource Acquisition for the Guam Power Authority PRICE OFFER WORKSHEET

| • | | | | | | |
|---|-----|----|-----|---|----|---|
| ı | nst | | ~+1 | | - | |
| 1 | HOL | ľu | GL | U | нэ | _ |

| Bidder | shall | fill | in | the | hiahli | ahed | fields. |
|--------|-------|------|----|-----|--------|------|---------|
| | | | | | | | |

| 1. Bidder's Name: | Shanghai Electric Power Japan Co., LTD & Terra Energy Inc. (GUAM) |
|---|---|
| 2. Bid Reference No.: (Refers to Bidder's Bid No. if | <<< BID NO 1 >>> f bidder is submitting more than one bid, otherwise enter "N/A") |
| 3. Contract Term, Years: | 25 Years |

4. Price Offer Entry:

Enter the Micro Grid Operation function for ESS price into the table below including licenses and O&M.

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 1 | 409500.00 |
| 2 | 413595.00 |
| 3 | 417730.95 |
| 4 | 421908.26 |
| 5 | 426127.34 |
| 6 | 430388.62 |
| 7 | 434692.50 |
| 8 | 439039.43 |
| 9 | 443429.82 |
| 10 | 447864.12 |
| 11 | 452342.76 |
| 12 | 456866.19 |
| 13 | 461434.85 |
| 14 | 466049.20 |
| 15 | 470709.69 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 475416.79 |
| 17 | 480170.96 |
| 18 | 484972.66 |
| 19 | 489822.39 |
| 20 | 494720.62 |
| 21 | 499667.82 |
| 22 | 504664.50 |
| 23 | 509711.14 |
| 24 | 514808.26 |
| 25 | 519956.34 |
| | |
| | |
| | |
| | |

EXHIBIT 12

Exhibit "13"

Invitation for Bid: GPA-070-16 Renewable Resource Acquisition for the Guam Power Authority PRICE OFFER WORKSHEET

| | PRICE OFFER WORKSHEET |
|---|---|
| Instructions: | |
| Bidder shall fill in the highlighed fields. | |
| 1. Bidder's Name: | Charachai Flactria Davora Laura Car LTD 9 Tawa Franculus (CHAM) |
| | Shanghai Electric Power Japan Co., LTD & Terra Energy Inc. (GUAM) |

(Refers to Bidder's Bid No. if bidder is submitting more than one bid, otherwise enter "N/A")

3. Contract Term, Years:

25 Years

<<< BID NO 2 >>>

4. Price Offer Entry:

2. Bid Reference No.:

Enter the Micro Grid Operation function for ESS price into the table below including licenses and O&M.

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 1 | 409500.00 |
| 2 | 413595.00 |
| 3 | 417730.95 |
| 4 | 421908.26 |
| 5 | 426127.34 |
| 6 | 430388.62 |
| 7 | 434692.50 |
| 8 | 439039.43 |
| 9 | 443429.82 |
| 10 | 447864.12 |
| 11 | 452342.76 |
| 12 | 456866.19 |
| 13 | 461434.85 |
| 14 | 466049.20 |
| 15 | 470709.69 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 475416.79 |
| 17 | 480170.96 |
| 18 | 484972.66 |
| 19 | 489822.39 |
| 20 | 494720.62 |
| 21 | 499667.82 |
| 22 | 504664.50 |
| 23 | 509711.14 |
| 24 | 514808.26 |
| 25 | 519956.34 |
| | |
| | |
| | |
| | |
| | |

Exhibit "14"

Invitation for Bid::GPA-070-16 Renewable Resource Acquisition for the Guam Power Authority PRIGE OFFER WORKSHEET

| structions: | |
|--|---|
| idder shall fill in the highlighed fields. | |
| | |
| | |
| 1. Bidder's Name: | |
| 1. Didder 3 Hame: | · |
| | KEPCO-LG CNS CONSORTIUM (Site A) |
| | |
| 2. Bid Reference No.: | GPA-070-16 |
| (Refers to Bidder's Bid No. if bidder is su | bmitting more than one bid, otherwise enter "N/A") |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| 3. Contract Term, Years: | 25 years |
| and the same of th | |
| 4. Price Offer Entry: | |
| · · · · · · · · · · · · · · · · · · · | in ECC wine into the table below including liganops and DAM |
| Enter the Micro Grid Operation function I | or ESS price into the table below including licenses and O&M. |

| Enter the Micro Grid Operation function for ESS price into the table below including | g lice |
|--|--------|
|--|--------|

