



## **COVID-19 – Respect for life**



- Home office working for administrative teams
- Facilities adapted for O&M teams; protocols adjusted; Covid-19 training; new IPE and hygiene materials distributed
- Employees with symptoms: preventive absence and medical monitoring
- Use of mobile apps



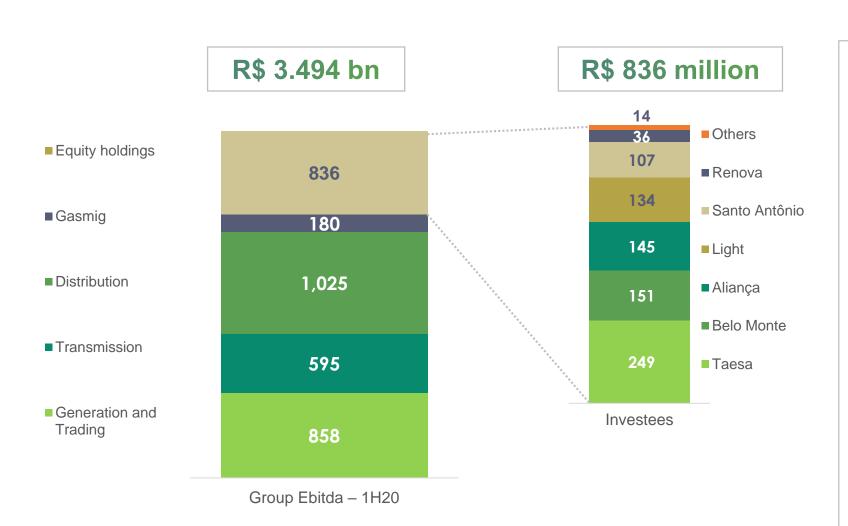
- Maximum efforts to maintain public service – highlight for special scheme for hospitals
- Safety protocols for critical sites, with creation of redundant structures for operational and control centers
- Customer disconnections temporarily suspended
- Funds donated to hospitals to buy ventilators



- Accelerated development of digital communication channels (social media, WhatsApp, website, video calls)
- Negotiation with Free Clients to reduce impacts of the crisis (installment agreements for receivables, deferment of commitments)



## CEMIG: BRAZIL'S LARGEST INTEGRATED ELECTRICITY GROUP



• 1H20 Reported Ebitda:

R\$ 2.6 billion

• 1H20 Operational Ebitda:

R\$ 3.5 billion

 Ebitda of 100% controlled businesses:

R\$ 2,658 million

 Equity-proportional Ebitda of nonconsolidated investees:

R\$ 836 million



## **CEMIG: SUSTAINABILITY**

How our practices distinguish us from the pack

100% renewable power generation



Low greenhouse gas emissions

> Direct emissions: 51,938 tCO2e in 2019

**Energy Efficiency** 

R\$ 86 million invested

in 2019



Cemig takes initiatives in line with ESG practices to ensure sustainability across all its businesses



