ESG

I-SHENG's
Greenhouse gas
management

August, 2023

OBJECTIVE

At I-SHENG, our overarching goal is to actively reduce Greenhouse Gas (GHG) emissions as part of our unwavering commitment to environmental sustainability. Our mission is clear: to minimize our carbon footprint and contribute to a healthier planet for current and future generations.

Why It Matters:

- Environmental Stewardship: We believe in taking responsibility for our impact on the environment and preserving its natural resources.
- Climate Mitigation: By reducing GHG emissions, we play a crucial role in combating climate change and its adverse effects.
- Corporate Responsibility: Demonstrating our commitment to sustainability enhances our reputation and fosters trust with stakeholders.
- Cost Savings: Lower emissions often translate to reduced energy and operational costs, contributing to our bottom line.

The Benefits:

- Environmental Preservation: Protecting ecosystems, biodiversity, and air quality for a sustainable future.
- Enhanced Brand Value: Positioning I-SHENG as a responsible, eco-conscious company.
- Regulatory Compliance: Meeting and exceeding environmental regulations and standards.
- Innovation: Driving innovation through sustainable practices, fostering long-term competitiveness.
- Positive Impact: Inspiring our employees and partners to join us in reducing GHG emissions.

Greenhouse Gas Emissions Inventory

Greenhouse Gas Emissions Inventory

- We conducted a training course on greenhouse gas emissions inventory calculation - GHG protocol.
- We conducted the inventory using the GHG protocol tool.
- And we identified improvement opportunities within Scope 1 and Scope 2

2.2 Emissões de Escopo 1 desagregadas por categoria

Categoria	Emissões tCO_2e	Emissões de CO_2 biogênico	Remoções de CO_2 biogênico
Combustão móvel	836,621	84,195	-
Combustão estacionária	17,452	1,801	-
Processos industriais	-	-	-
Resíduos sólidos e efluentes líquidos	6.268,700	-	-
Fugitivas	369,580	-	-
Atividades agrícolas	-	-	-
Mudança no uso do solo	-	-	-
Total de emissões Escopo 1	7.492,353	85,997	-

2.3 Emissões de Escopo 2 desagregadas por categoria

Abordagem baseada na localização	Emissões tCO_2e	Emissões de CO_2 biogênico	Remoções de CO_2 biogênico
Aquisição de energia elétrica	206.363,847	-	-
Aquisição de energia térmica	-	-	-
Perdas por transmissão e distribuição	-	-	-
Total de emissões Escopo 2 (localização)	206.363,847	-	-

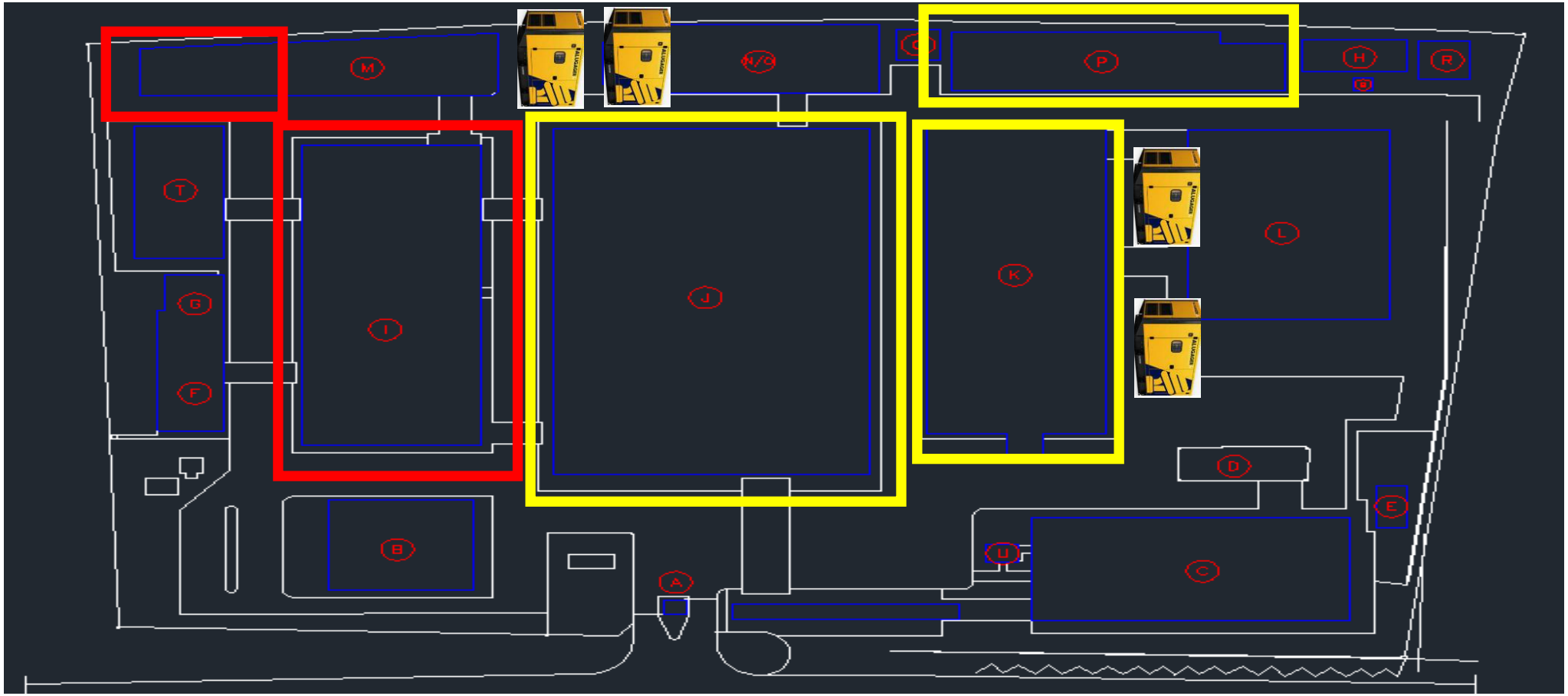
Action Plan for GHG emissions reduction rate

