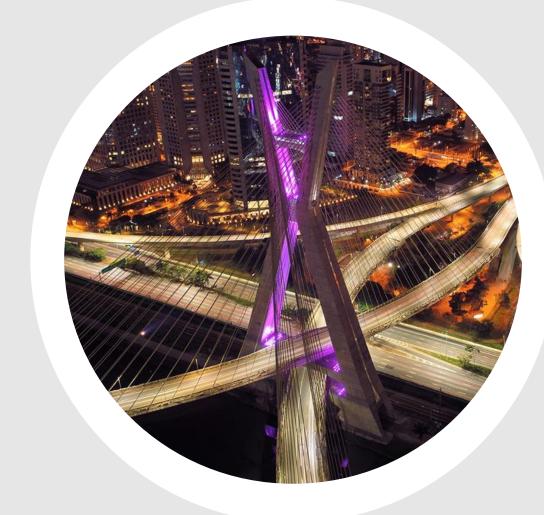


Câmara de Comercialização de Energia Elétrica

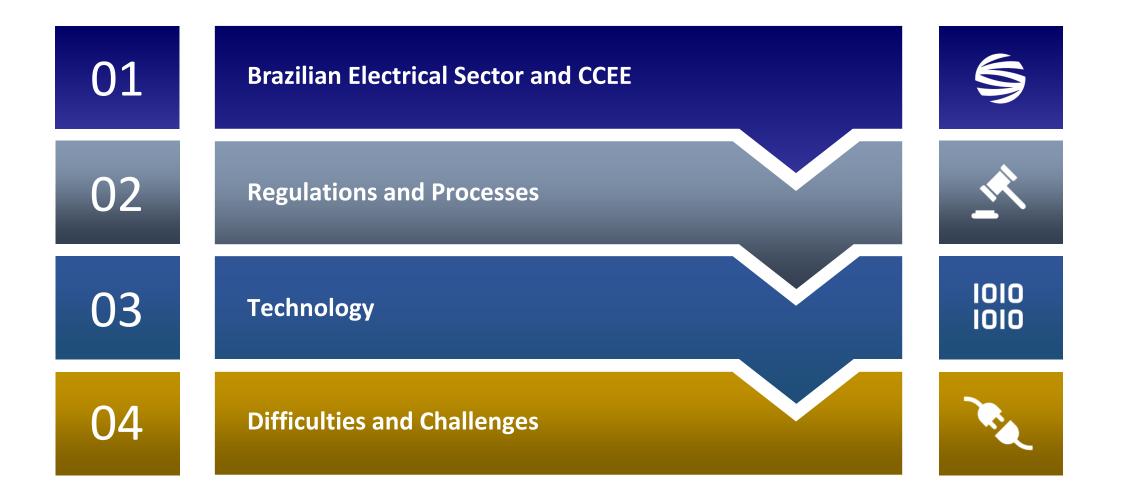
Commercialization of Electric Energy



OCTOBER/2022

TOPICS COVERED



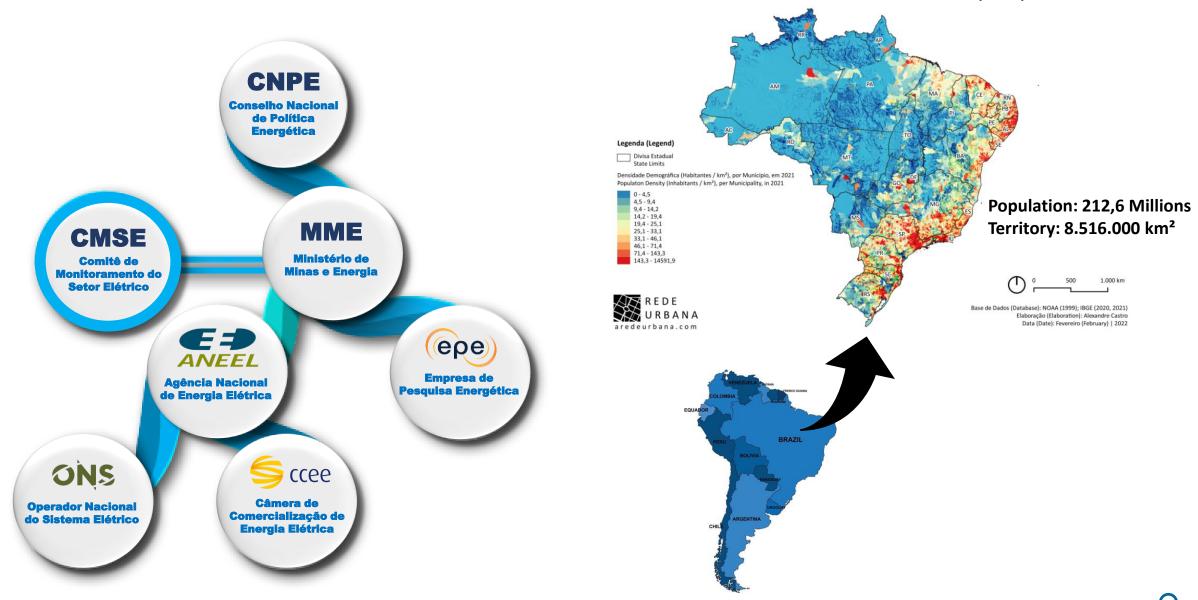




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BRAZILIAN ELECTRIC SECTOR

POPULATION DENSITY OF BRAZILIAN MUNICIPALITIES (2021)



01 CCEE | CHAMBER OF ELECTRIC ENERGY COMMERCIALIZATION





Created in 1999, CCEE is a private, non-profit institution that brings together all companies that sell electricity in Brazil

Purpose

Develop efficient, innovative and sustainable energy markets for the benefit of society

