



System planning and market innovation

Status Update on Brazil

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Executive President

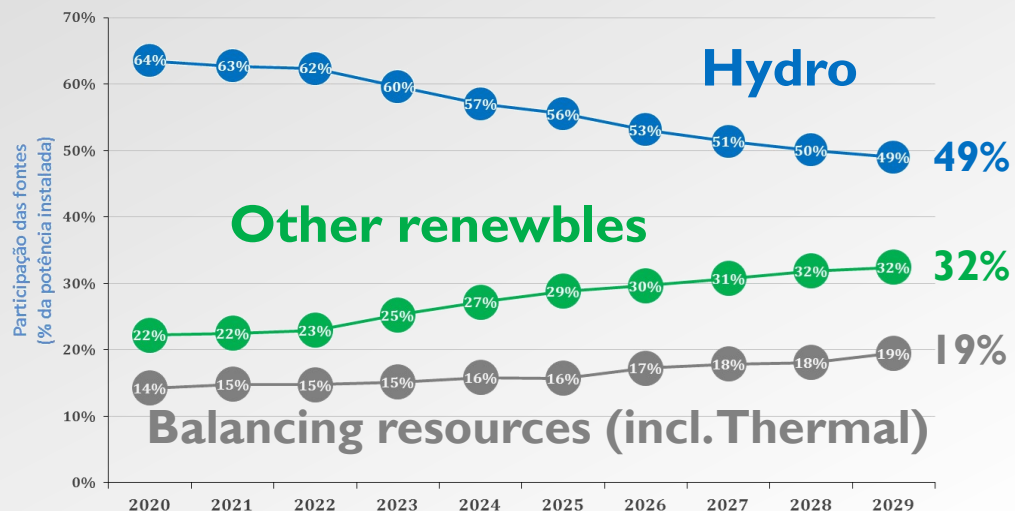
Berlin, Germany
1 October 2019



Context

- ▶ **2004 Market Reform with pioneer introduction of energy auctions**
 - ✓ Short-term prices insufficient to guarantee investments (hydro-dominated)
 - ✓ Need to ensure bankability of new capacity through long-term PPA
 - ✓ Bundled contracts: energy and supply adequacy certificates
- ▶ **2008 onwards**
 - ✓ Renewable energy auctions successfully deliver competitive VRE into the mix
 - ✓ After 10 years, rapid transformation of the system has been achieved
 - ✓ Proactive transmission planning implemented with positive results
- ▶ **2019: Rapid growth of VRE is expected to continue for the next years**

