# CEMIG DAY

29<sup>TH</sup> INVESTOR MEETING









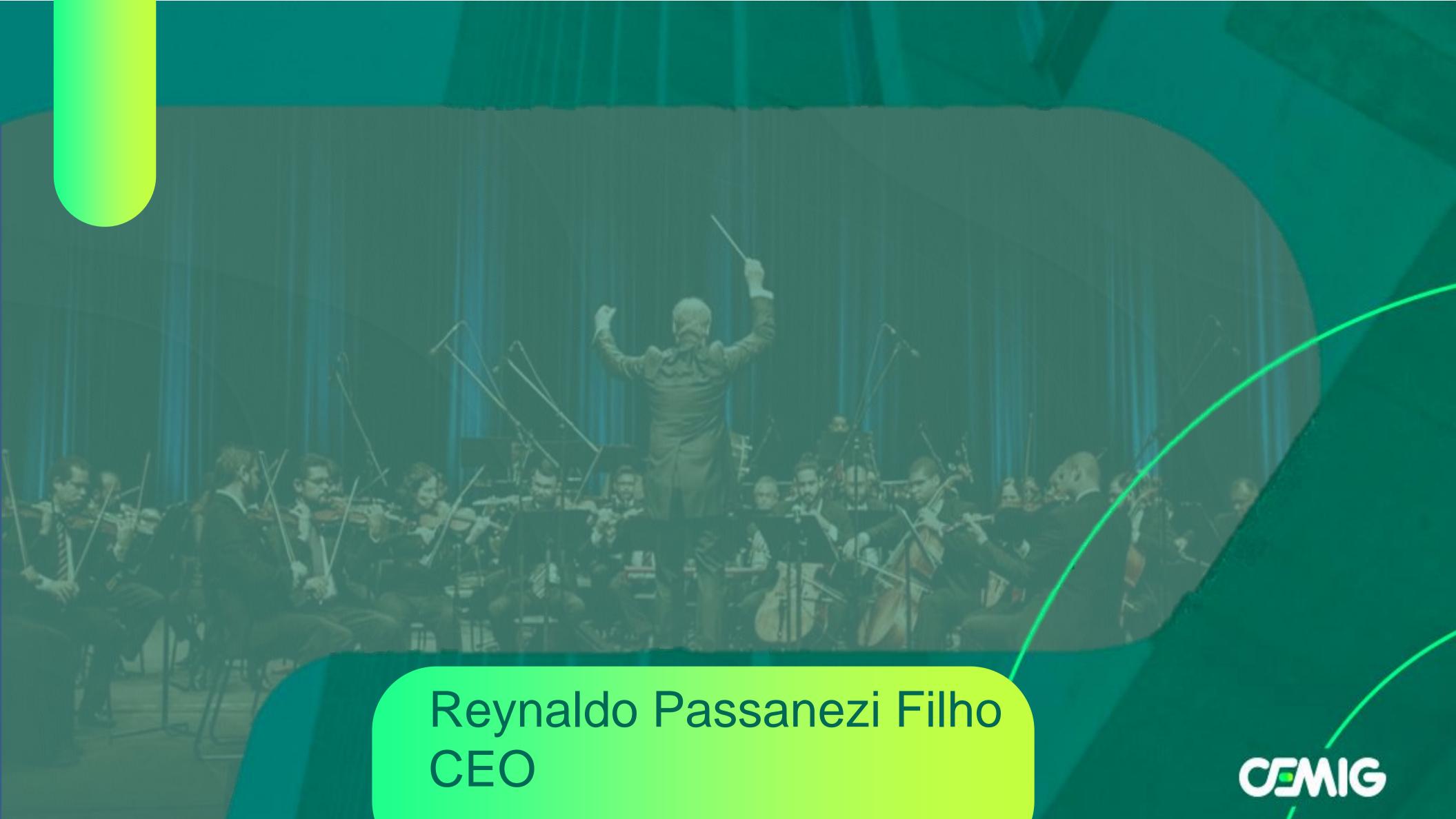














# FOCUS ON EFFICIENCY AND CORE BUSINESS

# **STRATEGY FOR 2009–2018**

- **▼ NON-COMPLIANCE WITH REGULATORY**PARAMETERS OF OPERATIONAL EFFICIENCY, in excess of BRL 15.2 BILLION
- INVESTIMENTS IN MINORITY HOLDINGS, OUTSIDE MINAS GERAIS OVER BRL 39 BILLION,
  Destruction of value: BRL 14 BILLION
- INVESTMENT IN MINAS GERAIS:

  ABANDONED TOTAL INVESTED = LESS THAN REGULATORY DEPRECIATION
- LOSS OF CONCESSION OF THE PLANTS: São Simão, Jaguara, Miranda and Volta Grande, exceeding 50% of the installed capacity of 2,922 MW

## **STRATEGY SINCE 2019**

- ► FRAMEWORK IN THE PARAMETERS

  REGULATORY OPERATIONAL EFFICIENCY MEASURES,

  allowing full return of regulatory profitability
- ▲ DIVESTMENT OF MINORITY INTERESTS and non-core businesses, with cash recovery MORE THAN BRL13 BILLION
- LARGEST CAPEX PLAN IN HISTORY:
  BRL 49.2 BILLION FOR 2024-28; FOCUS ON REGULATED SECTORS
- ▲ FINANCIAL CAPACITY TO RENEW THE CONCESSIONS of Sá Carvalho, Nova Ponte and Emborcação with an installed capacity of 1,780 MW

