IN THE PURSUIT OF IMPROVED GOVERNANCE IN THE POWER SECTOR IN BRAZIL
PREMISES AND HYPOTHESIS

Good governance is positively correlated with good industrial performance

Good governance means
- Clarity of roles – no overlaps in competencies and functions performed
- Due regulatory process leading to grounded decisions
- Transparency and accountability

Governance is pivotal to overcome the major challenges the sector faces currently
CURRENT SITUATION
VERY COMPLEX SECTORAL GOVERNANCE

MANY STRUCTURAL REFORMS IN THE PAST 2 DECADES

1995/98
Full privatization + competition + price cap regulation of natural monopolies

2001/2
Rationing program

2003/04
incomplete privatization + ACR/ACL: Emphasis in security of supply and low tariffs

2012...
more State intervention: quota regime; rate of return

2013
Water shortage

AT LEAST 2 SHOCKS

VERY COMPLEX INSTITUTIONAL DESIGN POSES CHALLENGES TO COORDINATION: CNPE, MME, ANEEL, ONS, CCEE, CMSE, EPE, ELETROBRAS…

UNANTICIPATED CHANGES IN THE REGULATORY FRAMEWORK:
PM 579/12; DISPATCH OUT OF MERIT ORDER; GSF…
DELAYS IN GENERATION AND TRANSMISSION PROJECTS

PROJECT DELAYS (2005-2012)

Generation:
- UHE: 79%, average 8 months
- UTE: 75%, average 11 months
- Wind: 88%, average 10 months

Transmission:
- 83% delay, average 14 months

*Losses estimated to be of R$ 8.3 billion (TCU)

Source: TCU Decision 993/2015 - Plenary
FEDERAL GOVERNMENT IS THE MAJOR PLAYER IN GENERATION AND TRANSMISSION

- Generation - 10 Major Players (Source: BIG/ANEEL, August 2016)

<table>
<thead>
<tr>
<th>Company</th>
<th>Installed Capacity (KW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHESF (ELETROBRAS)</td>
<td>10,613,131.002</td>
</tr>
<tr>
<td>FURNAS (ELETROBRAS)</td>
<td>9,411,200.003</td>
</tr>
<tr>
<td>ELETRONORTE (ELETROBRAS)</td>
<td>7,222,104.104</td>
</tr>
<tr>
<td>TRACTEBEL</td>
<td>7,323,817.735</td>
</tr>
<tr>
<td>ITAIPU BINACIONAL (50% ELETROBRAS)</td>
<td>7,000,000,006</td>
</tr>
<tr>
<td>PETROBRAS</td>
<td>6,239,224.607</td>
</tr>
<tr>
<td>CEMIG-GT</td>
<td>5,310,278.408</td>
</tr>
<tr>
<td>RIO PARANA ENERGIA</td>
<td>4,995,200.00</td>
</tr>
<tr>
<td>COPEL-GT</td>
<td>4,921,216.00</td>
</tr>
<tr>
<td>SANTO ANTONIO ENERGIA (39% FURNAS)</td>
<td>3,150,760.00</td>
</tr>
</tbody>
</table>

- Eletrobras holds around 50% of transmission lines
- CVM conviction of the Federal Government for abuse of controlling powers (PM 579/12)
Projects with delay and new investments lagging behind needs

<table>
<thead>
<tr>
<th>Year</th>
<th>Auctioned</th>
<th>Desert</th>
<th>(%) Desert</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lots</td>
<td>Investment (R$)</td>
<td>Lot</td>
</tr>
<tr>
<td>2007</td>
<td>7</td>
<td>2,009,174,995.74</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>29</td>
<td>17,044,664,257.70</td>
<td>1</td>
</tr>
<tr>
<td>2009</td>
<td>19</td>
<td>4,422,471,043.50</td>
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</tr>
<tr>
<td>2010</td>
<td>20</td>
<td>2,462,883,196.00</td>
<td>1</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
<td>6,650,484,624.00</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>23</td>
<td>10,622,286,962.40</td>
<td>3</td>
</tr>
<tr>
<td>2013</td>
<td>34</td>
<td>11,837,268,521.40</td>
<td>10</td>
</tr>
<tr>
<td>2014</td>
<td>27</td>
<td>15,632,441,678.90</td>
<td>12</td>
</tr>
<tr>
<td>2015</td>
<td>25</td>
<td>24,079,253,000.00</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: TCU Decision 1868/2016 - Plenary
DISCOS UNABLE TO TIMELY RESPOND TO SCENARIO CHANGES – INCENTIVE PROBLEMS

