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8 **BEFORE THE GUAM PUBLIC UTILITIES COMMISSION**

9 IN THE MATTER OF:

DOCKET NO. 08-06

10 GPA INTEGRATED RESOURCE PLAN

11 **PETITION FOR REVIEW AND APPROVAL**
12 **OF GPA INTEGRATED RESOURCE**
13 **PLAN (IRP)**

14 **COMES NOW**, the GUAM POWER AUTHORITY (GPA), by and through its counsel
15 of record, D. GRAHAM BOTHA, ESQ., and hereby files GPA's Petition for the Public Utilities
16 Commission of Guam (PUC) to review and approve GPA's Integrated Resource Plan, and to
17 authorize the excess bond funds to be used for these additional renewable energy projects, as
18 follows:

19 **BACKGROUND**

20 The Guam Power Authority filed a draft IRP with the PUC in June 2008, after extensive
21 outreach to the public. GPA's Integrated Resource Plan intends to provide the lowest cost power
22 for customers, fuel diversity, in an environmentally responsible manner. GPA has modified the
23 draft plan filed June 2008, to include additional short-term renewable energy acquisition
24 approaches. The primary recommendations of the IRP include wind and renewable energy
25 projects, an LNG plant, and other energy efficient technologies. GPA considered the inputs of
26 stakeholders and the Georgetown Consulting Group (GCG) comments in modifying the draft
27 IRP. The objective of the IRP is to identify the timing, size and technology of future power
28 generating units, and to address other issues such as fuel diversification and the renewable
portfolio standards required by P.L. 29-62. GCG has submitted staff reports on January 29, 2008

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1 and May 7, 2008, which recommended accelerating wind studies and procurement document
2 development. GPA has submitted a cost schedule and funding resource for wind study, vendor
3 outreach and procurement document development activities for renewable resource acquisition.


4 **DISCUSSION**

5 GPA hereby petitions the Public Utilities Commission of Guam (PUC) to review and
6 approve GPA's Integrated Resource Plan, and to authorize the excess bond funds to be used for
7 additional renewable energy projects. In support of this Petition, GPA hereby provides the PUC
8 with Consolidated Commission on Utilities (CCU) Resolution No. 2008-23, together with the
9 supporting attachments, which authorizes the General Manager to petition the PUC to amend
10 GPA's initial request for renewable resource acquisition to include a short-term and long-term
11 renewable acquisition approach, and to use the PUC approved amount of excess bond funds of
12 \$400,000, with allowance for reimbursement of these funds through LEAC, as the funding
13 source for some additional renewable energy studies. The Consolidated Commission on Utilities
14 (CCU) approved GPA's Integrated Resource Plan (IRP) on September 23, 2008, in CCU
15 Resolution No. 2008-23. Said resolution and its exhibits are attached herein as Exhibit "A", and
16 incorporated by reference herein as if fully set forth.

17
18 **CONCLUSION**

19 The PUC should approve GPA's Integrated Resource Plan as amended and modified, and
20 to authorize the excess bond funds to be used for these additional renewable energy projects, as it
21 is reasonable, prudent, and necessary.

22 **RESPECTFULLY SUBMITTED** this 24th day of September, 2008.

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25 D. GRAHAM BOTHA, ESQ.
26 GPA Legal Counsel
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1 EXHIBIT A:
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3 **CCU Resolution 2008-23**
4 **Approval to Petition the PUC to Approve GPA's "Short Term" and**
5 **"Long Term" Renewable Acquisition Approach**

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CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority • Guam Waterworks Authority
P.O. BOX 2977 • Agana, Guam 96932

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RESOLUTION NO. 2008 - 23

RESOLUTION RELATIVE TO THE APPROVAL TO PETITION THE PUBLIC UTILITIES COMMISSION TO APPROVE GPA'S SHORT-TERM AND LONG-TERM RENEWABLE ACQUISITION APPROACH

13 **WHEREAS**, the objective of Integrated Resource Plan (IRP) is primarily to identify the
14 timing, size and technology of the future power generating units it is also required to address
15 other issues such as fuel diversification and the renewable portfolio standards (P.L. 29-62) ; and
16

17 **WHEREAS**, the Public Utilities Commission (PUC) consultants, Georgetown
18 Consulting Group, Inc. (GCG), submitted a staff reports on January 29th and on May 7th (*Exhibit*
19 *A*) on the GPA IRP which recommend accelerating wind studies and procurement document
20 development. As indicated in the later report, GCG recommends GPA "do everything in its
21 control to not allow" delays in meeting a 2011 projected date for Levelized Energy Adjustment
22 Clause (LEAC) rate relief from fuel diversification. GCG further recommends GPA take actions
23 including:
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- 25 • "Initiate immediately all necessary siting and baseline wind studies,"
- 26 • "Concurrently, initiate development of an RFP so that issues of project structure,
27 financing and other technical issues can be resolved and proposals from wind farm
28 developers can be solicited at the earliest time;" and
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30 **WHEREAS**, in compliance with PUC Administrative Law Judge (ALJ) requirement for
31 GPA response to the earlier GCG staff report, GPA submits a letter to PUC ALJ proposing costs,
32 schedule and funding resource for wind study, vendor outreach and procurement document
33 development activities for renewable resource acquisition (*Exhibit B*); and
34