Vision 2030

To be a world reference in the operation of energy markets

OUR VALUES



Collaboration



Commitment to the Customer



Ethics and Transparency



Excellence

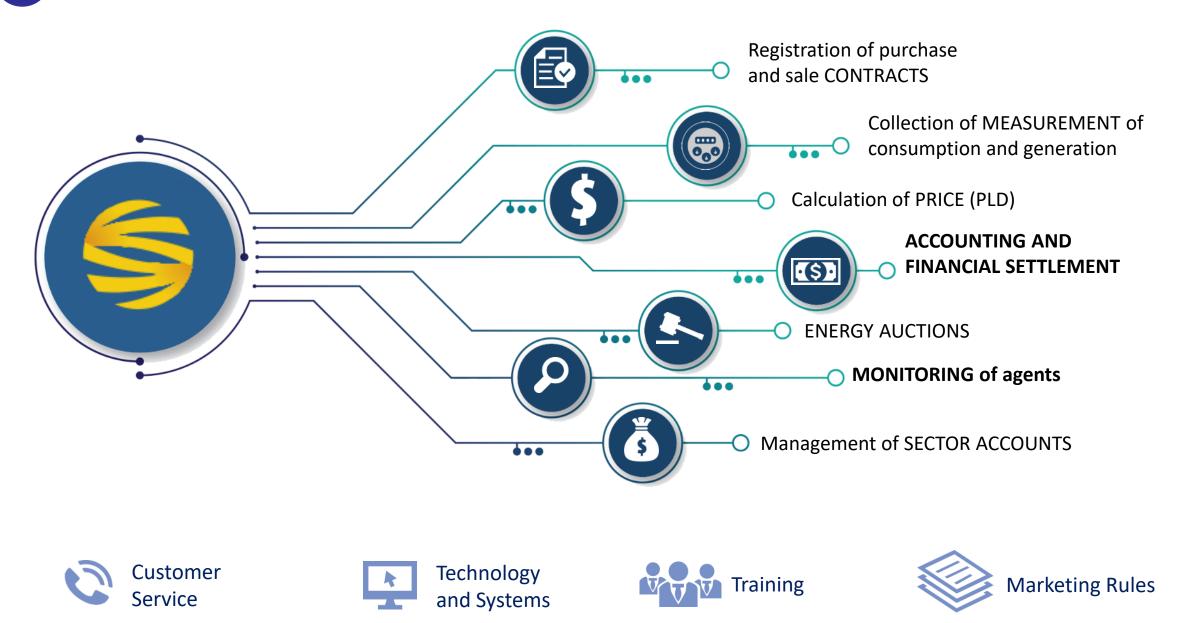


Appreciation of People



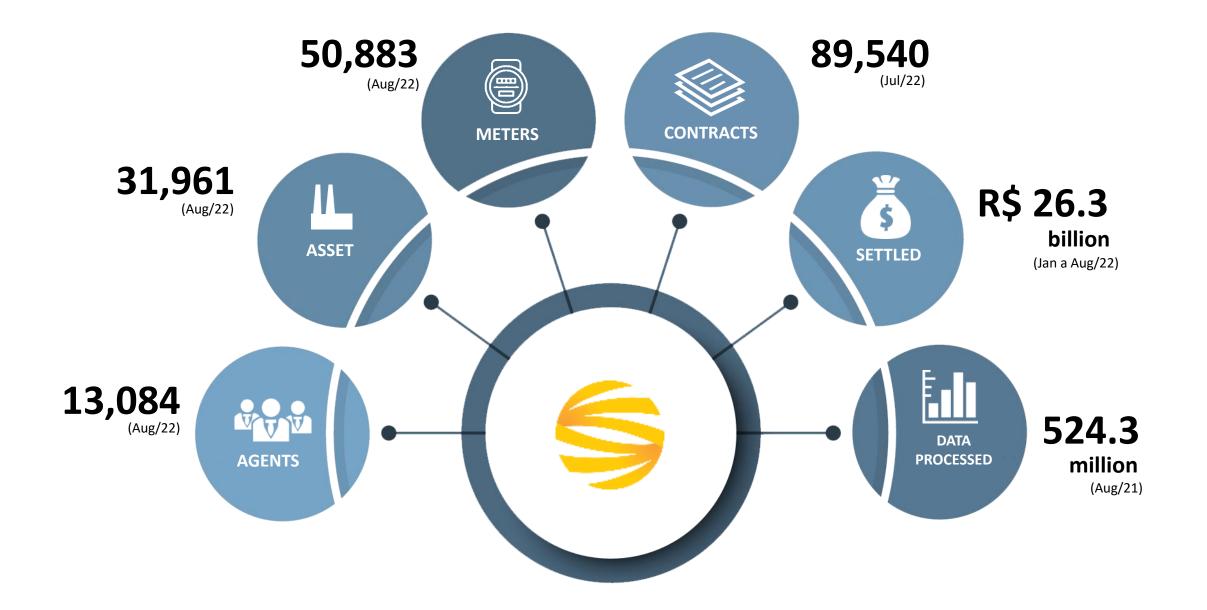


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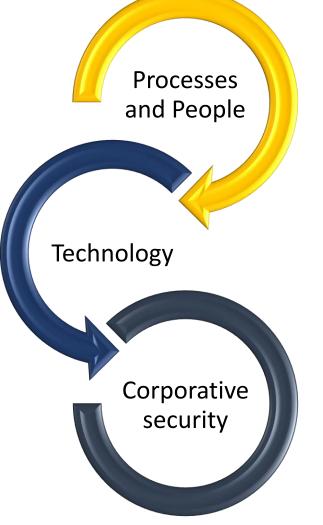




2018	08/14	Law 13,709 General Personal Data Protection Act (Driver's Privacy Protection Act)		
	11/22	Presidential Decree 10,748	Establishes the Federal Cyber Incident Management Network	
	12/26	Presidential Decree 9,637	which established the National Information Security Policy , within the scope of the Federal Public Administration	