| Contract + Year | Micro Grid Operation Price (\$): |
|--------------------|----------------------------------|
| 1 | 446000 |
| 2 | 450460 |
| 3 | 454965 |
| 4 | 459514 |
| 5 | 464109 |
| 6 | 468750 |
| 7 | 473438 |
| 8 | 478172 |
| 9 | 482954 |
| 10 | 487784 |
| 11 | 492661 |
| 12 | 497588 |
| 13 | 502564 |
| 14 | 507590 |
| 15 | 512665 |

| Contracta Year | Micro Grid Operation Price (\$) |
|-------------------|---------------------------------|
| 16 | 517792 |
| 17 | 522970 |
| 18 | 528200 |
| 19 | 533482 |
| 20 | 538817 |
| 21 | 544205 |
| 22 | 549647 |
| 23 | 555143 |
| 24 | 560695 |
| 25 | 560302 |
| | |
| | |
| | |
| | |
| | |

Note: Additional EPC cost (\$3,887,620) for microgrid operation function is not included.



Exhibit "15"

Invitation for Bid GPA-070-16 Renewable Resource Acquisition for the Guam Rower Authority PRICE OFFER WORKSHEET

| Control of the Contro | | |
|--|--|---|
| nstructions: idder shall fill in the highlighed fields. | | |
| 1. Bidder's Name: | A CONSTRUM (Cita P) | |
| | KEPCO-LG CNS CONSORTIUM (Site B) | |
| 2. Bid Reference No.: | GPA-070-16 | |
| (Refers to Bidder's Bid No. if bidder i | s submitting more than one bid, otherwise enter "N/A") | - |
| 3. Contract Term, Years: | 25 years | |

4. Price Offer Entry:Enter the Micro Grid Operation function for ESS price into the table below including licenses and O&M.

| Contract . | Micro Grid Operation Price (\$) |
|------------|---------------------------------|
| 1 | 446000 |
| 2 | 450460 |
| 3 | 454965 |
| 4 | 459514 |
| 5 | 464109 |
| 6 | 468750 |
| 7 | 473438 |
| 8 | 478172 |
| 9 | 482954 |
| 10 | 487784 |
| 11 | 492661 |
| 12 | 497588 |
| 13 | 502564 |
| 14 | 507590 |
| 15 | 512665 |

| Contract Year | Micro Grid Operation Price (\$) |
|------------------|---------------------------------|
| 16 | 517792 |
| 17 | 522970 |
| 18 | 528200 |
| 19 | 533482 |
| 20 | 538817 |
| 21 | 544205 |
| 22 | 549647 |
| 23 | 555143 |
| 24 | 560695 |
| 25 | 560302 |
| | |
| | |
| | |
| | |
| | |

Note: Additional EPC cost (\$3,887,620) for microgrid operation function is not included.

EXHIBIT 15

Exhibit "16"

OFFICE OF PUBLIC ACCOUNTABILITY
PROCUREMENT APPEALS

IN THE APPEAL OF

ENERGY, INC.,

SHANGHAI ELECTRIC POWER

JAPAN CO., LTD. and TERRA

Appeal No. OPA-PA-17-__

DECLARATION OF DIAO XU

Appellant.

- I, Diao Xu, state the following of my own personal knowledge:
- 1. I am an employee of Shanghai Electric Power Japan Co., Ltd. ("SEPJ").
- 2. My job title is General Manager of Japan operations, and my expertise is in the field of renewable energy power project development.
- 3. I am familiar with the procurement GPA-070-16, and the preparation of SEPJ's bid in that procurement.
- 4. SEPJ understood that this procurement was for 60 MW of renewable capacity. SEPJ bid two 30 MW projects because of that.
- 5. Had SEPJ been aware that GPA intended to procure 120 MW of renewable capacity and that SEPJ was not limited to the number of projects, SEPJ would then have submitted four projects of 30 MW apiece, and the bids submitted for each of these four projects would have been lower than the bids submitted for each of the two 30 MW projects that SEPJ submitted in this procurement.
- 6. The primary reason for this is substantial efficiencies of scale. With larger quantities, SEPJ could have negotiated more favorable pricing from material and service providers, including its EPC Contractor, AECOM, Black Construction Corporation, EMCE and GHD. In addition, operation and maintenance costs would be lower, resulting in aggregate a lower price, per project, quoted to GPA.

EXHIBIT 16

I declare under penalty of perjury that the foregoing statements are true and correct to the best of my knowledge and belief.

Dated: 2-17.8.21

Diao Xu, General Manager Shanghai Electric Power Japan Co., Ltd.