35 **WHEREAS**, the PUC issued an order, Docket 02-4, dated May 30, 2008, addressing
36 GPA's response and authorized up to \$400,000 of excess bond funds for wind study with
37 allowance for GPA to petition reimbursement of funds through LEAC (*Exhibit C*); and
38

39 **WHEREAS**, after GPA submitted its final draft of the IRP to the PUC on June 12, 2008
40 for comments, GPA and its IRP consultants have evaluated the potential to realize earlier
41 benefits of fuel rate relief with shorter lead time renewable resources, such as solar photovoltaic
42 systems, which do not require a study period nor the long lead manufacturing timelines like wind
43 turbines (supply and demand issues) – (*Exhibit D*); and
44

45 **WHEREAS**, GPA has been delayed in wind study activities due to identifying and
46 obtaining access to properties in areas of interest for siting wind monitoring stations, which do
47 not belong to GPA; and
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1 WHEREAS, GPA would like to request the PUC to approve activities to support two
2 renewable resource acquisition processes as outlined in the schedule and updated cost breakdown
3 in *Exhibit E*. GPA's activities will be limited to vendor outreach and procurement document
4 developments until the PUC has approved the procurement documents under the PUC
5 Procurement Protocol.
6

7 NOW, THEREFORE, **BE IT RESOLVED**, by the CONSOLIDATED COMMISSION
8 ON UTILITIES, the GOVERNING BODY of the GUAM POWER AUTHORITY as
9 FOLLOWS:
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- 11
- 12 1. The GPA General Manager is authorized to petition the Public Utilities Commission to
13 amend GPA's initial request for renewable resource acquisition to include a short-term
14 and long-term renewable acquisition approach, which includes performing outreach and
15 development of procurement documents related to each effort, and to use the PUC
16 approved amount of \$400,000 Excess Bond Funds, with allowance for GPA to petition
17 reimbursement of funds through LEAC, as the funding source.
18


19 RESOLVED, THAT THE CHAIRMAN OF THE COMMISSION CERTIFIES AND
20 THE SECRETARY OF THE COMMISSION ATTESTS THE ADOPTION OF THIS
21 RESOLUTION.
22

23 DULY AND REGULARLY ADOPTED THIS 23rd DAY OF September 2008.
24

25 Certified by:

25 Attested by:

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29 _____
30 SIMON A. SANCHEZ II
 CHAIRMAN

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28 _____
29 GLORIA B. NELSON
30 SECRETARY

SECRETARY'S CERTIFICATION

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I, GLORIA B. NELSON, Secretary, Consolidated Commission on Utilities, hereby certifies as follows;

The foregoing is a full, true, and correct copy of a resolution duly adopted at a regular meeting of the members of the Consolidated Commission on Utilities of the Guam Power Authority duly and legally held at the meeting place thereof on 9/23/08, at which meeting all of the said members had due notice and at which at least a majority thereof were present.

At said meeting, said resolution was adopted by the following vote:

Ayes	<u>5</u>
Nays	<u>0</u>
Abstain	<u>0</u>
Absent	<u>0</u>

Said original resolution has not been amended, modified, or rescinded since the date of its adoption, and the same is now in full force and in effect.

SO CERTIFIED this 23rd day of September 2008.



Gloria B. Nelson

 GLORIA B. NELSON
 Secretary, Consolidated Commission on Utilities

1 **EXHIBIT A**

- 2 **1. PUC Consultant Staff Update on GPA Integrated Resource Plan (January 29, 2008)**
3 **2. PUC Consultant Staff Update on GPA Integrated Resource Plan (May 7, 2008)**

—Staff Update—
GPA's Integrated Resource Planning (IRP) Process

The Guam Power Authority ("GPA") is in the process of developing and completing an Integrated Resource Plan ("IRP"). While the IRP is well over due¹ from the originally established date by the PUC, GPA has initiated a stakeholder process, held three stakeholder meetings, and at these meetings has presented information documenting several key planning processes. This report presents to the Public Utilities Commission ("PUC or Commission") an update to our July 31, 2007 report and includes a summary of our findings.

In its October 26, 2007 regulatory conference memo the ALJ instructed Georgetown Consulting Group, Inc. (GCG) to file quarterly reports with the PUC for the purpose of:

- Keeping the PUC informed of the planning process; and
- Identifying points of concern which require discussion with GPA during the quarterly regulatory sessions.

In addition, as outlined in the October 26, 2007 memo GPA conducted a public workshop for the PUC at its February 8, 2008 meeting for the purpose of presenting a high level summary of the IRP process; identifying progress on the IRP; and identifying how the planning process interfaces with PUC's regulatory responsibilities. The draft outline was filed with the PUC on January 18, 2008 by GPA. This first quarterly report addresses the requirements of the October 26, 2007 regulatory conference memo.

BACKGROUND

The first IRP stakeholder meeting was held on October 18, 2007. That meeting was attended by a cross section of interests including governmental, military, retail, residential and others. At that meeting the overall IRP process, its objectives, schedule of activities, and related background information was presented to and discussed with the participants. The program was designed to emphasize that the principal objective of the IRP process was to determine the optimal type of future generating resources and demand-side management programs meeting the needs of Guam customers. In addition, at the workshop participants were provided detailed background information concerning GPA existing generating resources and its existing planning environment (i.e., future growth, potential military build-up, reserves, fuel sources and cost, plant siting and environmental constraints, future resource alternatives, transmission constraints, capital funding, risk, and rate impacts).