**Valuing** diversity

Largest supporter of culture in Minas Gerais state



**Transformational** social projects

Direct benefit for more than 70,000 people



# Cemig: recognized in the world's leading sustainability ratings

















ROBECOSAM SUSTAINABILITY YEARBOOK 2020



ISEB3 – B3 CORPORATE SUSTAINABLITY INDEX





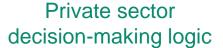


#### CEMIG NOSSA ENERGIA, SUA FORÇA

## **MANAGEMENT PRINCIPLES**

#### **Transformation of culture**







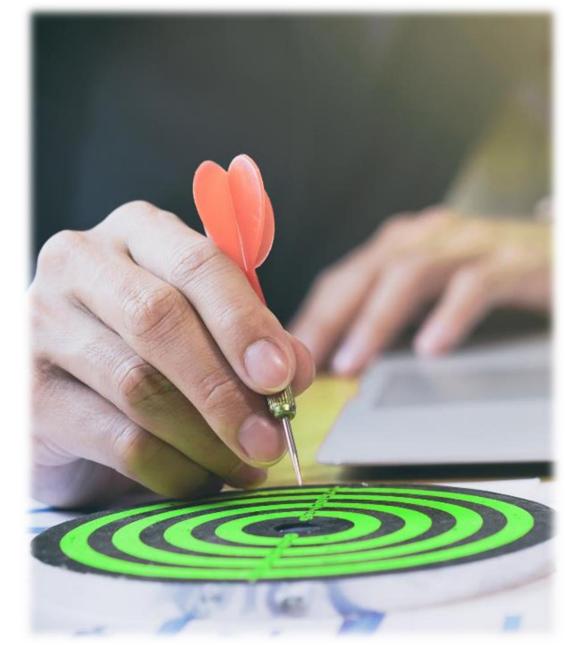
Focus on **results** 



**Client's** point of view









## **MANAGEMENT PRIORITIES**

#### Revision of Strategic Plan

**Operational efficiency** 





**Digital transformation** 





**Growth** 

Management of assets (regulatory remuneration base)





Prepare the Company for privatization



### **CEMIG DISTRIBUTION**

#### R\$ 20 million

Population served: 10% of Brazil

#### R\$ 8.6 million

Clients in **774** municipalities

#### Concession

**26 years** remaining

#### 44,950 GWh

Energy carried and distributed in 2019

#### 539,000 km

Distribution network

#### 413 substations

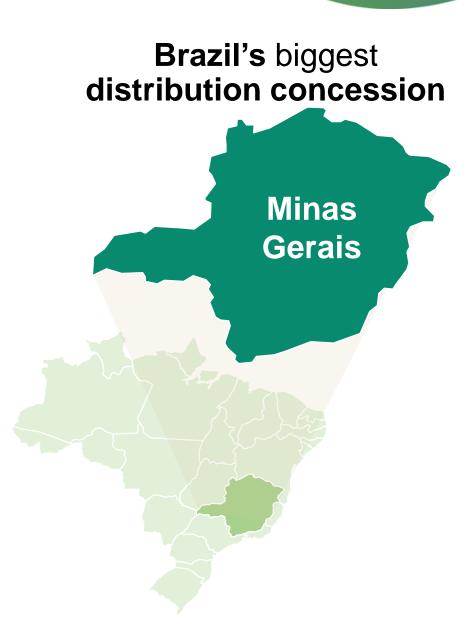
10,742 MVA



#### 1111

#### **Turnaround strategy**

- Exceed regulatory Ebitda
- Leading position in client satisfaction
- Robust investment and digitalization program





## **CEMIG D: 1H20 REGULATORY OPEX AND**





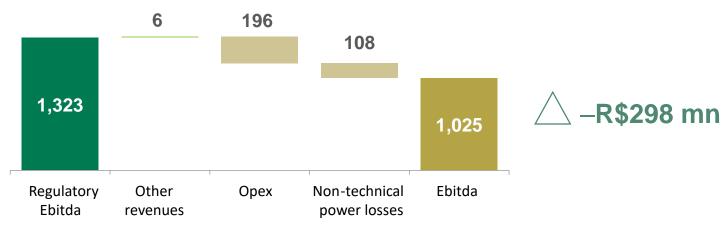






## Ebitda: Regulatory vs. Real

Target: energy losses at regulatory target by end-2021

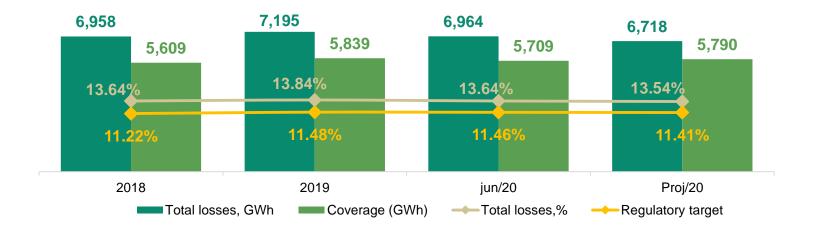




## **CEMIG D - ENERGY LOSSES**

#### Losses in distribution

#### 12-month moving average



Of the total losses, approximately **65%** originate from technical losses and **35%** from commercial losses.



