



REPUBLIC OF THE PHILIPPINES  
**NATIONAL POWER CORPORATION**  
(Pambansang Korporasyon sa Elektrisidad)

## **BID DOCUMENTS**

**Name of Project : SUPPLY AND DELIVERY OF RENEWABLE  
ENERGY FOR THE HYBRIDIZATION OF DIESEL  
POWER PLANTS UNDER SCHEDULE II  
CLUSTER 5A-BICOL**

**PR No. : HO-PMD25-002**

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## **SECTION II – INSTRUCTIONS TO BIDDERS**

### **1. Scope of Bid**

The National Power Corporation wishes to receive Bids for the **SUPPLY AND DELIVERY OF RENEWABLE ENERGY FOR THE HYBRIDIZATION OF DIESEL POWER PLANTS UNDER SCHEDULE II (CLUSTER 5A-BICOL)**, with PR No. HO-PMD25-002.

The Procurement Project (referred to herein as "Project") is composed of supply of energy from RE facilities in one cluster, the details of which are described in **Section VI** (Technical Specifications).

### **2. Funding Information**

2.1 The GOP through the source of funding as indicated below for 2027 to 2047 in the total amount of Php820,000,000.00 for the 20-year period O&M of the RE Facility.

2.2 The source of funding is the Corporate Operating Budget of NPC.

### **3. Bidding Requirements**

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof,

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or Notice of Eligibility & Shortlisting (NES) by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

### **4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices**

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

**5. Eligible Bidders**

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. Foreign ownership limited to those allowed under the rules may participate in this Project.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's, CPI must be at least equivalent to:
  - a. For the procurement of Non- expendable Supplies and Services: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

**6. Origin of Goods**

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under ITB Clause 18.

**7. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address {[insert if applicable]} and/or through videoconferencing/webcam as indicated in Notice of Eligibility & Shortlisting.

**8. Clarification and Amendment of Bidding Documents**

Prospective may request clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the IB, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

**9. Documents Comprising the Bid: Eligibility and Technical Components**

- 9.1 The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section VIII (Checklist of Technical and Financial Documents).

9.2 The Bidder's SLCC as indicated in ITB Clause 5.3 should have been completed within twenty (20) years prior to the deadline for the submission and receipt of bids.

9.3 If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

## **10. Documents comprising the Bid: Financial Component**

10.1 The second bid envelope shall contain the financial documents for the Bid as specified in Section VIII (Checklist of Technical and Financial Documents).

10.2 If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.

10.3 Any bid exceeding the ABC or SAGR cap for the cluster as indicated in Item 2 of the **NES** shall not be accepted.

10.4 For Foreign-funded Procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## **11. Bid Prices**

11.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:

- a. For Goods offered from within the Procuring Entity's country:
  - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
  - ii. The cost of all customs duties and sales and other taxes already paid or payable;
  - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
  - iv. The price of other (incidental) services, if any, listed in the **BDS**.

b. For Goods offered from abroad:

- i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
- ii. The price of other (incidental) services, if any, as listed in the **BDS**.

## 12. Bid and Payment Currencies

12.1 For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

12.2 Payment of the contract price shall be made in:

- a. Philippine Pesos.

## 13. Bid Security

13.1 The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the BDS, which shall be not less than the percentage of the ABC in accordance with the SCHEDULE II in the BDS.

13.2 The Bid and bid security shall be valid for **One Hundred Twenty (120) calendar days** from the date of opening of bids. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## 14. Sealing and Marking of Bids

Each Bidder shall submit Two (2) copies of the first and second components of its Bid, marked **Original** and photocopy. Only the original copy will be read and considered for the bid.

Any misplaced document outside of the **Original** copy will not be considered. The photocopy is **ONLY FOR REFERENCE**.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

**15. Deadline for Submission of Bids**

15.1. The Bidders shall submit on the specified date and time and either at its physical address as indicated in **NES**.

**16. Opening and Preliminary Examination of Bids**

16.1 The BAC shall open the Bids in public at the time, on the date, and at the place specified in **NES**. The Bidders' representatives who are present shall sign a register evidencing their attendance.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

16.2 The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

**17. Domestic Preference**

17.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

**18. Detailed Evaluation and Comparison of Bids**

18.1 The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.

18.2 If the Project allows partial bids, bidders may submit a proposal on any of the clusters/lots or plants/items, and evaluation will be undertaken on a per cluster/lot or item basis, as the case maybe. In this case, the Bid Security as required by ITB Clause 14 shall be submitted for each cluster/lot or item separately.

18.3 The descriptions of the clusters/lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these clusters/lots or plants/items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the clusters/lots or items participated in by the prospective Bidder

18.4 The Project having several plants/items shall be awarded as One Contract.

18.5 Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must

include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the clusters/lots or plants/items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the clusters/lots or plants/items participated in by the prospective Bidder.

## **19. Post-Qualification**

- 19.1 Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

## **20. Signing of the Contract**

- 20.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.



**SECTION III - BID DATA SHEET**

<b>ITB Clause</b>	
5.1	Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
5.2	Foreign ownership limited to those allowed under the rules may participate in this Project.
5.3	<p>For this purpose, contracts similar to the Project shall comply with at least 50% of the ABC either through Option A or through Option B:</p> <p>A) Completed Contract/Agreement for any of the following:</p> <ol style="list-style-type: none"> <li>1. Supply of energy from any type of power plant;</li> <li>2. Construction of any type of power plant with on-going PSA/ PPA;</li> </ol> <p>B) Two (2) similar contracts with an aggregate contract amount of at least 50% of the ABC</p> <ol style="list-style-type: none"> <li>1. One (1) completed PSA/ PPA or Completed Construction of Any Power Plant Contract (with ongoing PSA/ PPA) with an amount of at least 25% of the ABC;</li> <li>2. One (1) ongoing contract (PSA/ PPA of RE Facility only) with completed portion amounting to at least 25% of the ABC, provided that the RE facility is operationalized, and a certificate of satisfactory performance has been issued by the concerned Procuring Entity.</li> </ol> <p>It shall be a ground for disqualification if verification and validation cannot be conducted for reasons attributable to the Bidder.</p>
19.1	<p>The bid evaluation will be undertaken as follows:</p> <ol style="list-style-type: none"> <li>1. The technical and financial offers shall be evaluated as to completeness of information and conformance with specified requirements. Non-compliance is a ground for disqualification of bid.</li> <li>2. The Tariff Rate offer that exceeds the set SAGR and/ or the computed Contract Amount that exceeds the ABC shall be disqualified.</li> <li>3. Subject to Section 32 of RA 9184 IRR, the basis of ranking of the complying bids will be computed using the formula below in reference to Section 7, Part II: Technical Data Sheet, and Section 8, Bidding Forms, Schedule of Prices:</li> </ol> $AGCD = (NPC \text{ RATE CAP}) (AG_{REPP}) - (CAGC_{CORRECTED})$ $CAGC_{CORRECTED} = TR \times AG_{REPP}$

	<p>Where:</p> <p><b>AGCD</b> – Annual Generation Cost Difference</p> <p><b>NPC RATE CAP</b> – Subsidized Approved Generation Rate in the area/ cluster</p> <p><b>CAGC<sub>CORRECTED</sub></b> – Computed Annual Generation Cost as corrected</p> <p><b>TR</b> – Tariff Rate Offered</p> <p><b>AG<sub>REPP</sub></b> – Annual Generation committed by the REPP</p> $AG_{REPP} = AG_{PLANT1} + AG_{PLANT2} + \dots + AG_{PLANTn}$ <p><b>AG<sub>PLANT</sub></b> – Annual Generation per Plant</p> <p>Note: <b>AG<sub>PLANT</sub></b> lower than the minimum annual generation requirement of NPC OR higher than the product of REPP's committed Capacity and Availability multiplied by 365 days will be grounds for disqualification.</p> <p>The Highest Rated Bid (HRB) will be the bid offer that will maximize the benefit to NPC which is the highest computed value of AGCD.</p> <p>In the event that the TR will be equal to the NPC Rate Cap, the HRB will be based on the highest AG<sub>REPP</sub>.</p>
19.2	Partial bid is not allowed. The diesel power plants are grouped into clusters which shall not be divided into sub-clusters for the purpose of bidding, evaluation, and contract award.
19.3	The NFCC will be computed based on the 2-year construction cost or the total capital investment for the renewable energy facility, instead of the ABC of the Project. The NFCC must be sufficient for the total construction cost for the cluster participated in by the prospective Bidder
19.4	The project will be awarded per cluster specifying the components per plant.
19.5	Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to GPPB Resolution No. 01-2024, which must be sufficient for the Two (2) Year construction cost of the RE facility for all the cluster/s participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the RE facility construction cost for the cluster/s participated in by the prospective Bidder.
20.2	Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the HRB, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law such as RE Service Contract, Certificate of Compliance (COC), and other Government Permits.

21.1	The RE Power Purchase Agreement (REPPA) is the equivalent of the contract agreement as prescribed by the IRR of RA 9184 under Section 37.2.
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## **SECTION IV – GENERAL CONDITIONS**

### **1. Scope of Contract**

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the Special Conditions of Contract (SCC).

### **2. Advance Payment and Terms of Payment**

2.1 Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.

2.2 The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated.

### **3. Performance Security**

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

### **4. Inspection and Tests**

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC, Section VII (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify

the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

## **5. Warranty**

- 5.1 In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 5.2 The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

## **6. Liability of the Supplier**

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

**SECTION V – SPECIAL CONDITIONS OF THE CONTRACT**

<b>GCC Clause</b>	
1	<p><b>Delivery and Documents –</b></p> <p>Delivery of Services shall be made by the Renewable Energy Power Provider (REPP) in accordance with the terms specified in Section VI – Schedule of Requirements and Schedule VI - Technical Specifications. The details of documents to be furnished by the REPP are as follows:</p> <ul style="list-style-type: none"> <li>(i) Copy of system design plans, drawings and schematic diagrams for NPC's reference;</li> <li>(ii) Summary of the REPP's installed RE facility equipment, parts and appurtenances;</li> <li>(iii) Copy of REPP's factory test/ inspection report particularly for the metering facility;</li> <li>(iv) Copy of the certification from ERC of the energy meter and calibration record;</li> <li>(v) Copy of Testing, Commissioning, and Final Inspection Report; and</li> <li>(vi) Documents specified in the Technical Specifications, if any.</li> </ul> <p>For purposes of this Clause the Procuring Entity's Representative during the Construction stage are as follows: 1) Technical Staff from the Office of the President and Chief Executive Officer (OPCEO), 2) The Functional Group Head of the Power Engineering Services. The Functional Group Head of SPUG will be the representative of NPC during the Operation stage.</p> <p><b>Incidental Services –</b></p> <p>The REPP is required to provide other services as necessary in addition to those specified in Section VI – Schedule of Requirements.</p> <p><b>Spare Parts –</b></p> <p>Availability of spare parts of the RE Facility shall be the responsibility of the REPP.</p> <p>The REPP shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Services for the contract period specified in the Technical Specifications.</p> <p>Spare parts or components shall be supplied as promptly as possible.</p> <p><b>Contract Period –</b></p> <p>The Contract Period for the Supply and Delivery of Renewable Energy for the Hybridization of Diesel Power Plants under Schedule II (Cluster 5A - Bicol) is Twenty-Two (22) Years covering the two (2) years pre-construction and</p>

	construction and twenty (20) years plant operation or upon exhaustion of contract amount whichever is earlier, reckoned from the first day of its commercial operation.					
2.1	<b>Not Applicable</b>					
2.2	Delivery of energy under the contract will be paid monthly based on billing submitted by the supplier and the records of energy generation. The monthly energy shortfall with corresponding penalty will be reconciled annually.					
3	<p>1. To secure the REPP's obligation and commitment to design, develop, construct, and operate the RE facility under the REPPA, the REPP must post a Development and Construction Performance Security which shall be based on Appendix E, and Operation Performance Security based on Item 3 below.</p> <p>2. The following must be indicated in the performance security to be posted by the Supplier:</p> <ul style="list-style-type: none"> <li>i. Company Name</li> <li>ii. Correct amount of the Bond</li> <li>iii. Contract/Purchase Order Reference Number</li> <li>iv. Purpose of the Bond:            "To guarantee the faithful performance of the Principal's obligation to undertake <u>(Contract/Purchase Order Description)</u> in accordance with the terms and conditions of <u>(Contract No. &amp; Schedule/Purchase Order No.)</u> entered into by the parties."</li> </ul> <p>3. To guarantee the faithful performance by the winning bidder of its obligations under the contract in accordance with the Bidding Documents, it shall post a performance security prior to the signing of the contract.</p> <p>The Operation Performance Security shall be in an amount not less than the required percentage of the total contract price in accordance with the following schedule.</p> <table border="1"> <thead> <tr> <th>Form of Operation Performance Security</th><th>Amount of Performance Security (Not less than the required percentage of the Total Contract Price)</th></tr> </thead> <tbody> <tr> <td>a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</td><td rowspan="2">Five percent (5%)</td></tr> <tr> <td>b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</td></tr> </tbody> </table>	Form of Operation Performance Security	Amount of Performance Security (Not less than the required percentage of the Total Contract Price)	a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Five percent (5%)	b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.
Form of Operation Performance Security	Amount of Performance Security (Not less than the required percentage of the Total Contract Price)					
a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Five percent (5%)					
b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.						



	<p>c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.</p> <p>Thirty percent (30%)</p>
	<p>4. In case of surety bond, any extension of the contract duration or delivery period granted to the SUPPLIER shall be considered as given, and any modification of the contract shall be considered as authorized, as if with the expressed consent of the surety, provided that such extension or modifications falls within the effective period of the said surety bond. However, in the event that the extension of the contract duration or delivery schedule would be beyond the effective period of the surety bond first posted, it shall be the sole obligation of the SUPPLIER to post an acceptable Performance Security within ten (10) calendar days after the contract duration/delivery period extension has been granted by NPC.</p> <p>5. Other required conditions in addition to the standard policy terms issued by the Bonding Company:</p> <ul style="list-style-type: none"> <li>i. The bond is a penal bond, callable on demand and the entire amount thereof shall be forfeited in favor of the Obligee upon default of the Principal without the need to prove or to show grounds or reasons for demand for the sum specified therein;</li> <li>ii. The amount claimed by the Obligee under this bond shall be paid in full and shall never be subject to any adjustment by the Surety;</li> <li>iii. In case of claim, the Surety shall pay such claim within sixty (60) days from receipt by the Surety of the Obligee's notice of claim/demand letter notwithstanding any objection thereto by the Principal.</li> </ul> <p>6. The Development and Construction Performance Security shall be valid until the committed Commercial Operation Start Date (COSD) indicated in the REPPA while the Operation Performance Security shall be for a 20-year contract period.</p>
4	<p>NPC to participate on the following:</p> <ul style="list-style-type: none"> <li>1. Conduct of Test and Commissioning of the necessary Communication and Interface Systems for Synchronization and Protection of the RE facility to be interconnected with NPC's diesel power plant to verify compliance with the different construction codes and standard.</li> <li>2. Inspection and test for the metering facility.</li> </ul>
5	Not Applicable

6	<p>In the event of inexcusable delay in the committed Commercial Operation Start Date (COSD) of the RE facility, Liquidated Damage shall be imposed in accordance with RA 9184 as shown in the following formula:</p> $LD = 1/10 \{0.01 [(Offered \text{ Annual Generation in kWh}/365) (Bid \text{ Price Offer in Php/kWh}) (No. \text{ of days delayed})]\}$ <p>Shortfall from the Offered Annual Generation, except those caused by Forced Majeure, shall be subject to Penalty Charges computed monthly and reconciled at the end of the year as shown on the formula below:</p> $P = M(\text{Jan}) + M(\text{Feb}) + M(\text{Mar}) + \dots + M(\text{Dec})$ <p>Where: P = Yearly Penalty to be imposed to REPP due to shortfall on Generated Electricity</p> $M = \text{Computed Monthly Penalty} = (MC - MA) \times FR \times D$ <p>MC = Committed Energy (kwh) for the Month</p> <p>MA = Actual Generated Energy (kwh) for the Month</p> <p>FR = Fuel Rate at 0.30 Liters/kwh</p> <p>D = Peso per Liter Cost of Diesel for the Month</p> <p>Note: Penalties shall be imposed to recover the cost incurred by NPC in lieu of the shortfall.</p> <p>Shortfall due to insufficiency or absence of RE source like solar, water, wind, etc., is not force majeure and shall be subject to the imposition of Penalty Charges.</p> <p>Force Majeure is an extraordinary event which cannot be foreseen or which though foreseen, cannot be avoided. The event must render it impossible for a Party to fulfill its obligation in a normal manner despite the exercise of due care. Force Majeure shall only be limited to a storm, typhoon, lightning, flood, drought, earthquake, tsunami, fire, war, rebellion, insurrection, riot, naval or other blockade, labor disturbance, civil unrest, and other analogous circumstances natural or man-made. For the avoidance of doubt, force majeure does not include absence or limited RE resources like sunlight, wind, water, etc. that limits energy production.</p>
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## SECTION VI – SCHEDULE OF REQUIREMENTS

**SECTION VI – SCHEDULE OF REQUIREMENTS**

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Quantity	Total	Delivered, Weeks/Months
1.	Financing, Pre-Construction, and Construction of RE Facility	per plant site	3	Maximum of two (2) years from Notice to Proceed
2.	Operation and Maintenance of RE Facility	per plant site	3	Twenty (20) years from Commercial Operation Start Date
3.	Training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in start-up, operation, maintenance, and/or repair of the RE Facility.	per plant site	3	Prior to Commercial Operation of the RE Facility

**SECTION VII – PART I: TECHNICAL SPECIFICATIONS**

<b><u>CLAUSE NO.</u></b>	<b><u>TITLE</u></b>	<b><u>PAGE NO.</u></b>
<b>TS 1.0</b>	<b>PROJECT DESCRIPTION.....</b>	<b>1</b>
<b>TS 2.0</b>	<b>PROJECT LOCATION .....</b>	<b>1</b>
<b>TS 3.0</b>	<b>CONNECTION POINT .....</b>	<b>1</b>
<b>TS 4.0</b>	<b>PROJECT DEVELOPMENT DURATION .....</b>	<b>1</b>
<b>TS 5.0</b>	<b>CONTRACT PERIOD .....</b>	<b>1</b>
<b>TS 6.0</b>	<b>SCOPE OF WORKS.....</b>	<b>2</b>
<b>TS 7.0</b>	<b>PROCURING ENTITY'S (NPC) PARTICIPATION .....</b>	<b>5</b>
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<b>TS 9.0</b>	<b>PAYMENT .....</b>	<b>5</b>

## SECTION VII - PART I: TECHNICAL SPECIFICATIONS

### TS 1.0 PROJECT DESCRIPTION

This specification covers the general technical and associated requirements for the Supply and Delivery of Renewable Energy for the Hybridization of Diesel Power Plants under Schedule II (Cluster 5A - Bicol).

The Generating Facility shall utilize any of the following Renewable Energy Resources:

- a. Biofuel
- b. Biomass
- c. Geothermal
- d. Solar + BESS
- e. Water (Hydro or Tidal + BESS)
- f. Wind + BESS
- g. Hybrid

The Generating Capacity of the Renewable Energy facility shall be determined by the REPP based on the Load Curve/Demand profiles of the Bicol Area.

### TS 2.0 PROJECT LOCATION

The Supply and Delivery of Renewable Energy for the Hybridization of Diesel Power Plants under Schedule II (Cluster 5A - Bicol) can be referred to Appendix B: Cluster Location Map.

### TS 3.0 CONNECTION POINT

Connection point shall be at the NPC assigned delivery/ tapping/ metering point where the Billing Meter will be installed. Interconnection assets shall be included in the scope of work to be provided by the REPP.

### TS4.0 PROJECT DEVELOPMENT DURATION

Delivery Period/ Commercial Operation shall be twenty-four (24) months or earlier reckoned from the receipt of the Notice to Proceed by the winning bidder.

### TS 5.0 CONTRACT PERIOD

The Contract Period for the Supply and Delivery of Renewable Energy for the Hybridization of Diesel Power Plants under **Schedule II (Cluster 5A - Bicol)** is Twenty-Two (22) Years covering the two (2) years pre-construction and construction and twenty (20) years plant operation or

upon exhaustion of contract amount whichever is earlier, reckoned from the first day of its commercial operation.

## **TS 6.0 SCOPE OF WORKS**

### **TS 6.1 GENERAL**

The scope of works shall cover the Supply and Delivery of Renewable Energy for the Hybridization of Diesel Power Plants under Schedule II (Cluster 5A –Bicol).

The Supplier's scope of works under this Contract shall generally consist of provisions stipulated hereunder.

### **TS 6.2 PRE-CONSTRUCTION ACTIVITIES**

- a. Project financing, site investigation, selection and survey, acquisition of Site/Right of Way, and securing of possessory rights for the land (lease maybe an option);
- b. Securing all necessary permits and licenses including but not limited to Environmental Compliance Certificate (ECC)/Certificate of Non-Coverage (CNC), Permit to Operate (PTO) Wastewater Discharge Permit (WDP), Hazardous Waste Generator Registration Certificate (HWGR Cert./HW ID), Chemical Control Order for PCB Registration (CCO-PCB Reg.), from Department of Environmental and Natural Resources – Environmental Management Bureau (DENR – EMB), Water Permit from National Water Resources Board (NWRB), Renewable Energy Service Contract (RESC) from Department of Energy (DOE), Certificate of Endorsement (COE) from DOE, Certificate of Compliance (COC) from Energy Regulatory Board (ERC), and other permits/ not specifically mentioned herein but necessary for the construction and operation of the facility;
- c. Design of the whole system including the Renewable Energy Facility, Battery Energy Storage System (BESS), 13.8 kV Tie Line and all necessary communication and Energy Management or Interface Systems for Synchronization and Protection of existing NPC assets to meet the demand during the operation of the RE facility in the island grids including the charging of the BESS, as necessary, in coordination with the Distribution Utilities/ Electric Cooperatives and NPC SPUG. Option of installing solar facilities at the rooftops of buildings shall also be explored/considered in the study/design.

### **TS 6.3 CONSTRUCTION OF RE GENERATING FACILITY**

- a. Supply, delivery, construction, installation, test and commissioning of the Renewable Energy Facility including all the interconnecting

assets and necessary appurtenances for the safe and proper operation and maintenance of the said facility;

- b. Supply, delivery, installation, test and commissioning of BESS (solar, wind, tidal) to allow the diesel generator sets to ramp up and synchronize during the switch of operation from the renewable energy facility to the diesel generator sets and vice versa.
- c. Compliance with different construction codes and standards to ensure system safety and protection of NPC's diesel power plant where the RE facility will be interconnected;
- d. Supply, delivery, installation, test and commissioning of metering facilities. The Kilowatt-hour Meter must be certified and approved by ERC and be guided by the provided specifications particularly for 13.8kV three phase kilowatt-hour meter including instrument transformer and accessories for the metering facility:

ITEM	DESCRIPTION	SPECIFICATION
1	Number of Wires	4
2	Voltage, V	120-480
3	Accuracy class	0.2s
4	Frequency, Hz	60
5	Register Type	LCD
6	Soft Switches	Available
7	LCD Display	Programmable
8	Communication Port for Kilowatt-hour meter	To be Provided
9	Meter Test Block	
	a. No. of Poles	10 (4 Voltage & 6 Current Terminals)
	b. Rated Voltage, V	600
	c. Equipment Standard	ANSI C12.9
	d. Test Block Cover	Required
11	Metering Current Transformer	
	a. Application (Indoor/Outdoor)	Outdoor
	b. Insulation type	Full cast epoxy resin
	c. Primary rated current, A	20
	d. Secondary rated current for all windings, A	5
	e. No. of cores	One (1) core Secondary CT
	f. CT ratio	20:5
	g. Burden	45

ITEM	DESCRIPTION	SPECIFICATION
	h. BIL, kV	110
12	Metering Voltage Transformer	
	a. Application (Indoor/Outdoor)	Outdoor
	b. Highest continuous operating voltage, kV	15
	c. Nominal voltage, kV	8.4
	d. Rated secondary voltage, V	120
	e. Insulation type	Full cast epoxy resin
	f. PT ratio	70:1
	g. Burden	75
	h. BIL, kV	110
13	Meter Housing/ Enclosure	
	a. Material	Stainless Steel
	b. Dimension (LxWxH)	16" x 12" x 22" (Front Height) & 24" (Rear Height)
	c. Display/Viewing Window	Required

The 13.8kV Three Phase Kilowatt-Hour Meter shall have but not limited to the following features:

1. Pilferage proof
2. Tamper Proof
3. Wrong Wiring Alarm
4. Can withstand the temperature of -20°C to +70°C and Humidity of up to 95% non-condensing
5. With back light display
6. With built-in battery for LCD display and back-up battery
7. TOU Programmable Ready
8. Measure display (Delivered and Received Energy, RMS voltage & current per phase, Reactive & Apparent Power, Power factor, Frequency and etc.)

