Reservoir-to-Wire (R2W) Overview & Outlook

VIII Seminário sobre Matriz e Segurança Energética Brasileira e
14º Brazil Energy and Power

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Eneva & R2W Model Overview

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Portfolio Eneva

Diverse portfolio of operational assets in Gas E&P and Power Generation

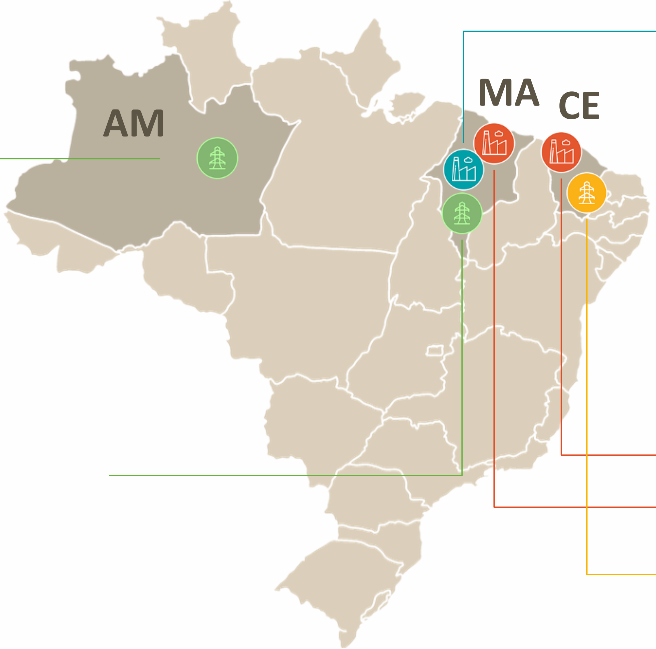
Gas Production – 8.4 MM m³/day

Installed Capacity – 2.2GW + 0.4 GW (under construction)

E&P assets

Amazonas Basin
- ~6.7 BCM total reserve (to be developed)

Parnaíba Basin
- 8 Gas Fields
- 8.4 MM m³/day of production capacity
- ~19 BCM total reserve
- Gas Treatment Facility
- ~200km of pipelines



Natural Gas TPP

Parnaíba I – 676 MW
Parnaíba II – 519 MW
Parnaíba III – 178 MW
Parnaíba IV – 56 MW
Parnaíba V – 385 MW (UC)