### **CEMIG D: ROBUST PLAN TO COMBAT ENERGY LOSSES**

## Energy losses recovery plan: in progress – 2019-21

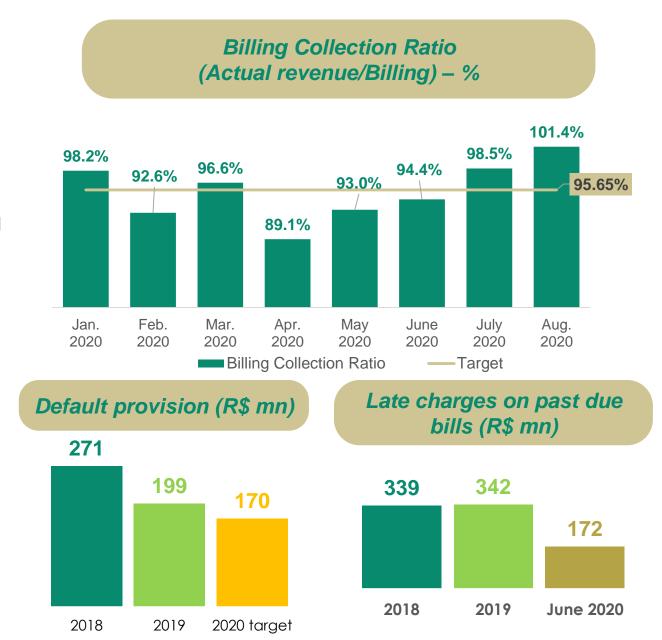
- 1.6 million inspections
- Regularization of 120,000 unauthorized connections
- Public lighting: Inspection of 2.2 million public illumination points
- Remote and automated metering: Installation of 345,000 points with advanced metering infrastructure





#### **CEMIG D: COMBATING DEFAULT**

- New collection and negotiation tools implemented:
  - Protest of debt (local notaries)
  - Collection letters delivered at time of meter reading
  - Via specialized collection company
  - Negotiation of past due receivables via WhatsApp
  - New system implemented: payment at time of disconnection, debit/credit card
  - Disconnections were resumed in August expected to total 800,000 in 2020
- Accreditation of collection agents including Fintechs
- Negotiation of R\$ 240 million receivable for service from Minas Gerais State
- R\$ 140 million in settlements with largest defaulters and retail clients
- Deployment of optimal billing target selection software.
- Negotiation campaign via WhatsApp (11,049 installments, R\$ 15.4 million under negotiation and R\$ 2.3 million received as input) since August 18
- Outstanding Debt R\$ 2.5 billion





### **CEMIG D: NEW CLIENT SERVICE MODEL**

Review of processes focused on client's experience

## Low complexity services

100% digital

Copy of bill, outage, balance check, reconnection













## Low /medium complexity services

'Totem' kiosk or video





## High complexity services

New street branch model centered on self-service







Annual gain R\$ 14 to R\$ 28 mn



## **CEMIG D: DISTRIBUTION DEVELOPMENT PLAN:**

#### **BRR\*: R\$13 BILLION IN 2023**

2018-2022 regulatory cycle



R\$ 6.2 bn

total investment in 2018-2022

**R\$13** bn

34% of capex will be in East and North

Expected net BRR\* in 2023, assuming all improvements accepted



**CONSUMERS: Urban and rural** connections

1.14 million units



2,958 km High voltage lines +17%



80 units **New substations** +19%



2,150 MVA **Transformation** capacity +20%

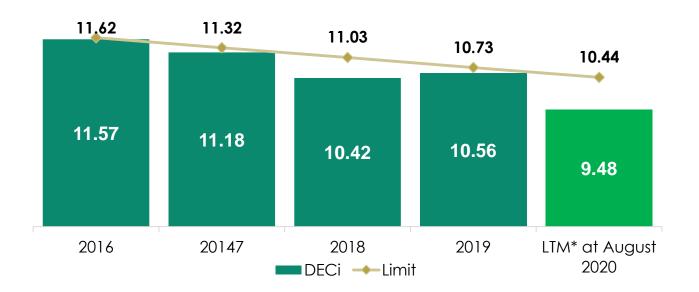
#### Main benefits of the 2018-2022 plan

- **400 municipalities** in Minas Gerais directly benefit from these investments - 52% of Cemig D's concession area
- Improvement in quality of power supply to all clients, with more substations and new lines
- Action against energy theft through intelligent metering – installation of **465,000** remote metering points
- **Priority for investments** in historically less favored regions

<sup>\*</sup> BRR = Regulatory Asset Base.