2023 ACTION PLAN - IMPLEMENTED

IMPROVEMENTS / ADAPTATIONS IN THE ELECTRICAL INFRASTRUCTURE OF THE PLANT

SUBSTATION AND GENERATOR SETS

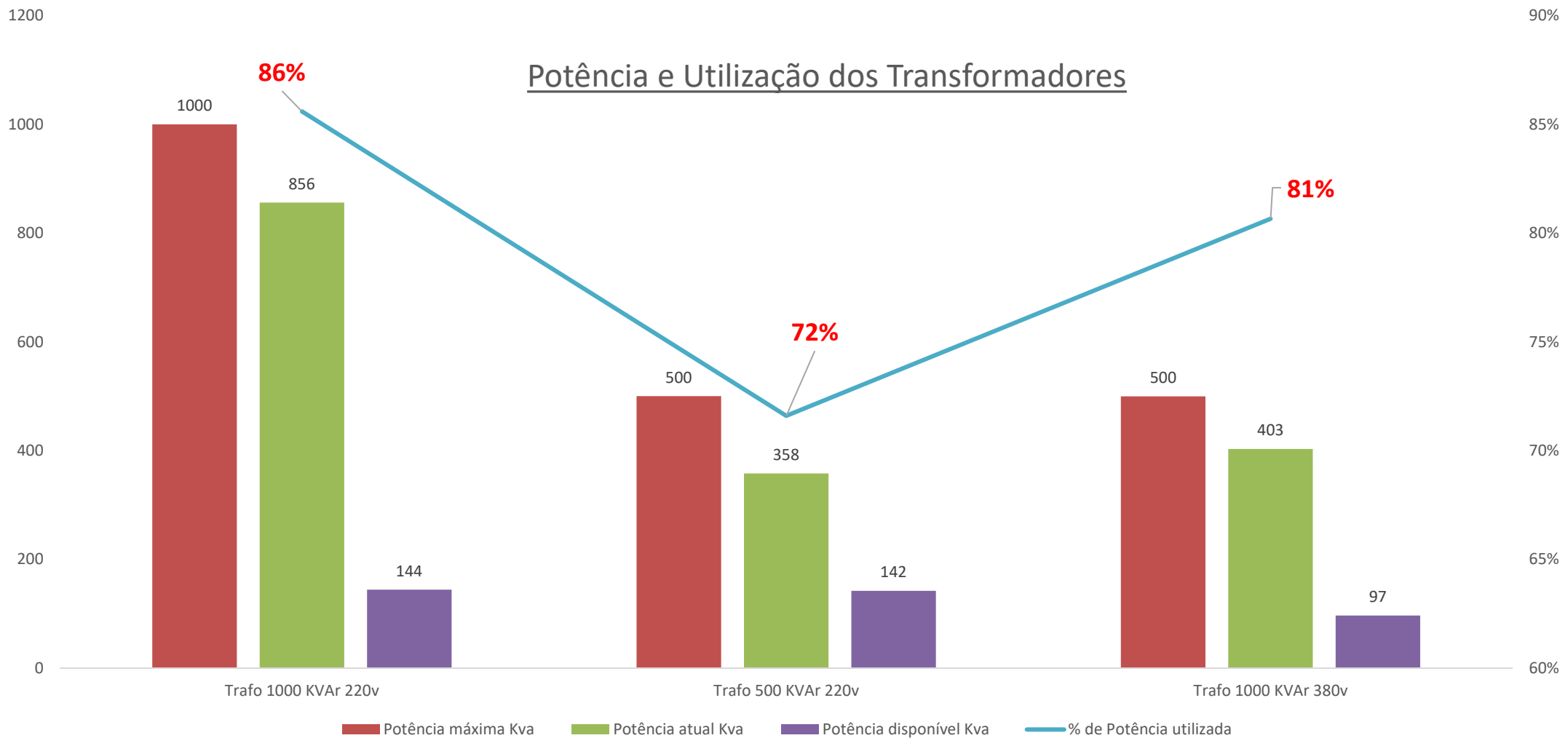