Coal TPP

Pecém II – 365MW
Itaqui – 360MW

Solar

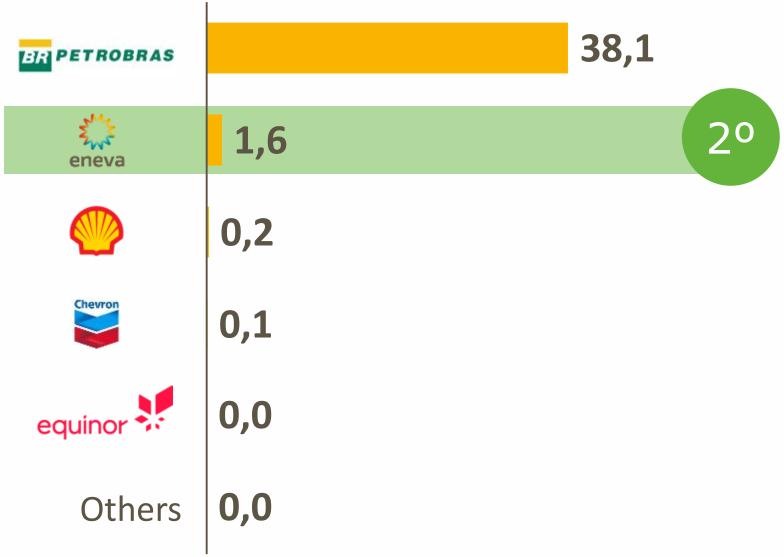
Tauá – 1MW

Eneva Market Positioning

The largest private gas producer and power generator in Brazil

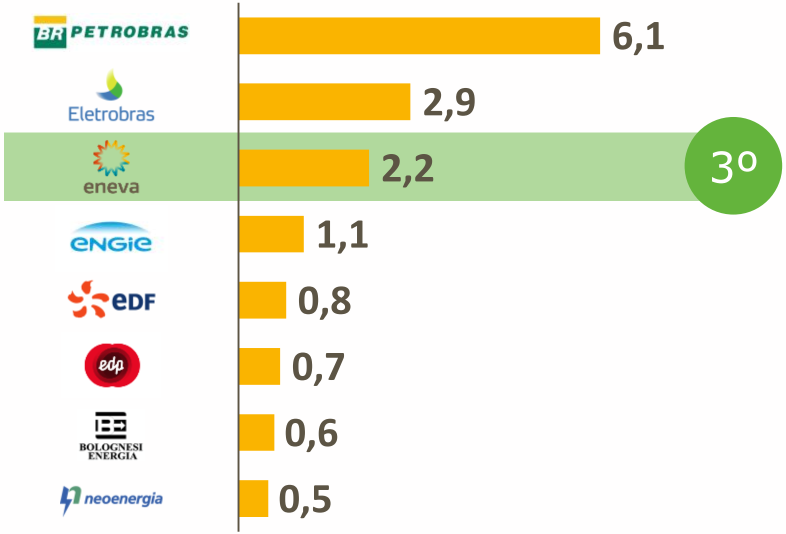
Operated production 2017

BCM



Thermal installed capacity

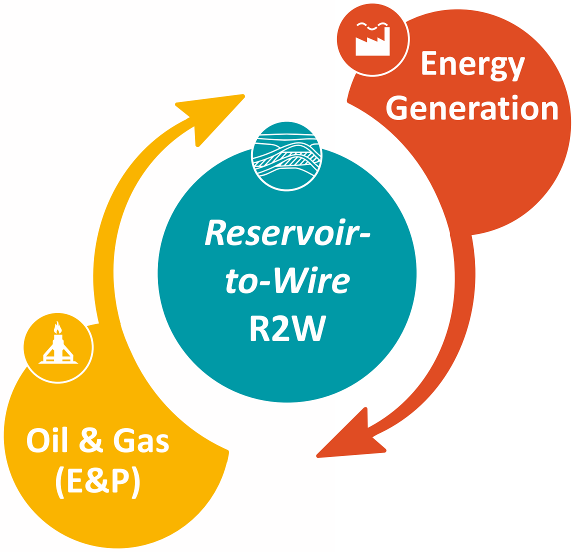
GW

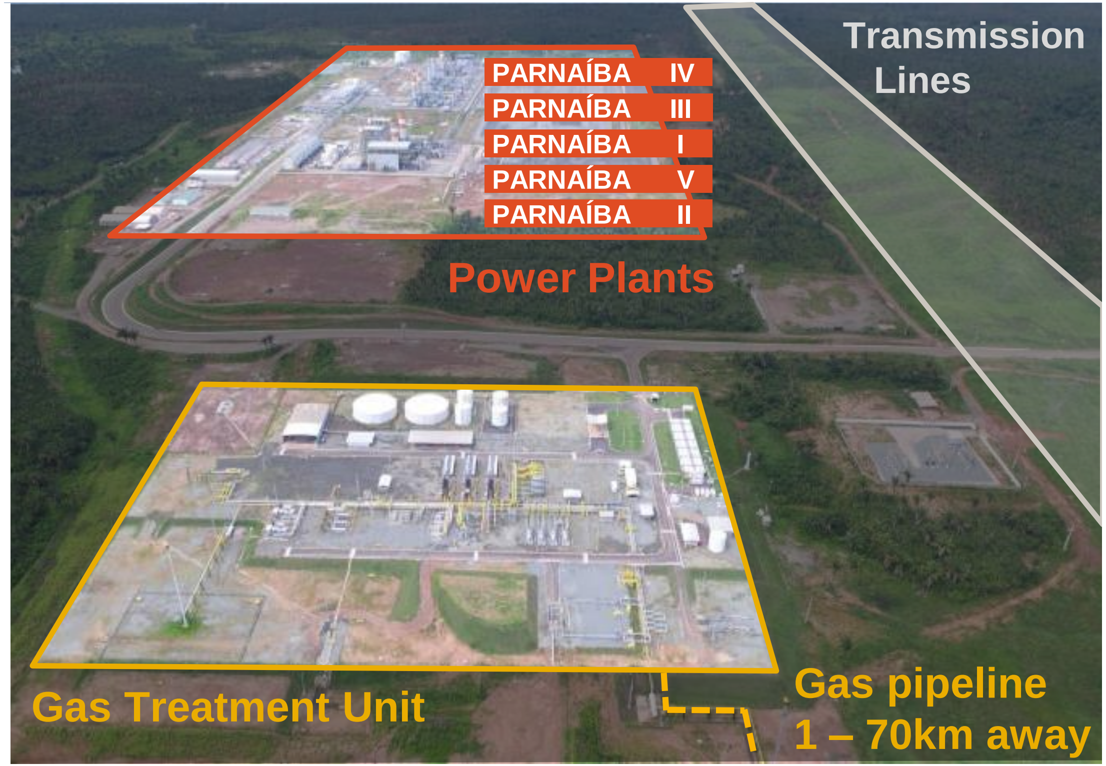