The second IRP stakeholder meeting was held on November 29, 2007. That meeting focused on five of the most critical components of IRP development. These components were:

- Load forecast considerations
- Fuel supply and future pricing considerations

¹ In a PUC order dated September 28, 2006, GPA was directed to file a draft report of the IRP by November 2006.

- Load and resource balance issues
- Most probable future generating resource options
- Ranking of potential demand-side management programs

Load forecast considerations included the potential demand for electricity resulting from changes in Guam's native system growth considering the principal tourism driver. Other factors include the potential military build-up as well as the potential for greater penetration by customer-owned distributed generation. The fuel supply and pricing considerations focused on likely fuels for power production, their availability, deliverability, environmental and siting considerations, and overall pricing volatility. Load and resource balance considerations focused on determination of the level of spinning, operating and planning reserves. The most probable future generating resources were presented and compared using a preliminary economic screening analysis which looked at each resource at discrete capacity factor levels. Finally, the most likely demand-side management alternatives were presented and discussed.

The third stakeholder meeting was held on February 1, 2008. At that meeting GPA covered and shared preliminary results with the stakeholders and provided a schedule of next steps. In these presentations an "As is " case and a "Base case" for the IRP were presented. The agenda included a discussion of key scenarios and risk issues. Initial recommendations on the timing and type of recommended units were presented.

The current IRP schedule calls for a fourth stakeholder meeting on March 21, 2008 at which time there will be a presentation of a pre-final draft. GPA indicates that it is on schedule to provide for submission of the IRP to the PUC in June 2008. The schedule then anticipates review by the PUC and others over a six-month period with final PUC approval by December 2008.

Further information concerning the three stakeholder meetings and GPA deliverables completed to date in connection with the IRP can be found at:

<http://www.guampowerauthority.com/operations/strategicplanning/GPAIRP.html>

Findings

We believe completion of the IRP is the most important undertaking confronting GPA in its meeting the objective of bringing about stable electricity rates and fuel diversification to its generating resource portfolio as a means of reducing risk to consumers. As indicated in our last update, the July 20, 2007 approach to the IRP presented the Commission by GPA was a good step in the right direction. More importantly, GPA's demonstrated progress indicates that the development of the IRP is well underway.

At this time we only have a few comments. They are as follows:

- The ALJ regulatory letter of October 26, 2007 required that the January 18, 2008 report from GPA was to identify how the planning process interfaces with PUC's regulatory responsibilities. We did not see any mention of this

matter in the report. While the February 8, 2008 presentation to the PUC did acknowledge that GPA anticipated that the PUC would scrutinize and approve the implementation of the IRP no real details were provided.

- GPA acknowledges in its February 8, 2008 presentation that the PUC's regulatory oversight of the final IRP once filed will be conducted as an open process and that GPA will participate in one or more public hearings discussing the plan.
- In the February 8, 2008 presentation GPA detailed an expansive set of "State commission Obligations" and alluded that the Guam PUC would have those obligations.
- We also believe that it would be useful to discuss the role that the PUC would play in reviewing and approving any requests for proposals for the addition of new generating and demand-side management resources as these would likely all exceed the thresholds in the contract review protocols.
- Since initiating the IRP last year world oil prices have risen sharply resulting in increased LEAC rates. Absent fuel diversification or some major improvement in efficiency ratepayers will be burdened with higher rates. Meanwhile, implementation of the IRP is not anticipated to start until next year and there has been discussion that relief would be no earlier than 2011 for the possible implementation of wind turbines. GPA acknowledges that the IRP should be completed and implemented at the earliest time to provide relief to its customers:
 - The IRP process as currently underway should be completed as soon as possible; however, consideration should be given to shortening the amount of time allocated for PUC review and approval. This would allow GPA to more quickly move to the implementation phase.
 - Based upon information developed in the IRP process wind generation appears to be the most economically viable power generation resource. Wind is viable on a straightforward economic displacement basis. Its economic strength is such that it is unlikely any other resource will displace it from its number one ranking. Given its economic strength and the increased worldwide demand for wind generation, which already is adversely impacting machine fabrication schedules, we recommend that GPA immediately embark on developing an RFP so that issues of structure, financing and other issues can be developed and proposals from power producers specializing in wind projects could be solicited at the earliest time. These activities should take place concurrently with GPA developing wind data on the schedule that it has indicated.
 - At the March 21, 2008 stakeholder meeting GPA should provide data as to whether it appears that alternate sources of generation may be viable not only for new capacity, but on a straightforward economic displacement basis. Based on the results GPA should discuss how to bring additional generation on line to reduce costs, increase diversification and meet other goals.

—Staff Update—
GPA's Integrated Resource Planning (IRP) Process

This report presents to the Public Utilities Commission ("PUC or Commission") an update to our January 29, 2008 report and includes a summary of conclusions. The Guam Power Authority ("GPA") is in the final stage of completing an Integrated Resource Plan ("IRP"). GPA has held four stakeholder meetings and the stakeholder process has been effectively completed (one last task remains). At these meetings stakeholders have had the opportunity to receive information concerning key planning processes, obtain overviews of the results of the IRP planning process, and more importantly use the opportunity to participate in the process.