2023 ACTION PLAN - IMPLEMENTED



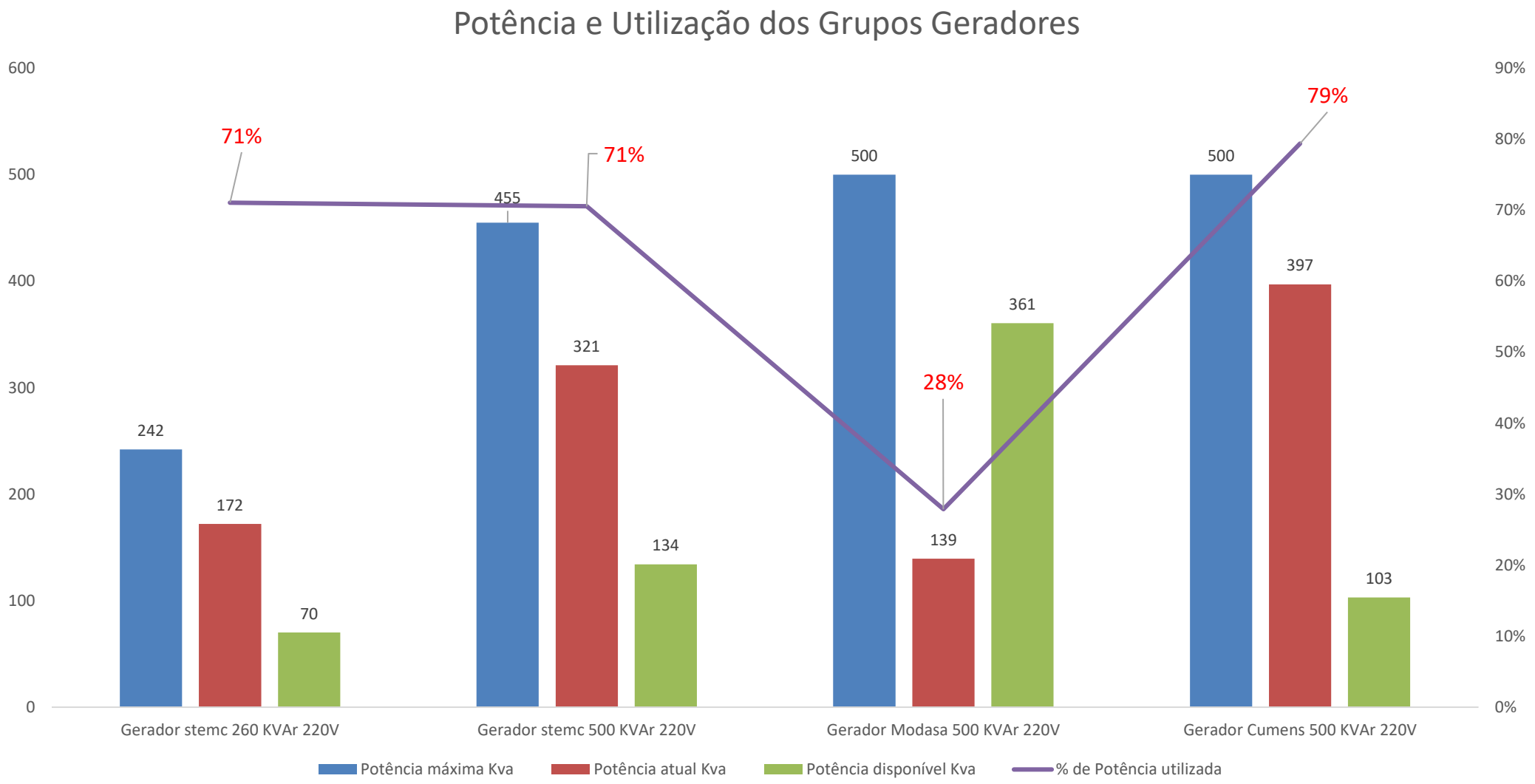
AREA COVERED BY GENERATORS

AREA NOT COVERED BY GENERATORS

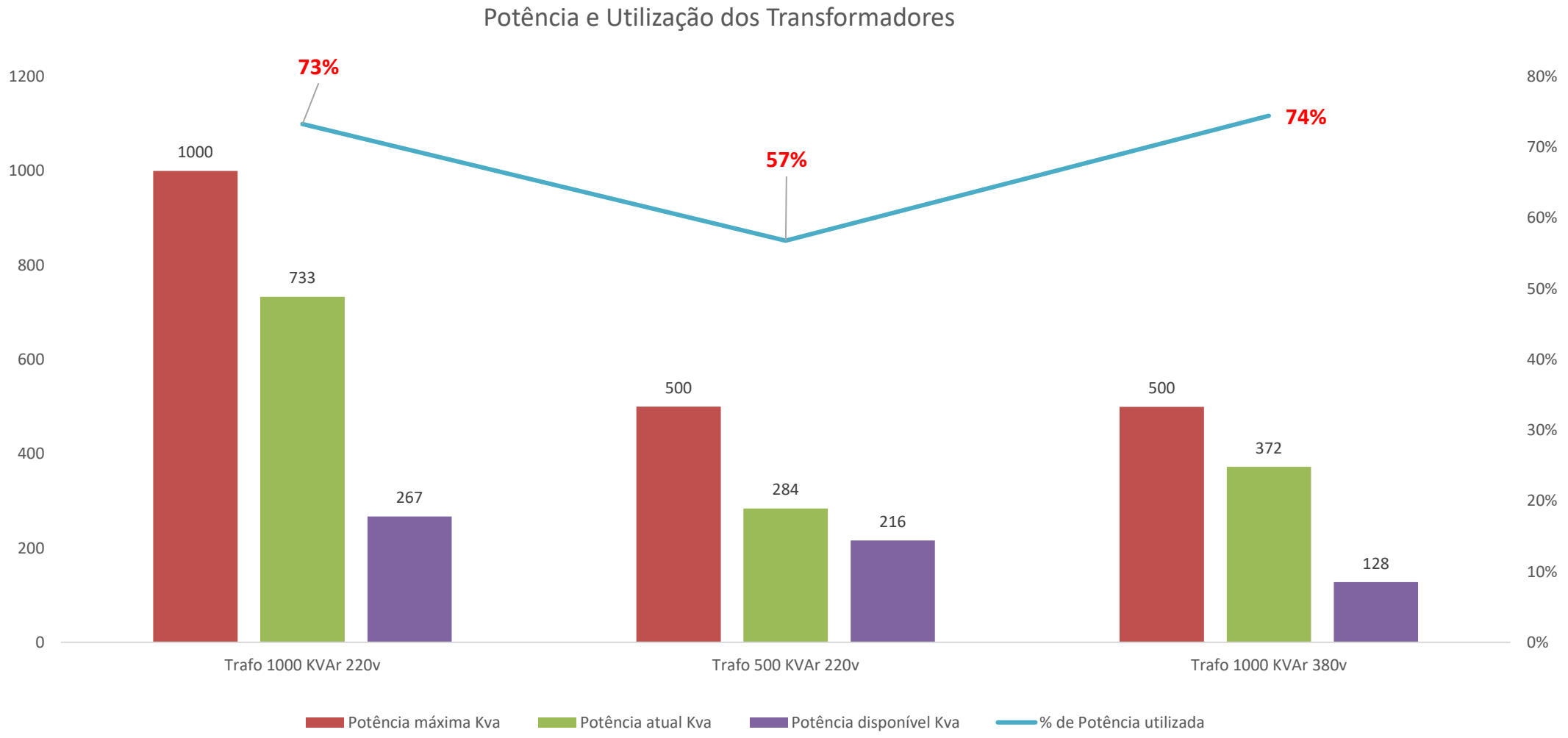
SUBSTATION (before)