# **FOCUS AND WIN:**

# LARGEST CAPEX PLAN IN HISTORY



BRL 49.2\*
BILLION

**INVESTIMENTS IN 2019/2028** 

\* BRL13.6 BILLION realized by 2023









BRL 33.2 BILLION
DISTRIBUTION



**BRL 5.0 BILLION**TRANSMISSION



**BRL 3.6 BILLION**GENERATION



**BRL 2.2 BILLION**NATURAL GAS



**BRL 3.6 BILLION**DISTRIBUTED SOLAR
GENERATION



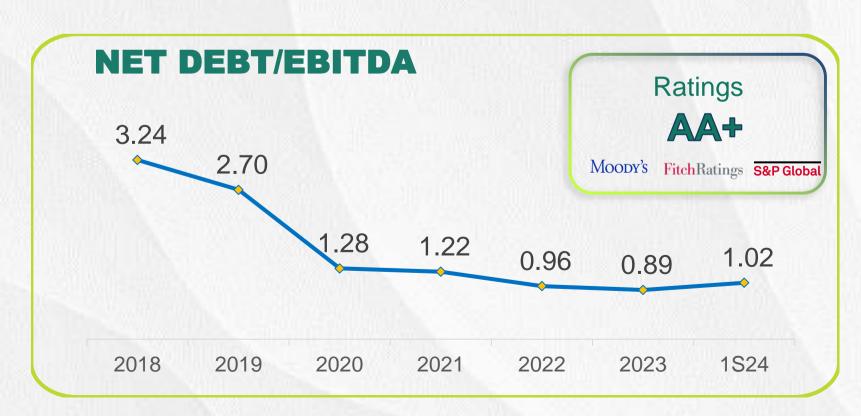
**BRL 1.6 BILLION**INNOVATION & IT

# TURNAROUND

# Improvement in all key physical and financial indicators









# **SHARE APPRECIATION**

CMIG4 (PN):

+394%

CMIG3 (ON):

+457%

BRL 10.6
BILLION

MARKET VALUE AUGUST 2018

# BRL 35.3 BILLION

MARKET VALUE – AUGUST 16<sup>TH</sup>, 2024

### **BRL 12.7 BILLION**

IN DIVIDENDS PAID SINCE 2019, INCLUDING ADDITIONAL DIVIDENDS TO BE PAID ON 08/30/24

# We are enthusiastic and confident about Cemig's future!

- ▲ Discipline in Capital Allocation: execution of the largest CAPEX plan in history
- Operational efficiency: discipline for costs reduction and improving the quality of spending
- Modernization of governance: simplificity and agility
- Focus on the Client: improvements in the quality-of-service
- ▲ Leadership in the free and retail market
- Leading role in the energy transition, with innovation and investment attraction



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#### **Disclaimer**



Certain statements and estimates in this material may represent expectations about future events or results which are subject to risks and uncertainties that may be known or unknown. There is no guarantee that events or results will occur as referred to in these expectations.

These expectations are based on the present assumptions and analyses from the point of view of our management, in accordance with their experience and other factors such as the macroeconomic environment, market conditions in the electricity sector, and expected future results, many of which are not under our control.

Important factors that could lead to significant differences between actual results and the projections about future events or results include: Cemig's business strategy, Brazilian and international economic conditions, technology, our financial strategy, changes in the electricity sector, hydrological conditions, conditions in the financial and energy markets, uncertainty on our results from future operations, plans and objectives, and other factors. Due to these and other factors, our results may differ significantly from those indicated in or implied by such statements.

The information and opinions herein should not be understood as a recommendation to potential investors, and no investment decision should be based on the veracity, currentness or completeness of this information or these opinions. None of our staff nor any party related to any of them, or their representatives shall have any responsibility for any losses that may arise as a result of use of the content of this presentation.

To evaluate the risks and uncertainties as they relate to Cemig, and to obtain additional information about factors that could give rise to different results from those estimated by Cemig, please consult the section on *Risk Factors* included in the *Reference Form* filed with the Brazilian Securities Commission (CVM) – and in the *20-F Form* filed with the U.S. Securities and Exchange Commission (SEC).

In this material, financial amounts are in **R\$ million (R\$ mn)** unless otherwise stated. Financial data reflect the adoption of **IFRS**.



#### Highlights 2Q24





#### Consistent results offer attractive shareholder returns

o IoC declared in the amount of **R\$430 million** in June 2024



#### R\$1.9 billion in Operational cash generation of in 2Q24

Recourring Ebitda increases 2.0% (2Q24/2Q23)



#### Tax provisions reversal amounted to R\$584 million

o Favorable court decision related to social security contributions on the profit sharing

#### Cemig T – Investements fully recognized in the Tariff Review

o Reconciled Rap approved for the 2024-2025 adjustment cycle at R\$1.2 billion



#### **Investment program** – execution

Realized investments in 1H24 totaled **R\$2,446 million** 





Distribution **R\$1,961** million

Investment in modernization and maintenance of the electricity system



2024 Target – to invest 4X to QRR





**Transmission** R\$105 million

Reinforcements and improvements with increase in RAP



Generation R\$57 million

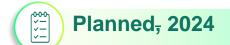
Expansion and modernization of generation plants



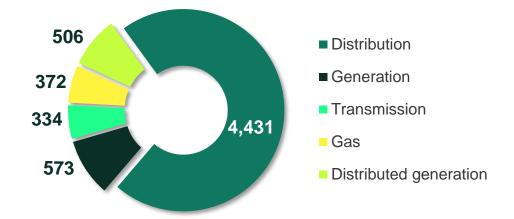
Gas R\$118 million Infrastructure and other



Distributed generation R\$205 million Infrastructure and other

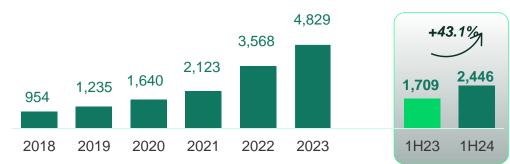


Investment of **R\$6.216 million** 





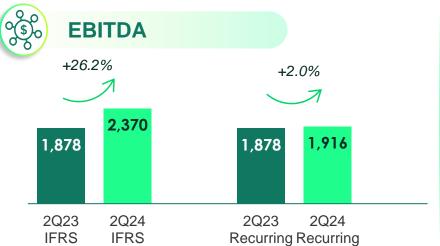
#### **Investment execution**





#### **Consolidated 2Q24 results**







	EBITDA		NET PROFIT	
R\$ million	2Q23	2Q24	2Q23	2Q24
<b>IFRS</b>	1,878	2,370	1,245	1,689
Tax provisions reversal - INSS (Social Security tax) on PLR	_	-584		-385
Voluntary Dismissal Program - PDV	_	78	-	51
Reversal of amounts to be refunded to consumers PIS/Cofins	-	-	-	-271
Civil Provision - Purchase and sale of energy	-	52	-	35
Lawsuit related to PAT (Worker's Meal Program)	-	-	-	-80
FX exposure – Eurobond hedge	-	-	-31	95
RECURRING	1,878	1,916	1,214	1,134