BACKGROUND

The first IRP stakeholder meeting was held on October 18, 2007. At that meeting the overall IRP process, its objectives, schedule of activities, and related background information was presented to and discussed with the participants. In addition, participants were provided detailed background information concerning GPA existing generating resources and its existing planning environment. The second IRP stakeholder meeting was held on November 29, 2007. That meeting focused on five of the most critical components of IRP development—load forecast considerations, fuel supply and future pricing considerations, load and resource balance issues, most probable future generating resource options, and ranking of potential demand-side management programs. The third stakeholder meeting was held on February 1, 2008. At that meeting GPA covered and shared preliminary results, discussed key development scenarios and risk issues, and initial recommendations on the timing and type of recommended resource additions. The fourth and final stakeholder meeting was held on April 4, 2008 at which time the key results and findings, expected resource acquisition and regulatory processes were presented.

The stakeholder program was designed with the objective to gain input from stakeholders into the IRP process and to assist in the determination of the optimal type of future generating resources and demand-side management programs required to meet the needs of Guam customers. The stakeholder meetings were actively attended by a cross section of interests including territorial government, military, retail customers, residential customers and others.

Further information concerning the various stakeholder meetings and GPA deliverables completed to date in connection with the IRP can be found at:

<http://www.guampowerauthority.com/operations/strategicplanning/GPAIRP.html>

CURRENT STATUS

Based upon informal discussions with GPA we believe the IRP process is reasonably on schedule to provide for submission a final IRP report to the PUC in June 2008 for its review and subsequent approval. The schedule as previously outlined anticipates review by the PUC and others over a six-month period with final PUC approval in the December 2008 timeframe. Our discussions with GPA lead us to believe that the stakeholder process has rendered somewhat mixed results. The Department of Defense (DoD) has taken an active role in providing critical information concerning potential future DoD requirements and has been a good sounding board in the formulation of the IRP. While DoD is not in a position at this time to state the exact future course of their action, since it has not yet been fully identified, the IRP has benefited from their participation and will deal with this uncertainty by identifying plans to accommodate alternative DoD futures. In addition, the IRP process has been fully transparent and has allowed the stakeholders the benefit of seeing how GPA goes about one of its most critical functions—long range capital planning. However, at the same time most stakeholder participants have provided minimal input and some have used the forum as a platform to push individual agendas (i.e., privatization).

As mentioned above the current schedule calls for the completion of the IRP by June 16, 2008. GPA anticipates providing to the Consolidated Commission on Utilities (CCU) and stakeholder participants on May 15, 2008 a pre-final draft for review and comment, with subsequent approval by the CCU before the June 16, 2008 submittal date to the PUC. It is anticipated that GCG as an ex-officio stakeholder participant will receive a copy of the pre-final draft on May 15, 2008.

The IRP when presented will identify at least three alternative futures and will identify for each an optimal resource plan. Currently the three alternative futures are defined as normal, baseline, and high. In the near-term GPA decision-making will be based upon the baseline scenario which assumes significant DoD impacts; however, GPA will be mindful of the high scenario recognizing that DoD impacts could be more significant than those contained in the baseline scenario and it may need to respond accordingly. Under the normal and baseline scenarios GPA has sufficient capacity to meet customer demand; however, the primary resource challenge facing GPA in the near-term is related to fuel diversification and the economic displacement of oil fired generation.

GPA economic analysis indicates that the resource of choice in the near-term is wind. It also indicates there is significant interest in wind. In fact, DoD is conducting wind studies at specific locations on its properties. These early DoD commissioned wind studies are designed to determine optimal sites for wind monitoring towers. Adequate wind monitoring data is critical to the siting and ultimate design of wind turbine installations on Guam. Surprisingly little wind monitoring information and research for Guam is available. Although, prior wind studies were conducted in the 1980 time period by the Department of the Interior (DOI), no one at GPA, DOI, or DoD has been able to locate these earlier studies. If GPA is going to successfully pursue a wind strategy, promote reasonable competition among wind developers, and minimize the risk associated with turbine siting and wind operations it is critical that additional research be

conducted at the earliest date possible. Wind developers will want to see a minimum of one-year of raw wind data.

Wind turbines in a typhoon prone area such as Guam do carry inherent risk. The most significant is the catastrophic failure of wind turbine facilities during extreme wind conditions (generally defined as 150 mph). Recognizing this concern GPA has retained Global Energy Concepts (GEC) to provide guidance in methods to mitigate these risks. In addition, GEC has been retained by DoD to assist in undertaking wind studies at military sites on Guam. GPA indicates that in early discussions with GEC they believe, while the damage at extreme wind conditions cannot be eliminated, damage can be mitigated. Principally, this would be accomplished by locating the turbines so that they are not exposed to peak winds (moving from ridge tops) and in essence accepting a lower level of energy production for lower exposure to peak wind conditions. In addition, modern turbine technology can incorporate dynamic blade positioning which will allow the turbine blades to be rotated to present less exposed area during peak wind conditions.