## CEMIG D: 2020 DEC OUTAGE INDEX IS BEST EVER



- Commitment to quality of service provided
- Investments will improve technical performance indicators and reliability of the system



<sup>\*</sup> LTM: Last twelve months.



## **CEMIG TRANSMISSION**

#### Benchmark in operational efficiency, according to Aneel

#### R\$ 867 million

RAP,\* 2020-20 cycle

R\$ 488 million of RBSE

#### **Acquisition**

Companhia de Transmissão Centroeste

#### 5,005 km

Transmission lines (km)

#### 44 substations

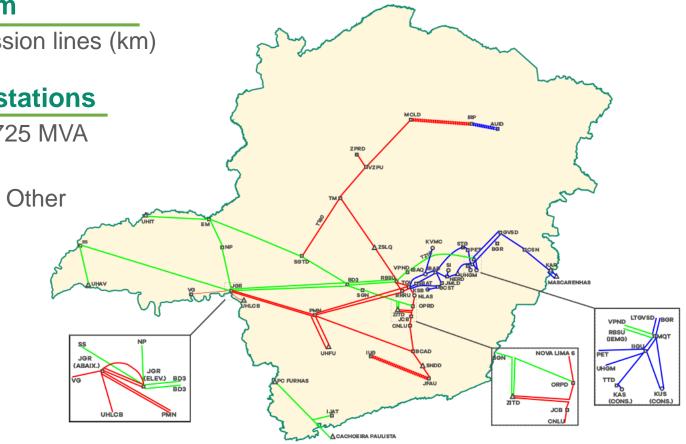
with 17,725 MVA

Main concession (94% of RAP) in effect to 2042 contracts have 10 and 15 years remaining)



#### **Growth strategy:**

- Mainly through updating and improvements
- Complementary: auctions with synergy

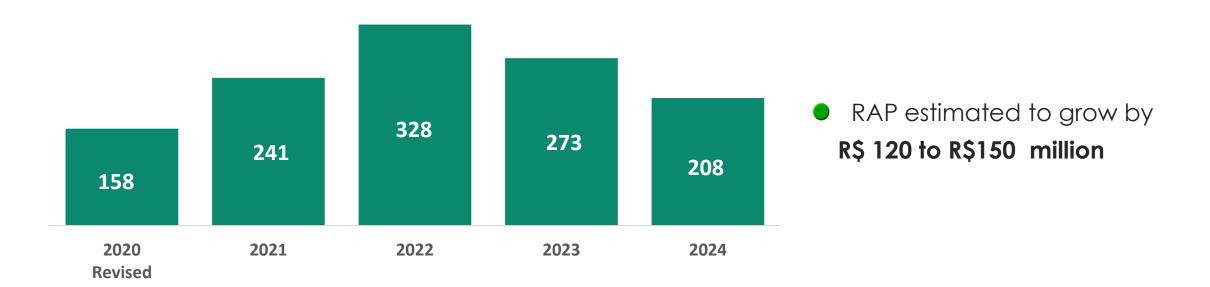


<sup>\*</sup> RAP: Permitted Annual Revenue



## **Cemig T: Focus on updating and improvements**

Investment of **R\$ 1.2 billion** in updating and improvements in 2020–24



2020 Aneel regulatory WACC: 6.98%





## **CEMIG GENERATION**

#### 53 power plants

11 hydroelectric plants39 Small Hydro plants

2 wind plants

1 photovoltaic plant

3.3 **GW** 

Installed

capacity

1.68 GW<sub>average</sub>

Physical guarantee

- State-of-art engineering recognized by market
- 94.9% availability for large hydro plants (vs. 89.5% for ONS\*)
- Integration with Trading

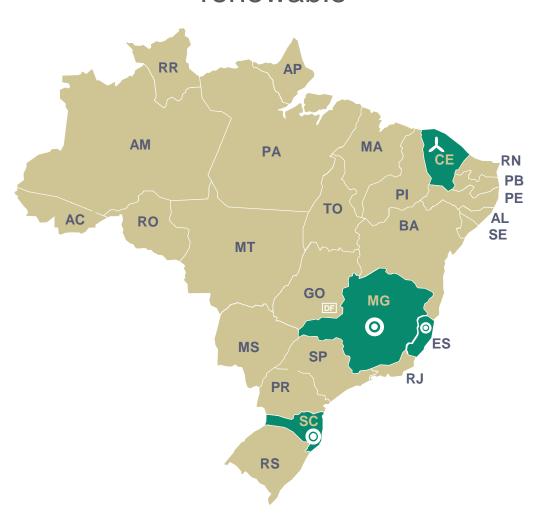


#### **Growth strategy:**

- Renewal of concessions
- Integration with Trading
- Development of projects focused on renewables

#### **Renewables:**

100% of our generation is renewable



<sup>\*</sup> ONS: National System Operator.



