

REFORMS IN THE BRAZILIAN POWER SYSTEM: SCENARIOS FOR NATURAL GAS ENERGY TRANSITION

LONG TERM SCENARIOS FOR CLEAN ENERGY TRANSITION IN LATIN AMERICA

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THE ENERGY TRANSITION

Pillars

Hydropower dominated system
Introduction of large VRE (wind)
Climate variability impacting certainty of river flows
E&S limiting expansion of hydropower

Revisiting the role of NG

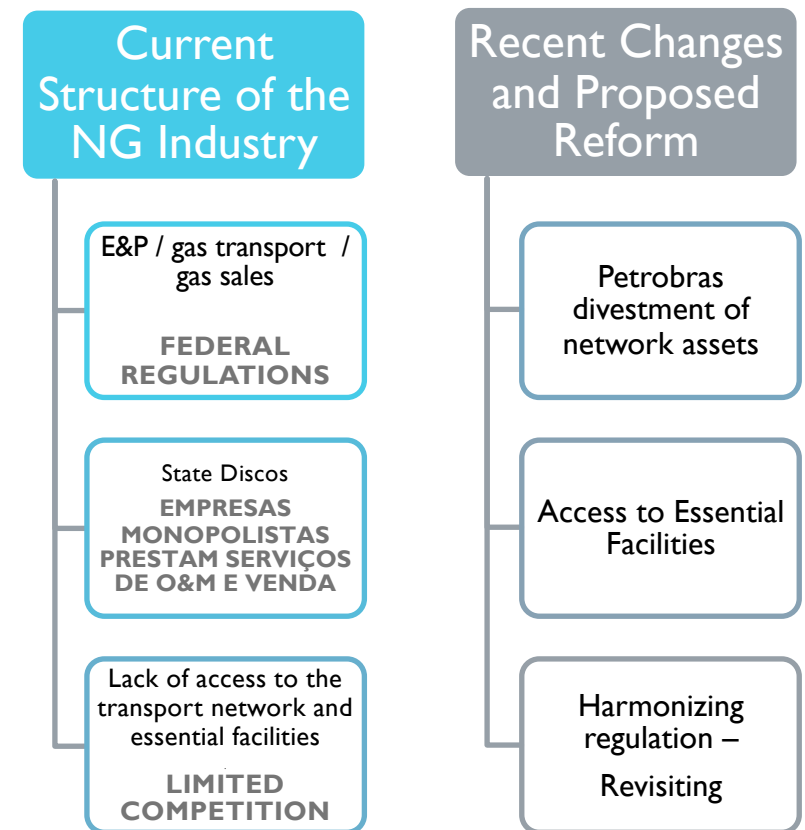
Gas for Growth initiative
Diversification of energy matrix
Liberalization of retail markets
Fierce opposition from Discos

Measuring Effects of Reform

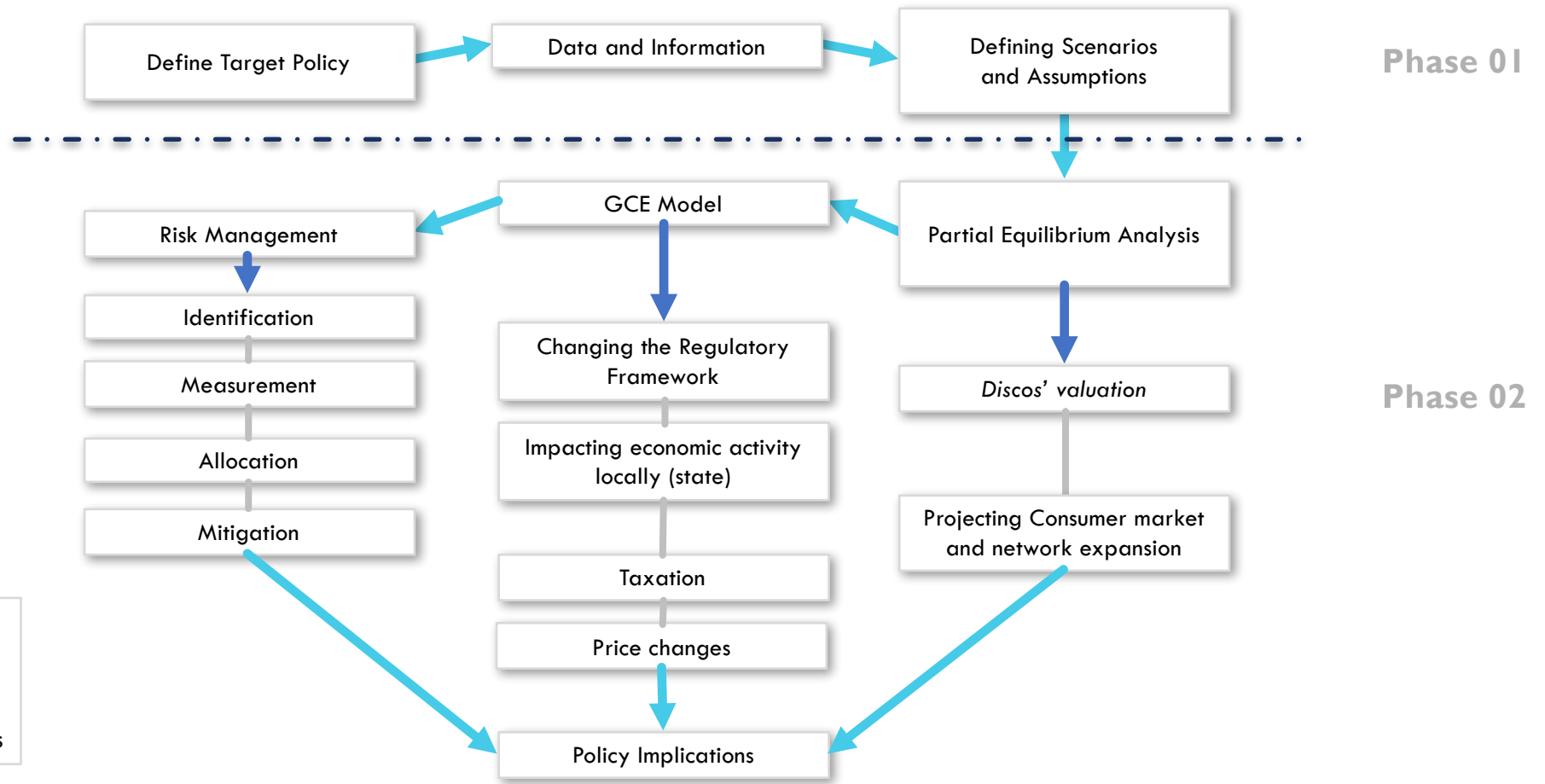
Scenarios for assessing impacts in the network industry
Quantify value creation or destruction
Review implications for the Energy Transition