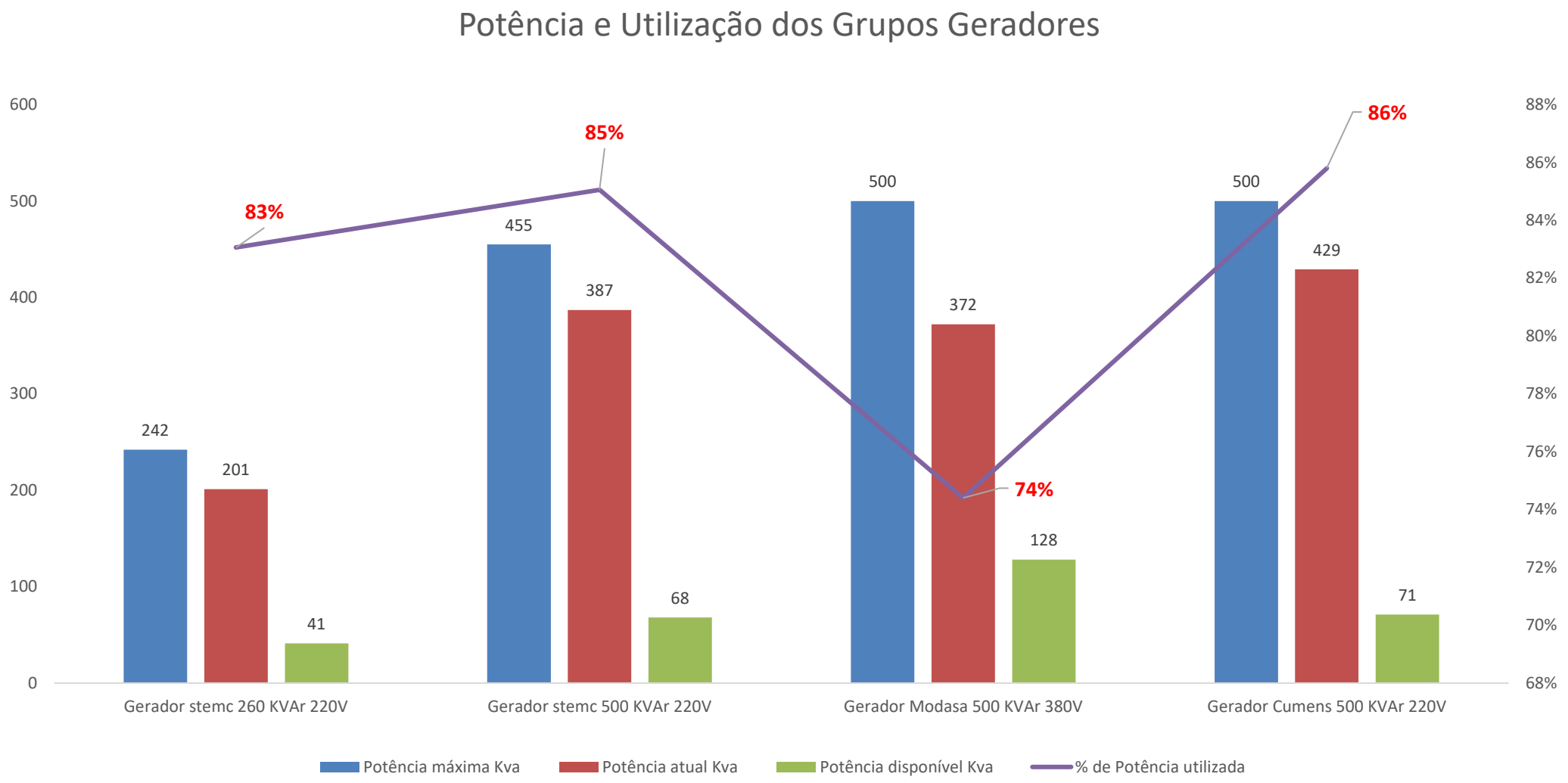
GENERATOR SETS (before)



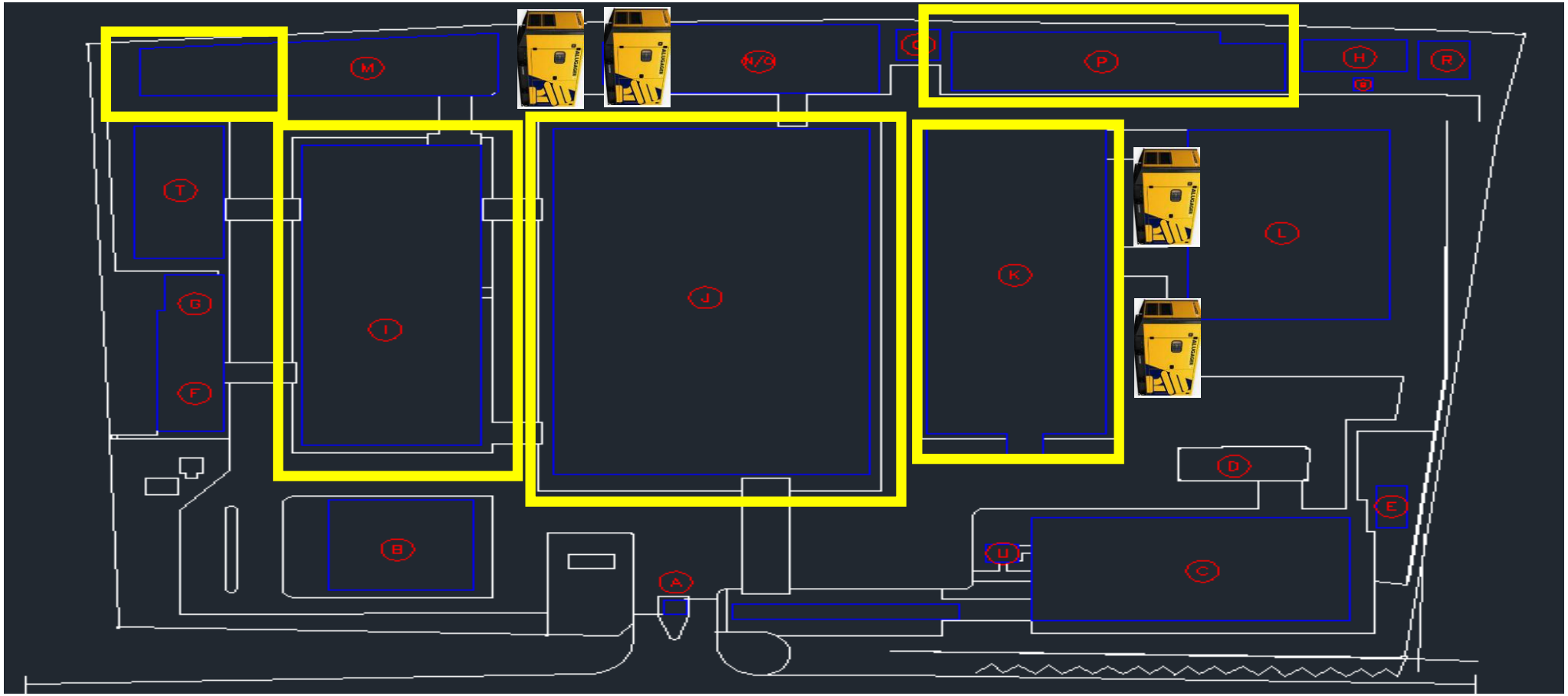
SUBSTATION (current)