C:\Users\PC121\Desktop\关岛\抗议书\Declaration SEPJ.doc

Exhibit "17"

OFFICE OF PUBLIC ACCOUNTABILITY PROCUREMENT APPEALS

IN THE APPEAL OF

SHANGHAI ELECTRIC POWER JAPAN CO., LTD. and TERRA ENERGY, INC.,

Appellant.

Appeal No. OPA-PA-17-____

DECLARATION OF DALE GAUTHIER

I, Dale Gauthier, state the following of my own personal knowledge:

- 1. I am an employee of AECOM.
- 2. My job title is Vice President of the Power and Industrial unit, and my expertise is in the field of renewable energy power project engineering, design and development.
- 3. I am familiar with the procurement GPA-070-16, and the preparation of SEPJ's bid in that procurement.
- 4. The understanding of AECOM was that this procurement was for 60 MW of renewable capacity. SEPJ bid two 30 MW projects in light of that.
- 5. Had AECOM been aware that GPA intended to procure 120 MW of renewable capacity and that SEPJ was not limited to the number of projects, AECOM would have facilitated SEPJ in the pricing preparation of four projects of 30 MW apiece, and the bids submitted for each of these four projects would have been lower than the bids submitted for each of the two 30 MW projects that SEPJ submitted in this procurement.
- 6. The primary reason for this is substantial efficiencies of scale. With larger quantities, SEPJ could have negotiated more favorable pricing from material and service providers, including from us (AECOM), Black Construction Corporation, EMCE and

EXHIBIT 1
 2
 3

GHD. In addition, operation and maintenance costs will be lower, resulting in aggregrate a lower price, per project, quoted to the GPA and entered into the PPA.

I declare under penalty of perjury that the foregoing statements are true and correct to the best of my knowledge and belief.

Dated: 17 August, 2017

Dale Gauthier, Vice President, AECOM

Exhibit "18"



GUAM POWER AUTHORITY

ATURIDAT ILEKTRESEDAT GUAHAN P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

February 3, 2017

Han, Bada Senior Manger KEPCO-LG CNS Consortium 55, Jeollyeok-ro, Naju-si Jeollanam-do 58217 Republic of Korea

Subject: Phase II - Priced Proposal Clarification, Multi-Step Bid GPA-070-16, Renewable Energy Resource Phase II

Dear Mr. Han,

Below is the Authority's response to e-mail clarification dated February 1, 2017:

With reference to Clarification Letter relative to MS GPA-070-16, we have some inquiries and request for GPA's Infrastructure upgrade costs assumption before submitting Confirmation Letter of KEPCO-LG CNS Consortium until February 6, 2017 as below;

QUESTION:

We would like to know the need for 2 sets of transmission lines for each of the 30 MW Site (A & B).
 This results in double cost estimate of the guideline for the "Transmission Cost Per Mile" described in the RFP page 54.

RESPONSE:

The current level of 30 MW generation at 34.5 kV is 502 A, which is about the same as the derated ampacity of a single set of underground 1000 kcmil Al. cables. Two sets of 1000 kcmil Al. cables are GPA standard for normal underground transmission line construction estimates, and in this case, are also required to ensure safe level of loading on the proposed transmission line.

QUESTION:

2. Regarding Site B, how is the distance from Pagat Substation to Marbo Substation (5.61 miles) measured and what is the actual route? Is there an alternative shortcut instead of the route you measured? We would also appreciate your opinion regarding the route of our estimate as in the attached image.

RESPONSE:

See attached image for the actual routing used in the GPA estimate. GPA does not recommend your proposed alternate routing as this runs thru federal property and does not have the required utility easement for GPA transmission lines.





QUESTION:

 Regarding Site A and B, is it possible to apply "Overhead Line" from the Sites to Route 15? Additionally, we would like to know how the distance from Site A to Pagat Substation (1.71 miles) is measured because our estimate is a little shorter than that.

RESPONSE:

GPA based its estimate on the distance (1.24 miles) provided in your Technical Qualification Proposal for Site A (page 78). The 1.71 miles' distance estimate is inclusive of cable slacks/loops inside manholes.

QUESTION:

4. Aside from the inquiry above, is it possible for us to apply "Overhead Line" for all the routes estimated for Site A and B?

RESPONSE:

GPA recommends underground installation for new transmission lines. Decreased reliability is associated with overhead lines due to exposure to natural elements such as high winds, rain, snakes, and other risks.

QUESTION:

5. If we construct 2 sets of transmission lines at the same route, could we estimate the cost to be lower than double of the guideline for the "Transmission Cost Per Mile"? We anticipate there would be some common cost for the construction of 2 sets such as civil work.