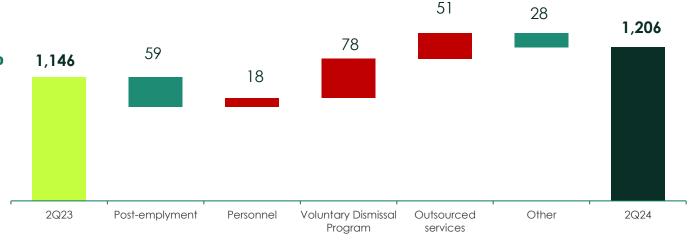


#### 2Q24: Consolidated operational costs and expenses



PMSO costs evolution, excluding the 1.7% effects of Voluntary Dismissal Program-

**PDV** (5.6% without PDV exclusion)





- The Voluntary Dismissal Program PDV added 357 employees at a cost of R\$78 million
- Higher expenses related to third parties for maintenance & conservation of electrical equipment
- Other expenses Mainly due to R\$38 million lower regulatory compensations paid to clients -REN-1000 (Aneel Resolution 1,000)

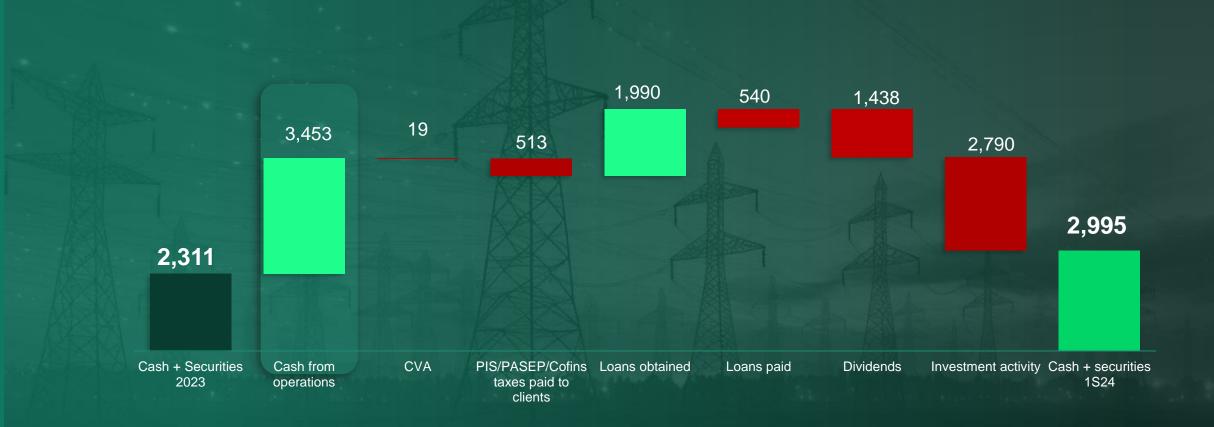


#### **Consolidated Cash Flow – 1H24**



R\$ million

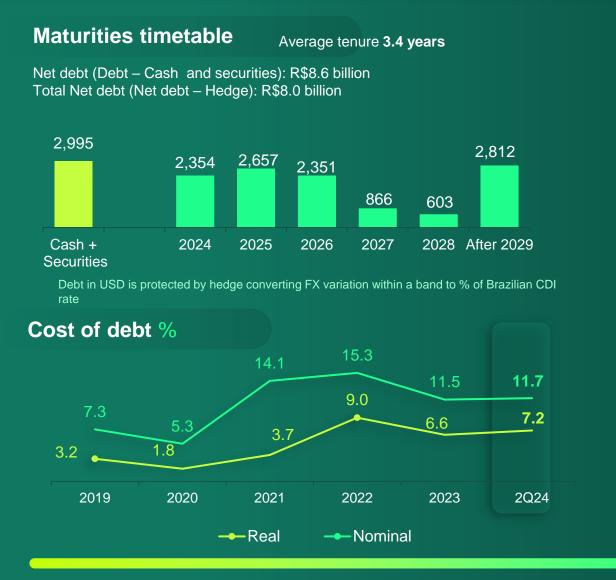
Cash generation allows execution of the investment plan and debt management

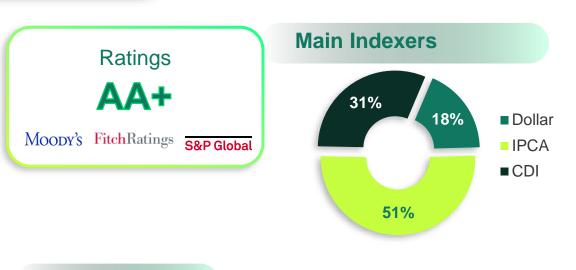


#### **Consolidated Debt profile**

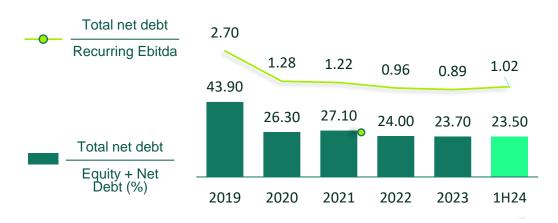


Current leverage level enables the execution of the investment program and attractive investment policy





#### Leverage

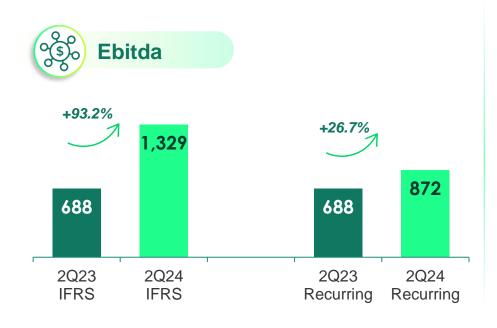


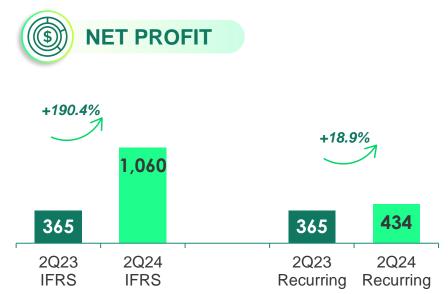


#### Cemig D —2Q24 RESULTS









	EBI'	TDA	NET P	ROFIT
R\$ million	2 <b>Q</b> 23	2Q24	2Q23	2Q24
IFRS	688	1,329	365	1,060
Tax provisions reversal - INSS (Social Security tax) on PLR	-	-513	-	-339
Voluntary Dismissal Program - PDV	-	56	-	37
Reversal of amounts to be refunded to consumers PIS/Cofins			-	-271
Lawsuit related to PAT (Worker's Meal Program)	-	-	-	-53
RECURRING	688	872	365	434