GENERATOR SETS (current)



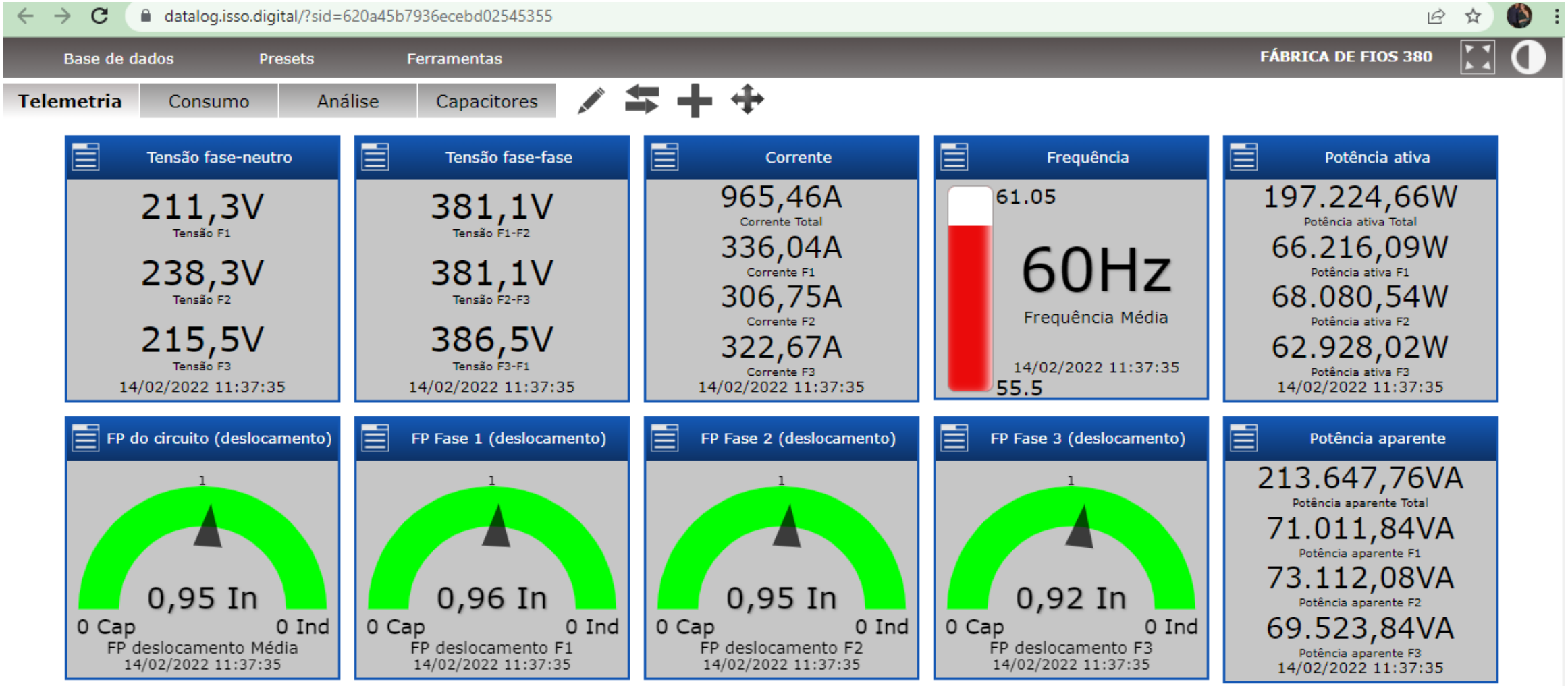
AREA COVERED BY GENERATORS



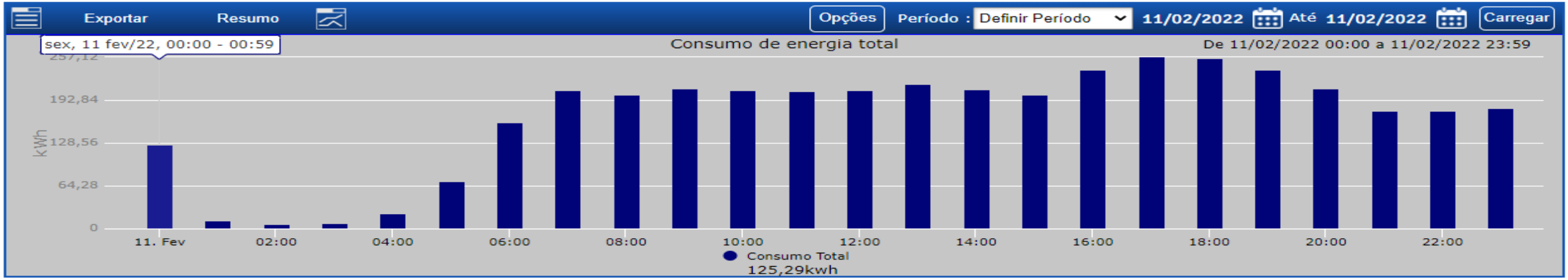
AREA COVERED BY GENERATORS

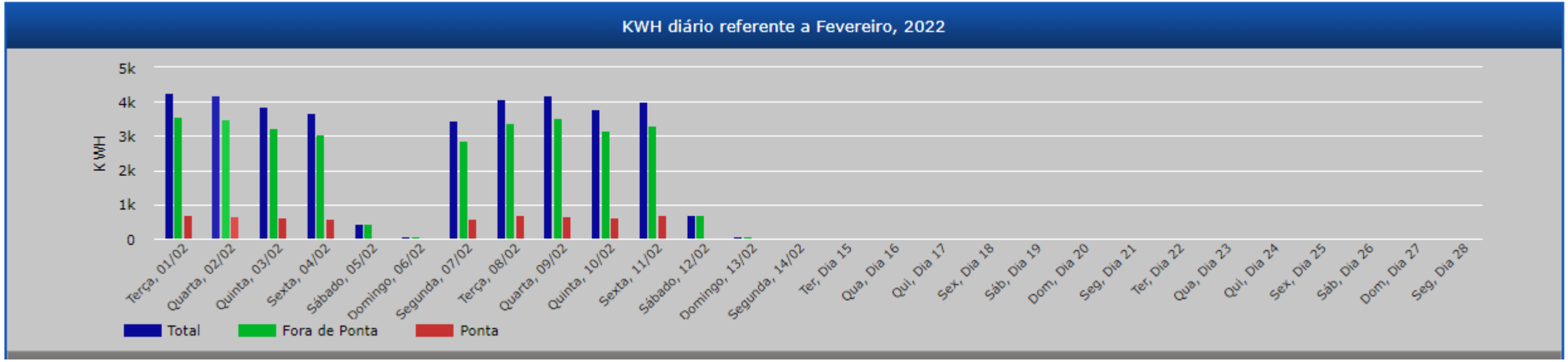
AREA NOT COVERED BY GENERATORS