RESPONSE:

The cost estimate for the underground transmission lines provided by GPA is for two sets of 1000 kcmil AL underground cables installed in a common underground civil structure including trenches and manholes.

QUESTION:

6. Is it possible to interconnect to Pagat Substation from Site A & B, considering upgrades for other transmission lines and substations affected by our interconnection of 60 MW to Pagat Substation? We would appreciate your estimate for the indirect upgrades regarding the interconnection scenario above.



GPA has not performed powerflow simulations on this particular interconnection scenario, which is required to determine what indirect upgrades maybe required.

QUESTION:

We hope to get the latest load data for all of the transformers or substations.

RESPONSE:

Please specify which transformer and time period the loading data is being requested.

Respectfully,

JAMIE L.C. PANGELINAN Supply Management Administrator

*

Exhibit "19"



55, Jeollyeok-ro, Naju-si, 58217, Jeollanam-do, Korea Tel: 82-61-345-7050, Fax: 82-61-345-7279

February 6, 2017

John M. Benavente General Manager Guam Power Authority Post Office Box 2977 Hagatna, Guam 96932-2977 Attention: Supply Management Administrator

Phone: (671) 648-3054/55 Fax: (671) 648-3165 Jamie L.C. Pangelinan Supply Management Administrator Guam Power Authority Post Office Box 2977 Hagatna, Guam 96932-2977 Phone: (671) 648-3054/55

Fax: (671) 648-3165

Re: \underline{P}

Phase II - Priced Proposal Clarification,

Multi-Step Bid No. GPA-070-16, Renewable Energy Resource Phase II

Dear Sir or Madame,

Thank you for sending us the clarification request letter dated January 27, 2017 (the "Letter") regarding our priced proposal for the Invitation for Multi-Step Bid No. GPA-070-16 for Renewable Energy Resource Phase II (the "Invitation for Bid") as well as your further responses to our e-mail queries regarding the Letter delivered to us on February 3, 2017.

Our priced proposal was prepared and submitted to you after careful consideration and pursuant to a thorough analysis of the project requirements (including the requirements set forth in the Invitation for Bid) which were available to us at the time of bid submission. In our assessment regarding the interconnection costs required to connect the two contemplated sites to Guam Power Authority's system, we have taken into consideration all factors which we considered to be relevant at the time of submitting our bid and based such assessment on what we believed to be a workable interconnection design consistent with prudent industry practice.

In particular, our interconnection cost estimate is based on the following principles and assumptions:

- Pursuant to the guidance provided in the Invitation for Bid (on Page 54 of 222, Volume II. 2.4.1. Interconnection), we assumed that "Overhead Lines" would cost approximately \$1.24 million U.S. dollars per mile and "Underground Lines" would cost approximately \$2.20 million U.S. dollars per mile.
- We did not assume that two sets of transmission lines would be required for each of the 30 MW Sites (i.e. two sets of 30MW transmission lines for site A and two sets of



transmission lines for site B). The guidelines provided under the Invitation for Bid do not specify this requirement and we had no rational basis to otherwise conclude that two sets of transmission line cables would be require for each site (doing so would result in a significant increase in cost compared to the guidance for "Transmission Cost Per Mile" set forth in the Invitation for Bid). Accordingly, in order for us to submit a competitive priced proposal, the interconnection route for each site was optimally designed to consist of a single 30MW transmission line. We defer to the system integration study to be performed by a third party expert (the "System Integration Study") regarding the technical requirements for the transmission lines and will further evaluate any additional costs associated with the necessary system upgrades once those results become available.

- 3. If two separate sets of transmission lines (for example, one for each site) are to be installed for any particular section of the transmission line route, while there would be additional costs incurred for the extra transmission line, we estimate that there would also be some costs savings associated with shared resources for such section. As a result, we believe the transmission line costs for such specific section of the route will be less than a simple multiplier of two of the cost of constructing a single transmission line over that section (i.e. less than two times the cost estimate noted in paragraph 1 above).
- 4. We assumed that the length of the transmission line should be based on the shortest available route tracking available roads and generally will adhere to the guidance provided by GPA, however, we understand that there may be a need for further discussions with you regarding the final length of the route based on the outcome of the System Integration Study.
- 5. We assumed that to the extent feasible, "Overhead Lines" can be used for the transmission lines. Similar to what we noted above in paragraph 2 regarding the requirement for two sets of transmission lines, we had no rational basis to assume that new transmission lines should be installed underground only. Having said that, we are generally willing to adhere to the guidance you provide regarding whether to install "Overhead Lines" or "Underground Lines" subject to further discussions based on a more detailed analysis on the transmission line route as well as the design.