- Mostly privatized
- DISCOs in very difficult financial situation
  - Involuntary exposure to the spot market by the end of 2012 (subcontracted) at extremely high prices
  - Economic crisis + tariff increase led to increase of consumers’ default and increase of losses
  - Economic crisis + clients’ migration to ACL led to DISCOs being over-contracted by 2016
- Prices at ACR and ACL are very different, being more elastic in the ACL
- DISCOs do not have flexibility to adjust their portfolios according to demand change
- Federal DISCOs to be privatized according to ELETROBRAS. Initial failed attempt (Celg-D)
CCEE FACING SEVERE PROBLEMS THAT IMPOUND MARKET CLEARING
CCEE, JUNE 2016 - GSF

Contabilizado jun/16
R$ 2.53 bi
(100%)

GSF Repactuado
R$ 0.52 bi
(21%)²

GSF Não Repactuado
Liminar Vigente
R$ 1.14 bi
(45%)

GSF Não Repactuado
Liminar revogada
R$ 0.03 bi
(2%)³

MCP de junho/16
R$ 0.84 bi
(32%)

Liquidadado
R$ 0.13 bi
(25%)¹

Remanescente
R$ 0.39 bi
(75%)¹

Liquidadado
R$ 0.029 bi
(96%)

Liquidadado
R$ 0.41 bi
(49%)²

Inadimplente
R$ 0.43 bi
(51%)²

Liquidadado no mês
R$ 0.57 bi
(22%)⁴

Source: CCEE
INTERACTION WITH EXTERNAL INSTITUTIONS
LITIGATION CCEE, INJUNCTIONS IMPACTING LIQUIDATION – JUNE 2016

GSF
138 Liminares vigentes

CNPE 03
128 Liminares vigentes

Ajustes judiciais
17 Liminares vigentes

283 Liminares vigentes na contabilização de junho/2016

Source: CCEE
TCU'S INCREASING SECTORAL REVIEW

<table>
<thead>
<tr>
<th>Year</th>
<th>Total decisions made by TCU Plenary regarding the electricity sector</th>
<th>Total decisions made by TCU Plenary regarding the electricity sector with structural relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>2014</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>2015</td>
<td>34</td>
<td>15</td>
</tr>
<tr>
<td>2016</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td>48</td>
</tr>
</tbody>
</table>

CERI, based upon public available information at TCU’s website in August 2016. We have considered to be of structural relevance TCU’s decisions made in operational auditing procedures (“auditorias operacionais”); decisions classified as “Subjects of Major Significance” (“Temas da Maior Significância”) or of different natures, in which TCU discusses or decides issues that are relevant for sectoral governance.
LEGISLATIVE ACTION ALSO REQUIRES ATTENTION

THERE ARE CURRENTLY AT LEAST 390 DRAFT ACTS BEFORE THE LOWER HOUSE OF THE PARLIAMENT THAT MAY IMPACT THE ELECTRICITY SECTOR

- Amendments to the Constitution, Statutes, Legislative Decrees, Resolutions
- Detailed review and follow up is advisable
KEY MESSAGES

 Coordination among actors should be emphasized, especially among CNPE and CMSE

 Agents’ governance should be revisited and improved

 Due regulatory processes: policy decisions shall be subject to public consultation and RIA (not only ANEEL’s decisions, but also CNPE, MME etc.)

 Governance of State-Owned companies shall be enhanced and enforced (Law 13,303/2016)
KEY MESSAGES

Need to reduce litigation at both consumer and regulatory issues

Decisions based on evidence and legal framework are less likely to be contested

- Enhancement of decision-making process could help reducing TCU's and judicial review

Change of supply matrix is likely to require more coordination with water and NG policy makers and regulators

Good governance requires continuous interaction with

- Financial institutional players: MF and BNDES
- Environmental framework
- Water and gas institutional actors
- Competition authorities
THANK YOU