Today, the wind turbine industry worldwide is growing at rates that have continued to adversely impact the ability of the industry to meet supply. The result has been a lengthening of the delivery dates for new turbines. Given that GPA before it can proceed with its fuel diversification strategy must conduct wind studies it is incumbent these studies be authorized as soon as possible to enable GPA to be in a position to secure proposals from wind developers at the earliest date possible. Since the turbine market is not expected to soften anytime soon early action by GPA is required to allow them and its ratepayers to achieve the benefits of fuel diversification at the earliest date possible. Assuming GPA in the next month or so authorizes the necessary wind studies (and allowing time for an RFP process to select wind turbine developer(s)) GPA may be in a position to award its first wind turbine development contract in the last quarter of 2009; however, this is an aggressive schedule and any delay by GPA will place this schedule in jeopardy. Should GPA award a wind development contract by December 2009 it should be in a position to bring its first wind farm online by 2011.

In our discussions we have verified that it is currently GPA's intent to use the competitive RFP process for acquisition of proposals for the turn-key development of one or more wind farms. This is positive news since this method of acquisition will enable GPA to acquire these resources at the earliest date possible. GPA informally indicates that it is seriously examining the "White Creek" development model which combines the advantages of a public/private undertaking¹. This approach was outlined at the 3rd stakeholder meeting. It is believed this approach will save ratepayers about 15% versus traditional approaches to development.

One final comment, in our earlier status reports we indicated that we did not see any mention of the regulatory interaction necessary to bring the IRP process to closure. To a great degree this earlier deficiency has been rectified. GPA has acknowledged that it anticipates the PUC will scrutinize and approve the IRP, that the PUC oversight will be

¹ See Session 3—IRP Stakeholder Meeting—STRATEGIES FOR ACQUIRING NEW RESOURCES (<http://www.guampowerauthority.com/operations/strategicplanning/GPAIRP.html>) for a more detailed description of the White Creek public/private development model.

conducted as an open process, and that it would anticipate meeting the obligations generally imposed by US mainland regulatory commissions. This understanding combined with the PUC's existing regulations governing the procurement of capital projects involving major generating and demand-side management resources satisfies our earlier concerns.

CONCLUSIONS

As stated in our previous status report, we believe completion of the IRP is the most important undertaking confronting GPA in meeting the objective of fuel diversification in its generating resource portfolio as a means of stabilizing costs and reducing risk to consumers. In this report, we are pleased to say that GPA appears to be moving in the right direction and has demonstrated its ability to sustain its progress in the development of the IRP. GPA has undertaken the preparation of the IRP in much the same way a larger, and perhaps more sophisticated, electric utility would have undertaken this activity. It is relying on consultant expertise for input in highly technical areas of study while its staff has taken on the lion's share of work required to complete the various analysis. Assuming no change between now and its June 16 submittal of the final IRP to the PUC, GPA is to be lauded for its efforts. Completing a complex activity such as this one will go a long way in the development of the internal staffing resources to take on similar and perhaps more complex assignments.

At this time we offer the following additional comments:

Since initiating the IRP last year world oil prices have continued to rise sharply, most recently oil futures have exceeded \$122/BBL. This level of increase will eventually result in substantial increases to the existing LEAC rates. If fuel diversification or major improvements in efficiency was critical at \$70/BBL oil it is even more critical today; otherwise, ratepayers will be burdened with oppressive LEAC rates. Meanwhile, even moving at an aggressive rate in the implementation of the IRP it is not anticipated that relief from fuel diversification would be available until 2011 (implementation of wind farms). It is critical that GPA do everything in its control to not allow this date to be further delayed including taking action to:

- Initiate immediately all necessary siting and baseline wind studies. In this connection, GPA should report at the May 2008 PUC regulatory session on those actions it has or will take to bring about the early conclusion of these studies.
- Concurrently, initiate development of an RFP so that issues of project structure, financing and other technical issues can be resolved and proposals from wind farm developers can be solicited at the earliest time. The continued economic strength and increased worldwide demand for wind turbine generation continues to adversely impact machine fabrication schedules and concerns us about GPA's ability to bring substantial wind generation online by 2011.
- If not already done, authorize GEC or others to complete a risk assessment of measures that can be taken to mitigate the risk of extreme wind conditions on wind turbines. GPA should report on the status of its activities at the May 2008 PUC regulatory session.

May 7, 2008

- Finally, GPA should report at the May 2008 PUC regulatory session on all activities it is undertaking to "jump start" the implementation of its fuel diversification strategy. This report should include a detailed list of obstacles to the timely implementation of its fuel diversification strategy.

RESOLUTION NO: 2008 – 23

- 1 **EXHIBIT B**
- 2 **GPA Response to PUC Consultant Staff Report**

1 **D GRAHAM BOTHA, ESQ.**
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8 **BEFORE THE GUAM PUBLIC UTILITIES COMMISSION**

9 **IN THE MATTER OF:**

10 **Guam Power Authority's Petition for Base**
11 **Rate Increase**

DOCKET NO. 07-10

**FILING OF GPA POSITION ON
EXPEDITING IRP PROCESS PURSUANT
TO ALJ ORDER**

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14 **COMES NOW**, the GUAM POWER AUTHORITY (GPA), by and through its counsel
15 of record, D. GRAHAM BOTHA, ESQ., and hereby submits GPA's position with regard to
16 expediting the Integrated Resource Plan (IRP) implementation process. GPA concurs with GCG
17 that acceleration of the IRP review, and developing an RFP regarding wind projects would be
18 very prudent.