We believe the amount we have estimated with respect to the interconnection costs and other necessary system upgrades to be reasonable and based on a sound analysis (albeit based on certain assumptions that differ from what is set forth in the Letter). Ultimately, we will defer to the results of the System Integration Study and to the extent the actual interconnection costs required exceed our budgeted amount, we are willing to discuss such matters with you in good faith with the ultimate goal of finding a mutually acceptable approach that will enable us to successfully move forward with the contemplated project. We are confident that we will be able to achieve this goal.

In addition to the foregoing, to ensure that all available options to optimize the interconnection for the project have been exhausted, we ask that powerflow simulations be

performed in conjunction with the System Integration Study to determine the technically feasibility of interconnecting to Pagat Substation from site A and B as well as any infrastructure upgrade requirements and associated costs under such scenario. We understand based on your response in the Letter that such power simulations have not been conducted yet and we would like to consider whether having both sites interconnect to Pagat Substation would be a viable approach.

In conclusion, we have carefully considered the necessary interconnection costs associated with the contemplated project and are prepared to move forward with the System Integration Study to be performed by a third party at our expense — to determine the final infrastructure upgrades required to be borne by us.

Sincerely,

KOREA ELECTRIC POWER CORPORATION,

as Principal Member & Representative of the Consortium formed between Korea Electric Power Corporation and LG CNS Co., Ltd.

By:

Name: Kim Jung-in Title: Vice President

Overseas Energy New Business Development Department

Overseas Project Development Division

Exhibit "20"



GUAM POWER AUTHORITY

ATURIDAT ILEKTRESEDAT GUAHAN P O BOX 2977, AGANA, GUAM 96932-2977

February 7, 2017

TO:

General Manager

FROM:

Evaluation Committee

SUBJECT:

GPA-070-16, Renewable Energy Resource Phase II Recommendation for Notification of Successful Bidder

The Evaluation Committee has completed the evaluation of the priced proposals submitted for the GPA-070-16, Renewable Energy Resource Phase II. We recommend awarding 30 to 60 MW of PV Solar Projects and possibly up to 120 MW subject to approvals from CCU and PUC. Thus, we recommend notifying the following bidders that they are the successful bidders with lowest and most responsive bids. They have the bids with the lowest net present value based on the Base and High Fuel Cases priced proposals.

30 - 60 MW Award:

Hanwha Energy Corporation and Pacific Petroleum Trading Company

Additional 30 – 60 MW Award:

KEPCO and LG CNS Co., Ltd.

Additionally, we recommend proceeding with performing the System Impact Study (SIS) for both bidders with final award decision after the completion of the SIS.

Cora R. Montellano

Lenora M. Sanz

Wei-Ting Chen

Roger U. Pabunan

Francis J. Iriarte

Approved By:

JOHNM. BENAVENTE, P.E.

Date:

2/7/17

Attachment(s)

20 ———

Exhibit "5"

Exhibit "21"



GUAM POWER AUTHORITY

ATURIDÅT ILEKTRESEDÅT GUAHAN P.O. BOX 2977 • AGANA, GUAM U.S.A. 96932-2977 July 15, 2016

AMENDMENT NO.: II

TO

INVITATION FOR MULTI-STEP BID NO.: GPA-070-16

FOR

RENEWABLE ENERGY RESOURCE - PHASE II

Prospective Bidders are hereby notified of the following Bid Milestone dates and responses to the indicated inquiries from potential bidders. Please note the numbering system corresponds to the total number of questions received from all bidders in the order they were received. Additional responses shall be forthcoming.

Table 1: Bid Milestones

| | Bid Process Milestones | From | То | |
|--|--|---------------|--|--|
| Bid Announcement | | 5/12/2016 | 6/2/2016 | |
| Submit Question | ns | 5/12/2016 | 6/23/2016 | |
| Pre-Bid Conference (Non-mandatory) Cut Off Date for Receipt of Questions | | (Guam Star | 5/26/2016 10:00 A.M. (Guam Standard Time) 06/23/2016 | |
| GPA Review and | Answer Questions | 6/23/2016 | 7/28/2016 | |
| Bidders Prepare | Fechnical Proposals | 5/12/2016 | 8/18/2016 | |
| Cut Off Date for | Cut Off Date for Receipt of Proposals (Unpriced) | | 8/18/2016 4:00 P.M. Guam Standard Time | |
| EVALUATION | Technical Proposal Evaluation | 8/22/2016 | 9/2/2016 | |
| Step One: | Notification of Qualified Bidders (Short List) | 9/7/2016 | 9/12/2016 | |
| EVALUATION Step Two: | Cut Off Date for Receipt of Priced Proposals | 10/15/2016 4: | 00 P.M. (GST) | |
| | Opening of Priced Proposals (Public Opening) | | 2:00 P.M. ndard Time | |
| Evaluation of Pric | ed Proposals | 10/20/2016 | 10/31/2016 | |
| Notification of Suc | Notification of Successful Bidder(s) | | | |
| System Integration | n Study by Others | TBD | TBD | |
| Contract Negotiation | | TE | TBD | |
| Contract Approval & Recommendation to Award (GPA Mgmt. & CCU) | | TBD | TBD | |
| Public Utilities Commission Review | | TE | BD | |
| Contract Signing | | TE | BD | |