The 13.8kV three phase kilowatt-hour meter and its required metering instruments shall be pole mounted with stainless steel bracket, bolts, etc.

#### **TS 6.4 OPERATION AND MAINTENANCE OF THE RE GENERATING FACILITY**

This will involve the capability of the RE facility with BESS for stand-alone operation during its availability period and synchronization with NPC's diesel power plant during transition from RE source to Diesel Power and vice versa, and maintenance activities. Parallel operation for



both REPP's RE Facility and NPC's diesel power plant shall be implemented whenever necessary.

#### **TS 7.0      PROCURING ENTITY'S (NPC) PARTICIPATION**

During the Contract Period, NPC shall monitor the operations of the Renewable Energy Facility. NPC shall have the authority to restrict the dispatch of power or disconnect the REPP Facility in the event that the REPP exceeds the demand or oversupply of energy from its existing generating assets.

During the development period, NPC shall:

- Monitor the project;
- Allow REPP's access to NPC SPUG Plant/s;
- Provide assistance through best efforts in TS 6.2 (a) and (b) like provision of required data/ information, assistance during site selection/ investigation, and in securing permits/ licenses; and
- Witness the conduct of Testing and Commissioning, Final Inspection of the RE facility, and attest to its successful commissioning.

#### **TS 8.0      ADDITIONAL DOCUMENTS TO BE SUBMITTED DURING POST-QUALIFICATION**

- 1) Technical Simulation of energy output for confirmation of the corresponding offer on the Technical Data Sheet must be available and submitted for verification during post qualification. Non-submission will be ground for post disqualification.

- 2) List of Plant Operating Parameters minimum requirements

#### **TS 9.0      PAYMENT**

Payment shall be based on the monthly billing for the delivered renewable energy (kWh) at the Delivery Point and based on the Bid Price Offer (Php per kWh) in Section VIII – Bidding Forms, Schedule of Prices of the Bid Document.

**SECTION VII – PART II: TECHNICAL DATA SHEET**

<b>Contract Area / Cluster No.: BICOL - 5A</b>			
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>NPC REQUIREMENTS</b>	<b>SUPPLIER'S DATA</b>
<b>Plant: TICAOP DPP</b>			
1.0	RE Type	By Supplier	
2.0	Capacity* (kW in AC)	By Supplier	
3.0	BESS (kWh), as applicable	At least 25% of Item 2.0	
4.0	Availability, (PCF or Annual Daily Average in Hours)	16% or 3.8 Hours (minimum)	
5.0	Annual Generation (AG <sub>PLANT1</sub> )	2,903,576 kWh (minimum)	
6.0	Commercial Operation Start Date (COSD)	2 years or earlier	
<b>Plant: CALAGUAS DPP</b>			
1.0	RE Type	By Supplier	
2.0	Capacity* (kW in AC)	By Supplier	
3.0	BESS (kWh), as applicable	At least 25% of Item 2.0	
4.0	Availability, (PCF or Annual Daily Average in Hours)	16% or 3.8 Hours (minimum)	
5.0	Annual Generation (AG <sub>PLANT2</sub> )	140,966 kWh (minimum)	
6.0	Commercial Operation Start Date (COSD)	2 years or earlier	
<b>Plant: ATULAYAN DPP</b>			
1.0	RE Type	By Supplier	
2.0	Capacity* (kW in AC)	By Supplier	
3.0	BESS (kWh), as applicable	At least 25% of Item 2.0	
4.0	Availability, (PCF or Annual Daily Average in Hours)	16% or 3.8 Hours (minimum)	
5.0	Annual Generation (AG <sub>PLANT3</sub> )	11,971 kWh (minimum)	
6.0	Commercial Operation Start Date (COSD)	2 years or earlier	
<b>Total Annual Generation for the Cluster (AG<sub>REPP</sub>)</b>		<b>3,056,513 kWh (min)</b>	

- Notes:
- \* Shall be determined based on the given load curve data in Annex C.
  - Any offer not meeting the NPC minimum requirements shall be grounds for disqualification.
  - The BESS with at least 25% of the committed capacity will be used to support the shifting operation from RE to diesel and vice versa. However, REPP may opt to install higher capacity if it intends to offer a longer availability period.
  - Offered AG<sub>PLANT</sub> lower than the minimum annual generation requirement of NPC OR higher than the product of REPP's committed Capacity and Availability multiplied by 365 days will be grounds for disqualification.
  - AG<sub>REPP</sub> = AG<sub>PLANT1</sub> + AG<sub>PLANT2</sub> + AG<sub>PLANT3</sub>

Name of Firm

Name &amp; Signature of Representative

Designation

## SECTION VIII – BIDDING FORMS

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NPCSF-GOODS-01	- Checklist of Technical and Financial Envelope Requirements for Bidders
NPCSF-GOODS-02	- List of all Ongoing Government & Private Contracts Including Contracts Awarded but not yet Started
NPCSF-GOODS-03	- Computation of Net Financial Contracting Capacity (NFCC)
NPCSF-GOODS-04	- Joint Venture Agreement
NPCSF-GOODS-05a	- Form of Bid Security: Bank Guarantee
NPCSF-GOODS-05b	- Form of Bid Security: Surety Bond
NPCSF-GOODS-05c	- Bid Securing Declaration Form
NPCSF-GOODS-06	- Omnibus Sworn Statement (Revised)
NPCSF-GOODS-07	- Bid Letter
Sample Form	- Bank Guarantee Form for Advance Payment
Sample Form	- Certification from DTI as Domestic Bidder

**Checklist of Technical & Financial Envelope Requirements for Bidders****A. THE 1<sup>ST</sup> ENVELOPE (TECHNICAL COMPONENT) SHALL CONTAIN THE FOLLOWING:****1. ELIGIBILITY DOCUMENTS****a. (CLASS A)**

- PhilGEPs Certificate of Registration and Membership under Platinum Category (all pages) in accordance with Section 8.5.2 of the Revised IRR of RA. 9184;

**Note:** The failure by the prospective bidder to update its Certificate with the current and updated Class "A" eligibility documents shall result in the automatic suspension of the validity of its Certificate until such time that all of the expired Class "A" eligibility documents has been updated;

- Statement of all its ongoing government and private contracts if any, whether similar or not similar in nature and complexity to the contract to be bid (NPCSF-GOODS-02)
- Duly signed computation of its Net Financial Contracting Capacity (NFCC) at least equal to 2-year construction cost or the total capital investment for the renewable energy facility (NPCSF-GOODS-03) or Committed Line of Credit (CLC) at least equal to ten percent (10%) of the total capital investment, issued by a Universal or Commercial Bank; If the Bidder opted to submit a Committed Line of Credit (CLC), the bidder must submit a granted credit line valid/effective at the date of bidding.

**b. (CLASS B)**

- For Joint Venture (if applicable), any of the following:
  - Valid Joint Venture Agreement (NPCSF-GOODS-04)
  - OR**
  - Notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA, if awarded the contract
- Certification from the relevant government office of their country stating that Filipinos are allowed to participate in their government procurement activities for the same item/product (For foreign bidders claiming eligibility by reason of their country's extension of reciprocal rights to Filipinos)

**2. Technical Documents**

- Bid Security, any one of the following:
  - Bid Securing Declaration (NPCSF-GOODS-05c)
  - OR**
  - Cash or Cashier's/Manager's check issued by a Universal or Commercial Bank – 2% of ABC;
  - OR**
  - Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: (NPCSF-GOODS-05a)- 2% of ABC;
  - OR**

- Surety Bond callable upon demand issued by a reputable surety or insurance company (NPCSF-GOODS-05b)- 5% of ABC, with
  - Certification from the Insurance Commission as authorized company to issue surety
- Duly signed, completely filled-out and notarized Omnibus Sworn statement (Revised) (NPCSF-GOODS-06), complete with the following attachments:
  - For Sole Proprietorship:
    - Special Power of Attorney
  - For Partnership/Corporation/Cooperative/Joint Venture:
    - Document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)
- Complete eligibility documents of the proposed subcontractor, if any
- Documents to be submitted with the Bid as specified in *Section VII: Technical Specifications, Part II- Technical Data Sheet*, that would indicate the Cluster of interest, the diesel power plants and corresponding capacity, RE Type, COSD, availability and metering compliance.

**B. THE 2<sup>ND</sup> ENVELOPE (FINANCIAL COMPONENT) SHALL CONTAIN THE FOLLOWING:**

- Duly signed Bid Letter indicating the total bid amount in accordance with the prescribed form (NPCSF-GOODS-07)
- Duly signed and completely filled-out Schedule of Prices (*Section VIII – Bidding Forms*) indicating the Cluster of interest, SAGR for the cluster, bid price/ tariff rate offer that is capped on the cluster's SAGR, Committed Total Annual Generation, Computed Annual Generation Cost, and Computed Cost of Energy for Twenty (20) Years, and Total RE Project Cost
- For Domestic Bidder claiming for domestic preference:
  - Letter address to the BAC claiming for preference
  - Certification from DTI as Domestic Bidder in accordance with the prescribed forms provided

**CONDITIONS:**

1. Each Bidder shall submit Two (2) copies of the first and second components of its Bid, marked Original and photocopy. Only the original copy will be read and considered for the bid. Any misplaced document outside of the Original copy will not be considered. The photocopy is ONLY FOR REFERENCE. NPC may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.
2. In the case of foreign bidders, the eligibility requirements under Class "A" Documents (except for Tax Clearance) may be substituted by the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned. The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign

service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines.

These documents shall be accompanied by a Sworn Statement in a form prescribed by the GPPB stating that the documents submitted are complete and authentic copies of the original, and all statements and information provided therein are true and correct. Upon receipt of the said documents, the PhilGEPS shall process the same in accordance with the guidelines on the Government of the Philippines – Official Merchants Registry (GoP-OMR).

3. A Bidder not submitting bid for reason that his cost estimate is higher than the set SAGR and/or ABC, is required to submit his letter of non-participation/regret supported by corresponding detailed estimates. Failure to submit the two (2) documents shall be understood as acts that tend to defeat the purpose of public bidding without valid reason as stated under Section 69.1.(i) of the revised IRR of R.A. 9184.

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. Any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary "pass/fail" criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

**List of All Ongoing Government and Private Contracts Including Contract Awarded But Not Yet Started**

Business Name : \_\_\_\_\_  
Business Address : \_\_\_\_\_

Name of Contract/ Project Cost	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Bidder's Role		a. Date Awarded b. Date Started c. Date of Completion or Contract Duration/ Date of Delivery	Value of Outstanding Works / Undelivered Portion
			Description	%		
<b>Government</b>						
<b>Private</b>						
<b>Total Cost</b>						

**The bidder shall declare in this form all his on-going government and private contracts including contracts where the bidder (either as individual or as a Joint Venture) is a partner in a Joint Venture agreement other than his current joint venture where he is a partner. Non declaration will be a ground for disqualification of bid.**

**Note :** This statement shall be supported with the following documents for all the contract(s) stated above which shall be submitted during Post-qualification:

1. **Contract/ PSA/ PPA**
2. **Certification coming from the project owner/client that the performance is satisfactory as of the bidding date.**

Submitted by : \_\_\_\_\_  
(Printed Name & Signature)

**Designation** : \_\_\_\_\_

Date : \_\_\_\_\_

Standard Form Number: NPCSF-GOODS-03

**NET FINANCIAL CONTRACTING CAPACITY (NFCC)**

- A. Summary of the Supplier's/Distributor's/Manufacturer's assets and liabilities on the basis of the income tax return and audited financial statement for the immediately preceding calendar year are:

		Year 20__
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

- B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [(Current assets minus current liabilities) x 15] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

NFCC = P \_\_\_\_\_

*Note: NFCC shall be compared with the two (2) year construction cost or total capital investment for the RE Facility project per Appendix E.*

Herewith attached is certified true copy of the audited financial statement, stamped "RECEIVED" by the BIR or BIR authorized collecting agent for the immediately preceding calendar year.

Submitted by:

\_\_\_\_\_  
Name of Supplier / Distributor / Manufacturer

\_\_\_\_\_  
Signature of Authorized Representative

Date : \_\_\_\_\_



Standard Form Number: NPCSF-GOODS-04

**JOINT VENTURE AGREEMENT****KNOW ALL MEN BY THESE PRESENTS:**

That this JOINT VENTURE AGREEMENT is entered into by and between:  
\_\_\_\_\_, of legal age, (*civil status*) \_\_\_\_\_, authorized representative of  
\_\_\_\_\_ and a resident of \_\_\_\_\_.

- and -

\_\_\_\_\_, of legal age, (*civil status*) \_\_\_\_\_, authorized representative of  
\_\_\_\_\_ a resident of \_\_\_\_\_.

That both parties agree to join together their capital, manpower, equipment, and other resources and efforts to enable the Joint Venture to participate in the Bidding and Undertaking of the hereunder stated Contract of the **National Power Corporation**.

**NAME OF PROJECT****CONTRACT AMOUNT**

\_\_\_\_\_  
That the capital contribution of each member firm:

NAME OF FIRM	CAPITAL CONTRIBUTION
1. _____	P _____
2. _____	P _____

That both parties agree to be jointly and severally liable for their participation in the Bidding and Undertaking of the said contract.

That both parties agree that \_\_\_\_\_ and/or \_\_\_\_\_ shall be the Official Representative/s of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Bidding and Undertaking of the said contract, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

That this Joint Venture Agreement shall remain in effect only for the above stated Contract until terminated by both parties.

\_\_\_\_\_  
*Name & Signature of Authorized Representative*

\_\_\_\_\_  
*Official Designation*

\_\_\_\_\_  
*Name of Firm*

\_\_\_\_\_  
*Name & Signature of Authorized Representative*

\_\_\_\_\_  
*Official Designation*

\_\_\_\_\_  
*Name of Firm*

*Witnesses*

1. \_\_\_\_\_

2. \_\_\_\_\_

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*

Standard Form Number: NPCSF-GOODS-05a

### FORM OF BID SECURITY (BANK GUARANTEE)

WHEREAS, (Name of Bidder) (hereinafter called "the Bidder") has submitted his bid dated (Date) for the [name of project] (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We (Name of Bank) of (Name of Country) having our registered office at \_\_\_\_\_ (hereinafter called "the Bank" are bound unto National Power Corporation (hereinafter called "the Entity") in the sum of [amount in words & figures as prescribed in the bidding documents] for which payment well and truly to be made to the said Entity the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

THE CONDITIONS of this obligation are that:

- 1) if the Bidder withdraws his Bid during the period of bid validity specified in the Bidding Documents; or
- 2) if the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the Instructions to Bidder; or
- 3) if the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPs registration certificate within the prescribed period; or
- 4) if the Bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
  - a) fails or refuses to execute the Contract; or
  - b) fails or refuses to submit the required valid JVA, if applicable; or
  - c) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

we undertake to pay to the Entity up to the above amount upon receipt of his first written demand, without the Entity having to substantiate its demand, provided that in his demand the Entity will note that the amount claimed by it is due to the occurrence of any one or combination of the four (4) conditions stated above.

The Guarantee will remain in force up to 120 days after the opening of bids or as it may be extended by the Entity, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE \_\_\_\_\_ SIGNATURE OF THE BANK \_\_\_\_\_

WITNESS \_\_\_\_\_ SEAL \_\_\_\_\_

\_\_\_\_\_  
(Signature, Name and Address)

Standard Form Number: NPCSF-GOODS-05b

**FORM OF BID SECURITY (SURETY BOND)**

BOND NO.: \_\_\_\_\_ DATE BOND EXECUTED: \_\_\_\_\_

By this bond, We (Name of Bidder) (hereinafter called "the Principal") and (Name of Surety) of (Name of Country of Surety), authorized to transact business in the Philippines (hereinafter called "the Surety") are held and firmly bound unto National Power Corporation (hereinafter called "the Employer") as Obligee, in the sum of (amount in words & figures as prescribed in the bidding documents), callable on demand, for the payment of which sum, well and truly to be made, we, the said Principal and Surety bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

SEALED with our seals and dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

WHEREAS, the Principal has submitted a written Bid to the Employer dated the \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_, for the \_\_\_\_\_ (hereinafter called "the Bid").

NOW, THEREFORE, the conditions of this obligation are:

- 1) if the Bidder withdraws his Bid during the period of bid validity specified in the Bidding Documents; or
- 2) if the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the Instructions to Bidder; or
- 3) if the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPS registration certificate within the prescribed period; or
- 4) if the Bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
  - d) fails or refuses to execute the Contract; or
  - e) fails or refuses to submit the required valid JVA, if applicable; or
  - f) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

then this obligation shall remain in full force and effect, otherwise it shall be null and void.

PROVIDED HOWEVER, that the Surety shall not be:

- a) liable for a greater sum than the specified penalty of this bond, nor
- b) liable for a greater sum than the difference between the amount of the said Principal's Bid and the amount of the Bid that is accepted by the Employer.

Standard Form Number: NPCSF-GOODS-05b  
Page 2 of 2

This Surety executing this instrument hereby agrees that its obligation shall be valid for 120 calendar days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived.

PRINCIPAL \_\_\_\_\_ SURETY \_\_\_\_\_

SIGNATURE(S) \_\_\_\_\_ SIGNATURES(S) \_\_\_\_\_

NAME(S) AND TITLE(S) \_\_\_\_\_ NAME(S) \_\_\_\_\_

SEAL \_\_\_\_\_ SEAL \_\_\_\_\_

Standard Form No: NPCSF-GOODS-05c

REPUBLIC OF THE PHILIPPINES )  
CITY OF \_\_\_\_\_ ) S.S.

**BID-SECURING DECLARATION**  
**SUPPLY AND DELIVERY OF RENEWABLE ENERGY FOR THE HYBRIDIZATION OF**  
**DIESEL POWER PLANTS UNDER SCHEDULE II (CLUSTER 5A - BICOL)**

To: **National Power Corporation**  
BIR Road cor. Quezon Ave.  
Diliman, Quezon City

I/We<sup>1</sup>, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We understand that this Bid-Securing Declaration shall be enforced/applied in accordance with Section 5 of the Guidelines on the use of Bid-Securing Declaration (Appendix 10 of RA 9184 IRR).
3. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of written demand by the procuring entity for the commission of acts resulting to the forfeiture of bid security under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
4. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
  - a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
  - c) I am/we are declared as the bidder with the Highest Rated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/we have hereunto set my hand this \_\_\_\_ day of \_\_\_\_ 20\_\_\_\_ at \_\_\_\_\_, Philippines.

\_\_\_\_\_  
[Name and Signature of Bidder's Representative/  
Authorized Signatory]  
[Signatory's legal capacity]  
Affiant

<sup>1</sup>Select one and delete the other. Adopt same instruction for similar terms throughout the document.

**IN WITNESS WHEREOF**, I/We have hereunto set my/our hand/s this \_\_\_\_ day of month] [year] at [place of execution].

**[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]**

**[Insert signatory's legal capacity]**

Affiant

**SUBSCRIBED AND SWORN** to before me this \_\_ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. \_\_\_\_\_.

Witness my hand and seal this \_\_\_\_ day of [month] [year].

**NAME OF NOTARY PUBLIC**

**Serial No. of Commission** \_\_\_\_\_

**Notary Public for** \_\_\_\_\_ **until** \_\_\_\_\_

**Roll of Attorneys No.** \_\_\_\_\_

**PTR No.** \_\_, [date issued], [place issued]

**IBP No.** \_\_, [date issued], [place issued]

**Doc. No.** \_\_\_\_\_

**Page No.** \_\_\_\_\_

**Book No.** \_\_\_\_\_

**Series of** \_\_\_\_\_.

Standard Form No: NPCSF-GOODS-06

### Omnibus Sworn Statement (Revised)

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

### AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

*[If a sole proprietorship:]* I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

*[If a partnership, corporation, cooperative, or joint venture:]* I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

*[If a sole proprietorship:]* As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

*[If a partnership, corporation, cooperative, or joint venture:]* I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units (LGUs), foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

*[If a sole proprietorship:]* The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*[If a partnership or cooperative:]* None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management

Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*[If a corporation or joint venture:]* None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and
8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a. Carefully examining all of the Bidding Documents;
  - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

**IN WITNESS WHEREOF**, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_\_ at \_\_\_\_\_, Philippines.

*[Insert NAME OF BIDDER OR ITS AUTHORIZED  
REPRESENTATIVE]*

*[Insert signatory's legal capacity]*  
Affiant

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*



Standard Form No: NPCSF-GOODS-07

**BID LETTER**

Date: \_\_\_\_\_

To: **THE PRESIDENT**  
National Power Corporation  
BIR Road cor. Quezon Ave.  
Diliman, Quezon City

Gentlemen:

Having examined the Bidding Documents including Bid Bulletin Numbers *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to perform **SUPPLY AND DELIVERY OF RENEWABLE ENERGY FOR THE HYBRIDIZATION OF DIESEL POWER PLANTS UNDER SCHEDULE II (CLUSTER 5A – BICOL)** in conformity with the said Bidding Documents tariff rate of \_\_\_\_\_ and computed cost of energy to be delivered for twenty (20) years in the amount of Php\_\_\_\_\_.

We undertake, if our Bid is accepted, to supply and deliver the goods and perform other services, if required within the contract duration and in accordance with the scope of the contract specified in the Schedule of Requirements and Technical Specifications.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in Bid Documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements pursuant to the Bidding Documents.

We likewise certify/confirm that the undersigned, *[for sole proprietorships, insert: as the owner and sole proprietor or authorized representative of [Name of Bidder]* \_\_\_\_\_ has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the *[Name of Project]* \_\_\_\_\_ of the National Power Corporation*[for partnerships, corporations, cooperatives, or joint ventures, insert: is granted full power and authority by the [Name of Bidder]* \_\_\_\_\_ to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for *[Name of Project]* \_\_\_\_\_ of the National Power Corporation.

We acknowledge that failure to sign each and every page of this Bid Letter, including the attached Schedule of Requirements (Bid Price Schedule), shall be a ground for the rejection of our bid.

\_\_\_\_\_  
*[name and signature of authorized signatory]*\_\_\_\_\_  
*[in the capacity of]*

Duly authorized to sign Bid for and on behalf of \_\_\_\_\_  
*[name of bidder]*

## SECTION VIII – BIDDING FORMS

**SECTION VIII – BIDDING FORMS  
SCHEDULE OF PRICES****SCHEDULE II: CLUSTER 5A – Bicol, ABC=Php820M, CY2025 SAGR = Php6.55200/kWh**

DESCRIPTION	UNIT	OFFER (Up to 4 decimal places)	
		(IN WORDS)	(IN FIGURES)
A. TARIFF RATE	(Php/kWh)		
B. TOTAL ANNUAL GENERATION (AG <sub>REPP</sub> ) (From Technical Data Sheet)	kWh		
C. COMPUTED ANNUAL GENERATION COST (CAGC) = A x B	Php		
D. COST OF ENERGY FOR TWENTY (20) YEARS = C X 20 Years	Php		
E. TOTAL RE PROJECT COST	Php		
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 30%; border-bottom: 1px solid black; text-align: center;">Name of Firm</div> <div style="width: 40%; border-bottom: 1px solid black; text-align: center;">Name &amp; Signature of Authorized Representative</div> <div style="width: 30%; border-bottom: 1px solid black; text-align: center;">Designation</div> </div>			

- Note:
1. The bid price offer in words shall prevail in case of discrepancy.
  2. Tariff Rate is capped at CY2025 SAGR as specified above and any offer exceeding the cap will be ground for disqualification.
  3. The CAGC is the basis in determining the Highest Rated Bid (HRB).
  4. The cost of energy for twenty (20) years exceeding the ABC will be grounds for disqualification.
  5. The Total RE Project Cost shall be used as reference for NFCC.

