

POWER SUPPLY ADEQUACY & INFRASTRUCTURE CERTIFICATE

Official assessment of electrical capacity vs connected manufacturing load requirement

1. EXECUTIVE STATEMENT & DEMAND OVERVIEW

This document formally certifies that the electrical power supply infrastructure installed and commissioned at **M/S Jyoti Forge & Fabrication (Mirza Unit)** provides complete operational adequacy, reliability, and dual redundancy to cater to the facility's total connected peak load of **300.00 kVA**. The plant is energized via a dedicated High Tension (HT) supply from the Assam Power Distribution Company Limited (APDCL) backed by an authorized captive Diesel Generating (DG) set.

300 kVA

PEAK POWER DEMAND

Operating Baseline

421 kVA

GOVT. GRID SUPPLY (APDCL)

+40.3% Capacity Margin

320 kVA

CAPTIVE DG SET (KOEL)

100% Emergency Coverage

2. POWER DEMAND & SUPPLY SOURCE EVALUATION

POWER STREAM / MODE	UTILITY PROVIDER / MAKE	RATED CAPACITY	SURPLUS HEADROOM	OPERATIONAL STATUS
Operating Power Demand	Fabrication Plant Load	300.00 kVA	Reference Base (100%)	Active Demand
Primary Grid Feed	Govt. of Assam (APDCL)	421.00 kVA	+121.00 kVA (+40.33%)	Online (Primary)
Standby Captive DG	Kirloskar Oil Engines Ltd.	320.00 kVA	+20.00 kVA (+6.67%)	100% Standby

3. STATUTORY CLEARANCES & SOURCE SPECIFICATIONS

PRIMARY GRID SUPPLY (APDCL)

Consumer No: 025010060244

Tariff Category: HT-II Industries (Option 1)

Contracted Demand: 421.00 kVA (415 V / 11 kV)

Connected Load: 358.00 kW

Sub-Division: IRCA GEC II, APDCL (LAR)

Supply Reliability: Continuous Dedicated HT Feeder

CAPTIVE GENERATING UNIT (GOVT. APPROVED)

Govt. Clearance Ref: CEIA/SES/2021/DG/Z-III/139

Approving Authority: Chief Electrical Inspector, Assam

Statutory Norm: Reg. 32 CEA (Safety & Supply) Reg. 2010

DG Set Capacity: 320.00 kVA / 415 V, 3-Phase

Engine S/N: DV8.8113/2120071 (KOEL)

Alternator S/N: GS3C021G31283 (KOEL)

4. ENGINEERING DECLARATION & ADEQUACY CONCLUSION

CERTIFIED POWER ADEQUACY

- Grid Capacity Headroom:** The primary APDCL grid power supply of 421 kVA provides an excess safety margin of 40.3% over the plant demand of 300 kVA, accommodating all inductive motor start-up surges and simultaneous heavy welding operations without voltage degradation.
- Autonomous Redundancy:** The 320 kVA DG set is fully rated to support 100% of the manufacturing facility load in islanded mode during any grid outages, ensuring zero production disruption.
- Statutory Compliance:** Both sources are formally inspected, approved, and compliant with Assam State Electricity Inspectorate regulations.

Senior Planning & Maintenance Engineer
Jyoti Forge & Fabrication

Plant Head / General Manager
(Operations)
Jyoti Forge & Fabrication



GOVERNMENT OF ASSAM
INSPECTORATE OF ELECTRICITY
OFFICE OF THE CHIEF ELECTRICAL INSPECTOR-CUM-ADVISER: ASSAM.
1st FLOOR, WEST END BLOCK, HOUSEFED COMPLEX, DISPUR, GUWAHATI-781 006, ASSAM.

No. CEIA/SES/2021/DG/Z-III/139,

Dated Guwahati, the 17th March 2022.

From : B N Pathak,
Electrical Inspector, (Sr. Grade),
Govt. of Assam, Dispur, Guwahati-6.

To : Jyoti Forge & Fabrication,
Near Mirza Railway Station,
Chanyani, Moniyari, Mirza,
Assam- 781125

Sub : Commissioning under regulation 32 of the Central Electricity Authority (measures relating to safety and Electric Supply) Regulations, 2010 (*hereinafter referred as the "Regulations"*) for commissioning of Electric Generating Units to the premises of Jyoti Forge & Fabrication, Near Mirza Railway Station, Mirza, Kamrup, Assam- 781125.