#### Tariff adjustment

May 28th, 2024

Effects of the tariff adjustment already impacted 2Q24

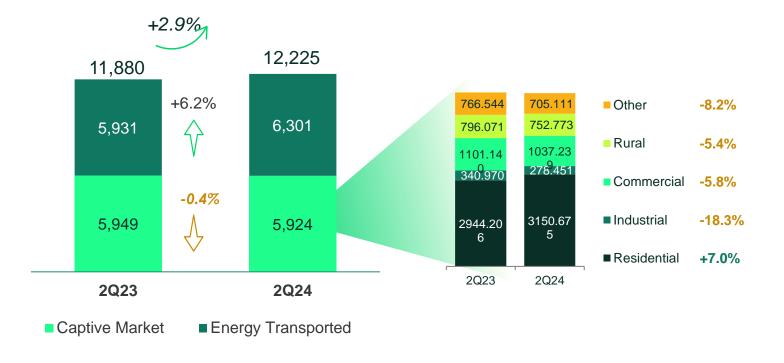


#### **Energy market – Cemig D**



#### Strong market growth in 2Q24

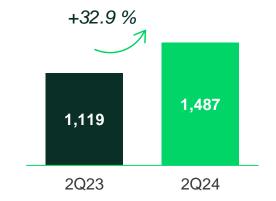
#### **Cemig D: Billed market + transmission for clients (GWh)**





5.5% Total market growth, excluding mini and micro effects on distributed generation

#### **Distributed Generation - GWh injected**



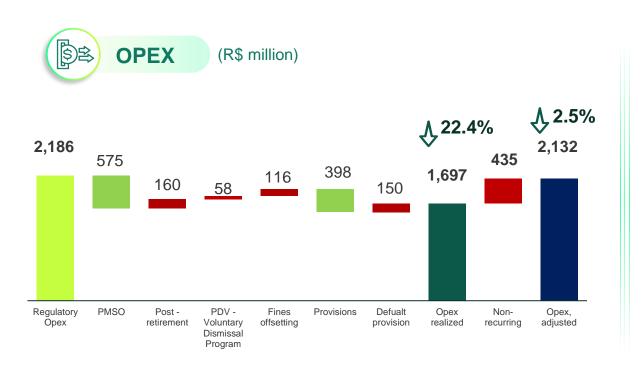


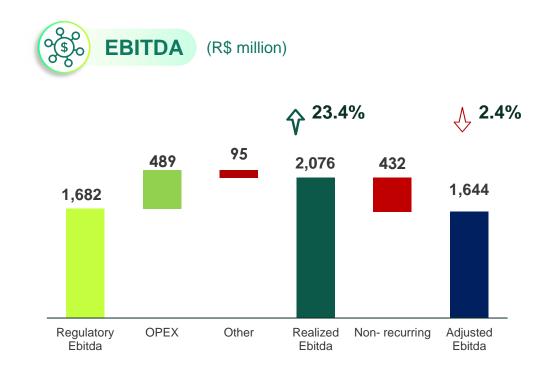


#### **Operational efficiency – Cemig D**



We remain within the regulatory Opex after excluding non-recurring effects







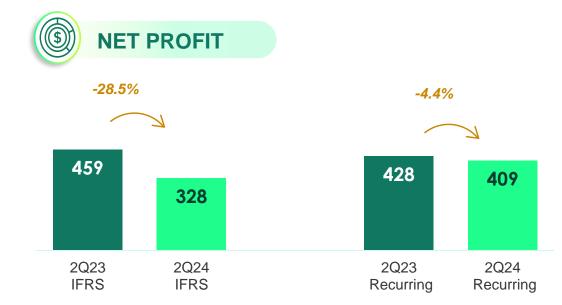
Implementation of initiatives to ensure that indicators remain within the limit established by the regulator



#### Cemig GT –2Q24 results







	EBITDA		NET PROFIT	
R\$ million	2Q23	2Q24	2Q23	2Q24
<b>IFRS</b>	629	641	459	328
Tax provisions reversal - INSS (Social Security tax) on PLR	-	-71		-47
Voluntary Dismissal Program - PDV	-	15	-	10
Civil Provision - Purchase and sale of energy	-	53	-	35
Lawsuit related to PAT (Worker's Meal Program)	-	-	-	-13
FX exposure – Eurobond hedge	-	-	-31	96
RECURRING	629	638	428	409