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**Bank Guarantee Form for Advance Payment**

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To: **THE PRESIDENT**  
National Power Corporation  
Gabriel Y. Itchon Building  
Sen. Miriam P. Defensor-Santiago Blvd.  
(formerly BIR Road) corner Quezon Avenue  
Diliman, Quezon City, Philippines 1100

*[name of Contract]*

Gentlemen and/or Ladies:

In accordance with the Advance Payment Provision, of the General Conditions of Contract, *[name and address of Supplier]* (hereinafter called the "Supplier") shall deposit with the PROCURING ENTITY a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the *[name of the universal/commercial bank]*, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the PROCURING ENTITY on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding *[amount of guarantee in figures and words]*.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the PROCURING ENTITY and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date the advance payment is received by the Supplier under the Contract and until the Goods are accepted by the PROCURING ENTITY.

Yours truly,

Signature and seal of the Guarantors

\_\_\_\_\_  
*[name of bank or financial institution]*

\_\_\_\_\_  
*[address]*

\_\_\_\_\_  
*[date]*

**CERTIFICATION AS A DOMESTIC BIDDER**

This is to certify that based on the records of this office, (Name of Bidder) is  
duly registered with the DTI on \_\_\_\_\_.

This further certifies that the articles forming part of the product of (Name of Bidder)  
which are/is (Specify) \_\_\_\_\_ are substantially composed of  
articles, materials, or supplies grown, produced or manufactured in the Philippines. (Please  
encircle the applicable description/s).

This certification is issued upon the request of (Name of Person/Entity) in connection with his  
intention to participate in the bidding for the (Name of Project) \_\_\_\_\_ of  
the National Power Corporation (NPC).

Given this \_\_\_ day of \_\_\_\_\_ 20\_\_ at \_\_\_\_\_, Philippines

\_\_\_\_\_  
Name

\_\_\_\_\_  
Position

\_\_\_\_\_  
Department of Trade & Industry

**SECTION IX – APPENDICES**

<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
Appendix A	Cluster Details	IX-A-2
Appendix B	Cluster Location Map	IX-A-3
Appendix C	Load & Demand Curve	IX-A-4
Appendix D	Distribution System Single Line Diagram	IX-A-37
Appendix E	Renewable Energy Project Cost Reference	IX-A-41

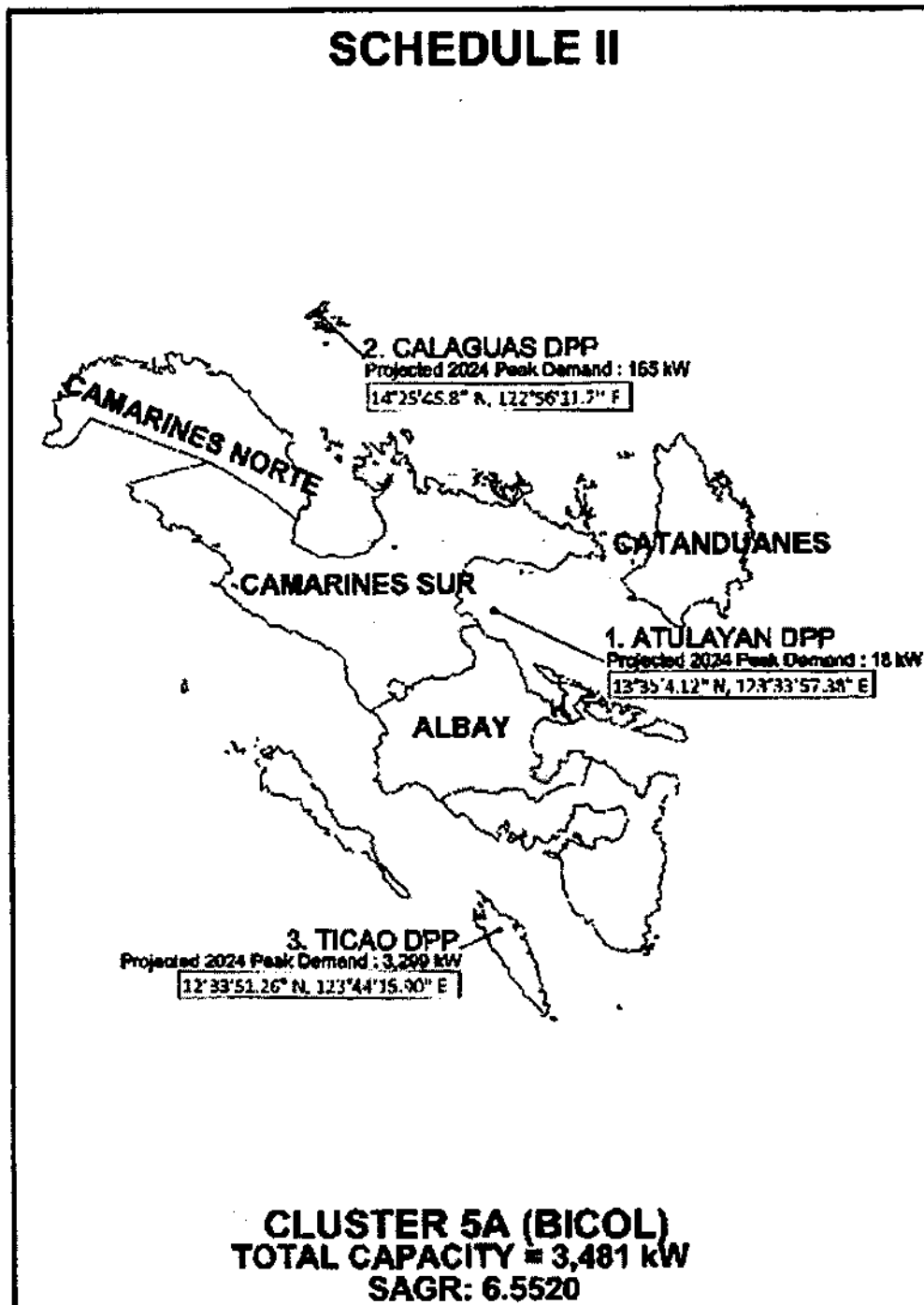
## APPENDIX A

### CLUSTER DETAILS

SPUG POWER PLANTS	TOTAL CAPACITIES		GRID PEAK LOAD (MW) of 25 March 2023	Projected 2024 Peak Demand (MW)	ECs/DUs/NPC	SAGR CY 2024	TCGR Forecast CY 2024 (with ROB)	ABC
	RATED	DEP						
<b>CLUSTER 5A (BICOL)</b>	<b>6.737</b>	<b>4.936</b>		<b>3.481</b>		<b>6.5520</b>	<b>30.7457</b>	
<b>CAMARINES SUR</b>	<b>0.094</b>	<b>0.076</b>		<b>0.018</b>				
Camarines Sur Mini Grid	0.094	0.076		0.018				
1   ATULAYAN DPP	0.094	0.076	0.0108	0.018	CASURECO IV	6.5520	114.7361	
<b>CAMARINES NORTE</b>	<b>0.333</b>	<b>0.310</b>		<b>0.165</b>				
2   CALAGUAS DPP	0.333	0.310	0.0940	0.165	CANORECO	6.5520	34.8656	
<b>ICSGATE</b>	<b>6.310</b>	<b>4.550</b>		<b>3.299</b>				
3   TICAPO DPP	6.310	4.550	2.4110	3.299	TISELCO	6.5520	30.1196	

## APPENDIX B

### CLUSTER LOCATION MAP

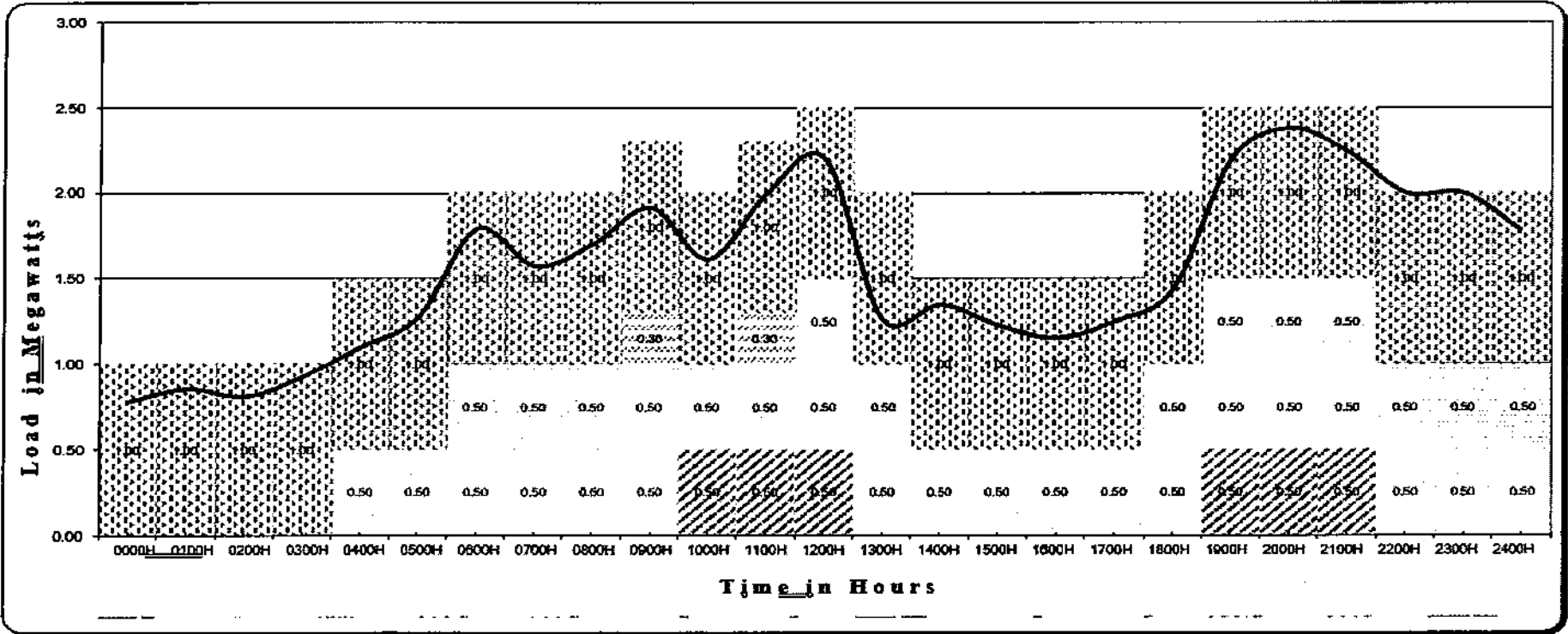


## **APPENDIX C**

### **LOAD AND DEMAND CURVE**

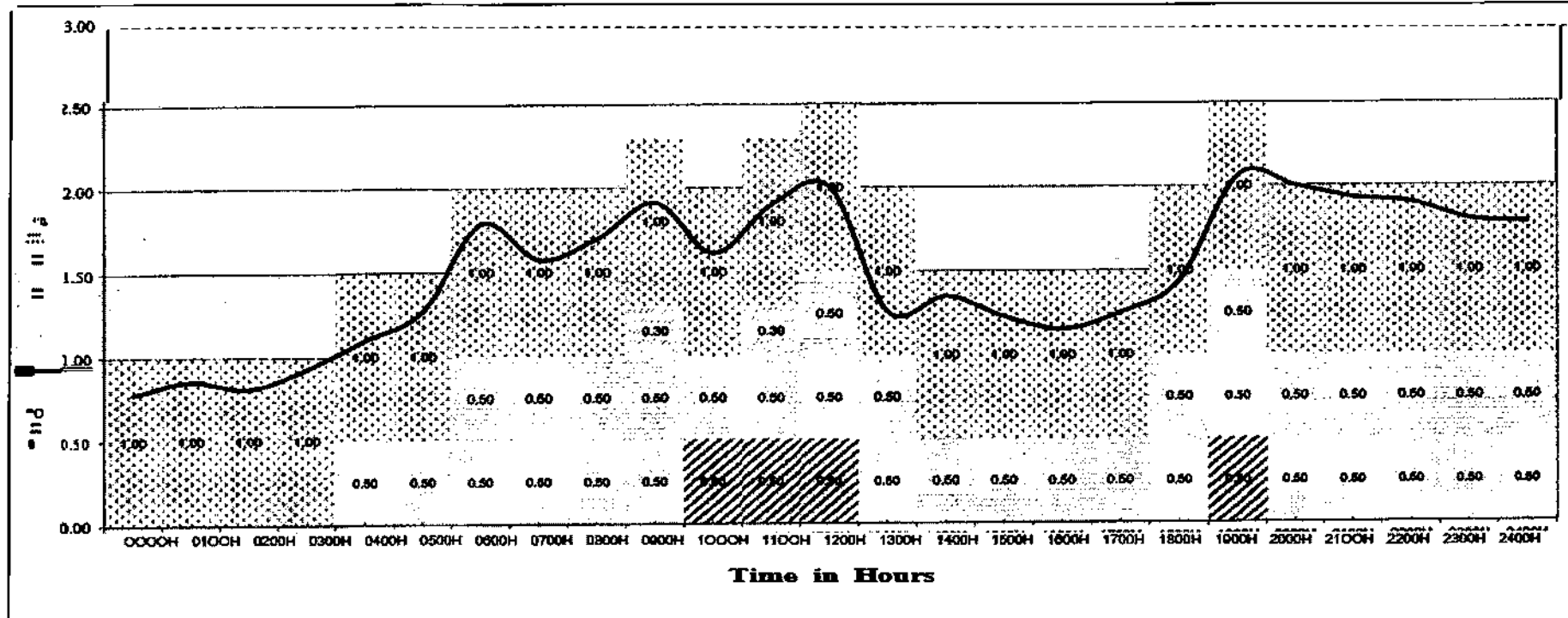


National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
TICAO DIESEL POWER PLANT  
JANUARY 2024



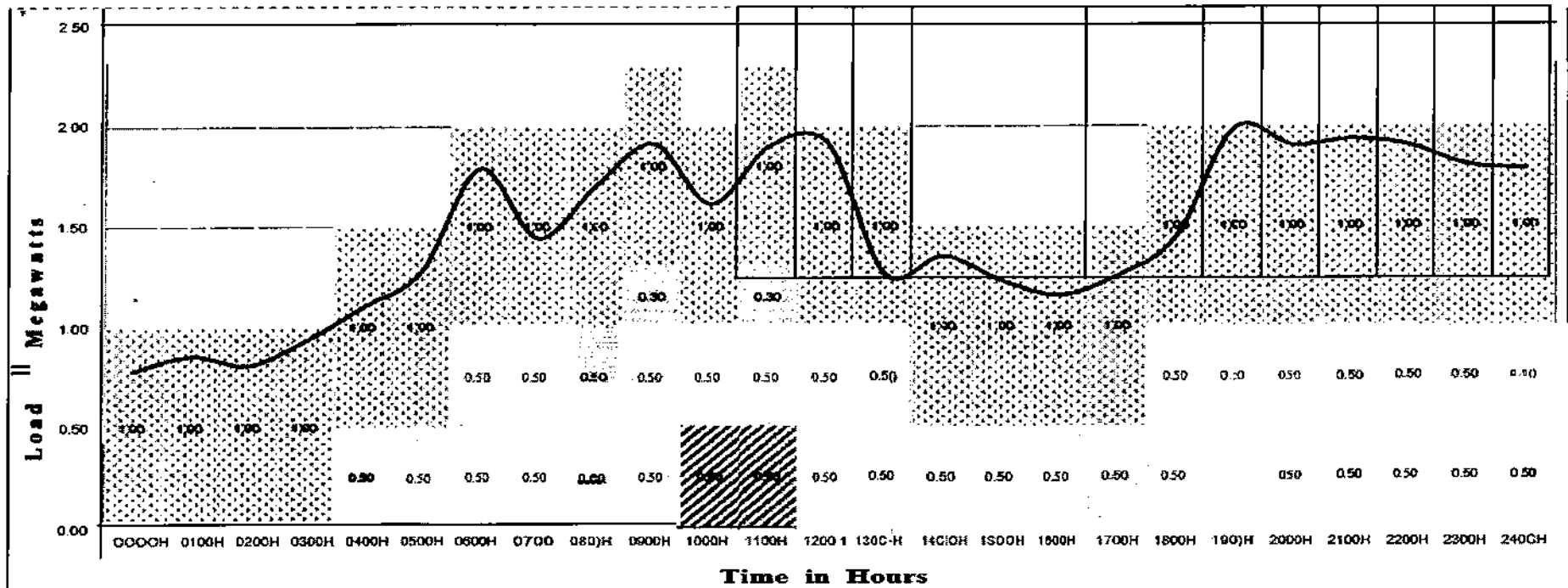
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TOTAL CAPABILITY																							
1.000	1.000	1.000	1.000	1.500	2.000	2.000	2.300	2.300	2.300	2.300	2.000	1.500	1.500	1.500	2.000	2.500	2.500	2.500	2.500	2.000	2.000	2.000	2.000
SYSTEM DEMAND																							
0.780	0.856	0.910	0.928	1.150	1.273	1.290	1.574	1.700	1.913	1.911	1.997	2.200	1.200	1.240	1.227	1.250	1.250	2.200	2.200	2.240	2.200	2.000	2.000
RESERVED / (DEFICIENCY)																							
0.220	0.144	0.090	0.072	0.350	0.227	0.210	0.426	0.300	0.387	0.389	0.303	0.300	0.740	0.260	0.273	0.250	0.250	0.300	0.300	0.260	0.000	0.000	0.000

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
February 2024



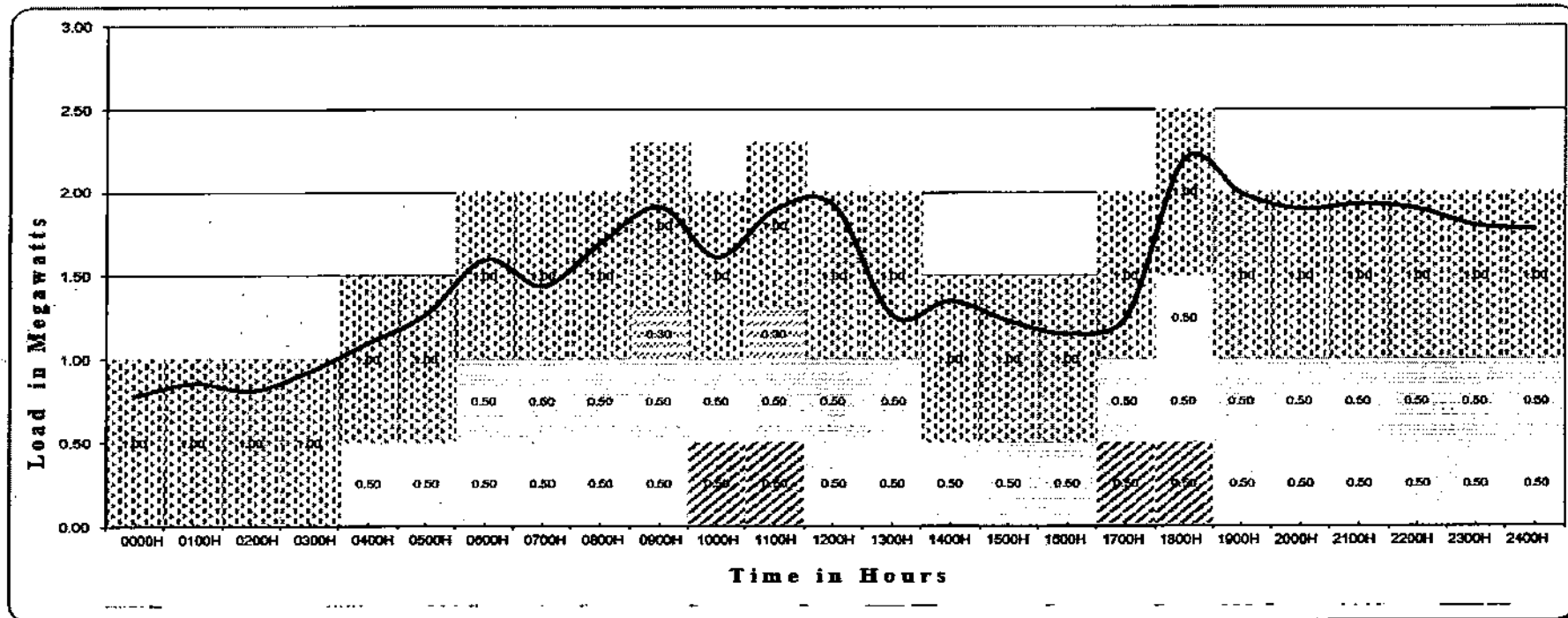
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TOTAL CAPABILITY																								
1.000	1.000	1.000	1.000	1.500	1.500	2.000	2.000	2.000	2.300	2.000	2.300	2.500	2.000	1.500	1.500	1.500	1.500	2.000	2.500	2.000	2.000	2.000	2.000	12.000
SYSTEM DEMAND																								
0.180	0.856	0.810	0.930	1.100	1.213	1.190	1.514	1.100	1.915	1.611	1.900	2.000	1.260	1.350	1.221	1.153	1.250	1.441	2.065	2.000	1.930	1.900	1.800	1.779
RESERVED / (DEFICIENCY)																								
0.220	0.144	0.190	0.070	0.400	0.221	0.210	0.426	0.300	0.387	0.389	0.400	0.500	0.140	0.150	0.213	0.347	0.250	0.559	0.435	0.000	0.010	0.100	0.200	0.221

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
March 2024



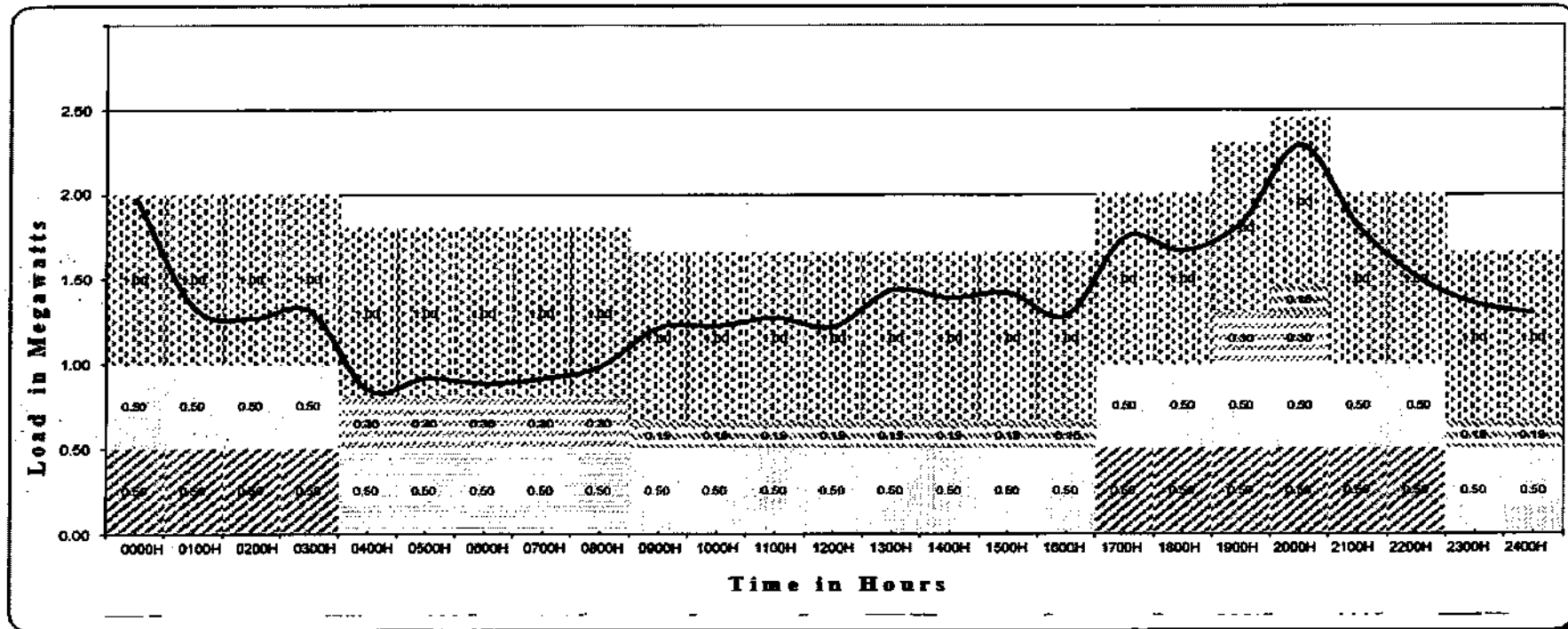
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TOTAL CAPABILITY																								
1.000	1.000	1.000	1.000	1.500	1.500	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
SYSTEM DEMAND																								
0.100	0.856	0.010	0.930	1.100	1.213	1.780	1.440	1.100	1.193	1.111	1.100	1.120	1.200	1.350	1.221	1.153	1.125	1.144	1.101	1.130	1.193	1.900	1.000	1.770
RESERVE / (0 EFFICIENCY)																								
0.220	0.144	0.190	0.010	0.400	0.221	0.210	0.560	0.300	0.501	0.389	0.400	0.080	0.140	0.150	0.213	0.347	0.250	0.559	0.013	0.000	0.010	0.100	0.200	0.221