19
20 GPA has submitted in the attached letter a schedule developed by GPA and its
21 consultants, R.W. Beck and Global Energy concepts (GEC) which outlines what GPA believes is
22 a realistic compressed renewable resource acquisition schedule. GPA plans to work with the
23 Department of Defense (DOD) who is currently in the process of establishing meteorological
24 towers on DOD property. Table 1 of the attachment contains a preliminary working budget for
25 renewable resource acquisition.

26 **RESPECTFULLY SUBMITTED** this 16th day of May, 2008.

27
28 
D. GRAHAM BOTHA, ESQ.
GPA Legal Counsel

COPY



GUAM POWER AUTHORITY

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May 16, 2008

Mr. Harry Boertzel, Esq. ALJ
Guam Public Utilities Commission
Suite 207, GCIC Building
Hagatna, Guam 96932

RE: Response to February 28, 2008 Letter Regarding Accelerating IRP Implementation

Dear Mr. Boertzel,

In your February 28, 2008 letter to the Guam Power Authority (GPA) and Georgetown Consulting Group, Inc. (GCG), you reiterated GCG's recommendation that, given the sharp and continuing increase in oil prices, that the Integrated Resource Plan implementation process be accelerated. Given GCG's recommendation, you ordered that "On or before May 16, 2008 GPA should comment on the feasibility of implementing" it.

The Authority lauds this recommendation. The Authority agrees with GCG that an acceleration of the review of the Integrated Resource Plan is highly prudent. GPA will immediately embark on developing an RFP so that issues of structure, financing and other issues can be developed and proposals from power producers specializing in wind projects could be solicited at the earliest time. These activities will take place concurrently with GPA developing wind data on the schedule depicted in Figure 1 below. This schedule was developed between the Authority and its consultants, R.W. Beck and Global Energy Concepts (GEC). The Authority believes that compressing the renewable resource acquisition schedule beyond the schedule provided may not be prudent.

Of great import to this discussion are the results of our discussions with the Department of Defense (DOD). DOD has cleared its regulatory hurdles and is as we write shipping the equipment to establish meteorological towers on DOD property to provide the necessary technical data to mitigate design and business risk. Minimizing this risk is deemed by DOD as necessary to reduce costs associated with higher risks unique to Guam. Reduction of this risk will entice a larger pool of wind farm developers. Global Energy Concepts is and has performed work for DOD related to Guam wind studies. Both the Authority and DOD find it advantageous for both parties to share the results of their wind studies.

With the sharp increases in fuel oil prices, the Authority believes that the Authority, the Guam PUC, and GCG must collaboratively work together on behalf of our

Letter to Harry Boertzel, Esq. ALJ, Guam Public Utilities Commission
RE: Response to February 28, 2008 Letter Regarding Accelerating IRP Implementation
May 16, 2008
Page 2 of 4

electric service customers to bring cost-effective renewable energy on Guam. At risk to this process is funding. The Authority would like to work collaboratively with the Guam PUC and GCG to provide a mechanism to fund the development and procurement stages of renewable resource acquisitions. The Authority is in the process of firming up a budget for this process that includes the initial wind siting analysis, meteorological monitoring, and RFP development. Table 1 contains the preliminary working budget. The Authority advises the PUC that the RFP will be written with Wind as the primary technology but open to other renewable resource technologies.

Sincerely,

Joaquin C. Flores, P.E.
General Manager

Table 1, Preliminary Working Budget for Renewable Resource Acquisition

Preliminary Draft		Estimated Fees(*)
Task	RFP for Renewable Resource Acquisition	Budgetary Cost
1	Assist staff in drafting RFP with focus on contracting options, financing options, risk options. Will also help draft criteria for RFP evaluation	\$65,000
2	Accelerated outreach - RWB would suggest to GPA 10 to 20 suitable developers to contact and undertake briefing calls (prior to release of RFP, in conjunction with GPA staff. - will likely include a second round of calls in the RFP process (after release	\$20,000
3	Assist GPA staff in evaluating bid - assistance in technical due diligence of offers and evaluation of risk and optionality values	\$50,000
	Subtotal	\$135,000
Task	Wind Studies	Budgetary Cost
1	Wind Study to provide optimal Meteorological Tower Sites	\$27,500
2	Meteorological Monitoring Stations (Erecting Towers at Two Sites)	\$180,000
3	Meteorological Monitoring Stations Data Collection and Analysis	\$30,000
	Subtotal	\$237,500
	Total	\$372,500

Draft 5/5/08	Renewable Resource Acquisition	Jun 2008	Jul	Aug	Sep	Oct	Nov	Dec 2008	Jan 2009	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec 2009		
1	GPUC Review of IRP - Review to endorse GPA's selection of renewables																					
2	Wind Monitoring & Best Sites - Information to be made available to potential vendors - should have data posted on website - Note, need to include solar data																					
3	GPA test turbine - this may or may not be useful for the RFP process -																					
4	Vendor Outreach & First Level Information - make vendors aware of wind data and process - information of physical risk vs. financial risk, etc. - helps screen for those firms that should get greater follow up attention																					
5	2nd Vendor Information Sessions - more wind data and responses to question and issues.																					
6	RFP - Prepare document and evaluation criteria. The RFP should describe possible contract models, risk issues, option to purchase, etc. for GPA																					
7	Issue RFP																					
8	Evaluate RFP																					
9	Award RFP																					