## **CEMIG G: RENEWAL OF CONCESSIONS**

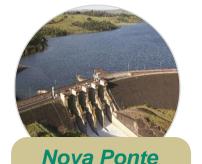
#### Preservation of existing generation plants:

- These assets have 53% of Cemig GT's total offtake guarantees
- Cemig has formally advised the Energy Ministry of its interest in extension
- Actions in progress:
  - Interactions with MME
  - Authorizations for creation of SPCs;
  - Request for statement by Attorney General's Office, and competent bodies of Minas Gerais State, to authorize privatization
- In parallel, we are evaluating other options that may materialize arising from the "Power Sector Modernization" Draft Law.



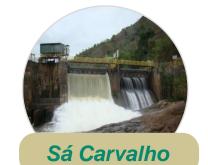
Physical guarantee: 499.7 MW<sub>average</sub>

Concession expires: July 23, 2025\*



• Installed capacity: 510 MW

Concession expires: July 23, 2025\*



• Installed capacity: 78 MW

Concession expires: Nov. 30, 2024\*

<sup>\*</sup> Law 14052 ('GSF') will extend expiry date – actual date to be set by Aneel.



## Generation: Investments, expansion and diversification

#### **Portfolio of Cemig projects under development**



#### **Hydroelectric plants**

Expansion of capacity of SHPs\*: **50MW**Under construction:
Poço Fundo SHP\*



#### Photovoltaic plants

Centralized generation (GC)

1,400 MWp

Floating photovoltaic plants

350 MWp

Distributed generation (GD)



#### Wind plants

Public tender for development / acquisition of wind projects



#### **Thermal generation**

Gas-fired thermoelectric plants
500 MW







### **Foreseeing**

18%\*

Market movements

#### **Performance**

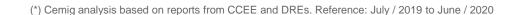
Long-standing relationship with clients Excellence in management of hydrological risk

#### **Strategy:**

- Keep market leadership position
- Grow in retail market
- Integrate with Generation
- Large presence in the Free Market will boost Cemig's own investments in alternative sources

### **Brazil's largest power trader**







## **Trading: Why Cemig stands out**



Long-term view of relations with clients; focus on sustainability in commercial relationship:

- Average duration of contracts longer than market average
  - 57% of Cemig's sale contracts are over 4 years
  - in CCEE this percentage is 39%\*
- Trading margins higher than market average
- Default at normal levels even with Covid-19 pressure



## Adaptability, speed, market expertise:

- Leadership maintained even with major changes in the sources portfolio and competitive environment
- Rapid decision-making
- Anticipation of market movements
  - Focus on Free Market since 2005 (since it was created, greater part of sales have been directed to Free Market – a trend followed only later by other generators)
  - Internal limits for management of GSF risk since 2008 (long before it became a headline issue)
  - More flexible products for the incentivebearing market since 2010 (followed later by the competition)
  - Purchase auctions for long-term supply since 2018 (followed by other generators, from 2019)



## Diversified portfolio of sources

 Balance between own hydroelectric sources and purchases from various incentive- bearing sources

 notably solar and wind



## Preparation for potential changes by Draft Law 232

#### Purchase auctions for incentivebearing supply, since 2018

 Guarantee of incentive-bearing supply for opening of market

## Preparation for retail market

- Registration of Cemig GT and Cemig Trading as retail traders
- Modernization of internal processes; acquisition of new CRM and integration of systems, for greater automation and greater capacity, to serve a larger client base