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
APRIL 2024



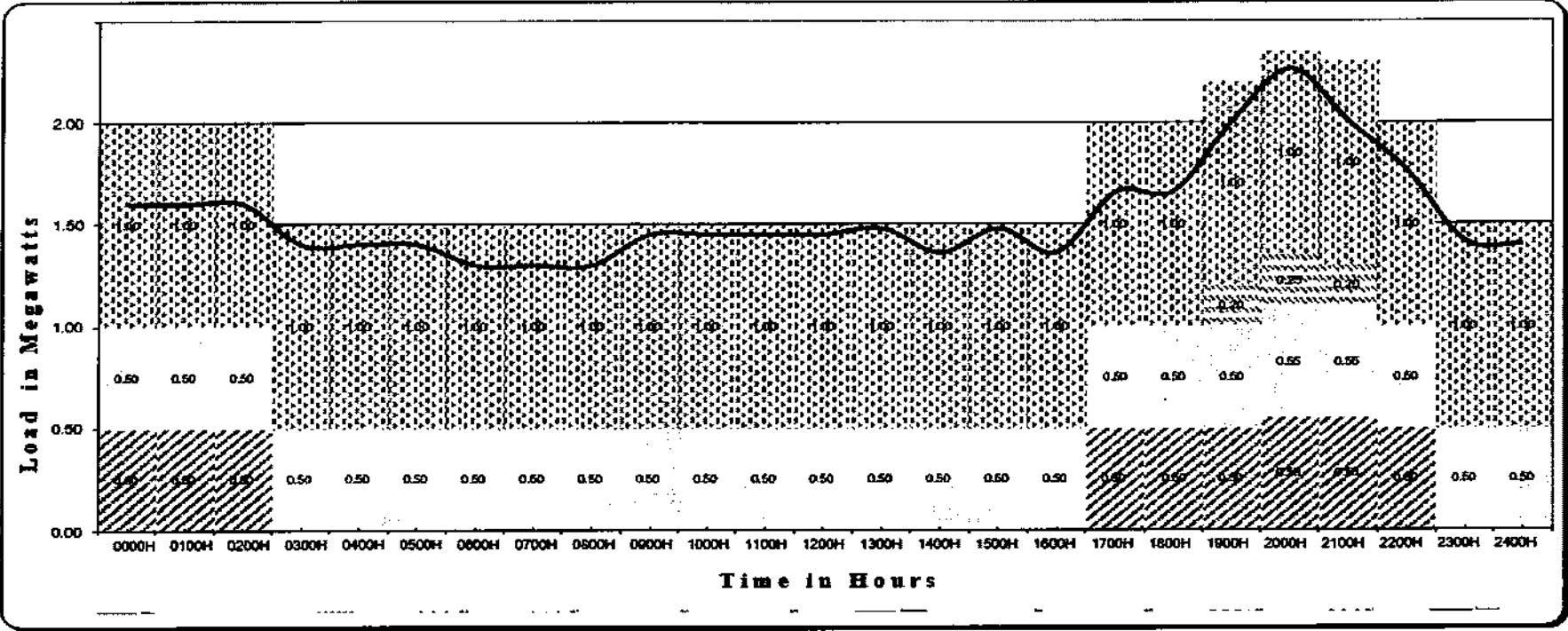
HOURS																								
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TOTAL CAPABILITY																								
1.000	1.000	1.000	1.000	1.500	1.500	2.000	2.000	2.000	2.300	2.000	2.300	2.000	2.000	1.500	1.500	1.500	2.000	2.500	2.000	2.000	2.000	2.000	2.000	2.000
SYSTEM DEMAND																								
0.780	0.850	0.810	0.930	1.100	1.273	1.600	1.440	1.700	1.913	1.611	1.600	1.920	1.260	1.350	1.227	1.153	1.250	2.201	1.987	1.900	1.930	1.900	1.800	1.770
RESERVED / (DEFICIENCY)																								
0.220	0.144	0.190	0.070	0.400	0.227	0.400	0.560	0.300	0.387	0.389	0.400	0.080	0.740	0.150	0.273	0.347	0.750	0.299	0.013	0.100	0.070	0.100	0.200	0.221

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
MAY 2024



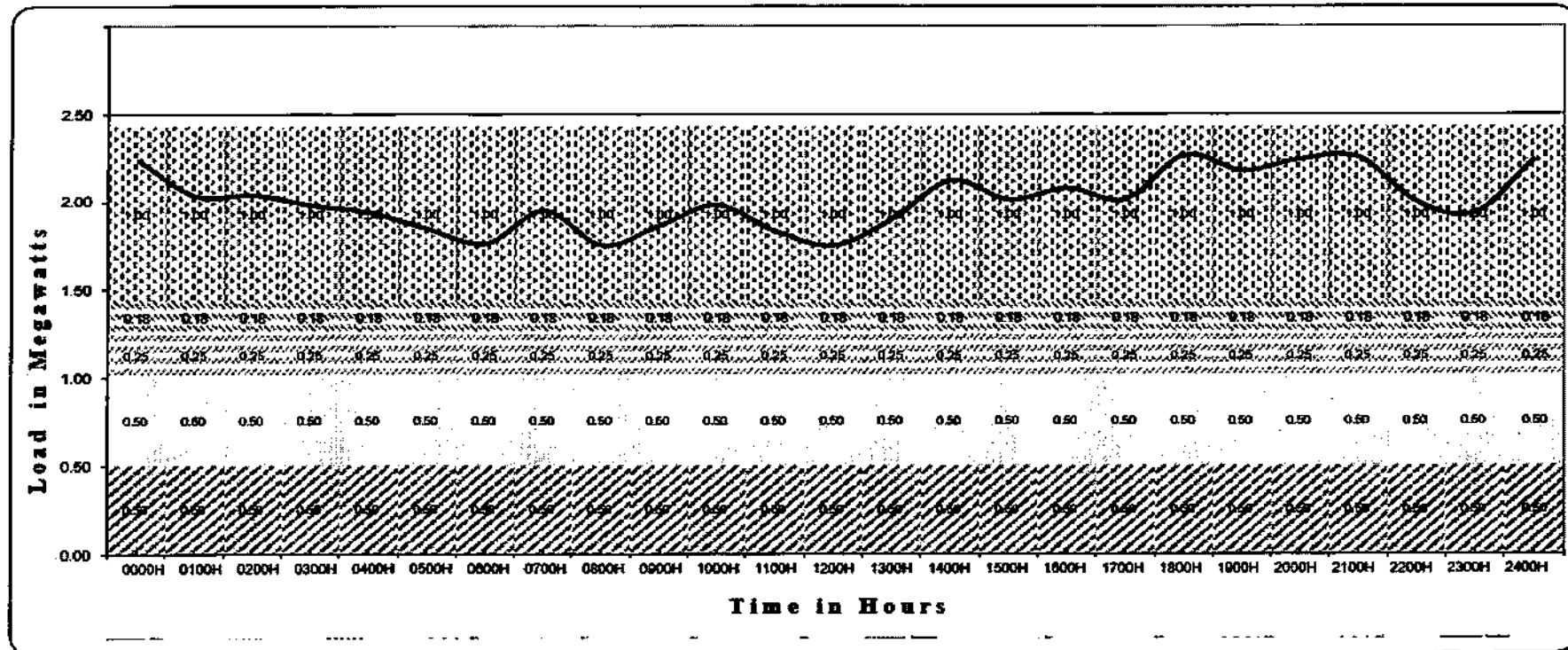
HOURS																								
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TOTAL CAPABILITY																								
2.000	2.000	2.000	2.000	1.800	1.800	1.800	1.800	1.800	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	2.000	2.000	2.300	2.453	2.000	2.000	1.853	1.853
SYSTEM DEMAND																								
1.980	1.334	1.269	1.314	0.845	0.918	0.885	0.915	0.935	1.219	1.225	1.273	1.221	1.437	1.391	1.421	1.286	1.749	1.687	1.833	2.292	1.810	1.514	1.350	1.300
RESERVED / (DEFICIENCY)																								
0.020	0.666	0.731	0.686	0.955	0.882	0.915	0.885	0.815	0.437	0.428	0.380	0.432	0.216	0.262	0.232	0.367	0.251	0.333	0.467	0.181	0.190	0.486	0.294	0.353

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
JUNE 2024



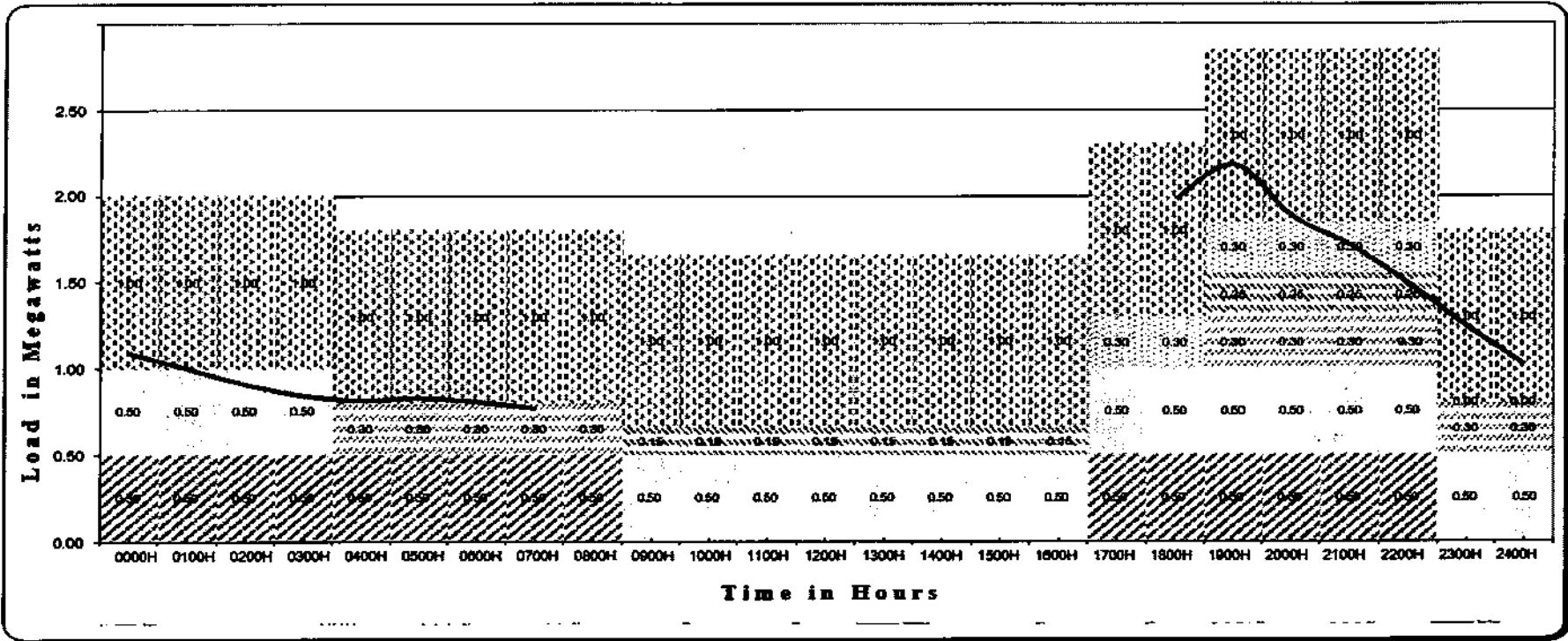
HOURS																								
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TOTAL CAPABILITY																								
2.000	2.000	2.000	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.800	2.000	2.000	2.200	2.360	2.300	2.000	1.500	1.500
SYSTEM DEMAND																								
1.600	1.600	1.600	1.400	1.400	1.400	1.300	1.300	1.300	1.450	1.450	1.450	1.480	1.380	1.480	1.380	1.658	1.880	2.007	2.285	2.005	1.783	1.415	1.400	
RESERVED / (DEFICIENCY)																								
0.400	0.400	0.400	0.100	0.100	0.100	0.200	0.200	0.200	0.050	0.050	0.050	0.020	0.140	0.020	0.140	0.342	0.340	0.183	0.085	0.295	0.237	0.085	0.100	

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
JULY 2024



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430	2.430
SYSTEM DEMAND																								
2.232	2.031	2.037	1.979	1.938	1.843	1.780	1.950	1.750	1.865	1.980	1.830	1.750	1.900	2.120	2.010	2.075	2.012	2.285	2.175	2.241	2.250	1.998	1.938	2.240
RESERVED / (DEFICIENCY)																								
0.193	0.399	0.393	0.451	0.492	0.587	0.670	0.480	0.680	0.565	0.450	0.600	0.680	0.530	0.310	0.420	0.355	0.418	0.165	0.255	0.189	0.180	0.434	0.494	0.190

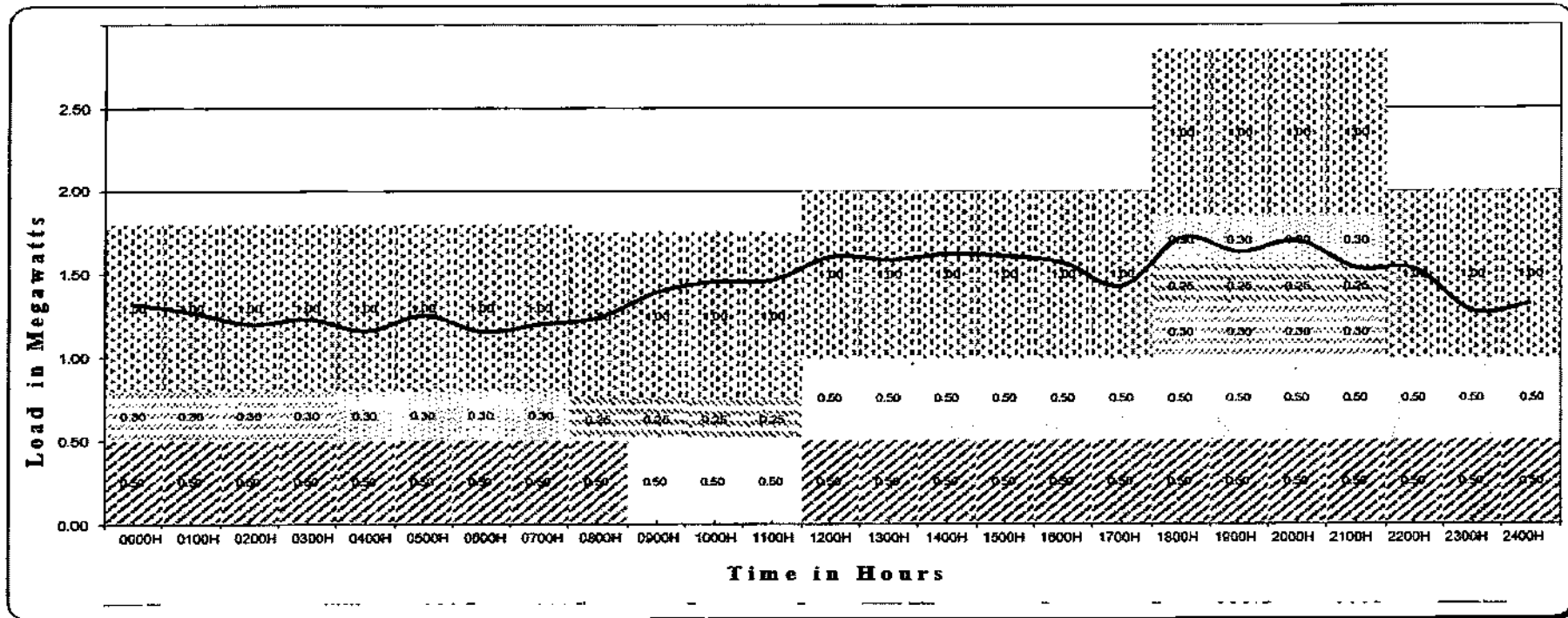
National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
TICAO DIESEL POWER PLANT  
AUGUST 2024



HOURS																								
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TOTAL CAPABILITY																								
2.000	2.000	2.000	2.000	1.800	1.800	1.800	1.800	1.800	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	2.300	2.300	2.850	2.850	2.850	2.850	1.800	1.800
SYSTEM DEMAND																								
1.000	1.000	0.906	0.842	0.814	0.828	0.807	0.788	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.880	2.180	1.881	1.713	1.461	1.241	1.021
RESERVED / (DEFICIENCY)																								
0.910	1.000	1.092	1.158	0.986	0.972	0.993	1.032	1.800	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	2.300	0.320	0.670	0.969	1.137	1.389	0.559	0.779

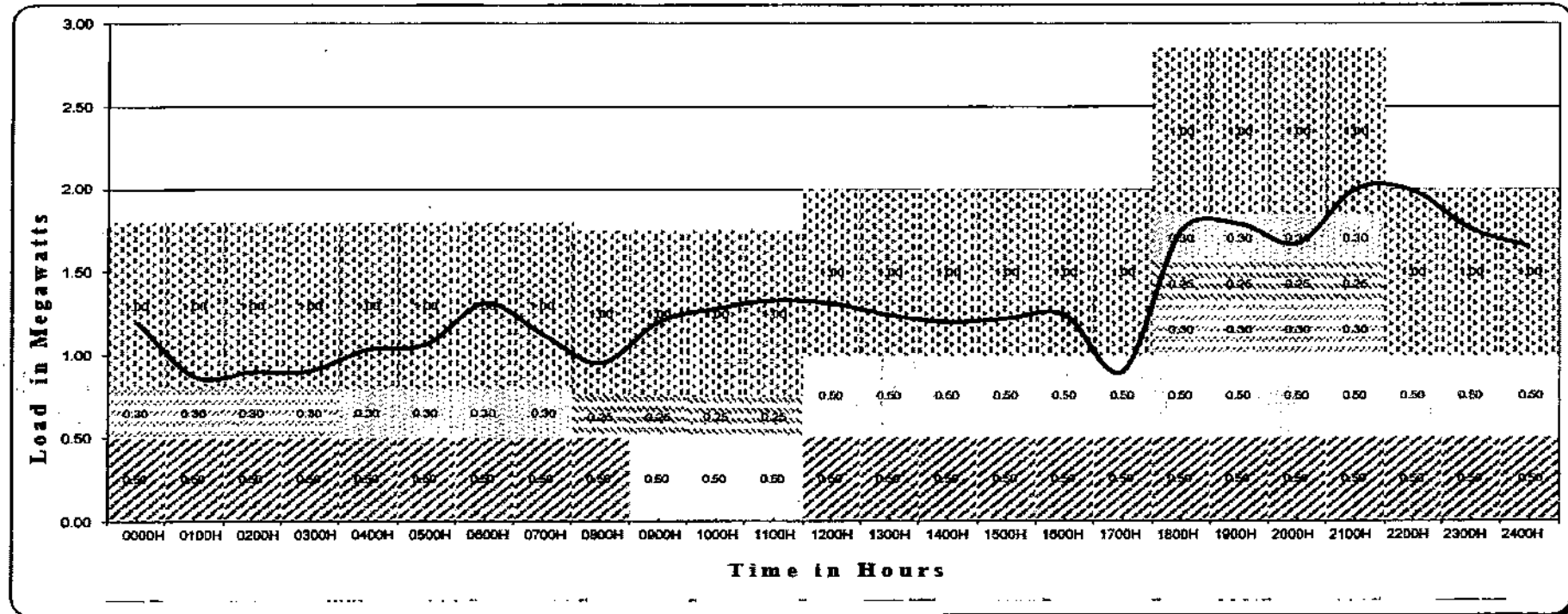


National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
SEPTEMBER 2024



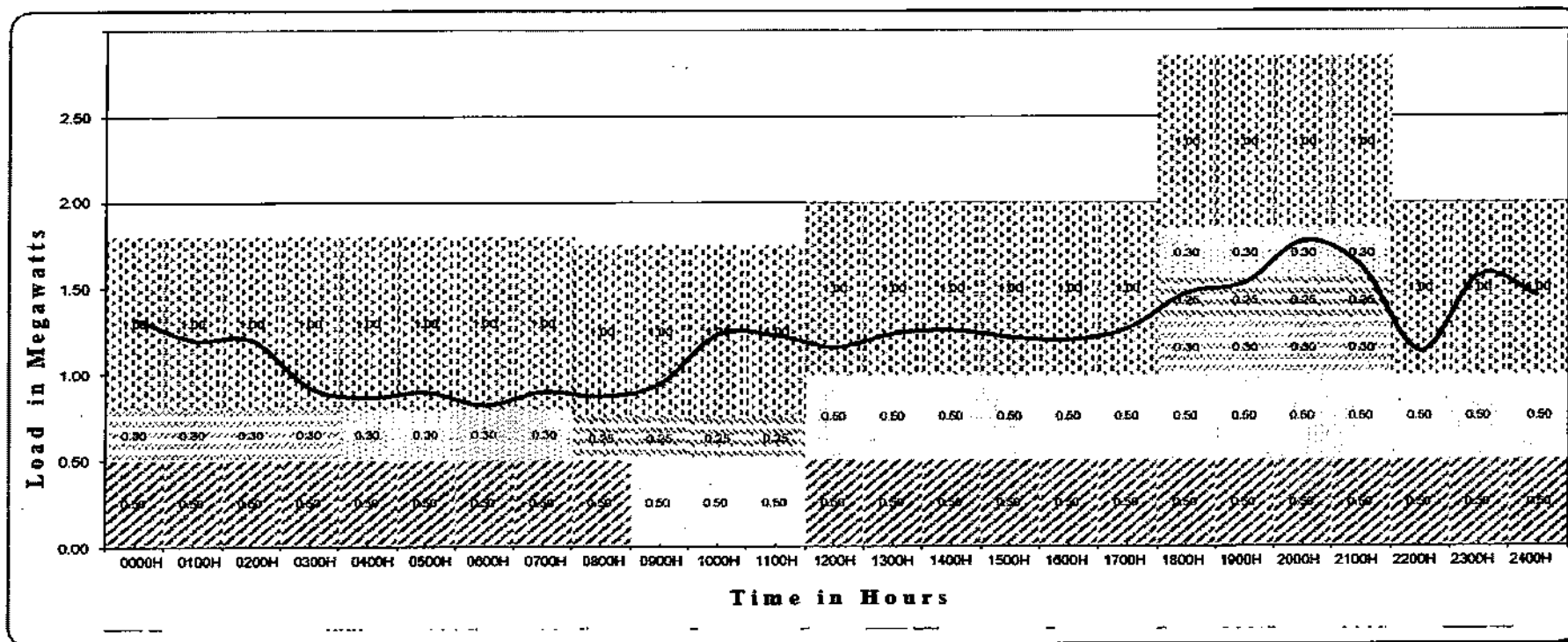
HOURS																								
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TOTAL CAPABILITY																								
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.750	1.750	1.750	1.750	2.000	2.000	2.000	2.000	2.000	2.000	2.850	2.850	2.850	2.850	2.000	2.000	2.000
SYSTEM DEMAND																								
1.321	1.270	1.200	1.230	1.160	1.254	1.155	1.200	1.240	1.393	1.455	1.409	1.603	1.585	1.618	1.600	1.566	1.429	1.710	1.630	1.668	1.536	1.530	1.276	1.321
RESERVED / (DEFICIENCY)																								
0.479	0.530	0.600	0.570	0.640	0.546	0.645	0.600	0.510	0.357	0.295	0.284	0.397	0.415	0.382	0.394	0.434	0.574	1.134	1.220	1.152	1.314	0.470	0.724	0.679