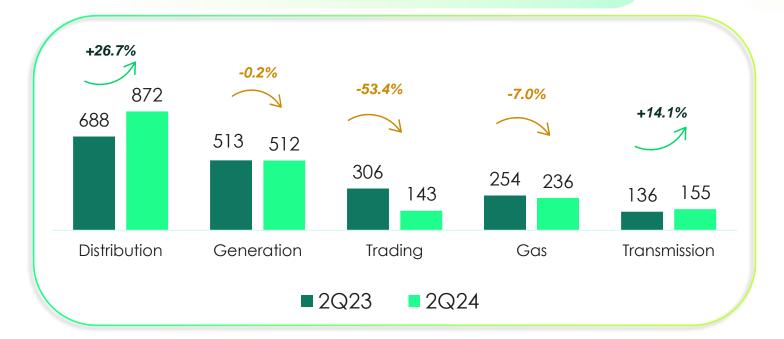


#### Recurring Ebitda per segment

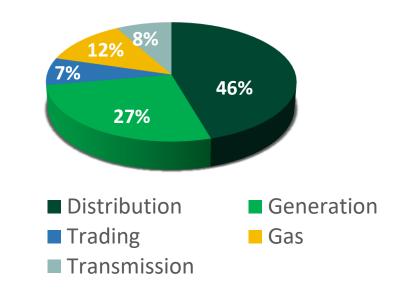


Financial data related to the company's main activities

#### Quarterly comparison



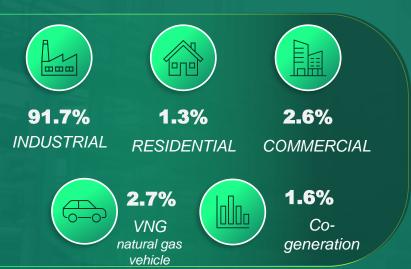
#### % Ebitda



#### GASMIG 2Q24 RESULTS



#### **Consumption by category**

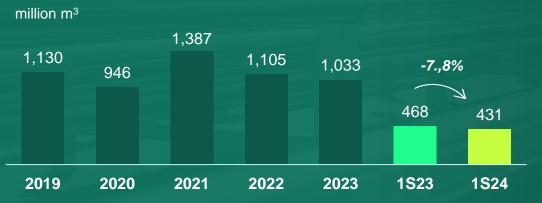




2Q23



#### Natural gas volume - sold



#### Results were affected by

2Q24



- ✓ Lower industrial volume consumed
- ✓ 2Q23 was positively impacted by the tariff compensation component (**R\$24 million**)



#### **Delivering on assumed commitments**







Strengthening Cemig D's investment program

Divestment of holdings with complexities

Management of bonds' liability

Maintaining Opex within regulatory limit



#### In progress

Implementing initiatives to comply with non-technical losses within regulatory level

Divestment of minority holdings

Digital transformation and investment in technology

Focus on being leaders in energy retail trading

To comply with DEC Outage indicator per set



# Future challenges and opportunities

Renewals of generation concessions

Technologies for energy transition









#### **Investor Relations**

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#### **Minas Gerais**

- Brazil's 3rd-largest GDP
  (after SP and RJ)
- Brazil's 2<sup>nd</sup> most populous state
  (10% of Brazil's population)
- 4th-largest State
  - (bigger than France / Spain)



#### **1st in Electricity distribution**

Cemig's lines and networks, together, would go round the world 14 times



**History: 72 years** 

Founded 1952 by Pres. Kubitschek



More than 9 million consumers

**Largest in Brazil** 



**Serves 774 municipalities** 

Present in 96% of the State



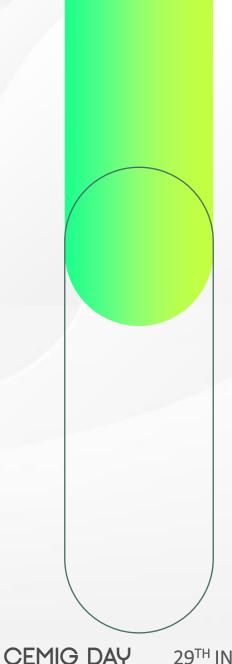
Concession area: 567,400 km<sup>2</sup>

**Bigger than the size of France** 









- Focus on the **Client**
- Optimize revenue management
- Combat losses, improve collection
- Increase operational efficiency, applying innovative and technological solutions
- Induce expansion of the market

   with increase in investments



## Cemig D's physical numbers – 2018 to 2028

152 units

	2018	2028
SUBSTATIONS	404 substations	615 substations
HIGH VOLTAGE LINES	19,156 km of lines	<b>21,950</b> km of lines
DISTRIBUTION NETWORK <sup>1</sup>	Network: <b>551,086</b> km	Network: <b>577,582</b> km
TRANSFORMER CAPACITY	10,586 MVA	16,000 MVA
THREE-PHASE NETWORK	Network: 130,815 km	Network: <b>165,048</b> km
MUNICIPALITIES WITH DUAL-VOLTAGE SUPPLY	667 municipalities	774 municipalities
SMART METERS	<b>0</b> units	<b>1,785,445</b> units
A A DISTRIBUTED GENERATION:	MINI- DG MICRO- DG	MINI- DG MICRO- DG

**377,787** *units* 

**2,878** *units* 

10,745 *units* 

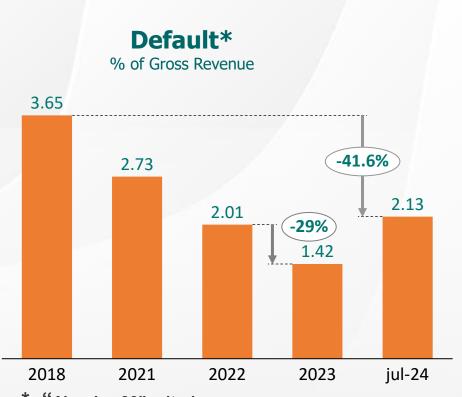
**CONNECTIONS** 



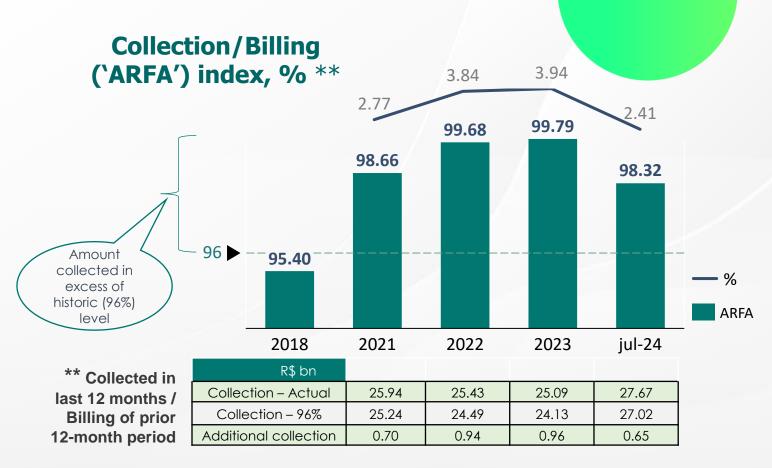
#### Results

#### **Commercial management: Collection, default**

Additional R\$ 3.24 bn collected over 2021–24 – compared to the historic collection level (96%)



\* "Abradee 90" criterion (avg. over 90 days / 12-month Gross revenue).