Challenges

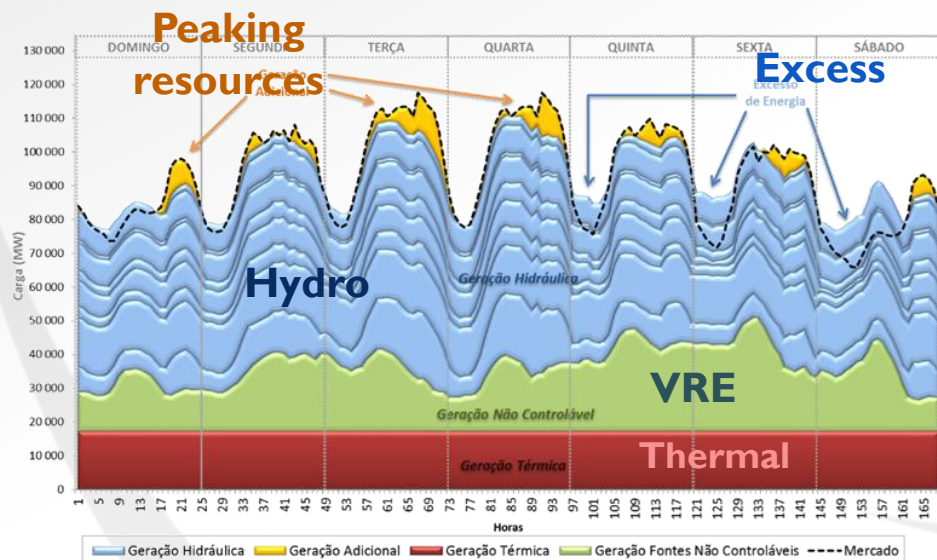


► Need for redesigning electricity market and adjust system planning to address

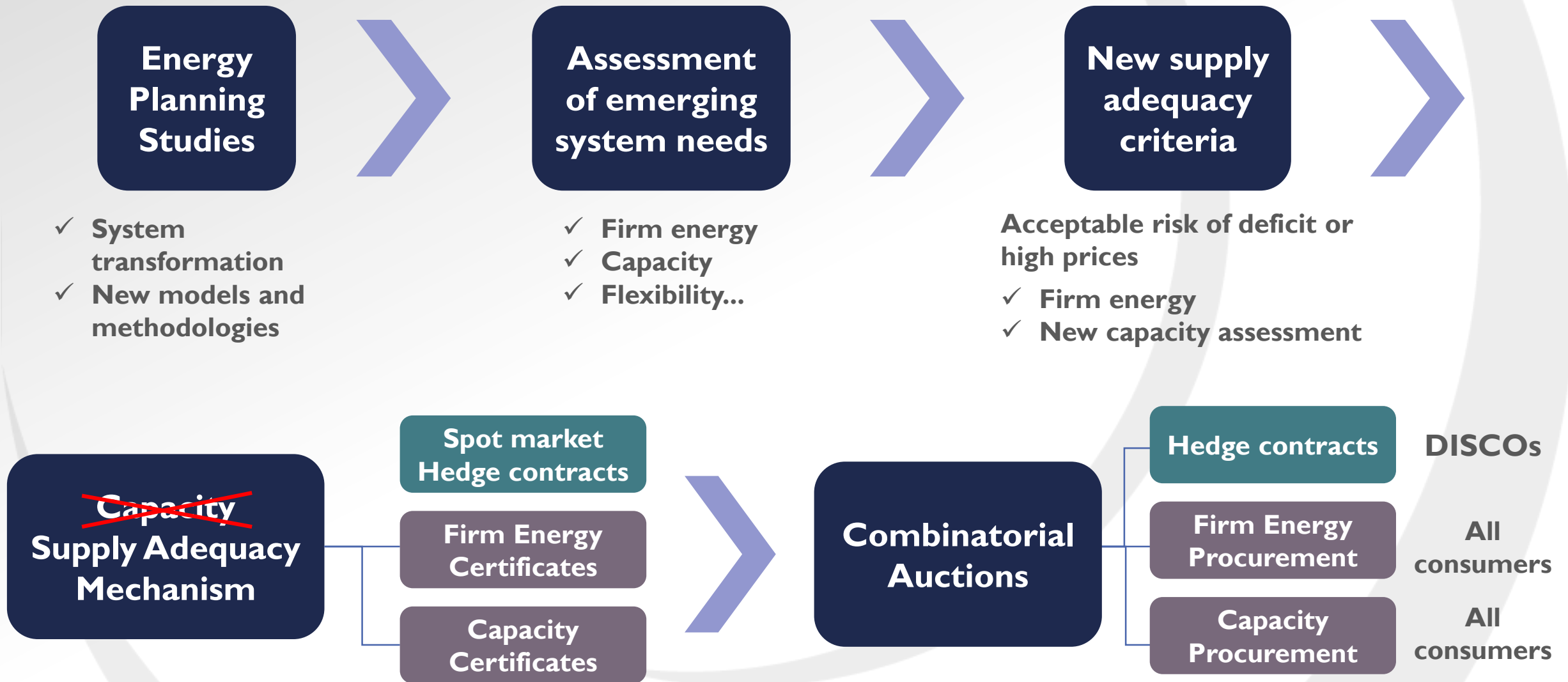
- ✓ Low marginal costs of VRE
- ✓ Fair allocation of costs of investments to ensure supply adequacy
- ✓ Growing share of free consumers

► Strategy

- ✓ Higher price granularity (2020/2021)
- ✓ More detailed system modelling (assess the need for firm energy, capacity and flexibility)
- ✓ Market instruments to deliver supply adequacy efficiently



Basic design (under public consultation)



Thank you

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