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
OCTOBER 2024



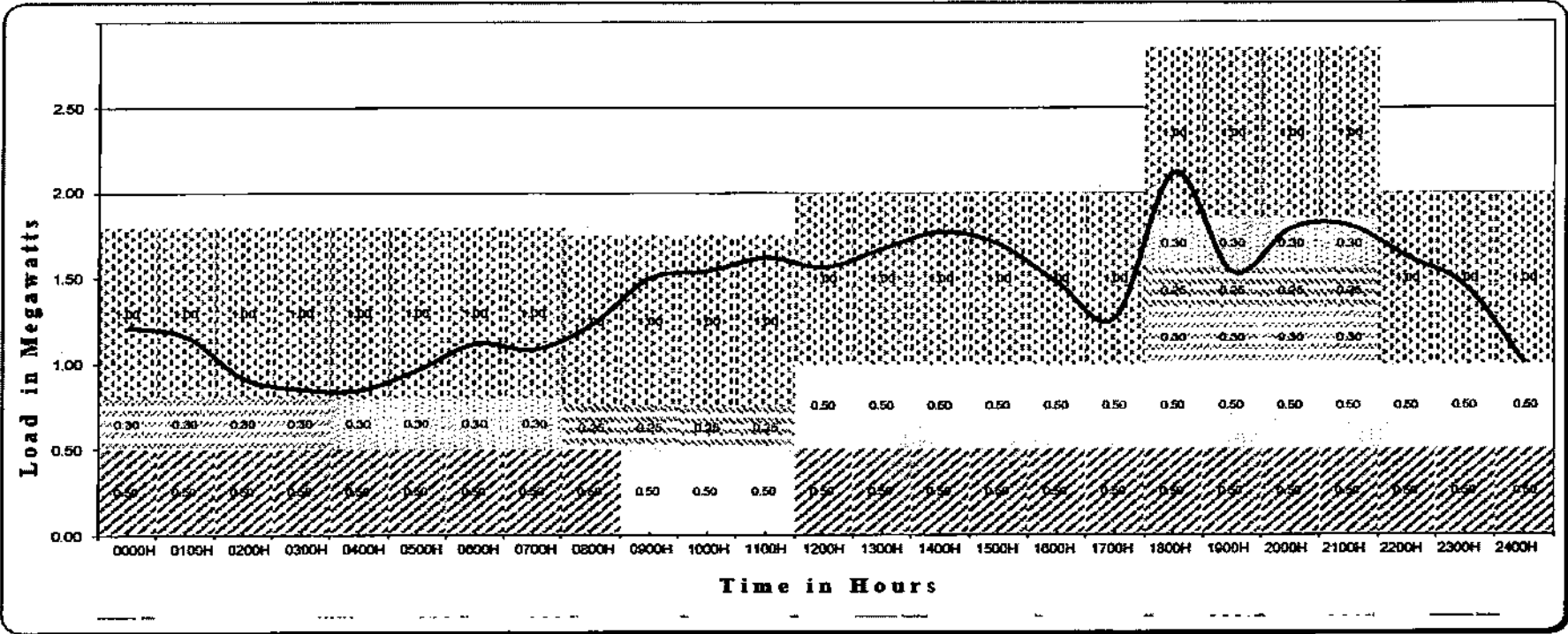
HOURS																								
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TOTAL CAPABILITY																								
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.750	1.750	1.750	1.750	2.000	2.000	2.000	2.000	2.000	2.000	2.650	2.850	2.850	2.850	2.000	2.000	2.000
SYSTEM DEMAND																								
1.200	0.870	0.900	0.908	1.035	1.068	1.313	1.124	0.951	1.200	1.280	1.330	1.310	1.240	1.200	1.220	1.240	0.900	1.750	1.787	1.670	2.000	1.988	1.755	1.650
RESERVED / (DEFICIENCY)																								
0.600	0.930	0.900	0.894	0.765	0.734	0.487	0.676	0.799	0.550	0.470	0.420	0.690	0.760	0.800	0.780	0.760	1.100	1.100	1.063	1.180	0.850	0.014	0.245	0.350

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
TICAO DIESEL POWER PLANT  
November 2024



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,750	1,750	1,750	1,750	2,000	2,000	2,000	2,000	2,000	2,000	2,850	2,850	2,850	2,850	2,000	2,000	2,000
SYSTEM DEMAND																								
1,323	1,200	1,200	0,920	0,865	0,895	0,820	0,800	0,870	0,845	1,232	1,225	1,156	1,236	1,250	1,215	1,200	1,265	1,470	1,530	1,770	1,620	1,130	1,575	1,450
RESERVED / (DEFICIENCY)																								
0,477	0,600	0,600	0,880	0,935	0,905	0,980	0,900	0,880	0,805	0,518	0,525	0,844	0,764	0,744	0,785	0,800	0,735	1,380	1,320	1,080	1,230	0,870	0,425	0,550

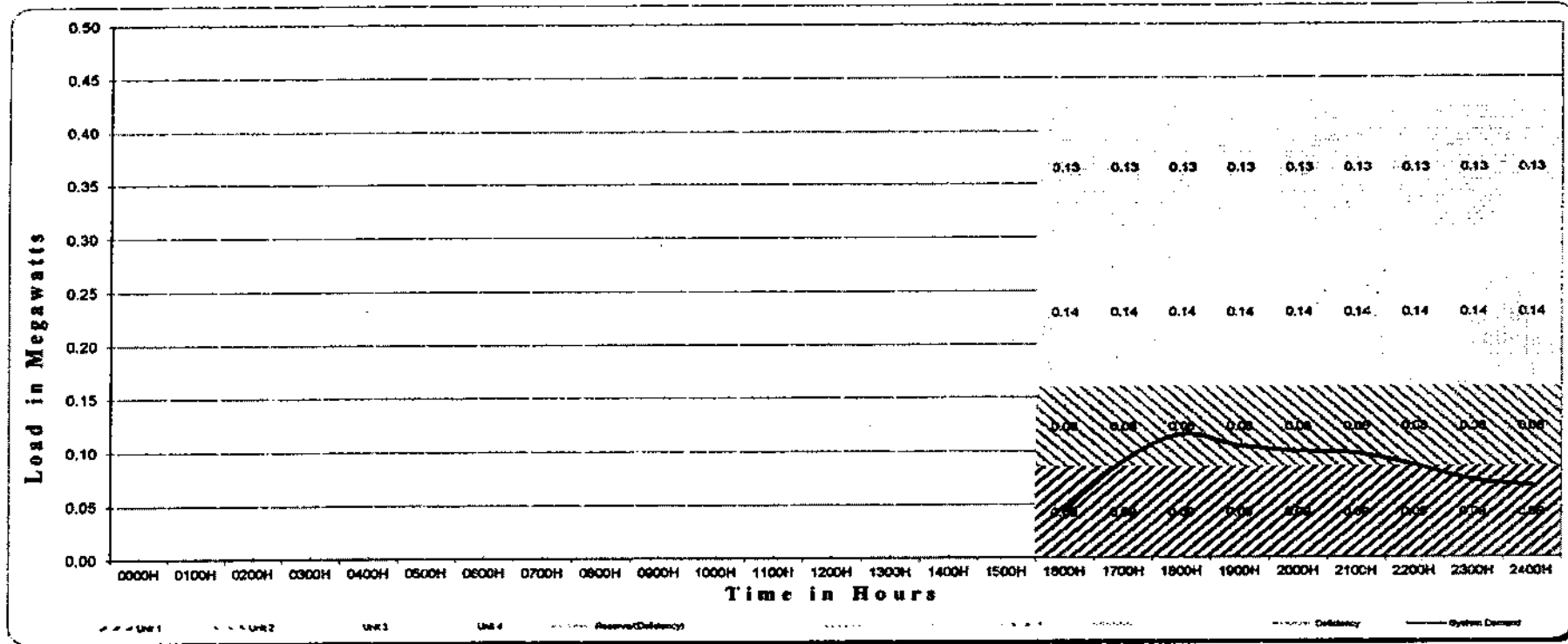
National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**TICAO DIESEL POWER PLANT**  
December 2024



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.750	1.750	1.750	1.750	2.000	2.000	2.000	2.000	2.000	2.000	2.850	2.850	2.850	2.850	2.000	2.000	2.000
SYSTEM DEMAND																								
1.215	1.160	0.915	0.850	0.845	0.985	1.120	1.085	1.230	1.502	1.543	1.619	1.584	1.670	1.789	1.895	1.478	1.267	2.118	1.531	1.791	1.804	1.622	1.450	1.000
RESERVED / (DEFICIENCY)																								
0.585	0.640	0.885	0.950	0.955	0.835	0.680	0.715	0.520	0.248	0.207	0.131	0.436	0.330	0.231	0.305	0.525	0.733	0.732	1.319	1.059	1.046	0.378	0.550	1.000

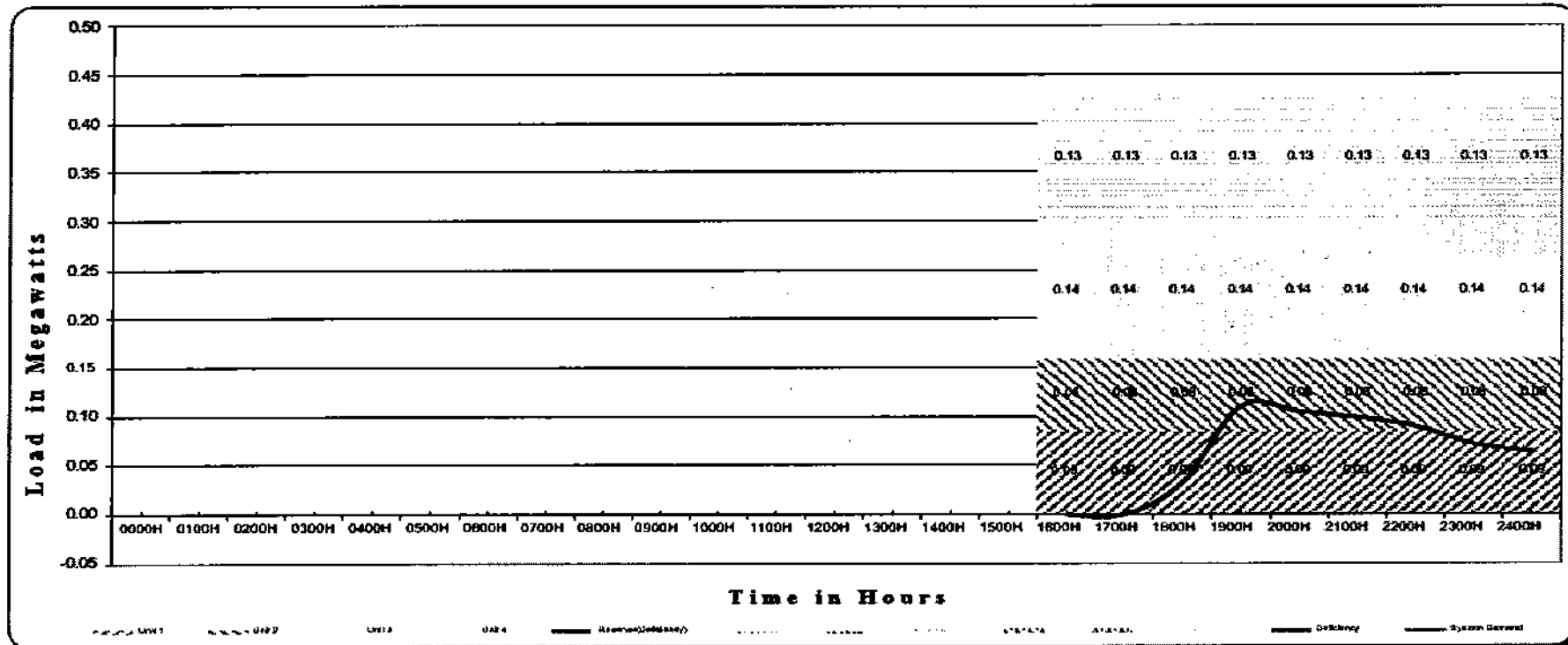
## SECTION IX - APPENDICES

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
JANUARY 2024



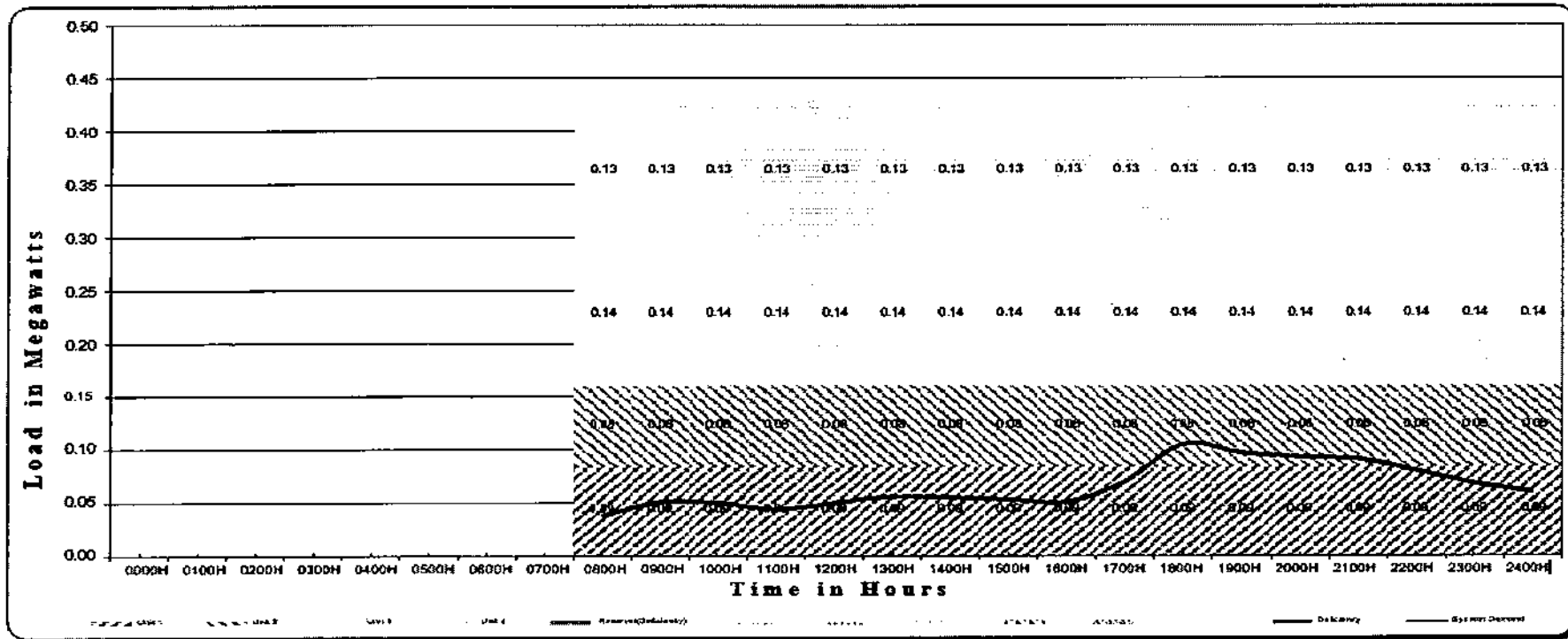
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.080	0.115	0.104	0.088	0.097	0.088	0.072	0.067
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.386	0.340	0.315	0.326	0.331	0.333	0.344	0.358	0.363

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
FEBRUARY 2024



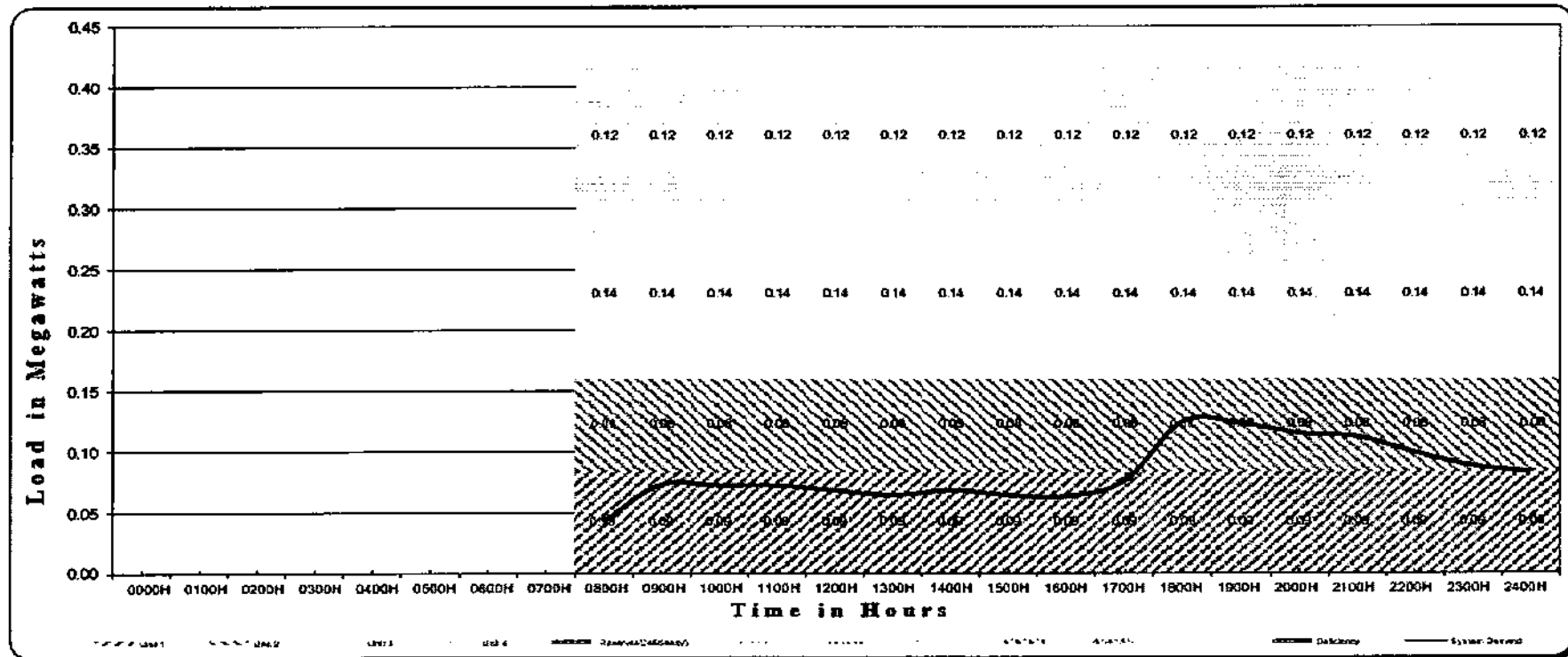
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.111	0.105	0.099	0.090	0.072	0.084
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.430	0.430	0.397	0.319	0.325	0.331	0.340	0.358	0.388

**National Power Corporation**  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
**MARCH 2024**



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.051	0.050	0.044	0.050	0.056	0.055	0.053	0.051	0.070	0.105	0.087	0.093	0.091	0.080	0.068	0.060
RESERVED / DEFICIENCY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.392	0.379	0.380	0.388	0.380	0.374	0.376	0.377	0.379	0.360	0.325	0.333	0.337	0.339	0.350	0.362	0.370

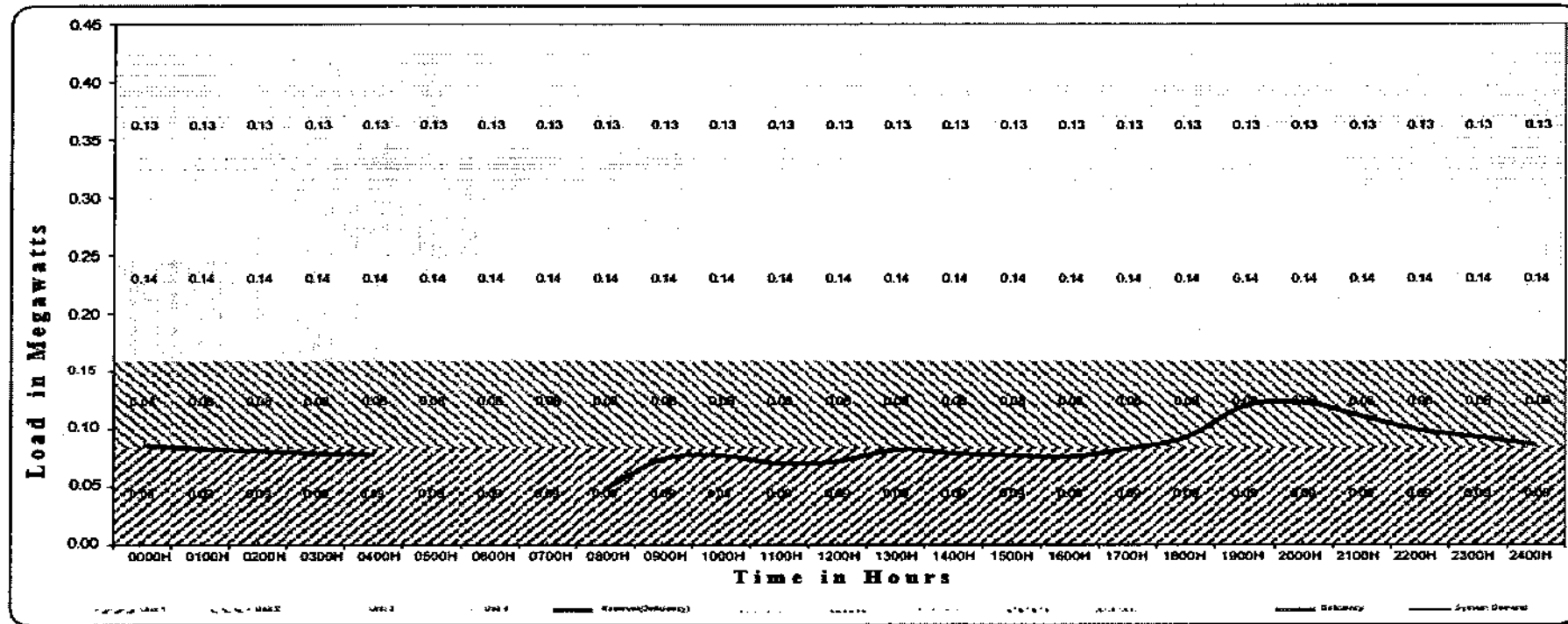
National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
APRIL 2024



HOURS																								
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.043	0.073	0.072	0.068	0.064	0.068	0.064	0.063	0.076	0.125	0.123	0.115	0.112	0.099	0.088	0.083	0.083
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.377	0.347	0.348	0.348	0.352	0.356	0.352	0.356	0.357	0.344	0.295	0.297	0.305	0.308	0.321	0.332	0.337