Reference: Application Reference No. EGU-APP/2022/00028, Dtd. 07.03.2022

Sir,

With reference to the above mentioned application(s) under regulation 32 of the Regulations, you are hereby allowed to run/commission the following electric generating set(s) for your power requirements subject to compliance with the aforesaid safety regulations referred to the above all the time.

Sl. No.	Capacity(KW/KVA)	Rated Voltage in volts	Make and Serial Number (Alternator)	Make and Serial Number (Engine)	Make and Serial Number (Generating Set)
1	320 KVA	415 V	Kirloskar Oil Engines Limited. GS3C021G31283	Kirloskar Oil Engines Limited. DV8.8113/2120071	Kirloskar Oil Engines Limited. 21.320.071/31283-269

This commissioning is subject to the condition that all safety and other precautionary measures as laid down in the Central Electricity Authority (measures relating to safety and Electric Supply) Regulations, 2010 are duly complied with all the time. No. change in the installations from the approved drawing may be made without approval of the undersigned.

The energy generated will be for your own use and no trading of electricity generated is permissible.

You are required to give the supplier (i.e. the APDCL) a minimum 30 days notice about your intention to generate power from the captive set(s). In case you are already a consumer of APDCL, use of your generating set(s) is/are subject to such reasonable restrictions the supplier may impose to safeguard their commercial interest. The changeover/interlocking arrangement to prevent the possibility of inadvertent or accidental paralleling of the generator(s) with the supplier's system shall be strictly as per the approved drawings(s) and the installation shall be linked to the supplier's system through the change over switch only after the supplier is satisfied that the installation is not likely to constitute any danger.

The following special precaution need also be taken when using generator for standby/ emergency power supply.

1. Neutral point of the D.G. sets to be earthed by appropriate size of G.I/Cu. Strips connected with two separate and distinct earth electrode.
2. Body of the D.G. sets to be earthed by appropriate size of G.I/Cu. Strips connected with two separate and distinct earth electrode.
3. Adequate size of armoured XLPE insulated cables to be used in the load side of the Alternator and shall be terminated with glands and lugs.
4. Only four pole change over switches to be used in three phase and two poles change over switches in single phase.
5. The generator wiring must be drawn separately from the main distribution system and as far as practicable drawn in separate ducts.

Cont...2

6. To facilitate power supply from a standby generator in single phase to a part of the connected load in installation having three phase supply (during power cuts/failures), in no case, distribution switch boards are wired in a manner that such a board get power from more than one phase, when power is supplied from the grid.

The commissioning of the generator and use of electricity thus generated need also to be intimated to the concerned local officer of the Tax Department for assessment and payment of duty on generation and use of electricity.

Receipt of Online Payment No. AS001934546202122E for ₹ 500.00 (Rupees Five Hundred) only is hereby acknowledged with thanks.

Receipt of this letter may please be acknowledged.

Yours faithfully,

Electrical Inspector (Sr. Grade),
Govt. of Assam.

Dated Guwahati, the 17th March 2022.

Memo No. CEIA/SES/2021/DG/Z-III/139- A,

Copy to:-
The Commissioner of Taxes, Kar Bhawan, Dispur, Guwahati-6 for information.

Electrical Inspector, (Sr. Grade),
Govt. of Assam.



Assam Power Distribution Company Limited

ELECTRICAL SUB-DIVISION/IRCA: IRCA GEC II

CIN: U40109AS2003SGC007242

GSTIN: 18AABCL1354J1ZJ

ELECTRICITY BILL

website : www.apdcl.org

Centralized Customer Care Number : 1912

Consumer Name: M/S Jyoti Forge & Fabrication(Mirza Unit)	Consumer Number: 025010060244	Bill Amount: 329694.00
Address: Mirza,Kamrup	Old Consumer Number: HT/LP/M-193	Due Date: 20-Mar-2026
	DTR Number: 2885	Bill Number: 900094750
	Pole Number: 000	Bill Period: 01-Feb-2026 To 28-Feb-2026
PAN No: ####8123F	Connected Load in KW: 358.00	Bill Date: 05-Mar-2026
Contact Number : 7795170606	Contracted Demand in KVA: 421.00	Number of Days: 28.00
Email: jyotiforge@gmail.com	Load Security: 1332413.00	Meter Status: Running
Tariff Category: HT V(C) HT II INDUSTRIES (OPTION 1) (SEASONAL)	Meter Number: AIK1070880	Billing Status: NORMAL
	Supply Voltage Level: Supply Voltage Level 11 KV	



Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export Reading in KWh	Current Reading in KWh	Current Export Reading in KWh	Difference Reading in KWh	Difference Export Reading in KWh
KWH(Normal)	AIK1070880	1000.000	117.335	0	122.690	0	5.355	0
KWH(Solar)	AIK1070880	1000.000	165.763	0	181.587	0	15.824	0
KWH(Peak)	AIK1070880	1000.000	75.934	0	82.304	0	6.370	0

Unit Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal 5355.000	-53.550	0	0	0	0	0	5301.450
Solar 15824.000	-158.240	0	0	0	0	0	15665.760
Peak 6370.000	-63.700	0	0	0	0	0	6306.300
Recorded Demand (in KVA)	0.16	Maximum Demand (in KVA)	154.00	Billing Demand (in KVA)	421.00	Average Power Factor	93.00
Power on Hours	638.00	Freeze Amount	0	Oxygen Plant Rebate	0	Availability Percentage	1.41

Unit Adjustment

Non-TOD	TOD-Solar	TOD-Peak	TOD-Normal	Solar Unit Adjusted	Remaining Excess Unit
0	0	0	0	0	0

Billing Details

Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount																														
329694.30	0	0	0	329694.00																														
			In Words: Rupees Three Lakh Twenty Nine Thousands Six Hundred Ninety Four Only																															
Please pay your bill on time and help us to serve you better			Charges Breakup																															
Effective Energy Charge = Energy Charge - Subsidies			Details	UnitsRateAmount																														
Energy Consumption (Last 6 Month's Bill) Consumption & payment history of last 6 electricity bills (Bill#1 being the latest bill prior to this current bill) <table><thead><tr><th></th><th>Bill#1</th><th>Bill#2</th><th>Bill#3</th><th>Bill#4</th><th>Bill#5</th><th>Bill#6</th></tr></thead><tbody><tr><td>Unit Consumed</td><td>25132.14</td><td>26220.15</td><td>31086.00</td><td>31697.82</td><td>25728.12</td><td>37709.10</td></tr><tr><td>Bill Amount (in Rs.)</td><td>324618.00</td><td>332202.00</td><td>369930.00</td><td>383302.00</td><td>330013.00</td><td>308861.00</td></tr><tr><td>Payment (in Rs.)</td><td>324618.00</td><td>332202.00</td><td>369930.00</td><td>383302.00</td><td>330013.00</td><td>308861.00</td></tr></tbody></table>				Bill#1	Bill#2	Bill#3	Bill#4	Bill#5	Bill#6	Unit Consumed	25132.14	26220.15	31086.00	31697.82	25728.12	37709.10	Bill Amount (in Rs.)	324618.00	332202.00	369930.00	383302.00	330013.00	308861.00	Payment (in Rs.)	324618.00	332202.00	369930.00	383302.00	330013.00	308861.00	Energy Charge(Normal)	5301.450	8.09	42888.730
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			Energy Charge(Solar)	15665.760	6.47	101357.470																												
			Energy Charge(Peak)	6306.300	9.71	61234.170																												
			Total Energy Charge			205480.370																												
			Energy Charge ReEstimated			0																												
			Demand/Fixed Charge (KVA)	421.000	280.00	108514.200																												
			FPPPA Charge		0	0																												
			Rooftop Solar Adjustment	0	5.26	0																												
			Electricity Duty		5.00 %	15699.730																												
			Government Subsidy		0	0																												
			Tariff Subsidy			0																												
Green Energy		0	1.000	0																														
Overdrawal Penalty			0																															
Meter Rent		0	0																															
Charges for dishonoured cheque			0																															
Arrear Principal			0																															
Arrear Surcharge			0																															
Current Surcharge			0																															
Adjustment Amount			0																															
Rebate if paid before due date			0																															
Payable amount before due date			329694.000																															
Payable amount after due date			329694.000																															

Sec. 194Q

Checked by:

Prepared by: 40002068

Signature with seal

Area Manager

IRCA-II: APDCL (LAR)

GU Bypass: ...

MD: Maximum Demand
KVA/Kilo Watt Hour

MF: Multiplying factor of the meter
Transformer M D Charge : Transformer Maintenance & Depreciation Charge
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