MS GPA-070-16 Renewable Energy Resource Phase II M. Uncangco



T&T Electric Inquiry dated June 13, 2016:

QUESTION:

Under Volume II, Section 2.2.5 "Limits on Renewable Energy Purchases", the figure 20 MW is announced. Please confirm whether it was meant to read "30 MW".

GPA confirms that Section 2.2.5 should read 30 MW in lieu of 20 MW.

Under Volume II, Section 2.3.2 "Annual Minimum Guaranteed Production Quantity", while it requires bidders to provide annual minimum generation....there is no cap on maximum that GPA will purchase. Please confirm that GPA will purchase all of the generation that is produced by the combined RE / ESS technologies, keeping in mind the nameplate system ratings of 30 MW maximum.

RESPONSE:

GPA will purchase all power up to 30 MW except for any curtailment recommended by the System Impact Study.

Green Globe Solutions Inquiry dated June 23, 2016:

QUESTION:

1. Is GPA considering 'requirement adjustment' in response to Navy reviewing Solar PV 'wind-loading' spec's, up from 140mph?

RESPONSE:

GPA is not considering changing any wind loading specs. The bidder shall design solar PV system to follow the current Guam's wind loading design requirements.

Guam Solar Solutions, LLC Inquiry dated June 22, 2016:

QUESTION:

Invitation for Bids (IFB), Page 1 of 222. If one bidder submits two proposals, then does the bidder have to put up a \$150,000 bid guarantee for each proposal, or will one suffice?

RESPONSE:

The bidder has to put up \$150,000 bid guarantee for each proposal so for two proposals will be \$300,000.

QUESTION:

Volume I, Commercial Terms and Conditions, Page 2 (Page 10 of 222), Paragraph 2 - This section explains GPA's option to buy-out the capital portion of the contract. The last sentence states "The bidder must provide a year-by-year schedule of reduction in energy fees as a function of contract year buy-out and 25%, 50%, 75%, and 100% percent of equity stake taken by GPA." What happens to O&M cost? How should O&M cost be presented under each of these buy-out scenarios?

RESPONSE:

GPA will pay the bidder (contractor) the O&M cost which will be included in the reduced energy fees.

QUESTION:

3. Volume I, Commercial Terms and Conditions, Page 2 (Page 10 of 222), Paragraph 2. If GPA executes its buyout option, is GPA open to not taking a reduction in energy fees and instead receiving dividends from project?

RESPONSE:

GPA prefers taking the reduction in energy fees. Dividends are declared each year. Dividend amounts may change each dividend declaration. Additionally, dividends may be reduced or not issued depending on the financial state of the project.

RESPONSE:

Yes, the allowable period of development/construction can be extended beyond 36 months if the delays are caused by GPA and/or any local permitting authorities. GPA has allowed extensions based on reasonable, supported requests for extension. GPA will not unduly hold or deny reasonable requests for project extension.

Please note that the Project developer must show reasonable efforts to reduce its risk for not meeting schedules as well as a history of positive progress. For example, it is not a reasonable request for project extensions if there has not been any meaningful progress in the construction. Additionally, as an example, a request is not reasonable if communications for extensions are not made until three months just prior to contractual COD.

Project Developers should provide timely and informational briefings of project projects to GPA on a periodic basis. This will strengthen project developer's case when making these requests.

QUESTION:

10. Volume II, Technical Qualification and Proposal Requirements, Page 4 (Page 51 of 222). Section 2.2.2., Acceptable RI-ESS Technologies. *Is the contract term for ESS battery 25 years as well?*

RESPONSE:

Yes, the RI-ESS is part of the Renewable Energy project and it will have the same contract term.

QUESTION:

11. Volume II, Technical Qualification Proposal Requirements, Page 5 (Page 52 of 222). Section 2.2.5: with regards to potentially limiting the size of the system to 20 MW, at what juncture will any such size cap be communicated to bidders? Since economies of scale are important with regards to CAPEX and a variety of other costs, GSS requests that this be communicated prior to the submission of the Priced Proposal.