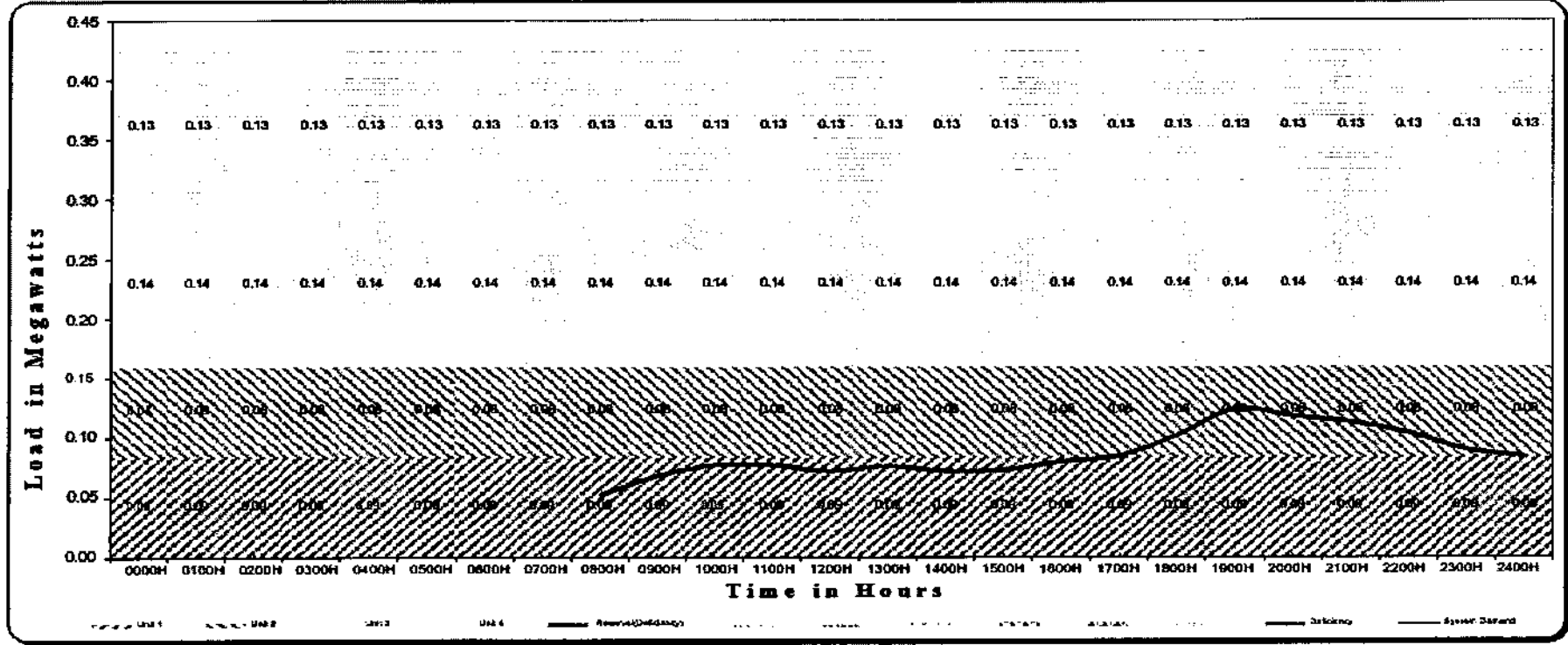


National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
MAY 2024



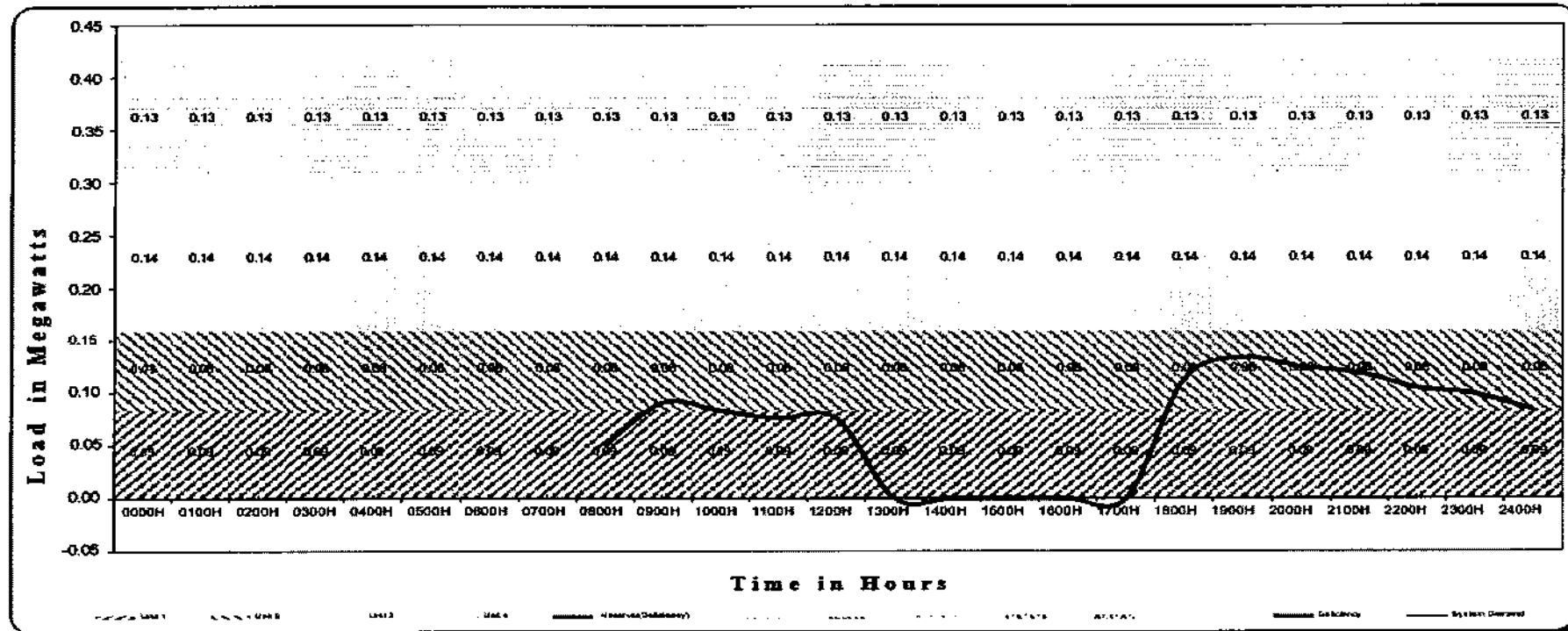
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.088	0.083	0.081	0.079	0.078	0.000	0.000	0.000	0.048	0.074	0.077	0.070	0.072	0.082	0.079	0.077	0.078	0.083	0.083	0.120	0.123	0.111	0.099	0.093	0.088
RESERVED / (DEFICIENCY)																								
0.339	0.342	0.344	0.346	0.347	0.425	0.425	0.425	0.377	0.351	0.348	0.355	0.353	0.343	0.340	0.348	0.349	0.342	0.332	0.305	0.302	0.314	0.326	0.332	0.339

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
JUNE 2024



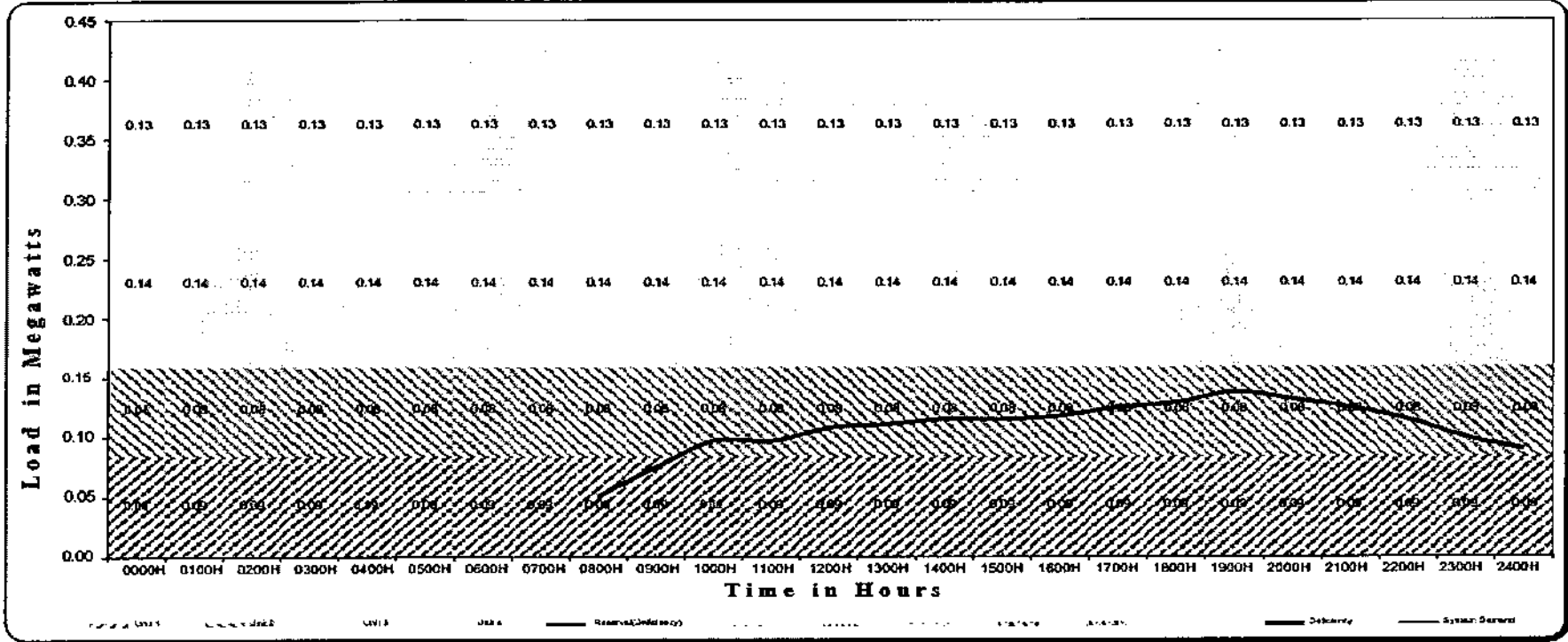
HOURS																								
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.088	0.077	0.077	0.072	0.078	0.072	0.073	0.080	0.085	0.102	0.124	0.118	0.113	0.104	0.090	0.084
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.373	0.357	0.348	0.348	0.353	0.340	0.383	0.352	0.346	0.340	0.323	0.301	0.307	0.312	0.321	0.335	0.341

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
JULY 2024



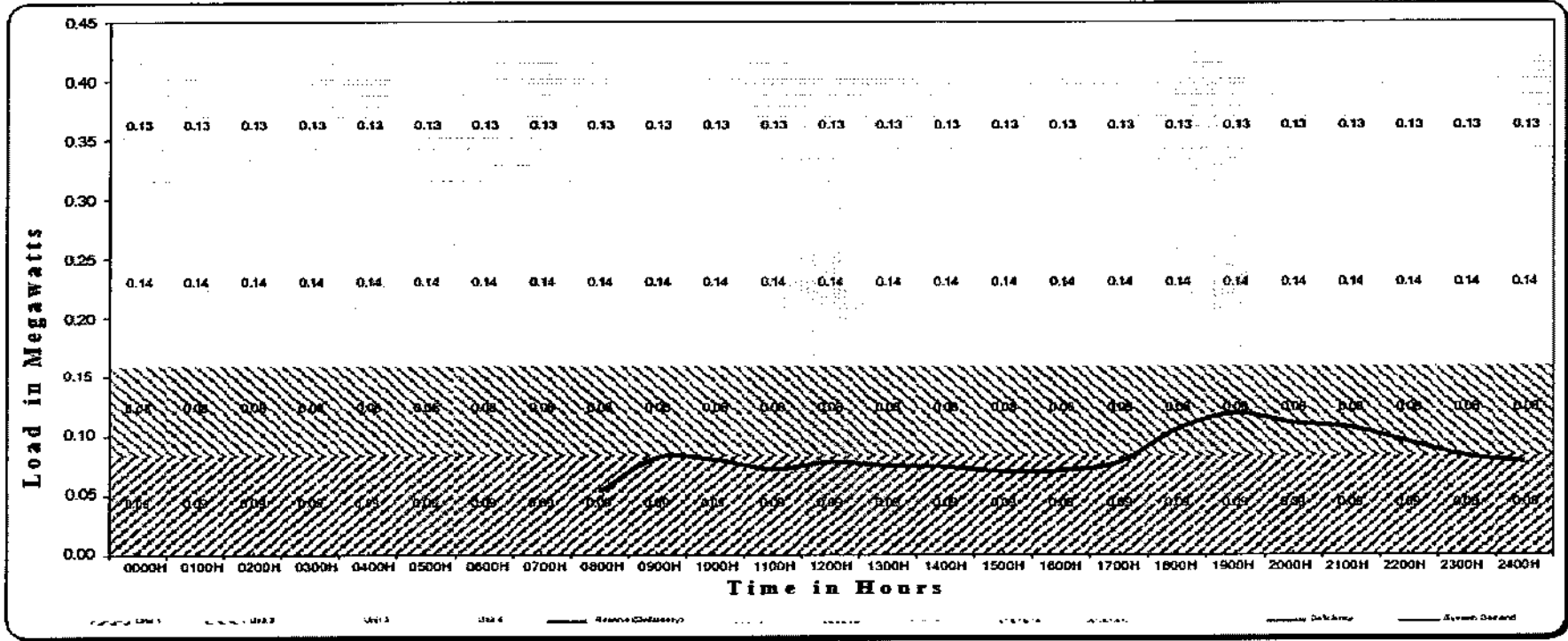
HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.091	0.083	0.078	0.076	0.000	0.000	0.000	0.000	0.114	0.134	0.125	0.119	0.105	0.090	0.084	0.084
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.375	0.334	0.342	0.349	0.349	0.425	0.425	0.425	0.425	0.425	0.311	0.291	0.300	0.306	0.320	0.326	0.341

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
AUGUST 2024



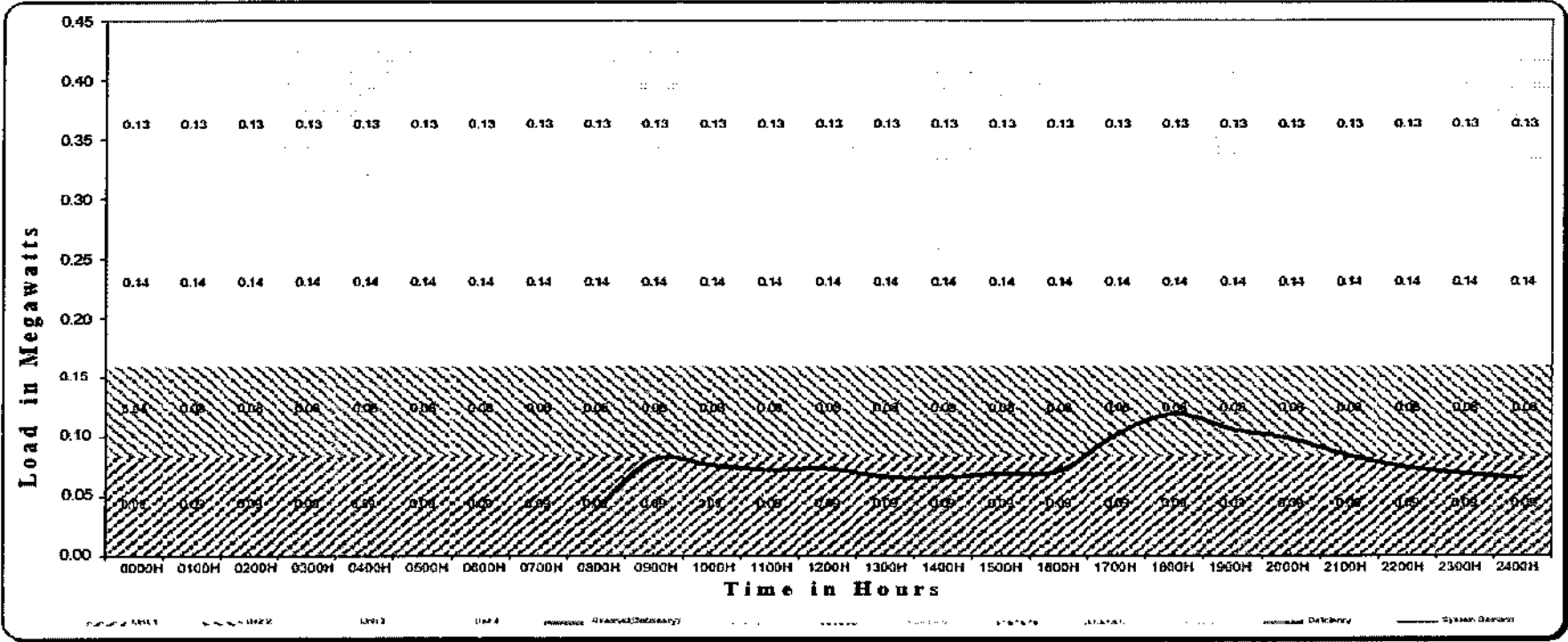
HOURS																								
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.007	0.007	0.108	0.111	0.115	0.115	0.118	0.125	0.129	0.133	0.132	0.125	0.115	0.100	0.090	0.090
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.374	0.350	0.328	0.328	0.317	0.314	0.310	0.310	0.307	0.300	0.296	0.287	0.293	0.300	0.310	0.325	0.335

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**CALAGUAS DIESEL POWER PLANT**  
SEPTEMBER 2024



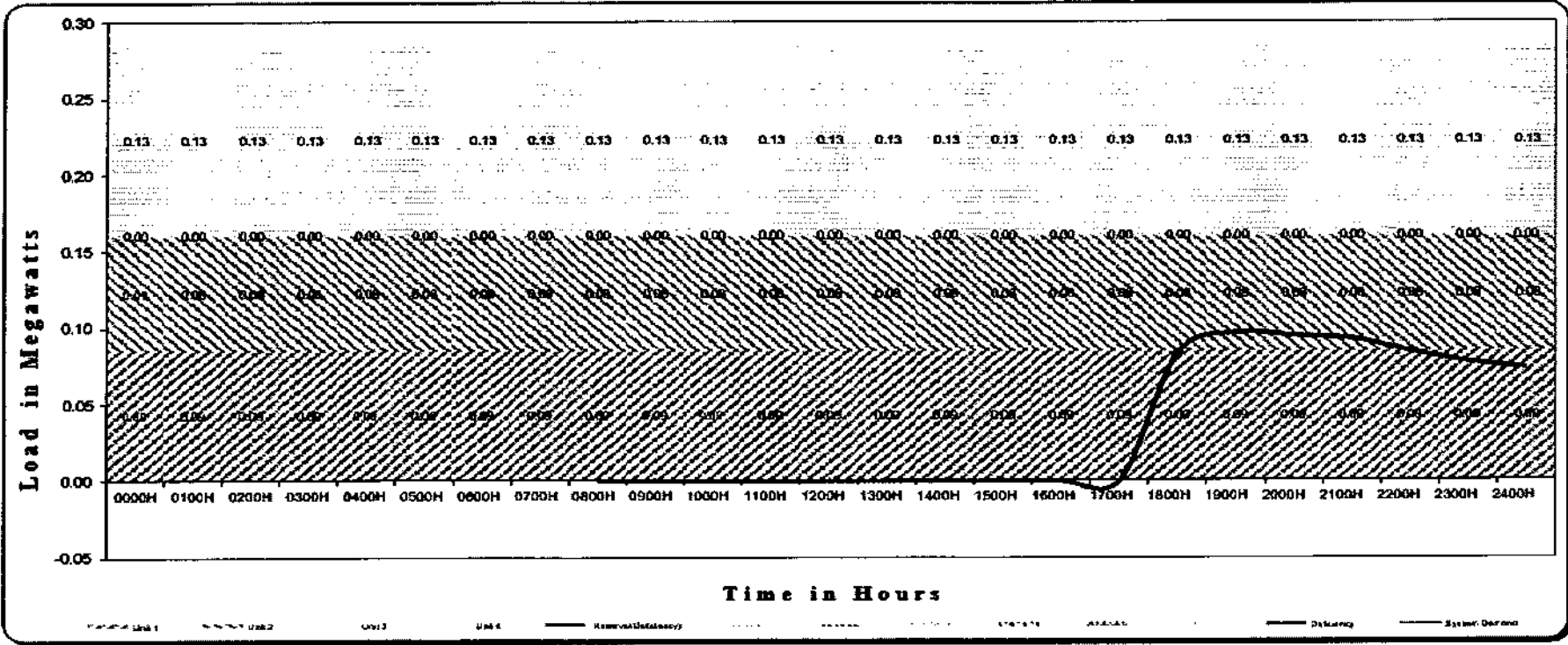
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.082	0.080	0.072	0.078	0.075	0.074	0.070	0.071	0.078	0.100	0.119	0.111	0.107	0.095	0.083	0.078
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.372	0.343	0.345	0.363	0.347	0.350	0.351	0.355	0.354	0.347	0.319	0.305	0.314	0.318	0.330	0.342	0.347

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
OCTOBER 2024



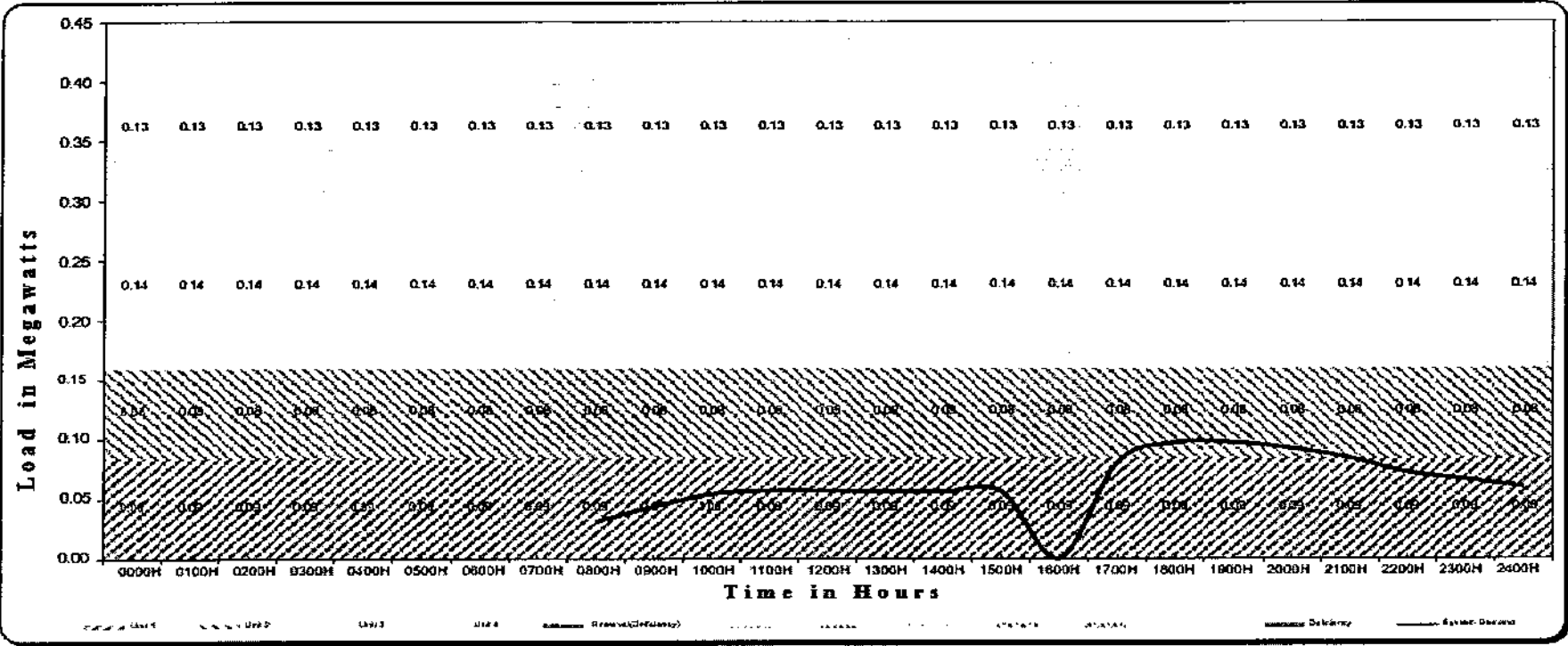
HOURS																								
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.081	0.078	0.072	0.073	0.066	0.068	0.069	0.071	0.102	0.119	0.108	0.098	0.084	0.074	0.069	0.085
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.386	0.344	0.349	0.353	0.352	0.359	0.359	0.356	0.354	0.323	0.306	0.319	0.327	0.341	0.351	0.356	0.360

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
NOVEMBER 2024



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.084	0.097	0.095	0.093	0.085	0.078	0.074
RESERVED / (DEFICIENCY)																								
0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.201	0.188	0.190	0.192	0.200	0.207	0.211