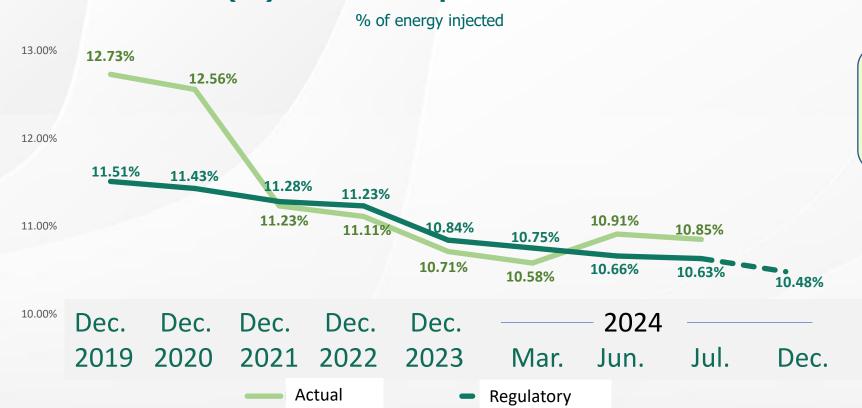
## Results

#### **Commercial Management: Energy losses**

**Total energy losses in distribution** within regulatory limits

Gain of R\$ 1.17 billion since 2021

#### Losses (%) in 12-month periods - Billed market



Losses lower than regulatory threshold since 2021. Small non-compliance in 2024. Recovery of compliance expected:

Sep. 2024.



Total gain R\$ 1.17 billion

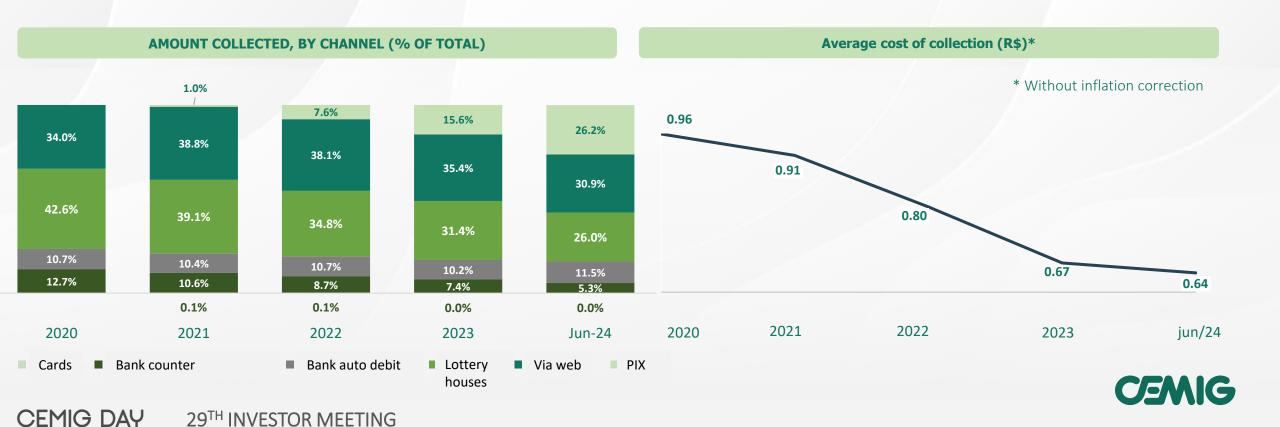


<sup>\*</sup> Values for July 2024 are preliminary – may alter after CCEE figures released.

## Results

## **Commercial management: Collection channels**

Use of **PIX** now exceeds use of **lottery agents. 69%** of collection is now through **digital channels** – saving **R\$25 million** since 2021



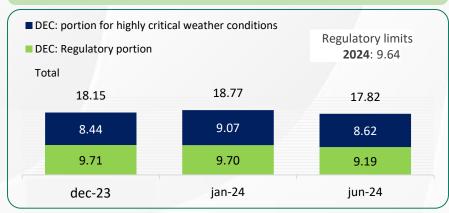
## Results

#### **Outage indicators (DEC, PCADEC, TMI)**

100% inspection program > proportionately higher preventive maintenance costs

> improving the company's **quality indicators** 

#### **GLOBAL OUTAGE TIMES**



**DEC** = Average Outage Duration per Consumer

## PREVENTIVE MAINTENANCE Budget strengthened



#### **READINESS**

151 **new** emergency teams ready for instant a ction

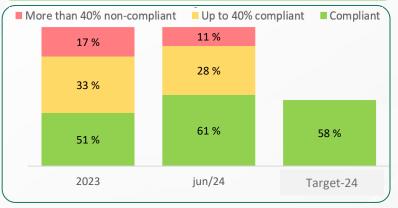


#### **CLEANING OF POWER LINE PATHWAYS**

42,700 km of pathways cleaned (21% more than in 2023)

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## Outage breakdowns - sub-areas profile



**PCADEC** = % of concession sub-areas compliant with regulatory DEC.

#### **RECLOSERS INSTALLED**

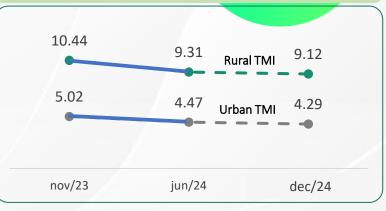
1,240 single-phase reclosers 2,053 three-phase reclosers 1,000 illumination failure locators



#### POWER SYSTEM IMPROVEMENT WORKS

~R\$ 1.2 bn – medium-voltage works 800 km of new high-voltage lines 38 new substations Satellite communication: 1,000 BGAN (Broadband Global Area Network) terminals 5.300 VHF Radios

## Cemig: average outage time (AOT = TMI)



TMI = Average outage time (Tempo Médio de Interrupção.)



#### **URBAN TREE PRUNING**

581,000 prunings executed (6% more than in 2023)



#### **RURAL WORKFORCE PERFORMANCE**

More than 9,000 staff working on buildup



#### **NETWORK INSPECTIONS**

Urban and rural networks: 141,000 km



## **Distributed generation**

Cemig has connected approximately 270,000 D.G. units – a total of 3.69 GW

**POTENTIAL FOR >7GW BY 2027** (1.5X PRESENT RESIDENTIAL DEMAND)

22% of BRAZIL's MINI-Distributed Generation 10% of BRAZIL's MICRO-Distributed Generation



29.59 GW **Installed capacity** 

2.6 million

37% higher than second-placed entity

Source: Aneel - SISGD. June 28, 2024.