REMOTE SUBSTATION MONITORING



REMOTE SUBSTATION MONITORING





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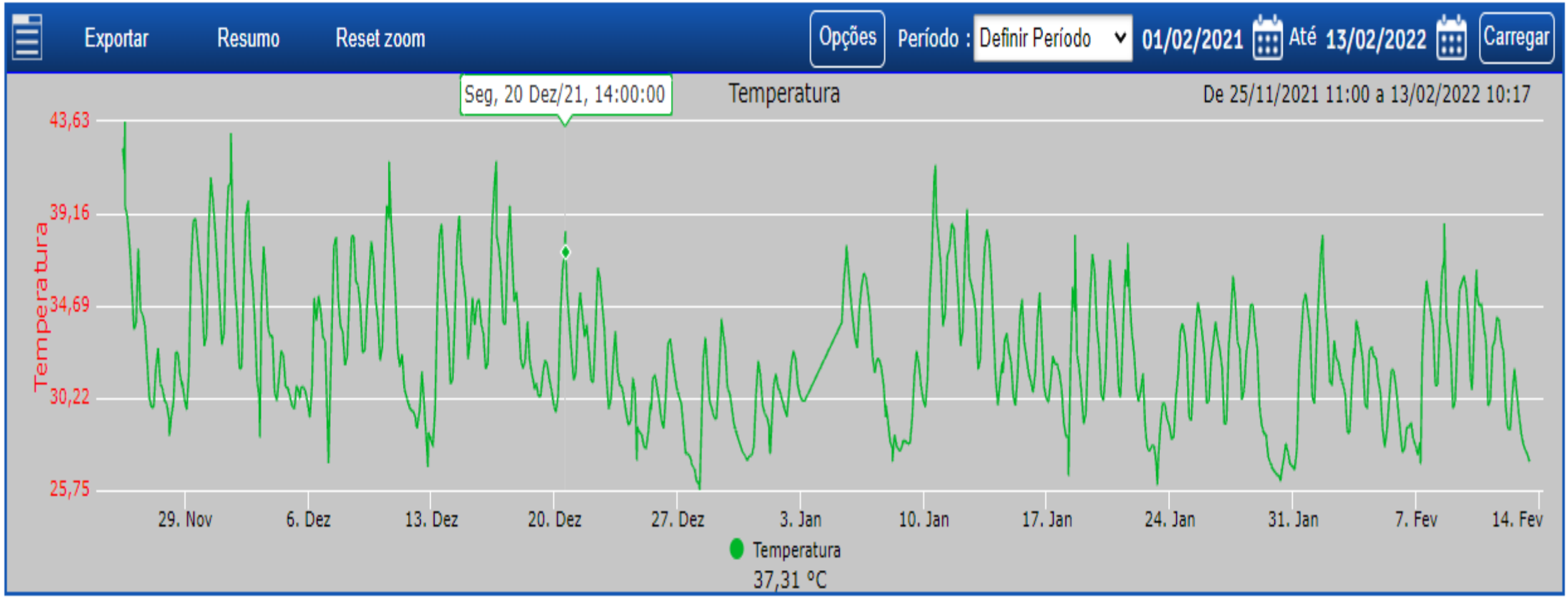


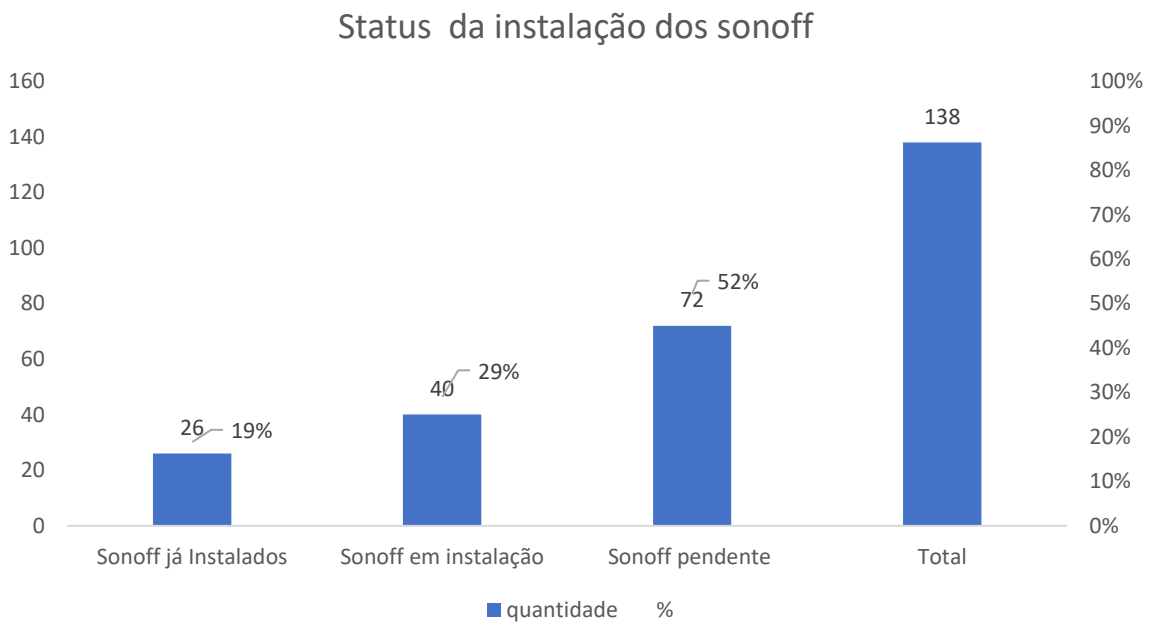
REDUCTION IN ELECTRICITY CONSUMPTION (kWh)