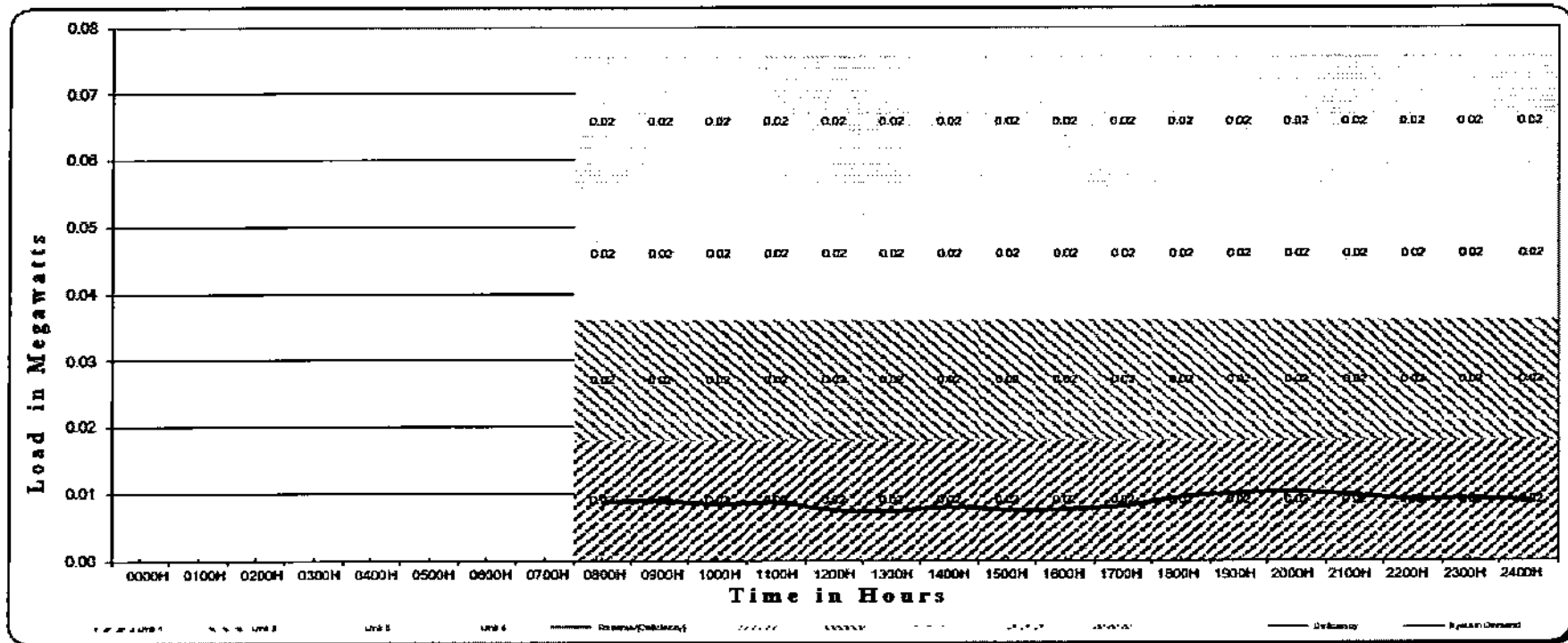
National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
  
LOAD AND DEMAND CURVE  
CALAGUAS DIESEL POWER PLANT  
DECEMBER 2024



HOURS																								
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TOTAL CAPABILITY																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.044	0.054	0.057	0.057	0.058	0.058	0.058	0.060	0.081	0.097	0.097	0.092	0.084	0.072	0.068	0.060
RESERVED / (DEFICIENCY)																								
0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.394	0.381	0.371	0.368	0.368	0.369	0.369	0.369	0.425	0.344	0.328	0.328	0.333	0.341	0.353	0.359	0.395

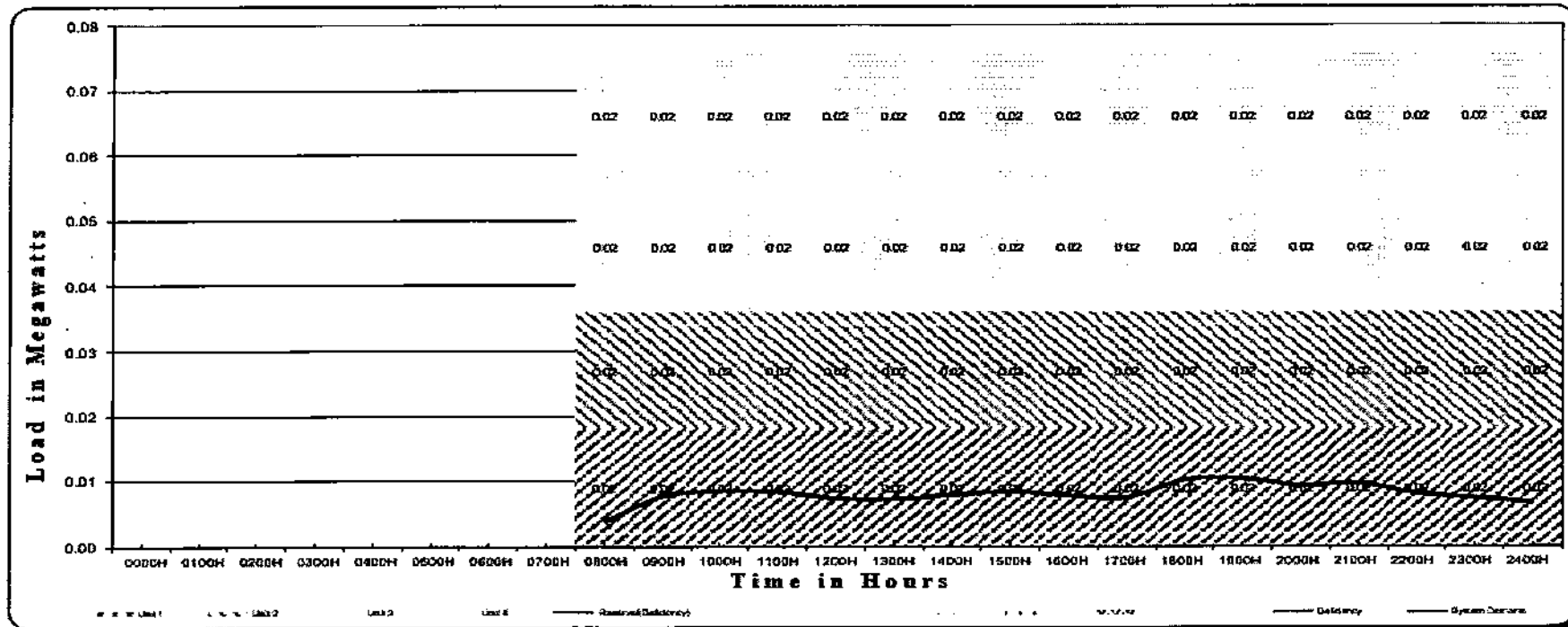


National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
DECEMBER 26, 2023 - JANUARY 25, 2024



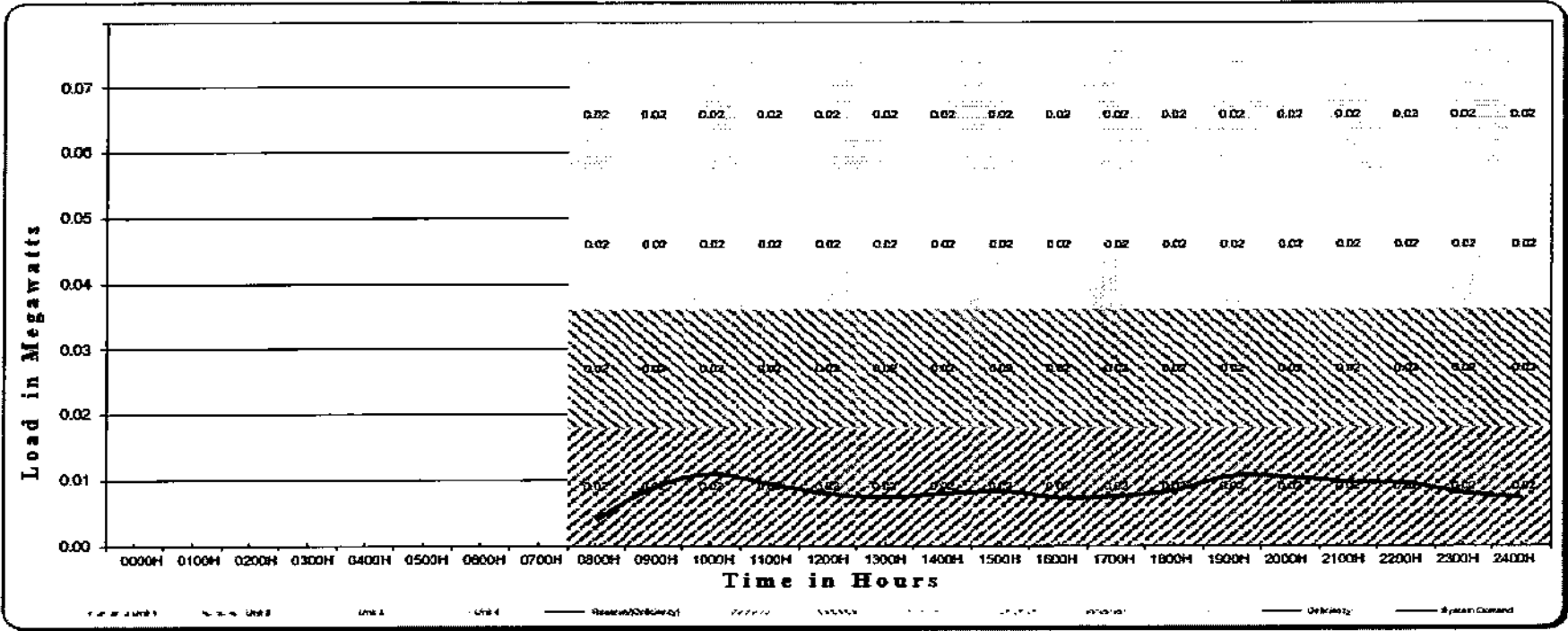
HOURS																								
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.010	0.009	0.009	0.009
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.067	0.068	0.067	0.068	0.068	0.068	0.068	0.068	0.068	0.067	0.066	0.066	0.066	0.067	0.067	0.067

National Power Corporation  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
JANUARY 26, 2024 – FEBRUARY 25, 2024



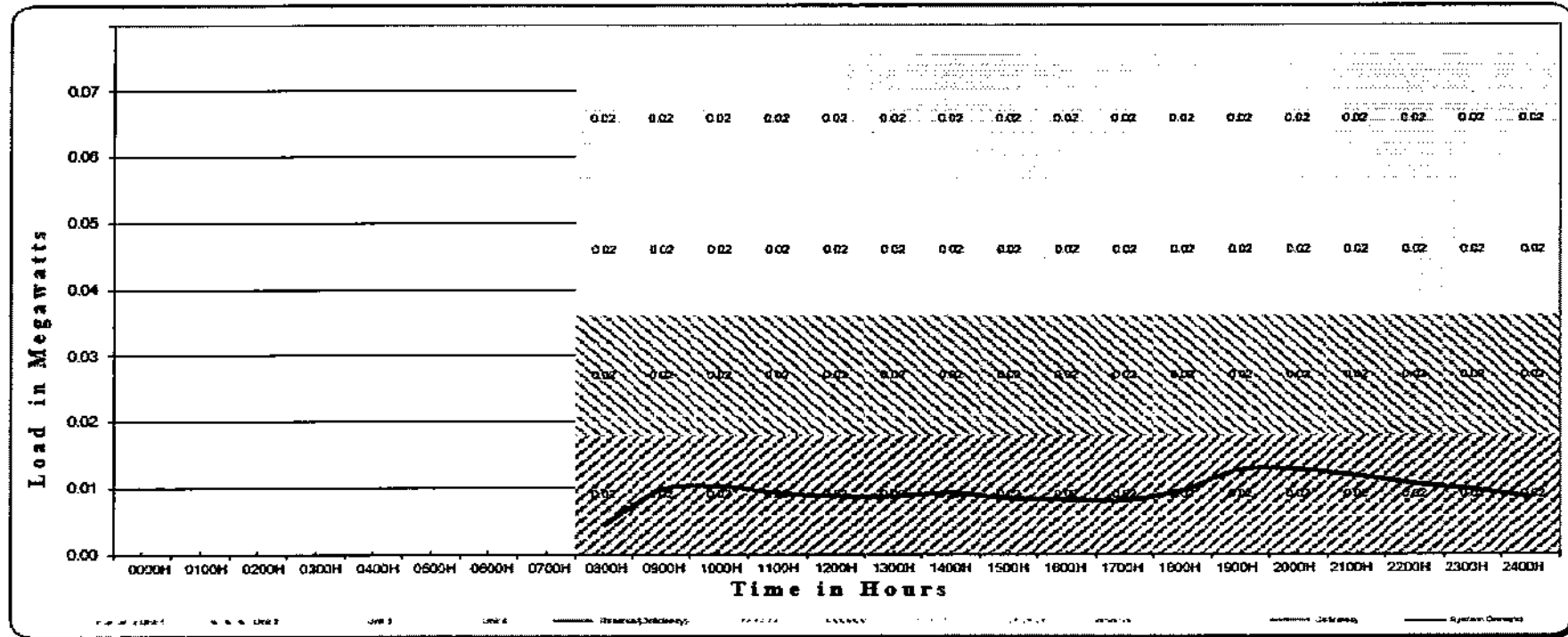
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.008	0.008	0.008	0.007	0.007	0.008	0.008	0.008	0.010	0.010	0.008	0.010	0.008	0.007	0.007	0.007	0.007
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.068	0.068	0.068	0.069	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.068

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
ATULAYAN DIESEL POWER PLANT  
FEBRUARY 26, 2024 - MARCH 25, 2024



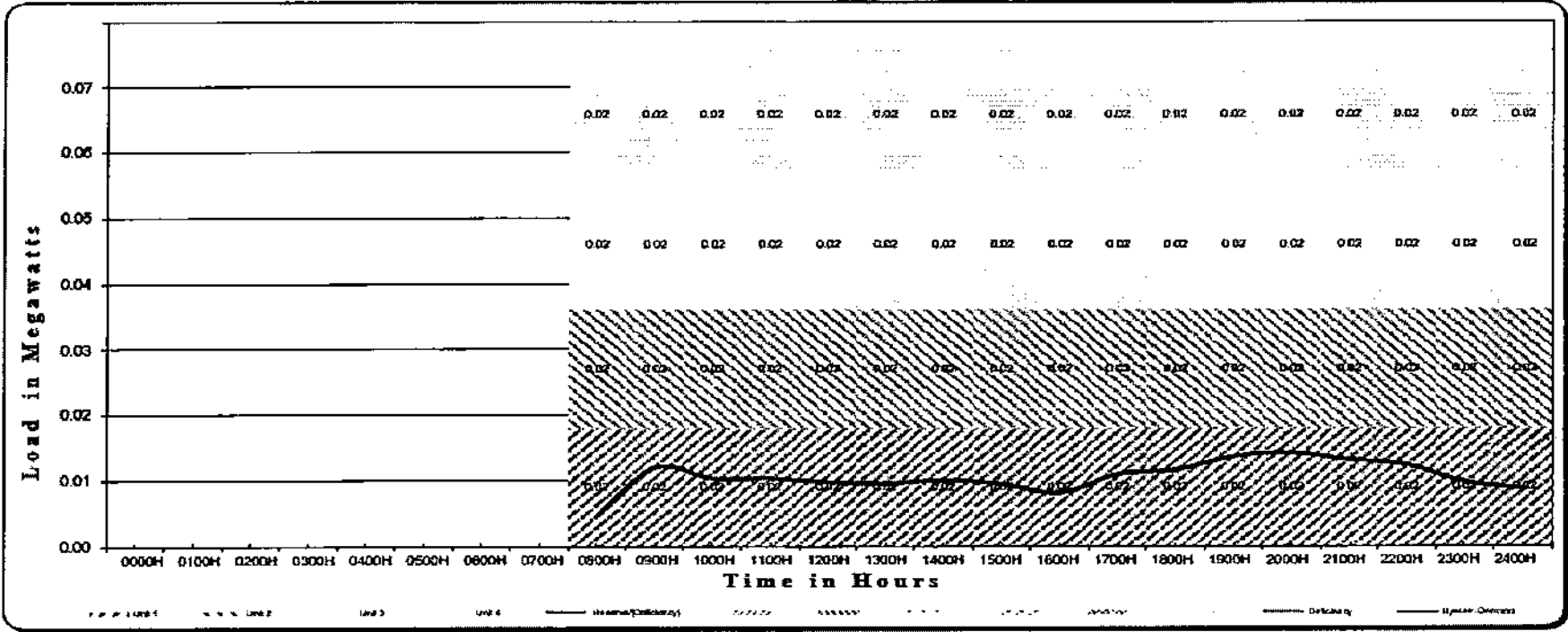
HOURS																								
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.076	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.009	0.011	0.009	0.008	0.007	0.008	0.008	0.007	0.008	0.008	0.011	0.010	0.010	0.010	0.008	0.007
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.067	0.065	0.067	0.068	0.068	0.068	0.068	0.068	0.068	0.068	0.065	0.068	0.067	0.068	0.068	0.068

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
MARCH 26, 2024 - APRIL 25, 2024



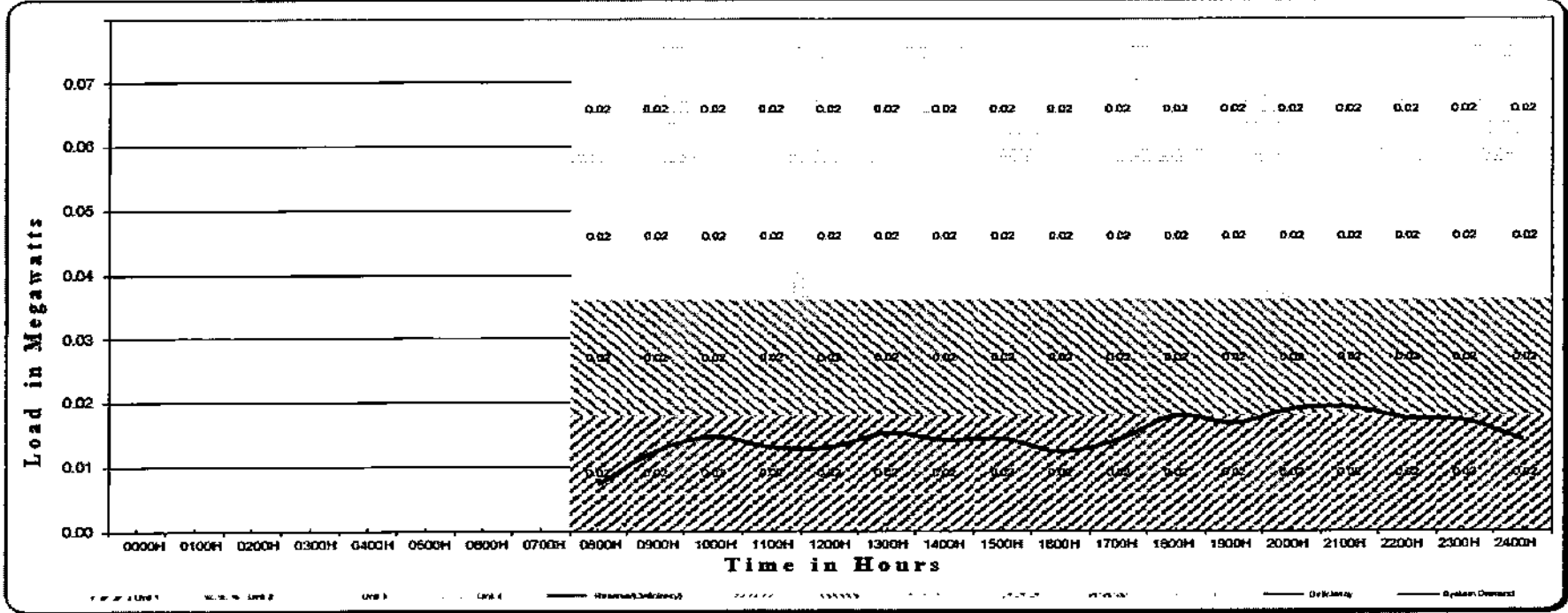
HOURS																									
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TOTAL CAPABILITY																									
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	
SYSTEM DEMAND																									
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.010	0.010	0.009	0.008	0.008	0.008	0.008	0.008	0.010	0.013	0.013	0.012	0.011	0.010	0.008	0.008	
RESERVED / (DEFICIENCY)																									
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.068	0.068	0.067	0.067	0.067	0.067	0.068	0.068	0.068	0.068	0.063	0.063	0.064	0.065	0.066	0.066	0.066

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
ATULAYAN DIESEL POWER PLANT  
APRIL 26, 2024 - MAY 25, 2024



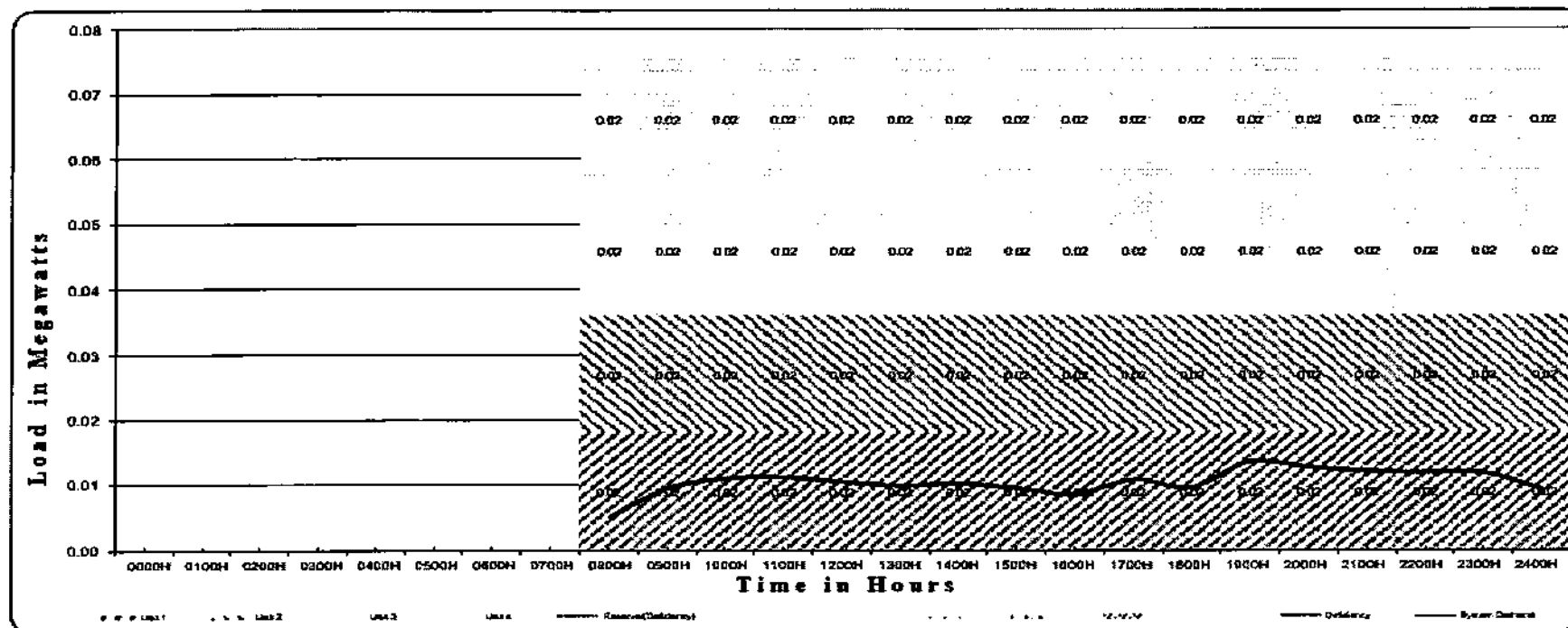
HOURS																								
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.010	0.010	0.010	0.010	0.010	0.009	0.008	0.011	0.012	0.014	0.014	0.013	0.012	0.010	0.009	0.008
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.064	0.066	0.066	0.067	0.066	0.067	0.068	0.065	0.064	0.062	0.062	0.063	0.064	0.066	0.066	0.067

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
ATULAYAN DIESEL POWER PLANT  
MAY 26, 2024 - JUNE 25, 2024