#### **Minas Gerais:**

DG: 12% of Brazil's installed capacity, and number of units

**CEMIG INVESTMENT SINCE 2018:** 

>R\$ 2.4 BN



2.692 GW Installed capacity 207,000 Units

2nd



3.691 GW Installed capacity

> 271,000 Units

> > **1** st

3rd

**RGE** Sul

2.057 GW

**Installed capacity** 227,000

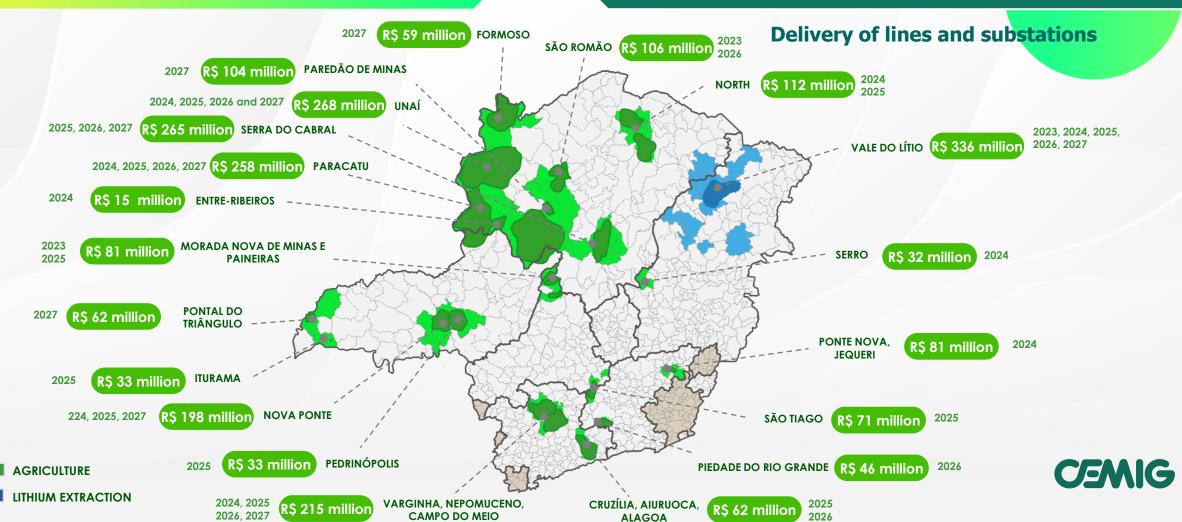
Units



## Rural clients: Agribusiness hub expansion



**EXPANSION: R\$ 2.45 billion** (2023 – 2027)



## **Rural Clients** | Three-phase program

#### **OBJECTIVES**

- Agriculture and irrigation: more energy and development
- Networks: better operational flexibility and reliability

#### **TARGET PUBLIC**

- Rural clients and municipal districts previously served by single-phase networks
- **6,014 km** built by June 2024

#### **MAIN NUMBERS (Forecast)**

30,000

km: Conversion / construction of the rural 3-phase network in 2022–27

R\$ 2.98

billion: investment

691

**Municipal city halls** already served by dual-voltage supply





#### The Mais Energia program: Load, Quality, Reliability

#### **OBJECTIVES**

- More quality and reliability of supply
- Develop the economy: Serve the suppressed market and future loads

#### **TARGET PUBLIC**

- All regions covered in the Mais Energia program
- Substation locations in accordance with integrated planning of the electricity system

**▼ SUBSTATIONS IN 2018 (415)** 

▼ SUBSTATIONS DELIVERED, JUN. 2019 –JUN. 2024 (+100)

**▼ SUBSTATIONS UNDER CONSTRUCTION (>100)** 



100 Substations delivered

Substations per year – previous average: 5

Substations in distribution by 2027 **200 more** than in 2020

Increase in power available to the market (+5,500 MVA)

R\$ 5 bn investment by 2027

More than



SUBSTATIONS

CEMIG

## Mais Energia program

June 4

#### **BH SERRANO SUBSTATION**



### **Delivery of high voltage equipment**

Up to 2023 94 works 202430 Works+8 (Challenge to beat expectations)

202526 Works+3 (Challenge to beat expectations)

202627 Works+3 (Challenge to beat expectations)

2027 23 Works

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## Cemig's Energy Transition and Innovation Committee

- Created August 2023
- ► Has welcomed invited guests from senior management of:







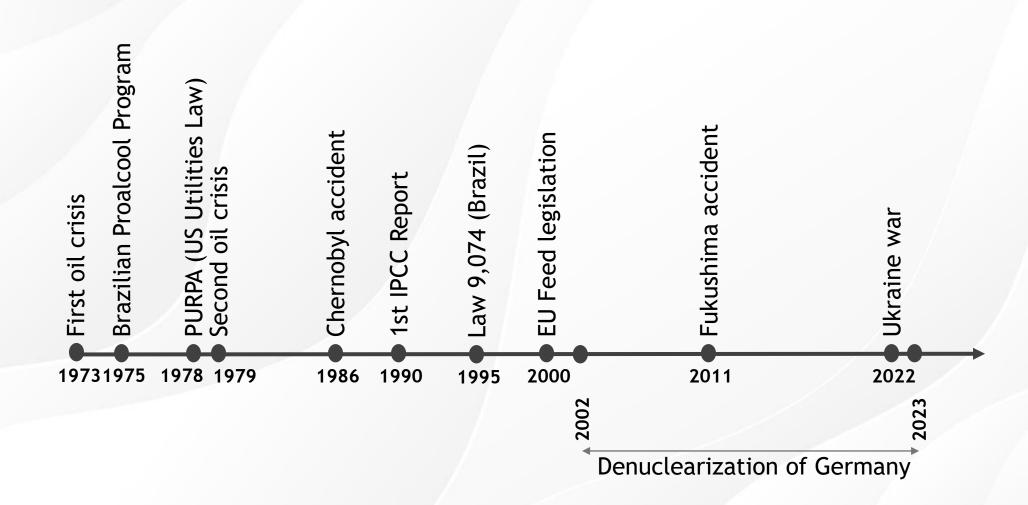








## **Evolution of the "Energy Transition"**



## Challenges of the energy transition

	Production	Transport	Final use
Fuel	High	Average	High
Electricity	Low	High	High
Hydrogen	Low	High	High

Hydrogen is the link between fuel and electricity.