2023 ACTION PLAN - IMPLEMENTED

- ✓ ***Installation of devices for monitoring air conditioners***

SONOFF INSTALLATION

Installation of sonoff for remote monitoring of air conditioners



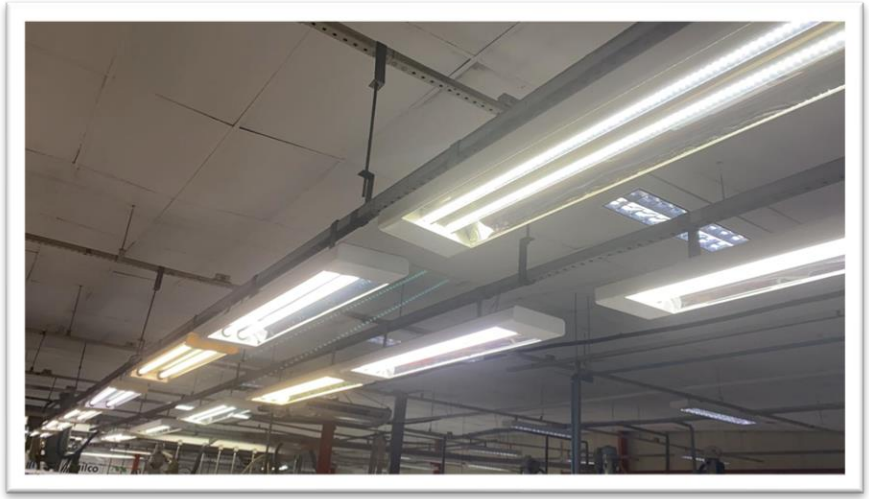
- ✓ ***Change in the time of the Second Shift Dinner***