Source: Production – Anuário Estatístico 2018 ANP/SDP; Installed Capacity – Banco de Informações de Geração (BIG) ANEEL

R2W Business Model

Pioneering fully integrated gas value chain





Power Generation Sector Outlook

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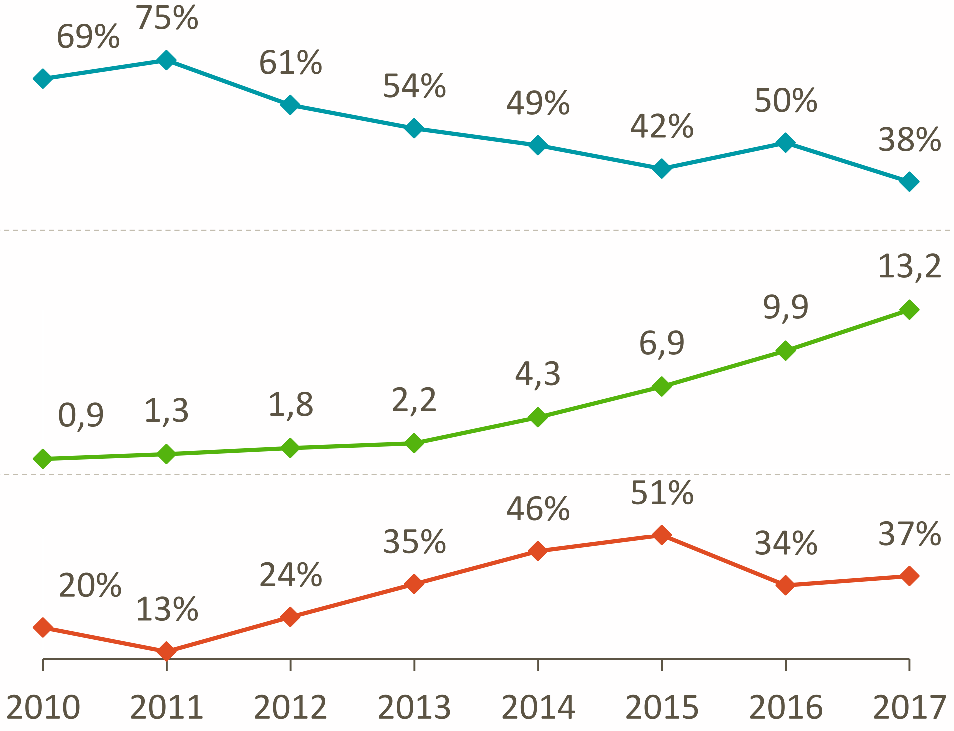
Generation Matrix in Brazil

The transition to renewables will position gas as the reliable source

Hydroelectric reservoir levels (%)

Renewables Installed Capacity (GW)