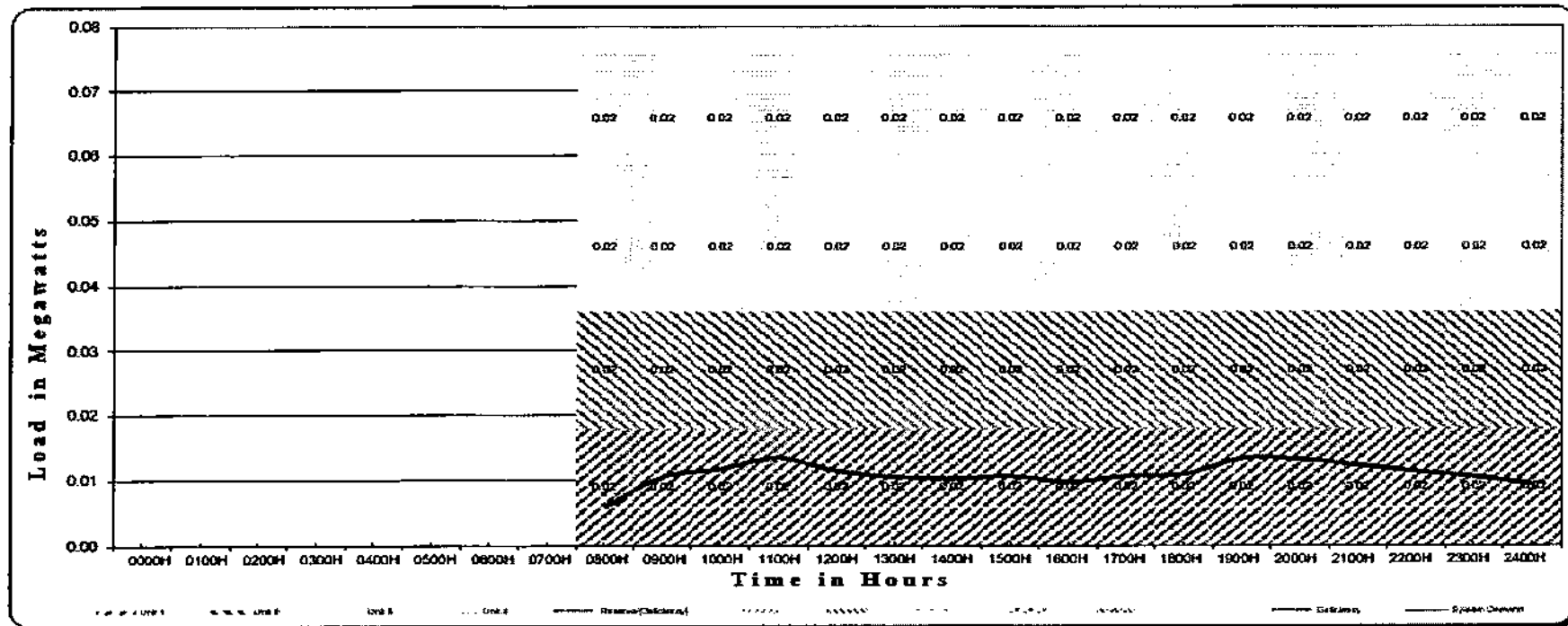


HOURS																								
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.012	0.015	0.013	0.013	0.015	0.014	0.014	0.012	0.014	0.018	0.017	0.019	0.019	0.018	0.017	0.014
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.064	0.061	0.063	0.061	0.062	0.062	0.064	0.062	0.059	0.059	0.057	0.057	0.059	0.059	0.062	0.062

**JUNE 26, 2024 - JULY 25, 2024**

[illegible]

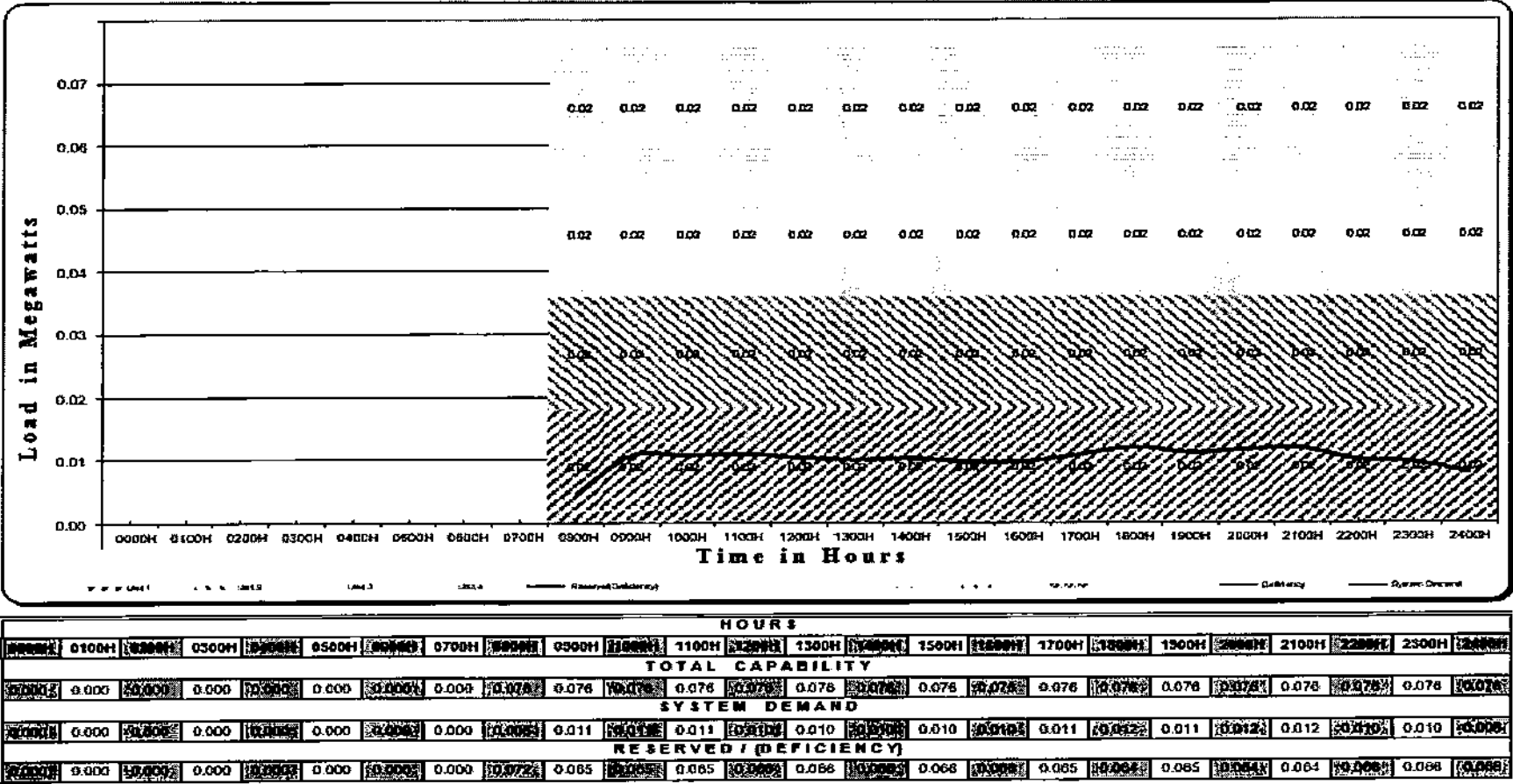
**National Power Corporation**  
**STRATEGIC POWER UTILITIES GROUP**  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
**JULY 26, 2024 – AUGUST 25, 2024**



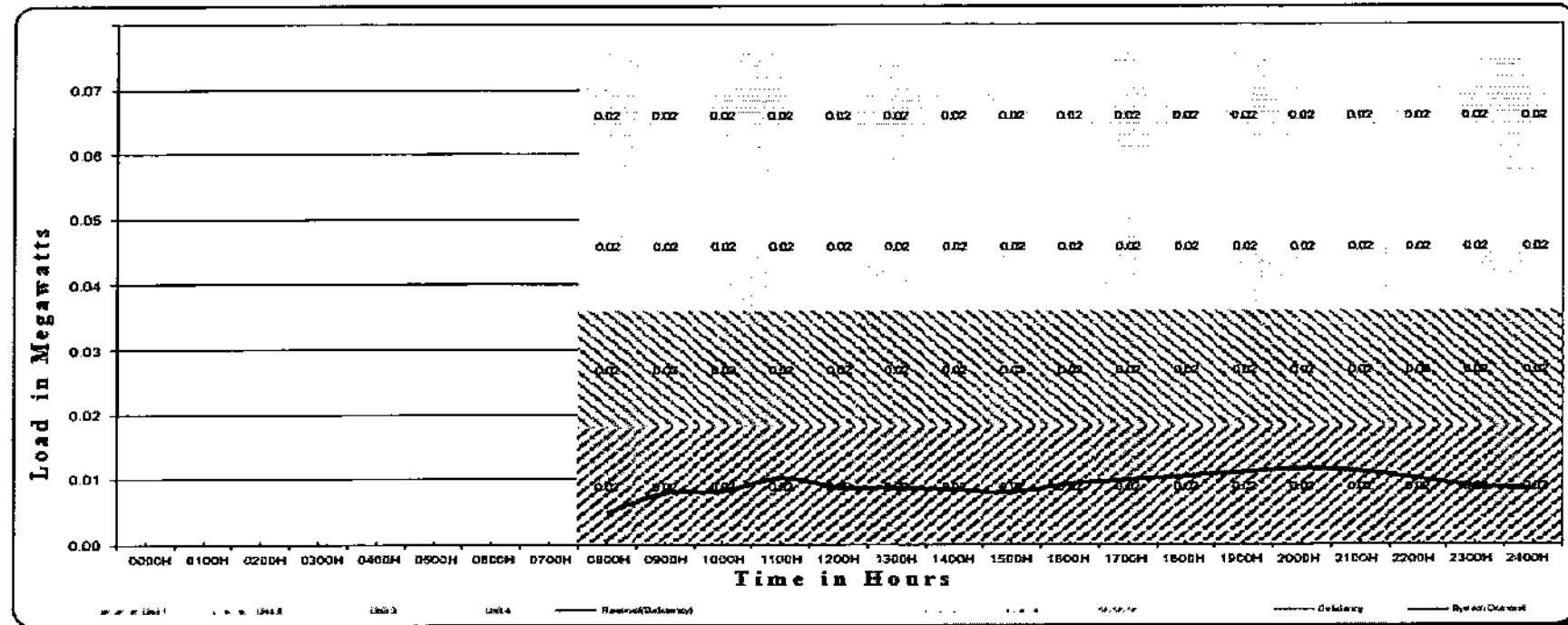
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TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.012	0.013	0.013	0.011	0.010	0.011	0.010	0.011	0.011	0.013	0.013	0.012	0.011	0.011	0.009
RESERVED / DEFICIENCY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.068	0.068	0.063	0.068	0.068	0.068	0.065	0.068	0.065	0.065	0.063	0.063	0.064	0.064	0.065	0.067



National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
AUGUST 26, 2024 - SEPTEMBER 25, 2024



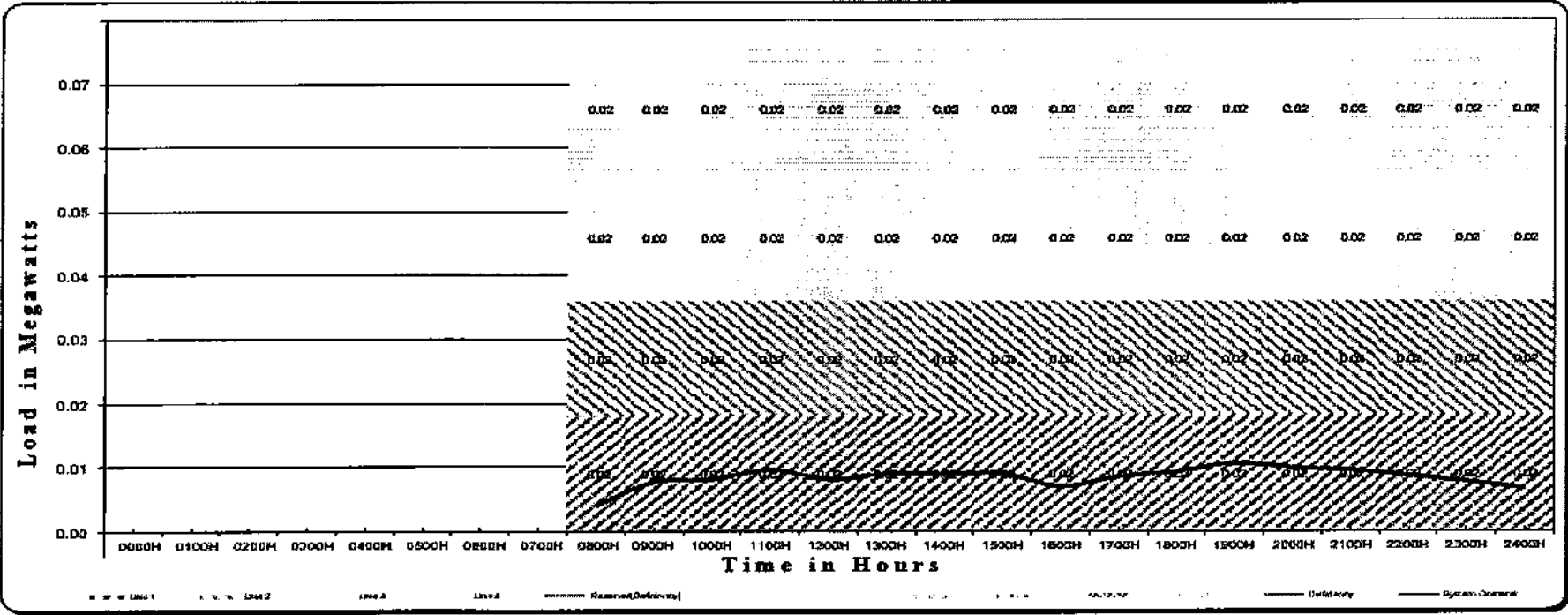
National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
SEPTEMBER 26, 2024 - OCTOBER 25, 2024



HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.008	0.008	0.010	0.009	0.009	0.008	0.008	0.010	0.011	0.011	0.012	0.011	0.010	0.009	0.009	0.008
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.068	0.068	0.068	0.067	0.068	0.068	0.067	0.066	0.065	0.064	0.065	0.066	0.067	0.068	0.067	0.066

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
**LOAD AND DEMAND CURVE**  
**ATULAYAN DIESEL POWER PLANT**  
OCTOBER 26, 2024 - NOVEMBER 25, 2024

National Power Corporation  
STRATEGIC POWER UTILITIES GROUP  
LOAD AND DEMAND CURVE  
ATULAYAN DIESEL POWER PLANT  
NOVEMBER 26, 2024 - DECEMBER 25, 2024



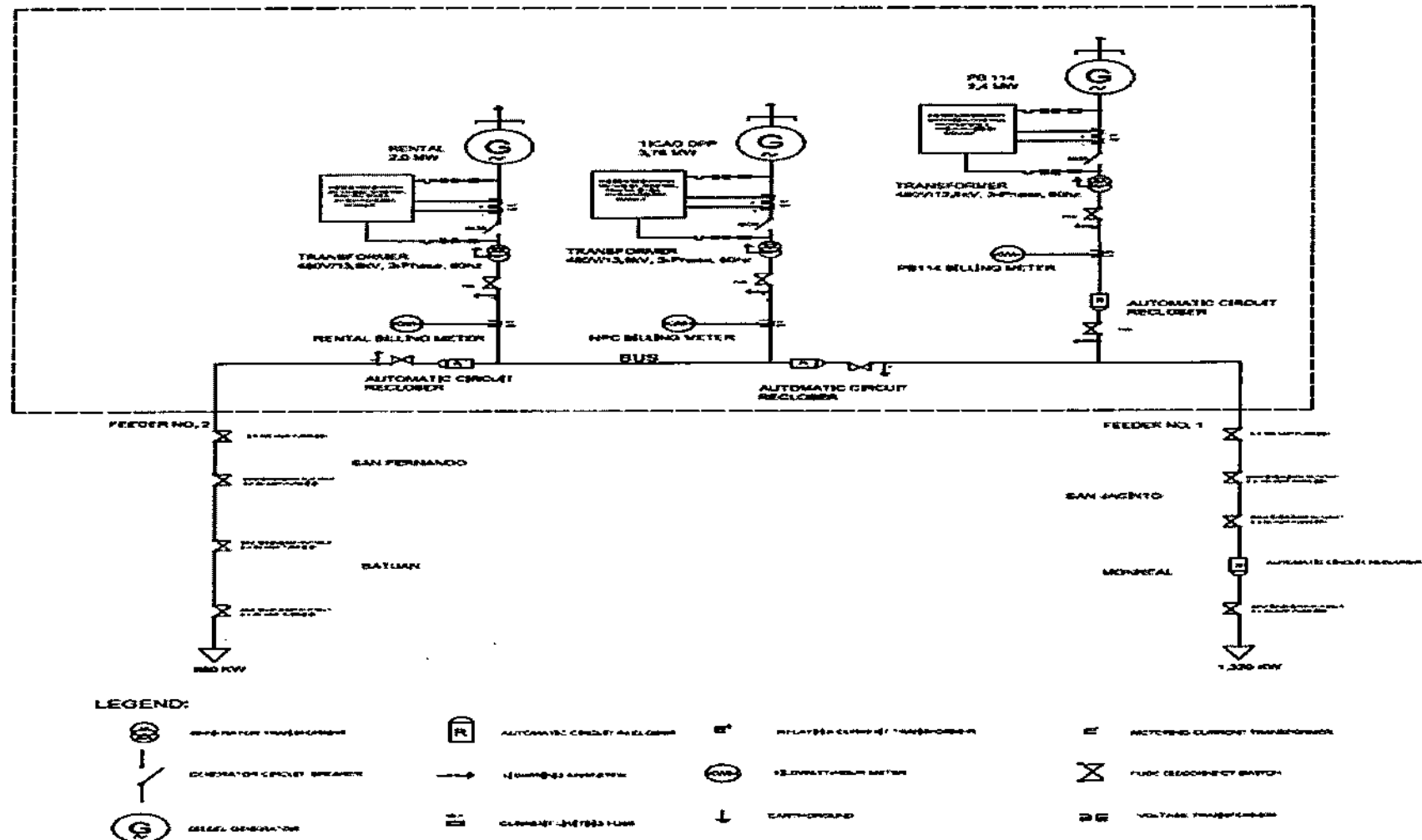
HOURS																								
0000H	0100H	0200H	0300H	0400H	0500H	0600H	0700H	0800H	0900H	1000H	1100H	1200H	1300H	1400H	1500H	1600H	1700H	1800H	1900H	2000H	2100H	2200H	2300H	2400H
TOTAL CAPABILITY																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
SYSTEM DEMAND																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.004	0.004	0.010	0.009	0.009	0.009	0.009	0.009	0.009	0.011	0.010	0.010	0.009	0.008	0.007	0.007
RESERVED / (DEFICIENCY)																								
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.068	0.068	0.067	0.067	0.067	0.067	0.067	0.067	0.068	0.067	0.065	0.065	0.067	0.067	0.068	0.068

## **APPENDIX D**

### **DISTRIBUTION SYSTEM SINGLE LINE DIAGRAM**

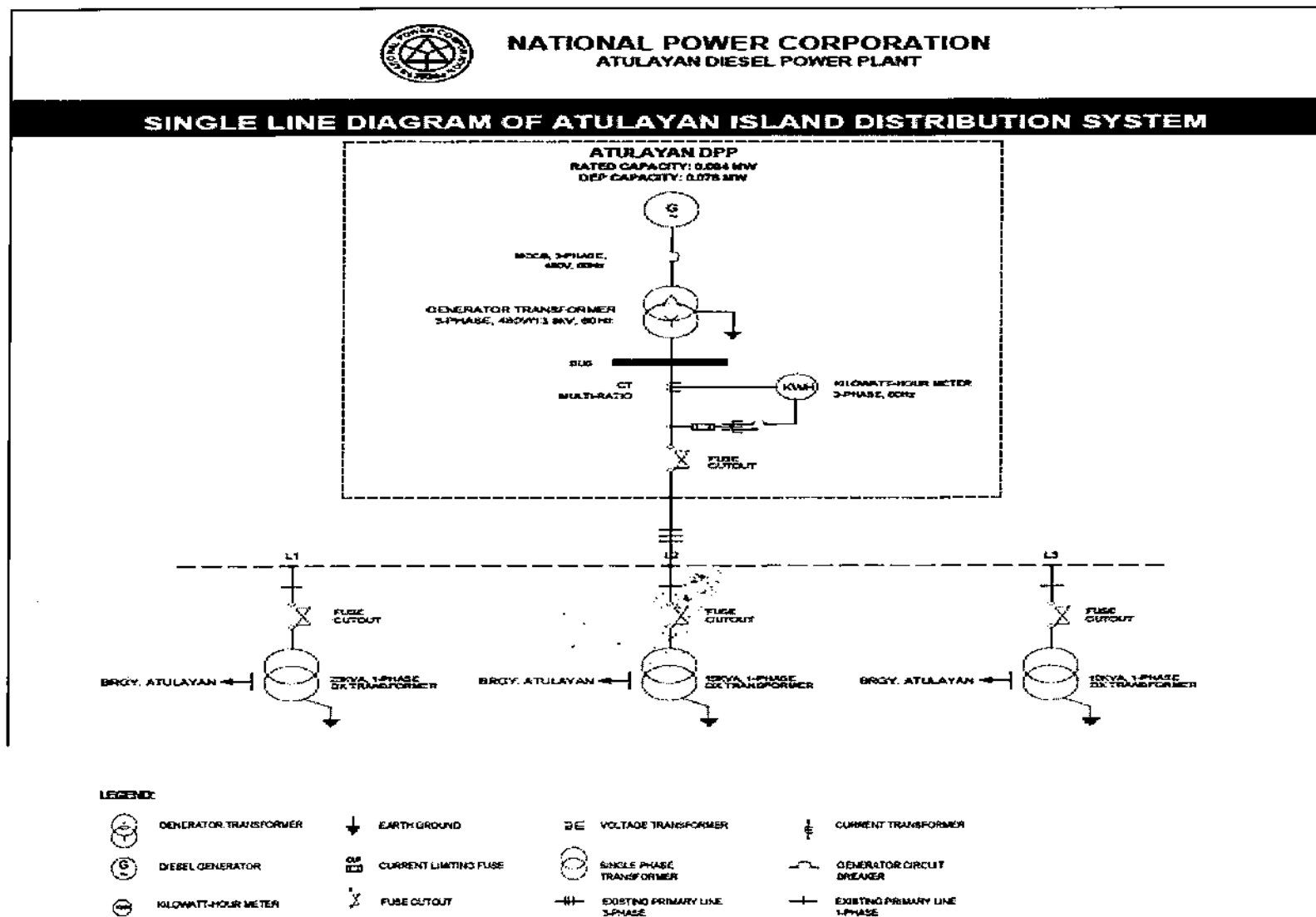
***NOTE: PLEASE BE ADVISED THAT THE ATTACHED DRAWING IS INTENDED FOR REFERENCE PURPOSES ONLY. THE DISTRIBUTION LINE DIAGRAM AND ITS CONTENT ARE SUBJECT TO CHANGE AND MAY VARY WITHOUT PRIOR NOTICE. FOR THE MOST ACCURATE AND UP-TO-DATE INFORMATION, ALWAYS REFER TO THE LATEST OFFICIAL DOCUMENTATION OR CONTACT THE CONCERNED DISTRIBUTION UTILITY/ELECTRIC COOPERATIVE.***

## SINGLE LINE DIAGRAM TISELCO DISTRIBUTION SYSTEM



## TICAO DISTRIBUTION SYSTEM SINGLE LINE DIAGRAM







**APPENDIX E****RENEWABLE ENERGY PROJECT COST REFERENCE**

RE TECHNOLOGY	PROJECT COST per MW (PhP)
Biomass**	107,685,637.36
Waste-to-Energy**	175,208,588.88
Geothermal*	\$5,000,000 - \$6,000,000
Ground-mounted Solar**	49,473,854.00
Roof-mounted Solar**	48,727,311.33
Floating Solar**	56,196,155.60
Run-of River Hydropower***	183,140,490.00
Onshore Wind**	81,662,013.85
Offshore Wind*	\$2,527,861 - \$3,936,742****

**Notes:**

- \* - USD/MW;
- \*\* - based on ERC's Resolution No. 06, Series of 2023;
- \*\*\* - based on ERC's Resolution No. 02, Series of 2022; and,
- \*\*\*\* - based on WB Offshore Wind Road Map for the Philippines, April 2022