ASSESSING PROPOSED LIBERALIZATION REFORM IN THE NATURAL GAS INDUSTRY

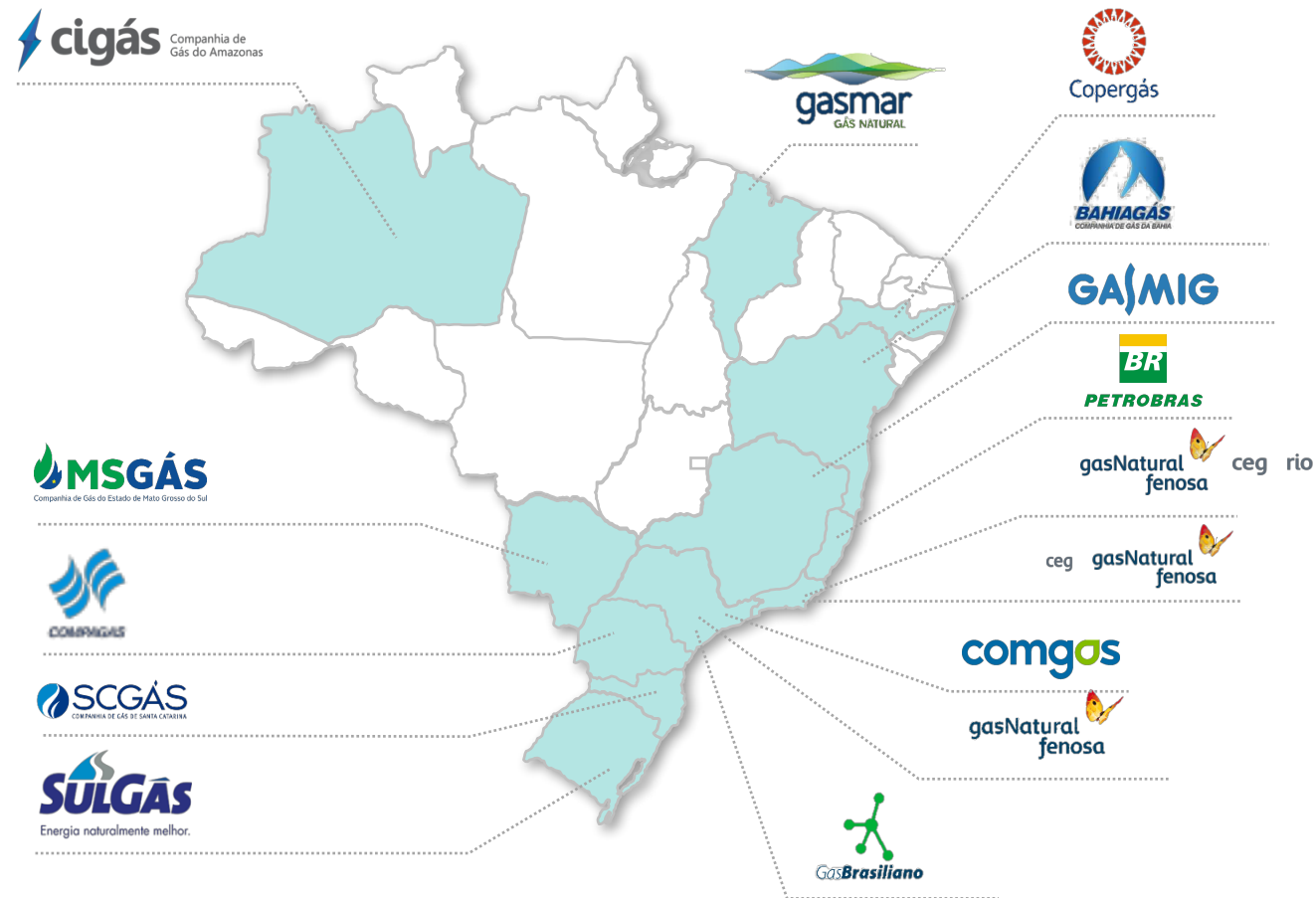
- Benefits derived from introducing federal regulation in gas sales
 - Harmonizing regulatory frameworks
- **Gas Discos resistance to regime change**
 - States are shareholders and “fear” reduction of profitability of Discos
- The Study assess the gas market opening impacts from three perspectives:



PROPOSED FRAMEWORK



STATES AND UTILITIES ANALYSED



THE PROPOSED SCENARIOS

1

BAU



Market Evolution under the current regulation

- ✓ Disfunctional Regulatory Framework
- ✓ Incumbents

2

MODERATE



Moderate targets to invest and expand the system (network)

- ✓ Disfunctional Regulatory Framework
- ✓ Ownership Changes

3

ACCELERATED



Development of a NG Market in Brazil

- ✓ Functional Regulatory Framework
- ✓ Ownership Changes
- ✓ Entry

Ten years of data

THE OUTCOME

Gas Discos (Partial Equilibrium Model)

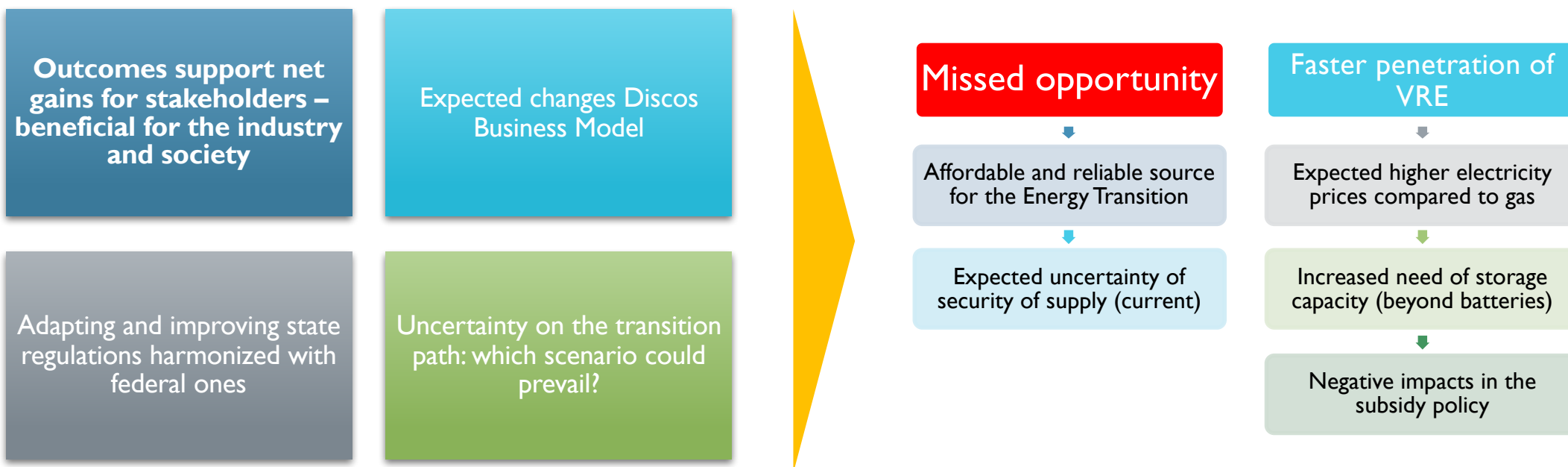
- Gas sales increase (IND & RES)
- Network expansion
- Increase in tax revenues (state)
- Increase in EBTIDA

State Macroeconomics (General Equilibrium Model)

- Gas price and tariffs reduction
- Increase in wages
- Increase in tax revenues
- Increase in gas sales, net revenues and profits

The Burning Question:
what if the gas market
reform is not
implemented?

GAS MARKET LIBERALIZATION IS A PILLAR FOR AN EFFECTIVE AND SUCCESSFUL ENERGY REFORM





CENTRO DE ESTUDOS
EM REGULAÇÃO E
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