Figure 1, Renewable Resource Acquisition Proposed Schedule

RESOLUTION NO: 2008 – 23

- 1 **EXHIBIT C**
- 2 **PUC Order, Docket 02-4 (May 30, 2008)**
- 3 **– Item #4, Grants GPA authority for use of \$400,000 Excess Bond Funds for Wind Study.**

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

GUAM POWER AUTHORITY
REGULATORY REVIEW

DOCKET 02-4



ORDER

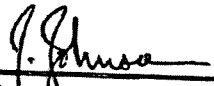
The Guam Public Utilities Commission [PUC] having reviewed the report of its administrative law judge [ALJ] dated May 27, 2008, including the reports and documents referenced therein, for good cause shown and on motion duly made, seconded and carried by the unanimous vote of the undersigned commissioners **HEREBY ORDERS THAT:**

1. The joint petition of Guam Power Authority [GPA] and Guam Waterworks Authority for approval of the scope and focus of a focused management audit of their operations is granted subject to the following conditions: a) ALJ is authorized to consider and rule on Georgetown's recommendation that the audit examine issues related to GPA's compensation program under Public Laws 28-159 and 29-113; and b) the detailed work-scope, which the auditor is expected to propose, shall be subject to ALJ's approval prior to the execution of the audit contract.
2. GPA's May 19, 2008 emergency petition under its LEAC tariff Z for an emergency increase in the LEAC factor due to surging fuel costs is granted provided that the new factor shall be \$0.17044/kWh. A new LEAC factor for the period September 2008 – January 2009 will be established during the September regulatory session.
3. GPA's May 27, 2008 letter request that PUC authorize it to increase its statutory credit facility ceiling by \$15 million dollars to cover fuel expenses [12 GCA § 8122(b)] is granted.
4. GPA's May 27, 2008 letter request for authority to use \$400,000 for work related to an integrated resource planning wind study is granted. GPA may in its June 2008 LEAC filing petition PUC for authorization to reimburse its excess bond funds reserve for this amount as an authorized LEAC expense.
5. GPA's petitions for authorization to proceed with its Shell storage contract and the Agana-Tamuning underground project are approved. GPA's petition for authorization to procure property and casualty insurance is approved subject to the conditions that GPA shall submit for ALJ review and approval prior to entering into the contract: a) evidence, which

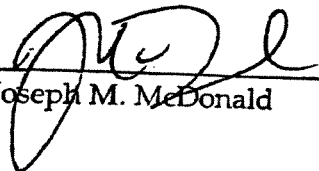
establishes the prudence of its evaluation of the overall economic results of the selected and rejected bids; and b) an opinion of counsel that the procurement mode, which GPA has selected for the transaction is in compliance with Guam law.

6. ALJ is authorized and directed to commence regulatory proceedings, which will lead to PUC's establishment of net metering rates pursuant to 5 GCA § 8506 during the September 2008 regulatory session and to PUC's consideration of GPA's alternative energy plan, as required by 12 GCA § 12028. PUC shall initiate the rate proceedings on net metering on its own initiative, given the urgency expressed in Public Law 29-62.

Dated this 30th day of May 2008.



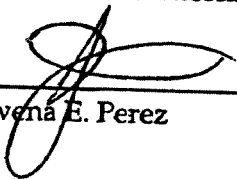
Jeffrey C. Johnson



Joseph M. McDonald



Filomena M. Cantoria



Rowena E. Perez

RESOLUTION NO: 2008 – 23

- 1 **EXHIBIT D**
- 2 **R.W. Beck Letter Regarding Renewable Generation Resource Acquisition Activities**
- 3 **(July 3, 2008)**



July 3, 2008

John J. Cruz, Jr.
Manager, SPORD
Guam Power Authority
P.O. Box 2977
Hagatna, Guam 96932

Subject: Renewable Generation Resources Acquisition Activities

Dear Mr. Cruz:

The following is an overview of current and near-term activities that are being undertaken to acquire renewable generation resources on Guam as per the Authority's direction. It is expected that the development of renewable generation resources will reduce Guam Power Authority's reliance on oil-based generation and provide for diversification of generation from fossil fuel based resources. Initial activities include:

- Data is being gathered to identify potential sites for wind monitoring towers. In August, DNV Global Energy Concepts Inc. will be on island to physically locate the towers. It is expected that shortly after the locations are identified, GPA will authorize the construction of the towers. It should be noted that there is little data available on island wind resources and this lack of information will be a significant impediment to developers' ability to bid this type of resource. Correspondingly, it is anticipated that available information on wind resources will be posted on the GPA website so that all firms wishing to propose on development of wind resources will have access to this information.
- The Department of Defense is in the process of developing wind data for certain locations on DOD property. The DOD will be installing new wind monitoring towers in the near future. An informal agreement has been reached to share wind resource monitoring information among the involved parties.
- GPA's Integrated Resource Plan is currently under review by the Guam Public Utilities Commission. It is anticipated that the PUC will complete its review in September. Subsequent to approval of the plan, GPA will issue the first of its renewable resources requests for proposal. It is likely the RFP will be released within a month of the PUC's approval of the IRP.
- It is anticipated that there will be two renewable resources RFPs issued in the next 12-month period. The first, currently scheduled for October 2008, would focus on renewable resources that could be developed in a short time period. This would include options such as large scale PV solar installations. A second RFP would be issued in the April 2009 timeframe and would likely focus on renewable resources options that require longer lead times relative to bidding and construction. Examples

File: 011285/11-01080-10104

1001 Fourth Avenue, Suite 2500 Seattle, WA 98154-1004 Phone (206) 695-4700 Fax (206) 695-4701

John J. Cruz, Jr.
July 3, 2008
Page 2



of these include large wind turbine installations and ocean based technologies. It should be noted that worldwide demand for wind turbine equipment currently exceeds manufacturing capacity. Most major manufacturers have production slots committed into 2011.