2023 ACTION PLAN - IMPLEMENTED

- ✓ ***Installation of lamps of lower consumption in the lines***

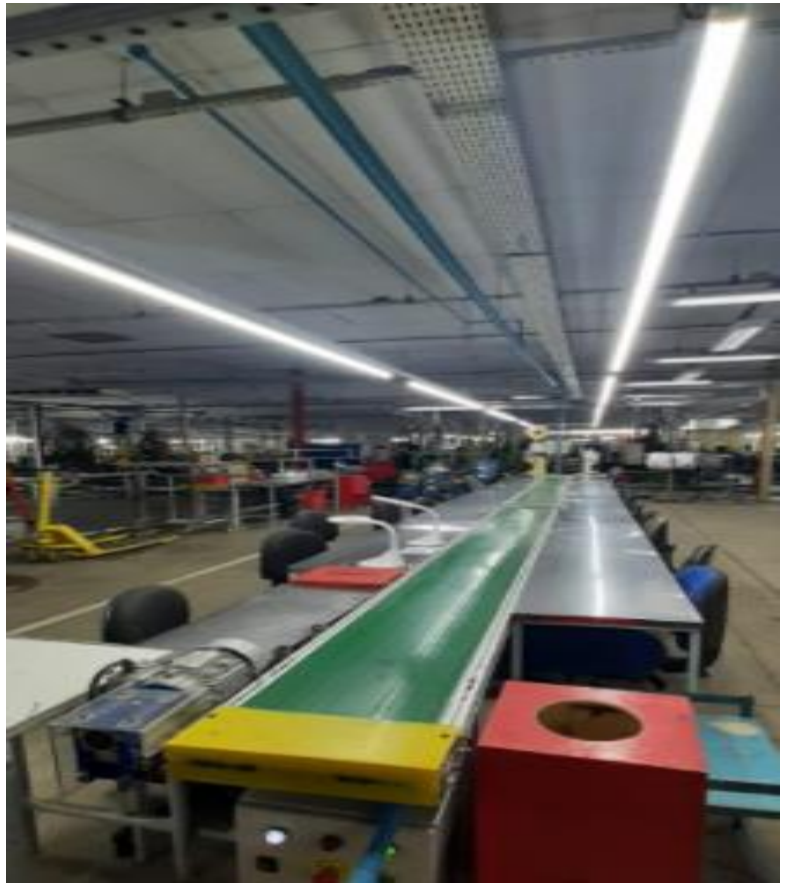
LIGHTING OF THE LINES

Before



Installation Detail

After



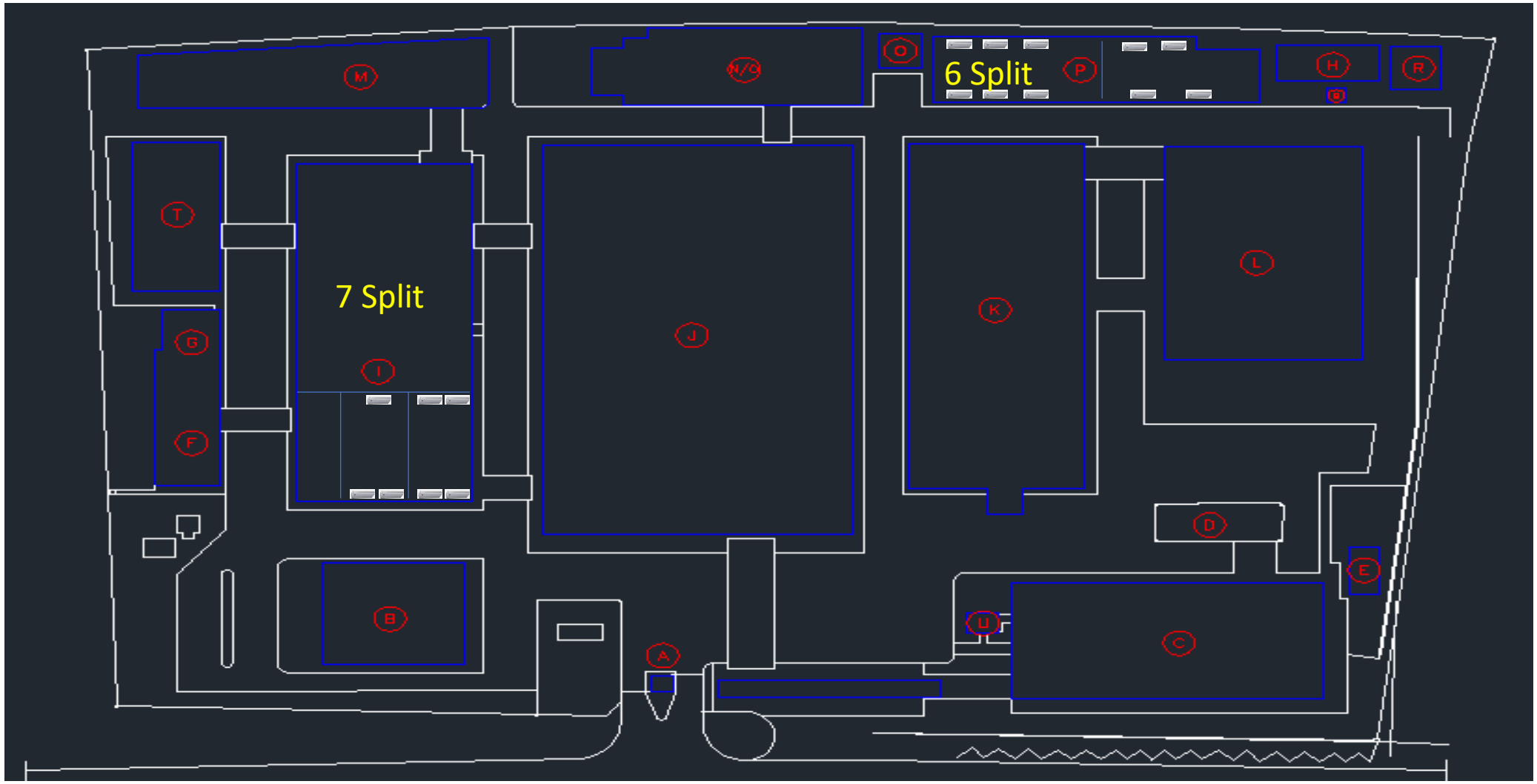
LIGHTING OF THE LINES

EQUIPAMENTO	QUANTIDADE	(kWh) MÊS
Lâmpadas Linha Surubim 18W	82	800,8
Lâmpadas Linha Surubim 65W	18	468
Economia		332,8

2023 ACTION PLAN - IMPLEMENTED

- ✓ ***Production Concentration in BLOCK J – enabling the shutdown of several Air Conditioners***

SPLIT DISABLED



SAVINGS WITH THE SHUTDOWN OF SPLITS

EQUIPAMENTO	QUANTIDADE	(kWh) MÊS
Ar condicionado 60 k (Bloco P)	7	20216
Ar condicionado 60 k (Bloco I)	6	7797,6
Economia		28013,6

2023 ACTION PLAN - IMPLEMENTED

✓ ***Optimization in air use***

PARAMETERIZATION OF COMPRESSORS

Frequency Before

Current Before

Frequency After

Current After

2023 ACTION PLAN - IMPLEMENTED

OTHER IMPROVEMENTS IN PROGRESS

2023 ACTION PLAN - IMPLEMENTED

- ✓ ***Correction in the installations of the control panels of the machines***

IMPROVEMENT IN THE CONTROL PANEL

Acquisition of an electric van to reduce emissions of pollutant gases

Exchange of cars (ducato for a scudo)

CARS: FIAT DUCATO MULTIJET

I-SHENG

FIAT – DUCATO – MODEL: MULTIJET

BEFORE

FIAT – SCUDO

AFTER

With an all-electric drive, the e-Scudo emits no CO2, developed under the multienergy platform, with a set of lithium-ion batteries of 75 kWh, OBC of 11 kW three-phase and electric motor

Use of Renewable Energy

2023 ACTION PLAN - IMPLEMENTED

- Entry into the open energy market for the purchase of electricity from renewable sources

A certificate for the use of renewable energy sources, often referred to as a Renewable Energy Certificate (REC), holds significant importance for a company for several compelling reasons:

Environmental Responsibility: Obtaining a renewable energy certificate demonstrates a company's commitment to environmental responsibility. It signifies a proactive approach to reducing carbon emissions and mitigating climate change by choosing clean and sustainable energy sources.

Reducing Carbon Footprint: Using renewable energy sources, such as wind, solar, or hydroelectric power, significantly reduces a company's carbon footprint. This is vital in an era where climate change and sustainability are critical global concerns.

THE INTERNATIONAL REC STANDARD

This Redemption Statement has been produced for

I-SHENG BRASIL INDÚSTRIA E COMÉRCIO DE COMPONENTES ELETRÔNICOS LTDA

by

COMERC COMERCIALIZADORA DE ENERGIA ELETRICA LTDA

confirming the Redemption of

2 469.000000

I-REC Certificates, representing 2 469.000000 MWh of electricity generated from renewable sources

This Statement relates to electricity consumption located at or in

Rua Acará nº 200; Blocos: I, J, K, P – Bairro: Distrito Industrial - Manaus/AM Brazil

in respect of the reporting period

2023-07-01 to 2023-12-31

The stated Redemption Purpose is

Comprometidos em buscar um futuro mais sustentável.

Ev. comerc energia

QR Code Verification

Verify the status of this Redemption Statement by scanning the QR code on the left and entering in the Verification Key below

Verification Key

2 1 9 6 1 1 0 1

https://api.evident.app/public/certificates/en/JbW8QuV53qpwPHNa1Vm3J1bVVC9sIWHg6t3Oxv3bLB4Y8lCGtd%2FaiZ2fs8OgFQfi

THANK YOU!