RESPONSE:

20 MW is a discrepancy. The project size is limited to a maximum of 30 MW.

QUESTION:

12. Volume II, Technical Qualification Proposal Requirements, Page 7 (Page 54 of 222). Section 2.4.2: while we understand that the USD 83,000 is only an estimate, how much does GPA expect this cost to vary? Is this an internally-prepared study by GPA staff or are bidders allowed to contract qualified experts to complete the study in accordance with GPA's requirements?

RESPONSE:

\$83,000 is about the cost that GPA has paid for a recent study. The study will be done by third party experts that GPA will contract.

QUESTION:

13. Volume II, Technical Qualification and Proposal Requirements, Page 7 (Page 54 of 222). Section 2.4.1. Interconnection Requirements. Can interconnection lines go overhead, or do they have to be underground?

RESPONSE:

GPA strongly recommends underground lines for interconnection between the renewable generation and GPA power system for their substantially greater reliability, especially during destructive storms and typhoons Guam often experiences relative to overhead lines. Also, our existing power poles do not have the capacity to accommodate additional 34.5kV level transmissions lines. The contractors who choose to build overhead lines to the interconnection point will have to put up new poles even if there are existing GPA power poles along the route or upgrade the existing lines. But GPA has to consider that the cost of constructing underground lines is, in most cases, higher than cost of building overhead lines. The location of the new on-site substation, the distance to the interconnection point, the system reliability and the cost

comparison between constructing underground and overhead lines will all have to be taken into account before making a decision. GPA will approach it in a case to case basis.

QUESTION:

Volume II, Technical Qualification Proposal Requirements, Page 11 (Page 58 of 222). Section 3.2, Point 7: given that many bidders will be participating in the bid via project-specific special purpose vehicles, are audited statements necessary? In addition, many affiliates and even privately-held large companies will not have a credit rating from Moody's or S&P; as a result, can GPA propose another mechanism whereby the credit risk of a counterparty can be gauged for those entities without a Moody's or S&P rating?

RESPONSE:

Unaudited financials certified by the company's chief financial officer and any Dun & Bradstreet rating are acceptable.

QUESTION:

16. Volume II, Technical Qualification Proposal Requirements, Page 11 (Page 58 of 222). Section 3.2, Point 9: can GPA more fully define what exactly would be considered a "credit issue"?

RESPONSE:

Credit issue maybe considers to any loan default that can have a lasting impact on the company's credit rating and would greatly limit its ability to borrow in the future. Credit issues may also include major legal suits or potential suits likely to materially affect the company's finances or ability to obtain loans or other instruments in the financial markets.

QUESTION:

17. Volume III, Draft Renewable Energy Purchase Agreement, Article One: Definitions, Page 3 (Page 75 of 222). Section 1.32: can the development security (and other securities) be negotiated? The security requirements under the PPA are extremely high in our experience.

RESPONSE:

GPA will be willing to negotiate the development security if it benefits both parties.

QUESTION:

18. Volume III, Draft Renewable Energy Purchase Agreement, Article Four: Performance Requirements, Page 12 (Page 84 of 222). Section 4.2(a): could we interconnect the facility prior to the scheduled COD and receive full payment for the electricity supplied pursuant to the PPA?

RESPONSE:

GPA will allow interconnection prior to COD and will not pay the electricity supplied at full payment but at the current LEAC cost during testing phase until COD is declared and approved by GPA and other local government approval agencies.

QUESTION:

19. Volume III, Draft Renewable Energy Purchase Agreement, Page 14 (Page 86 of 222). Article Four, Performance Requirements, Section 4.3 Milestones. First milestone states "Purchase and sale agreement for the Project site is executed and delivered by the parties thereto." Does the bidder have to buy the land?

RESPONSE:

GPA will also accept a lease agreement. The bidder must have control of the Project site either by purchasing or leasing it.

Exhibit "22"



GUAM POWER AUTHORITY

ATURIDÅT ILEKTRESEDÅT GUAHAN P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

December 9, 2016

AMENDMENT NO.: IX

TO

INVITATION FOR MULTI-STEP BID NO.: GPA-070-16

FOR

RENEWABLE ENERGY RESOURCE - PHASE II

Prospective Bidders are hereby notified of the following inquiries received from Hanwha Corporation/Pacific Petroleum Corp. dated 11/15/16, LGCNS dated November 14, 2016, and Solar City LLC dated November 22, 2016:

<u>Hanwha Energy Corporation / Pacific Petroleum Corp. dated 11/15/2016:</u> QUESTION:

The Amendment VIII part 2 discusses about Dandan to Talofofo substation. Does this mean that GPA will only allow interconnection from Dandan to Umatac substation and not allow interconnection to Talofofo substation?