Thermoelectric dispatch



Hydroelectric share

Renewables installed capacity

Thermal as the system reliability source

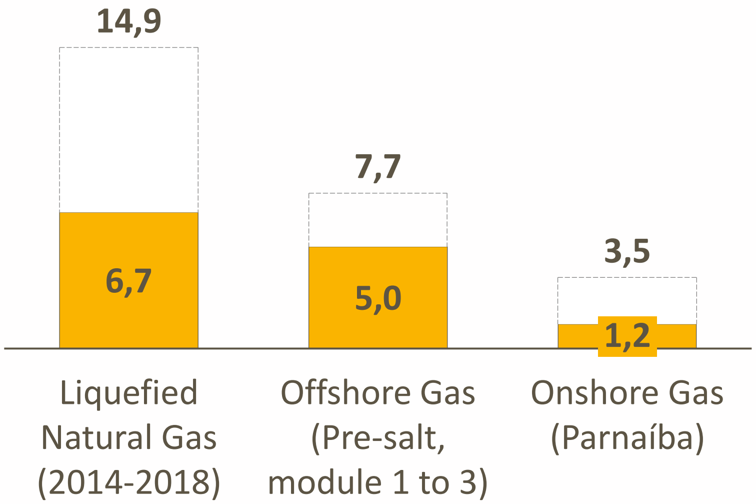
Source: Níveis Reservatórios e despacho – ONS; Capacidade instalada renováveis – PDE EPE;

Gas source competitiveness

Onshore gas is by far the most competitive source of gas

Natural Gas Prices per Source

USD / MM BTU



Onshore gas potential

65 BCM
Proven Reserve

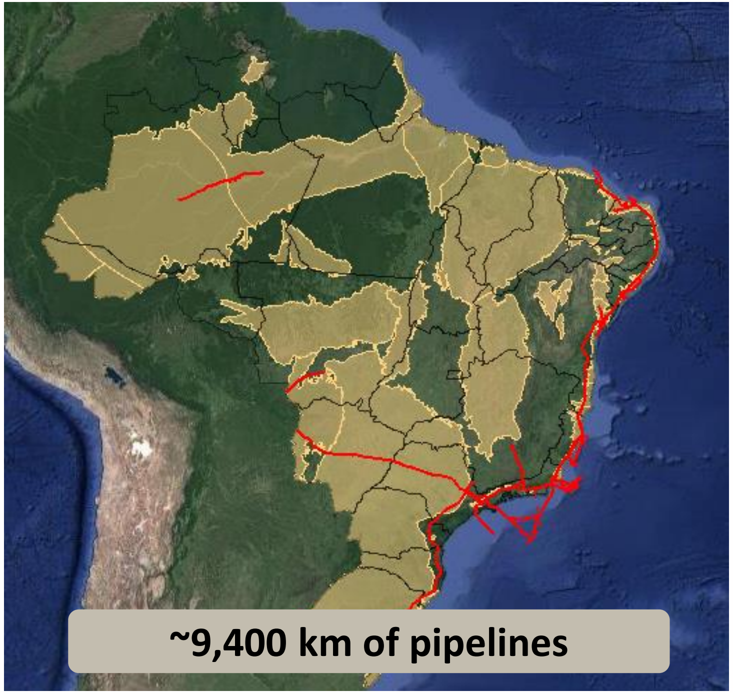
~3%
Under Concession

Source: LNG Price – Boletim Mensal de Acompanhamento da Indústria de Gás Natural – MME - Jun 2018; Pre-salt Price – PEMAT 2022 from EPE; ANP Proven Reserves