06/01	06/01 Resolution 4,658, of Cons. National Monetary Fund, and Circ. 3,909, of BC		provides for cyber security policy and requirements for contracting cloud data processing and storage services
06/16	Presidential Decree 9,573	Establishe	s the National Critical Infrastructure Security Policy
06/16	Presidential Decree 10,748	Establishes the Federal Cyber Incident Management Network	
10/24	ANEEL Resolution No. 24	Approves the Guidelines on Cyber Security for the Electricity Sector, as established in CNPE Resolution No. 1, of February 10, 2021, considering the aspects of prevention, treatment, response and systemic resilience.	
12/14	ANEEL Resolution No. 964	Provides for the Cyber Security Policy to be adopted by agents in the electricity	





GEGOI - Executive Management of Institutional Governance

Processes, Policies and Standards Security Training Programs Prior security and privacy assessment of third-party applications

TM - Market Technology

Recognized technologies in the market focused on cybersecurity and trained staff

CCEE

A stable, secure and available environment for energy trading with transparent cyber barriers preventing / discouraging attacks on infrastructure and services

02

OVERVIEW | BUILDING OF A SECURITY CULTURE

Make different

- The use of gamification has clear effects in this context
- Hands on training based on our business
- Hybrid work first, has new challenges and people have less time now and courses must be limited to an one hour.

Engage Managers

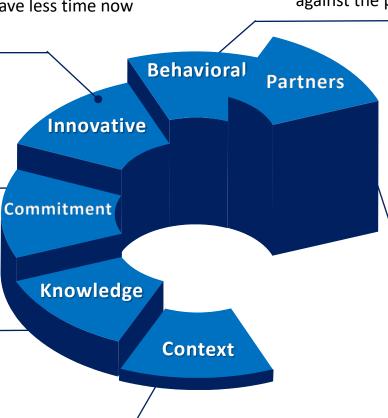
 Management is responsible for strengthening the motivation and security culture and includes the adaptation of his processes under aspects of information security.

Adoption of modular training

- We apply awareness for all entrance employees;
- Security and Privacy protection as a standard for business analyst, ambassadors of privacy, Human resource and communication area.

Employees have different starting point

- We personalized learning paths, make what employees have learned tangible and relevant.
- We seek to understand the individual role, C-Level, managerial positions, privileged access rights or employees in the finance department are different target to attacks.



Improving behavioral security

- The construction of cybersecurity programs awareness must incorporate privacy principles;
- Investing in security awareness should be seen as an investment in the security of the organization and calculated against the potential costs in the event of damage.

Increasing resilience

- The CCEE selects its partners and considers the associated risks (trade-off);
- The cybersecurity ecosystem of an organization must maintain a strong culture of security, so connected resilience will be of massive importance.

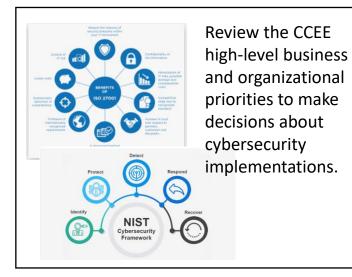
Employees are an active part of the solution to the cybercrime problem!!!