# Challenges to electrical networks for the transition – IAE 2023 World Energy Outlook

#### ► Threats

- At least 3,000 gigawatts (GW) of renewable energy projects, of which 1,500 GW are at an advanced stage, are waiting for connection to a network the equivalent of five times the amount of wind and solar capacity that was added in 2022.
- Any delays in investing, and in the needed updating of networks, would substantially increase global CO<sub>2</sub> emissions, slowing the energy transition process and putting the 1.5°C target out of reach.
- At a time of uncertainty about supply, and concerns on security of the supply of natural gas, absence of construction of new energy distribution networks increases countries' dependence on natural gas.

## Challenges to electrical networks for the transition – IAE 2023 World Energy Outlook

#### Actions necessary:

- Regulations need to be revisited and updated, to support not only the building of new networks, but also optimum use of assets.
- Planning of new transmission and distribution networks needs to be aligned and integrated with governments' long-term macro planning.
- To meet climate targets, investment in networks needs to almost double by 2030, to more than US\$600 billion of investment per year after more than a decade of global stagnation, with an emphasis on digitization and modernization of distribution networks.
- Building distribution networks requires secure supply chains and a qualified workforce.

## Opportunities for the Brazilian power sector

The energy transition → Decarbonization → Electrification

Production: Renewable energy

► Transport: Change of criteria

Digitalization

Integralization

Decentralization

Use: Change of processes

Efficiency Vs. effectiveness

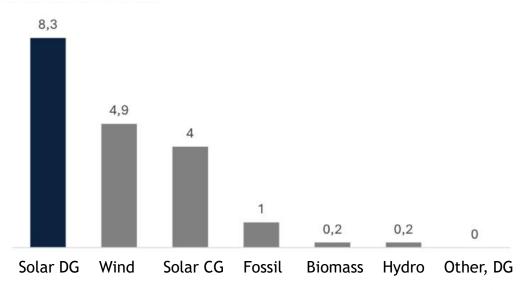
Storage: This is the big challenge.

## The distributors in the context of the energy transition

- Reactive position
- Opportunistic position
- Participant position
- Proactive position

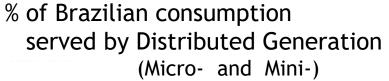
## Reactive position – the case of Distributed Generation

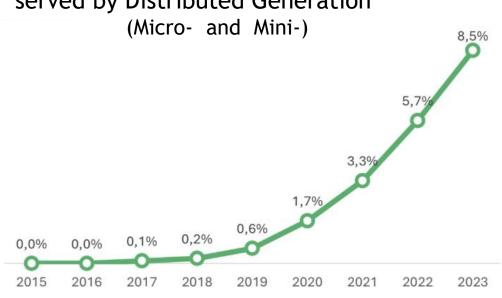
Increase in supply of generation in 2023 (GW)
- Entering operation in the year:



Source of data: Aneel - Interactive RALIE (panel at April 2024), and MMGD Base (accessed March 20, 2024)







Source of data: EPE - Micro and Mini Distributed Generation Data Panel.

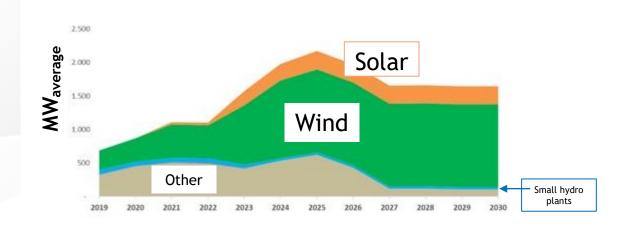
Studies from the 10-year (2034) Brazilian Energy Expansion Plan: Micro and Mini Distributed Generation & Batteries Behind the Meter.

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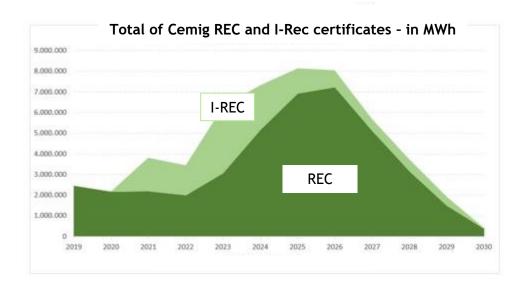
## Opportunistic position

the case of incentive-bearing generation

## Cemig Trading: Purchase contracts for incentive-bearing supply

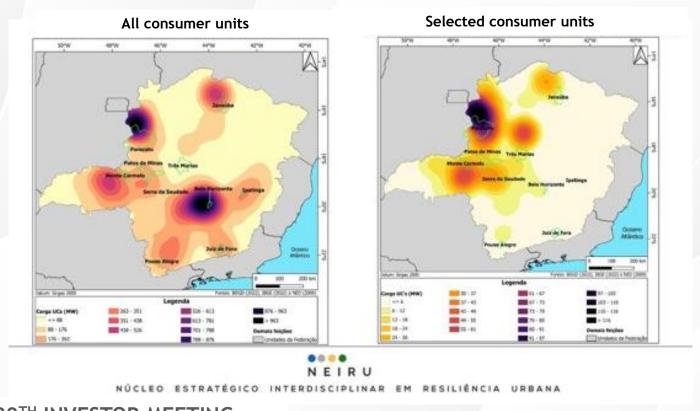


#### Sale of Renewable Energy Certificates



## Participant position – the case of irrigation

Changing from use of diesel to electricity for irrigation, in Brazil, reduces atmospheric carbon emissions by 10 to 15 times.



## Proactive position: Hydrogen – storage – final users

- ► CH2V green hydrogen project at UNIFEI University
- ► PDI ANEEL R&D Innovation program
- ► Focus on the transition of large clients in Minas
- GASMIG
- Serra da Saudade Project