Limited Gas infrastructure

Gas infrastructure does not cover most of the onshore acreage

Gas pipelines infrastructure



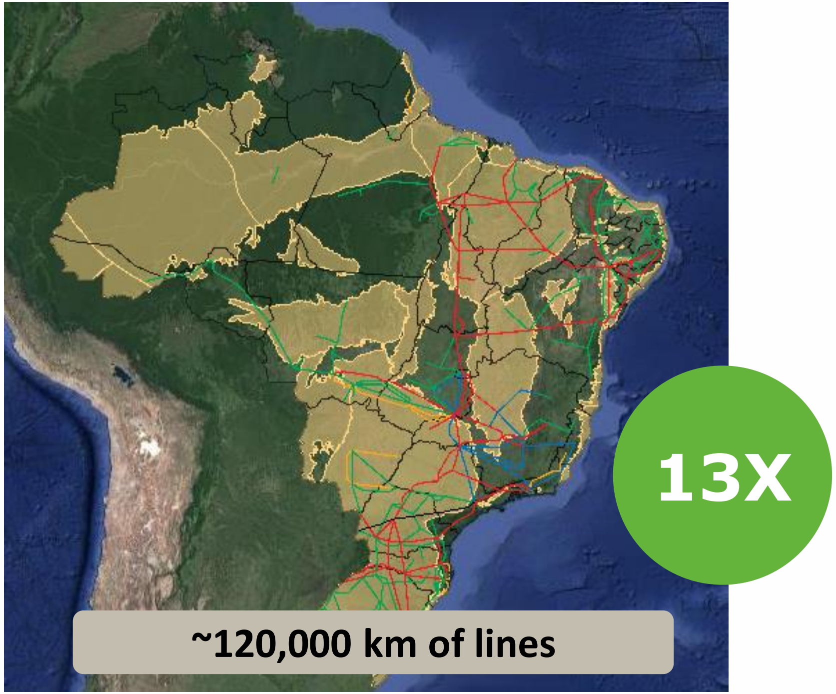
Source: ONS – transmission lines; EPE – pipelines