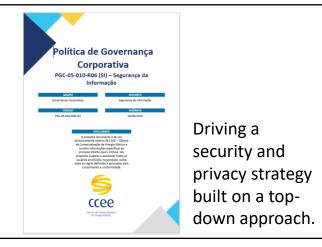


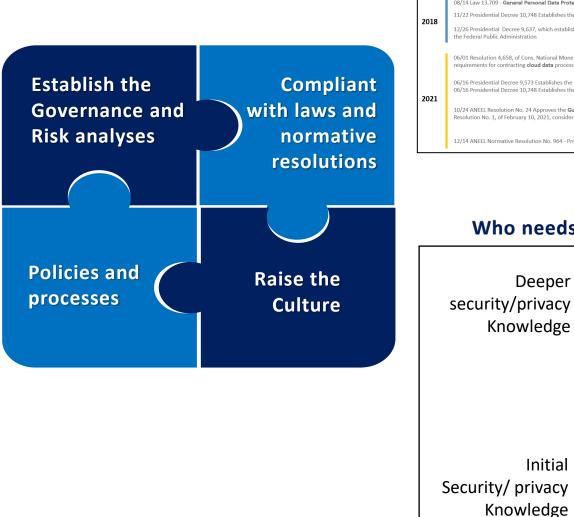


Cybersecurity Framework



Cybersecurity guidelines





Regulatory framework in Brazil



Network and System Administrator

Management and C-Level

Developers

All other employees







⊘ **Stakeholders**

Consulting



General public



Corporate



SIGA

Asset



Integration Platform



Mobile

LAYERS OF APPLICATION

MY COMPANIES	
Cadastral	
Platform	

CLIQCCEE Modules

Online

SCDE Measurements

CLIQCCEE

Engine

Calculation

DRI

Results and Information

Management

AUCTIONS Energy Auctions

SECTOR ACCOUNTS Electric Sector Account Management

MVE Sale of Surpluses

PENALTIES Penalty

Management

EXPORT Energy Export

DISCONNECTION

Disconnection Management

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- NG firewall
- Specific protections for IoTs
- Blocking countries/regions
- AntiDDOs
- IDS and IPS

- Segmentation and microsegmentation
- Layered insulation

- End Point Protect/Real Time Scan
- Security GPO
- Non-administrative accesses
- Blocking horizontal communication
 - Safe Code
 - CDN¹
 - Backups & Replicas (lock retention)
 - Cryptography
 - Access to Controlled Privileges (PAM)
 - password vault
 - Double Factor
 - Contingency Website PRA
 - Vulnerability Management
 - Automation and Hardening patches/config

(PROACTIVE) MANAGEMENT POLICIES APPLICATION SECURIA DATA SECURIA MISSION CRITICAL ASSETS

EXTERNAL SECURITY PERIMETER NETWORK SECURITY ENDEPOINT SECURITY NTION SECU

> (REACTIVE) MONITORING AND RESPONSE









The weaknesses of older measuring devices

Prioritizing the importance of cybersecurity

Legal penalties not established

The cultural imbalance between the sector's agents



The shortage of cybersecurity manpower



High investment values due to the appreciation of the Dollar



Difficulties in the delivery of equipment due to the shortage of electronic components



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The entry of small consumer companies with little preparation for acting in cybersecurity

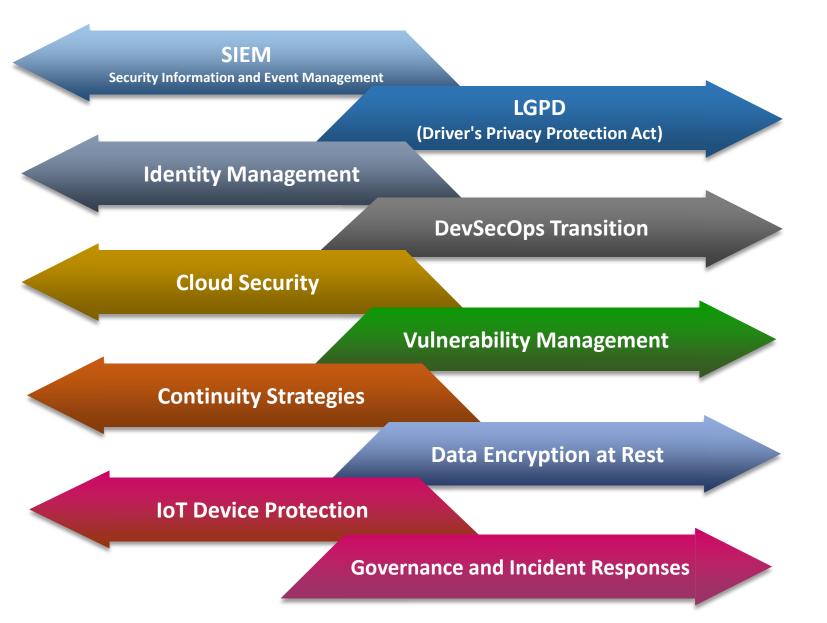


Cyber Threat Actors | Hacktivists | Organized Crime | "Insiders" and third parties

CCEE'S KEY CYBERSECURITY CHALLENGES









Câmara de Comercializaçã de Energia Elétrica

Thanks