It should be noted that the IRP anticipates approximately 80 MW of renewables will be acquired by GPA in the next few years. Depending on market response, survey of wind resources, and anticipated GPA power cost savings, actual amounts contracted may be more or less than the 80 MW amount.

Sincerely,

R. W. BECK, INC.

A handwritten signature in cursive script, appearing to read 'Angelo Muzzin'. The signature is written in black ink and is positioned above the printed name.

Angelo Muzzin
Principal and Senior Director

AM:bb

RESOLUTION NO: 2008 – 23

- 1 **EXHIBIT E**
- 2 **Project Schedule & Cost Information**

**GPA Renewable Acquisition
Project Cost Review**

Task	RFP for Renewable Resource Acquisition	Original Budgetary Cost
1	Assist staff in drafting RFP with focus on contracting options, financing options, risk options. Will also help draft criteria for RFP evaluation	\$ 65,000
2	Accelerated outreach - RWB would suggest to GPA 10 to 20 suitable developers to contact and undertake briefing calls (prior to release of RFP, in conjunction with GPA staff. - will likely include a second round of calls in the RFP process (after release	\$ 20,000
3	Assist GPA staff in evaluating bid - assistance in technical due diligence of offers and evaluation of risk and optionality values	\$ 50,000
		Subtotal (RFP) : \$ 135,000

2 RFP Approach		
RFP #1 ("Solar") Estimate	RFP #2 ("Wind") Estimate	Budgetary Cost
\$ 69,411.50	\$ -	\$ 69,411.50
\$ 23,588.80	\$ -	\$ 23,588.80
\$ 57,122.80	\$ 20,000.00	\$ 77,122.80
		Subtotal (RFP) : \$ 170,123.10

Task	Wind Studies	Budgetary Cost
1	Wind Study to provide optimal Meteorological Tower Sites	\$ 27,500
2	Meteorological Monitoring Stations (Erecting Towers at Two Sites)	\$ 180,000
3	Meteorological Monitoring Stations Data Collection and Analysis	\$ 30,000
		Subtotal (Wind Studies) : \$ 237,500

Budgetary Cost
\$ 27,500.00
\$ 180,000.00
\$ 30,000.00
Subtotal (Wind Studies) : \$ 237,500.00

Total : \$ 372,500

PUC Authorized Excess Bond Funds Amount: \$ 400,000 *

Total : \$ 407,623.10

* Note: Original estimates were filed in 5/16/08 on a GPA letter to the ALJ, followed by PUC Order dated 5/30/08 granting authorization of \$400K "for work related to an integrated resource planning wind study." PUC additionally approves use of Excess Bond Funds with reimbursement through LEAC (in June 2008 filing) as a LEAC expense.

GPA Renewable Acquisition - Project Cashflow

Project Est. Total	2010												TOTAL	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1 Wind Study														
2 Meteorological Tower Sites	\$ 27,500.00													
2a Meteorological Monitoring Stations (Erection Towers at Two Sites)	\$ 18,000.00													
2b Erection/Approval Process														
2c Meteorological Monitoring Station Construction														
3 Collection and Analysis	\$ 30,000.00													
Wind Study TOTAL: \$237,500.00														

Project Est. Total	2010												TOTAL	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
5 1st Renewable Acquisition (Solar)														
6 2nd Renewable Acquisition (Wind)														
7 3rd Renewable Acquisition (Hydro)														
8 4th Renewable Acquisition (Geothermal)														
9 5th Renewable Acquisition (Biomass)														
10 6th Renewable Acquisition (Small Hydro)														
11 7th Renewable Acquisition (Municipal Solid Waste)														
12 8th Renewable Acquisition (Landfill Gas)														
1st New Resource Acquisition Process TOTAL: \$150,123.10														

Project Est. Total	2010												TOTAL	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
13 1st Renewable Acquisition (Wind)														
14 2nd Renewable Acquisition (Solar)														
15 3rd Renewable Acquisition (Hydro)														
16 4th Renewable Acquisition (Geothermal)														
17 5th Renewable Acquisition (Biomass)														
18 6th Renewable Acquisition (Small Hydro)														
19 7th Renewable Acquisition (Municipal Solid Waste)														
20 8th Renewable Acquisition (Landfill Gas)														
2nd New Resource Acquisition Process TOTAL: \$20,000.00														

Summary:
 Wind Study TOTAL: \$237,500.00
 1st New Resource Acquisition Process TOTAL: \$150,123.10
 2nd New Resource Acquisition Process TOTAL: \$20,000.00
\$407,623.10