CONSOLIDATED
COMMISSION ON UTILITIES
Guam Power Authority • Guam Waterworks Authority
P.O. BOX 2977 • Agana, Guam 96932

RESOLUTION NO. 2016-49

RELATIVE TO AUTHORIZING THE GUAM POWER AUTHORITY TO SEEK APPROVAL
FROM THE PUC TO PROCEED WITH THE CABRAS UNIT #1 MAJOR OVERHAUL

WHEREAS, Guam Power Authority (GPA) and Taiwan Electrical and Mechanical Engineering
Services, Inc. TEMES entered into a five-year Performance Management Contract (PMC) for Cabras 1 & 2, which commenced on October 1, 2010; and

WHEREAS, this Performance Management Contract has been extended until December 31, 2016; and

WHEREAS, Cabras Unit #1’s last major overhaul was completed in December 2013 and the unit
has been in operation for 33 months without a major overhaul and will be running for 40 months before
the scheduled overhaul; and

WHEREAS, Cabras Unit 1 is scheduled for its next overhaul in July of 2017; and

WHEREAS, this overhaul is expected to last 50-days; and

WHEREAS, the PMC recommends the overhaul of Cabras Unit 1 to restore reliability and
availability of plant equipment, restore overall plant efficiency, and support economic dispatching of the
generation system; and

WHEREAS, key items designated for overhaul include the main steam turbine generator,
archway tubes, burner front system and flame detectors, and air preheaters; and

WHEREAS, the total overhaul cost is anticipated to be $5,490,000; and

WHEREAS, this project will be programmed under revenue funds and a breakdown of cost can
be seen in Attachment 1; and

WHEREAS, approval is requested to petition the PUC to utilize revenue funds for the Cabras Unit
1 Overhaul in the amount of $5,490,000.

NOW, THEREFORE, BE IT RESOLVED, by the Consolidated Commission on Utilities as follows:

1. After careful consideration, the Consolidated Commission on Utilities finds the Cabras Unit 1
overhaul to be reasonable, prudent, and necessary for the reliable operation of the generating
plant.

2. The General Manager of Guam Power Authority may petition to PUC to utilize revenue funds in
the amount of $5,490,000, for the Cabras Unit 1 Overhaul.
DULY AND REGULARLY ADOPTED this 27th day of September, 2016.

Certified by:  

[Signature]

JOSEPH T. DUEÑAS  
Chairman

Attested by:  

[Signature]

J. GEORGE BAMBA  
Secretary
SECRETARY’S CERTIFICATE

I, J. George Bamba, Secretary for the Consolidated Commission on Utilities do hereby certify that the foregoing is a full, true, and correct copy of the resolution duly adopted at a regular meeting of the members of Guam’s Consolidated Commission on Utilities, duly and legally held at the meeting place thereof on September 27, 2016, at which meeting of all said members had due notice and at which at least a majority thereof were present, and

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

Ayes: 3
Nays: 0
Absent: 2
Abstain: 0

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 effect.

SO CERTIFIED this 27th day of September, 2016.

[Signature]

J. George Bamba
Secretary
Consolidated Commission on Utilities
## Attachment 1 – Cabras Unit 1 Overhaul Cost Summary

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>Cost</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unit 1 main turbine generator major overhaul (50 days)</td>
<td>$2,100,000</td>
<td>Reliability, Availability, Efficiency</td>
</tr>
<tr>
<td>2</td>
<td>Turbine exhaust hood expansion joint replacement</td>
<td>$160,000</td>
<td>Life Extension</td>
</tr>
<tr>
<td>3</td>
<td>Upgrade the unit 1 burner front system with electronic ignition oil lighter control system: ignition probe tips (sparks), cylinder and flame detectors for all 4 burners</td>
<td>$500,000</td>
<td>Upgrade, Reliability</td>
</tr>
<tr>
<td>4</td>
<td>API standard open inspection and repairs for light diesel oil tank</td>
<td>$200,000</td>
<td>Life Extension</td>
</tr>
<tr>
<td>5</td>
<td>Boiler casing and refractory Renewal during overhaul, including soot waste and insulation waste disposal ($100,000.00)</td>
<td>$170,000</td>
<td>Availability, Efficiency</td>
</tr>
<tr>
<td>6</td>
<td>Boiler water wall tube replacement based on NDE (UT) Inspection results</td>
<td>$95,000</td>
<td>Availability, Efficiency</td>
</tr>
<tr>
<td>7</td>
<td>A.H. duct expansion joint replacement</td>
<td>$120,000</td>
<td>Efficiency</td>
</tr>
<tr>
<td>8</td>
<td>Components and part preparation for unit overhaul: boiler system and auxiliaries, including oil injection spray plates, oil guns, air register parts, APH rotating components, and Iks (for soot blowing parts), etc.</td>
<td>$250,000</td>
<td>Reliability</td>
</tr>
<tr>
<td>9</td>
<td>Plant Safety Valve Replacement after verification by Basin Valve Inc.</td>
<td>$95,000</td>
<td>Safety, Reliability</td>
</tr>
<tr>
<td>10</td>
<td>Upgrade the heavy oil heater temperature control system with better control valve and instruments</td>
<td>$40,000</td>
<td>Upgrade, Efficiency</td>
</tr>
<tr>
<td>11</td>
<td>Procurements of DCS/BMS system critical control components for spares which failure of these components would require instant replacements to prevent long term shutdown of the unit</td>
<td>$95,000</td>
<td>Reliability, Availability</td>
</tr>
<tr>
<td>12</td>
<td>Stack refurbishment and support structure painting</td>
<td>$300,000</td>
<td>Safety</td>
</tr>
<tr>
<td>13</td>
<td>Water treatment system (RO+EDI) inspection, repairs, and component replacement</td>
<td>$35,000</td>
<td>Availability</td>
</tr>
<tr>
<td>14</td>
<td>Fire protection systems annual inspection, repair, and certification.</td>
<td>$50,000</td>
<td>Safety</td>
</tr>
<tr>
<td>15</td>
<td>Waste oil sludge cleaning and disposal</td>
<td>$150,000</td>
<td>Efficiency</td>
</tr>
<tr>
<td>16</td>
<td>Inlet vane control assembly and Venturi cone replacement for Unit 1 FDF.</td>
<td>$150,000</td>
<td>Availability, Increased Capacity</td>
</tr>
<tr>
<td>17</td>
<td>Air preheater basket replacement</td>
<td>$230,000</td>
<td>Efficiency</td>
</tr>
<tr>
<td>18</td>
<td>Archway tube replacement</td>
<td>$750,000</td>
<td>Efficiency</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL OVERHAUL COST</strong></td>
<td><strong>$5,490,000</strong></td>
<td></td>
</tr>
</tbody>
</table>