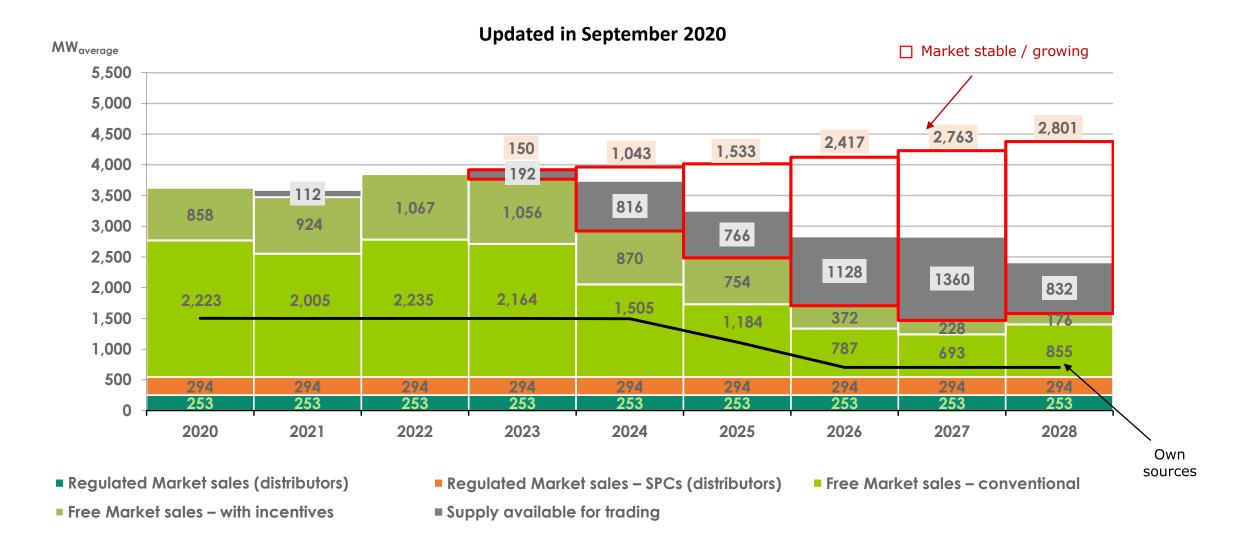
## **Trading: highlights and strategy**

- Low exposure to price variations: open positions up to 2023 are marginal
- Growth in 'special clients' segment: contracts signed for more than 1GWaverage
- Established presence in Free Market will boost Cemig's own investments in alternative sources
- Gross margin of 10%
- Average price billed R\$/MWh:

2020	2021	2022	2023
224.39	212.99	207.33	198.93



## Cemig group\*: Supply and demand



<sup>(\*)</sup> Considers the total availability of the Cemig group's generation companies (Cemig GT, Sá Carvalho, Horizontes, Cemig PCH, Rosal, Cemig Geração Três Marias, Cemig Geração Salto Grande, Cemig Geração Leste, Cemig Geração Oeste, Cemig Geração Sul), plus purchases from outside sources.

#### CEMIG NOSSA ENERGIA, SUA FORÇA

## **CemigPar: Main businesses**

R\$ mn

Market segment	Company	Physical scale 100% of Assets	Proportional net revenue 2019	Proportional Ebitda 2019	Proportional profit 2019	Proportional net debt 2019
D/G	Light (22.58%)	28,000 GWh/year Installed capacity 1,188 MW	2,859	442.9	299.8	1.5 bn
D	Gasmig (99.57%)	2.3 mn m³/day supply capacity	1,850	292.2	163.9	1.0 bn
G	Aliança (45%)	1,257 MW Installed capacity	496	244	103	(146)
G	Renova (36.23%)	628 MW Installed capacity	36	(185)	(367)	564
G	Norte Energia (11.69%)	11,233 MW Installed capacity	492	347	24	3,259
G	Madeira Energia (15.51%)	3,568 MW Installed capacity	495	226	(144)	2,424
T	Taesa (21.68%)	13,576 km Transmission lines (km)	1,807 (Regulatóry)	328 (Regulatóry)	217 (IFRS)	715
G/S/GD	Other minority holdings*		219	107	54	67
	TOTAL		8,254	1,802	351	9,383



## **Strategy for CemigPar: Maximization of value**



Non-strategic or with limited synergy:













Opportunities:







2 Growth

Through investees:







New businesses:





Renew generation concessions







3 Management

Make use of synergies:





Capital structure and distribution policy:







Improve governance





## **GASMIG**

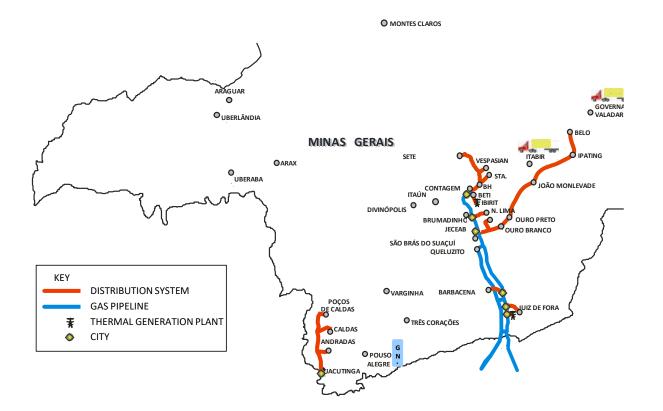
#### Natural gas distributor – Concession for whole of Minas Gerais state – Asset base approx. R\$ 2.5 bn

55,700 Clients 1,300 km

of network

2,325,000

Supply capacity (m³/day)



- Proposed draft law to open the gas market may potentially create competitive environment and reduction of gas prices
- Concession extended until 2053
- Registry for category B listing in progress
- 8th debenture issue: R\$ 850 mn



#### Strategy for the asset:

- Is part of Cemig's disinvestment program
- Preparation for listing Structure under study





#### Distributed generation



#### **Energy Efficiency**



#### **Storage**



2

Solar plants in operation

Co-generation



#### **Billing services**



**Utility management** 



8

Cogeneration units 33 MW

22 MW

Purchase options



#### Janaúba photovoltaic plant

• Solar unit (49% Cemig SIM)

• Inverter capacity: 5 MW

• Start of operation: 2019

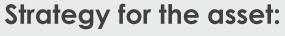


#### Corinto photovoltaic plant

• Solar unit (49% Cemig SIM)

• Inverter capacity: 5 MW

• Start of operation: 2019





- Investment in Distributed Generation
- Innovation
- Non-regulated services



## **Financial strategy**



## Management of debt

- Preserve liquidity in long term
- Optimize capital structure



# Focus on operational efficiency

- Reduce costs without compromising on quality
- Adoption of ZBB (Zerobased budgeting) in 2021



#### Investments

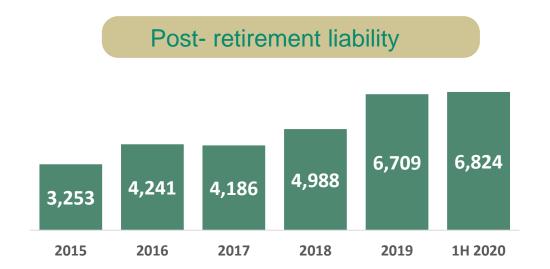
- Growth with adequate return
- Obtain specific financings to reduce borrowing costs

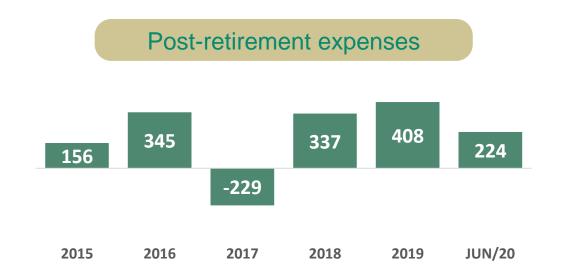


Equilibrated remuneration to stockholder



## **POST-RETIREMENT**





Studies for adaptation of the private pension and health plans, with a reduction in actuarial risk and obligations

(\*) Changes in the life insurance policy in 2017, which reduced the actuarial obligation, with gains of R\$ 620 million.