RESPONSE:

No. Bidders are responsible for interconnection and may choose to interconnect at Talofofo Substation as long as they overcome the given limitation.

QUESTION:

 Is there any information regarding the Umatac substation condition? (i.e. Single Line Diagram and other information)

RESPONSE:

There is an available breaker cubicle with a breaker (X-253) reserved for future 34.5kV transmission line; however, the breaker has been inactive and has not been tested recently. In addition, the X-252 bus-tie breaker is not intact; therefore, requiring parts and testing. The contractor will most likely need to replace both breakers. Please see attachments – Umatac Substation Oneline.pdf, Umatac X252 34.5 Kv Bus-Tie Breaker.jpg, Umatac X252 X253 Breaker Nameplate.jpg, Umatac X253 34.5 Kv Line Breaker.jpg

QUESTION:

3. If one of our proposed projects (30MW ac) is connected to the Umatac substation, does the substation require additional upgrades?

RESPONSE:

Yes, these are the minimum upgrades needed:

EXHIBIT 22

MS GPA-070-16 Renewable Energy Resource Phase II M. Uncangco

- If the new plant is connected to Umatac Substation new 34.5kV overhead transmission line (927 kcmil AL conductor is our standard) needs to be added, the X- 252 and X-253 breakers have to replaced.
- If the new plant is connected to existing Dandan Substation then to Umatac Substation new 34.5kV overhead transmission line (927 kcmil AL conductor is our standard) needs to be added, the X-252 and X-253 breakers have to be replaced at Umatac and new breakers for X-396, X-398 and bus-tie X-395 and associated control and protection devices are needed. Please see attached Dandan sub one-line diagram.pdf.
- The final upgrades will be determined by system impact study.

LG CNS dated November 14, 2016:

QUESTION:

"2. d GPA will entertain a 34.5 kv overhead interconnection from Dandan Substation to the Umatac Substation"

RESPONSE:

If bidders decide to connect from Dandan Substation to Umatac Substation rather than to Talofofo Substation, bidders must fund it. GPA will assist with obtaining right-of-ways.

Solar City Corporation dated November 22, 2016:

QUESTION:

SolarCity is committed to providing GPA with a renewable energy solution that delivers unprecedented value, and we were delighted to receive your notice of qualification for phase 2.

Our proposal combines the output of both the existing NRG facility and our proposed PV + Storage project -delivering firm and dispatchable renewable energy to GPA while never exceeding the capacity of the existing
34.5kV line. This solution also has the benefit of eliminating the need for a separate energy storage
procurement to smooth the existing NRG plant. We believe this solution can have significant economic and
operational value to GPA.

However, our technical proposal relied upon certain assumptions that we understood to be eligible for consideration – specifically, the usage of the existing transmission line from Dandan transfer station to Talofofo substation. Had we known this was not viable, we likely would have pursued other land options under Phase 1, and proposed a different technical solution. Altering our approach at this point in the process would effectively require us to start over, and we do not believe this is in GPA's interest.

Given that this information related to the eligibility of the 34.5 kV line became available only after Phase 1 was complete, we respectfully request an exemption for bidding purposes in Phase 2 to Item #1 of Amendment VIII released concurrently with our notification of qualification. This exemption would not be solely applicable to SolarCity, but to any other Phase 2 participants that would be impacted by Item #1 of Amendment VIII. Note that we are intending to use the existing line and not the spare conduit.

We believe this approach will allow GPA to continue with a fair evaluation of all options, while still retaining flexibility to address operational or technical concerns around the 34.5 kV line in the future. If ultimately selected, SolarCity is confident that we can work with GPA to find a viable solution to this matter.

RESPONSE:

GPA is unable to make the additional exemption. GPA greatly welcomes your bid consistent with item #1 of Amendment VIII.

NOTE TO ALL BIDDERS:

- 1. Please review Volume IV Sections 3 and 3.1.
- 2. Bid Milestone Dates on Amendment No.: VI shall remain the same. Therefore, the Cut-Off Date for Receipt of Priced Proposals is 4:00 P.M., Monday, December 19, 2016 and Opening of Priced Proposals is 2:00 P.M., Tuesday, December 20, 2016.

All other Terms and Conditions in the bid package shall remain unchanged and in full force.

JOHN M. BENAVENTE, P.E.

General Manager

Exhibit "23"

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