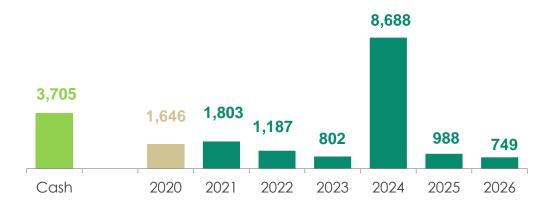
## **MANAGEMENT OF DEBT**

(Figures in R\$ mn, with interest accumulated to June 2020)

#### Cemig, Consolidated

#### Maturities timetable – Average tenor: 3.8 years

Net debt (Debt – Cash and securities): R\$ 12.2 bn
Total net debt (Net debt – Hedge): R\$ 8.9 bn

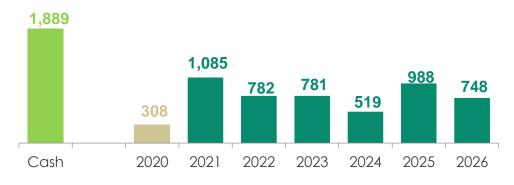


- Liquidity ensures servicing of debt in medium term
- Balanced profile of debt of Cemig D, with no restructuring challenges
- Focus on liability management of Cemig GT bonds, at the opportune moment, to reduce FX exposure and undo concentration of debt servicing in 2024

#### **Cemig D**

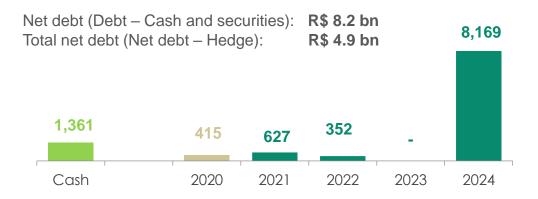
#### Maturities timetable – Average tenor: 3.7 years

Net debt (Debt – Cash and securities): R\$ 5.2 bn



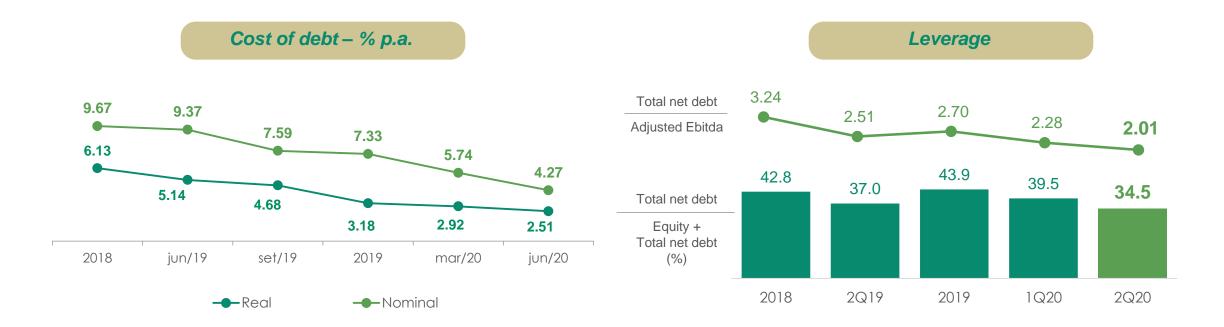
#### **Cemig GT**

#### Maturities timetable – Average tenor: 4.1 years





## **MANAGEMENT OF DEBT**



- Principal debt of the company (Bonds of Cemig GT) costing 142% of CDI, benefiting from reduction of Selic rate
- Debt becoming due in coming years will be amortized with the Company's own funds, maintaining leverage around 2.0 x Ebitda
- We see leverage at 2.5 x Ebitda as acceptable in a scenario of arranging funding to enable renewal of Cemig GT's concessions

## **DIVIDENDS POLICY**

Aim: BALANCE between remuneration to stockholders and financing of new projects



50% payout



## Minimum guaranteed dividend

R\$ 505 million for preferred (PN) shares, as required in bylaws



Dividend yield 4.6%

Dividends declared

Median, last 5 years, %

Source: Economática, Ebitda>R\$2 bi





### THE NEW CEMIG: RESUMING POLE POSITION

#### **Distribution** Generation Renewal of concessions Exceed regulatory Ebitda Growth through development of projects **Transformation** Private sector decisionmaking logic Focus on results **Transmission Trading** Operational efficiency Integrate with Generation Growth through Client's point of view updating and Leadership positioning to Integrity improvements continue growing in retail Integration market **Equity holdings** Financial

- Maximization of value
- Recycling of financial capital

- Appropriate capital structure
- Reduce cost of capital
- Equilibrated remuneration to stockholder