Gas and Transmission Line Infrastructure

Our infrastructure is the ideal case for the R2W model

Gas pipelines infrastructure

Transmission Lines infrastructure

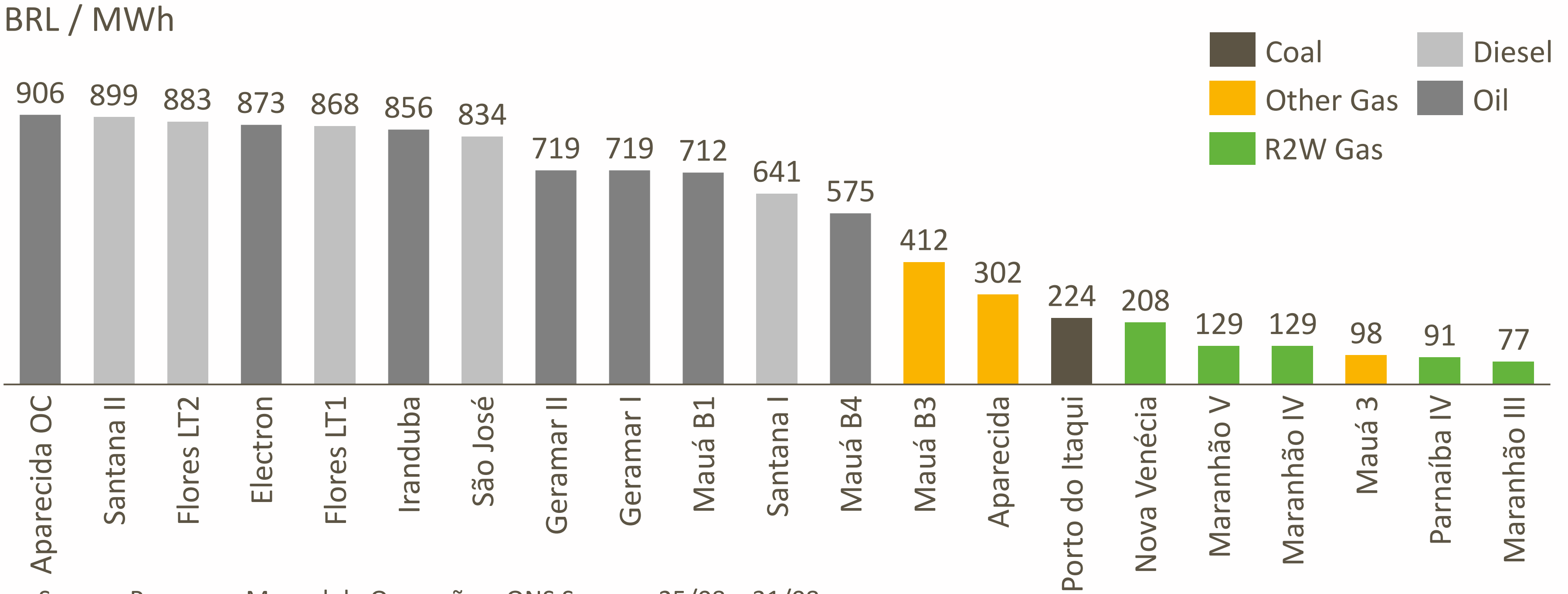


Source: ONS – transmission lines; EPE – pipelines

Parnaíba Complex Competitiveness

The most affordable alternative in the North Subsystem

CVU of UTEs in North subsystem



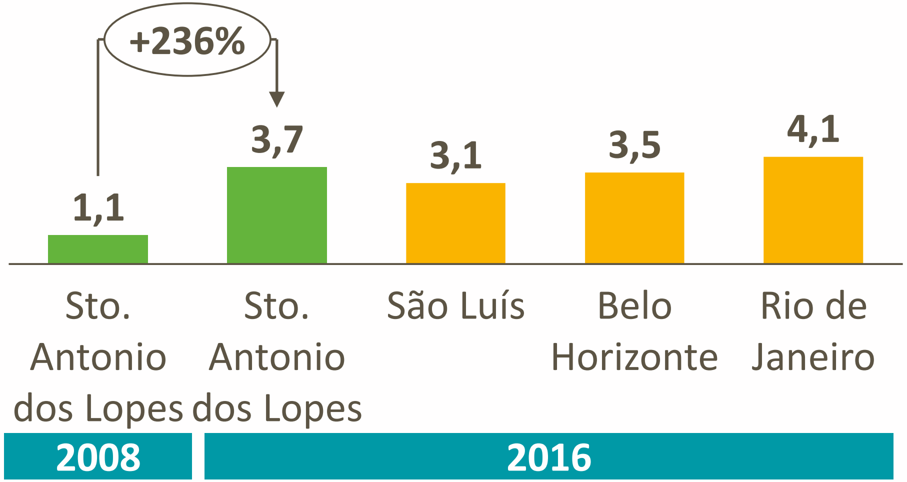
Source: Programa Mensal de Operação – ONS Semana 25/08 a 31/08

Social and Economical Impact

Developing Onshore brings meaningful social-economic impact

Income in Santo Antônio dos Lopes

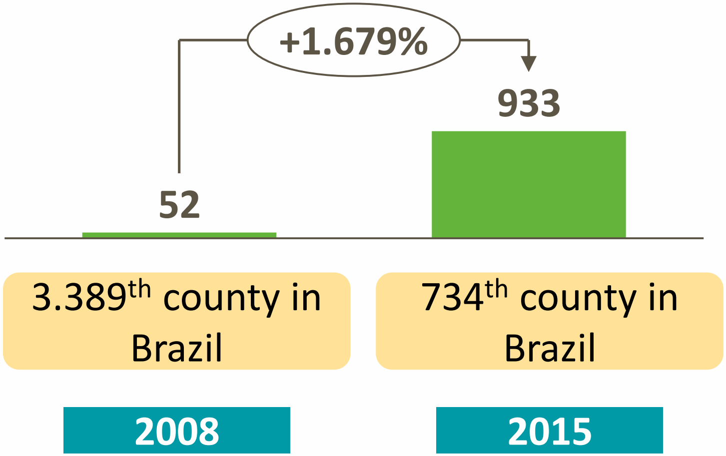
minimum wages



R$ 8B Total investment in Maranhão state

Santo Antônio dos Lopes GDP

MM BRL, %



R$ 56MM Total royalties to ~250 land owners + social programs

Source: IBGE

RW2 Opportunities

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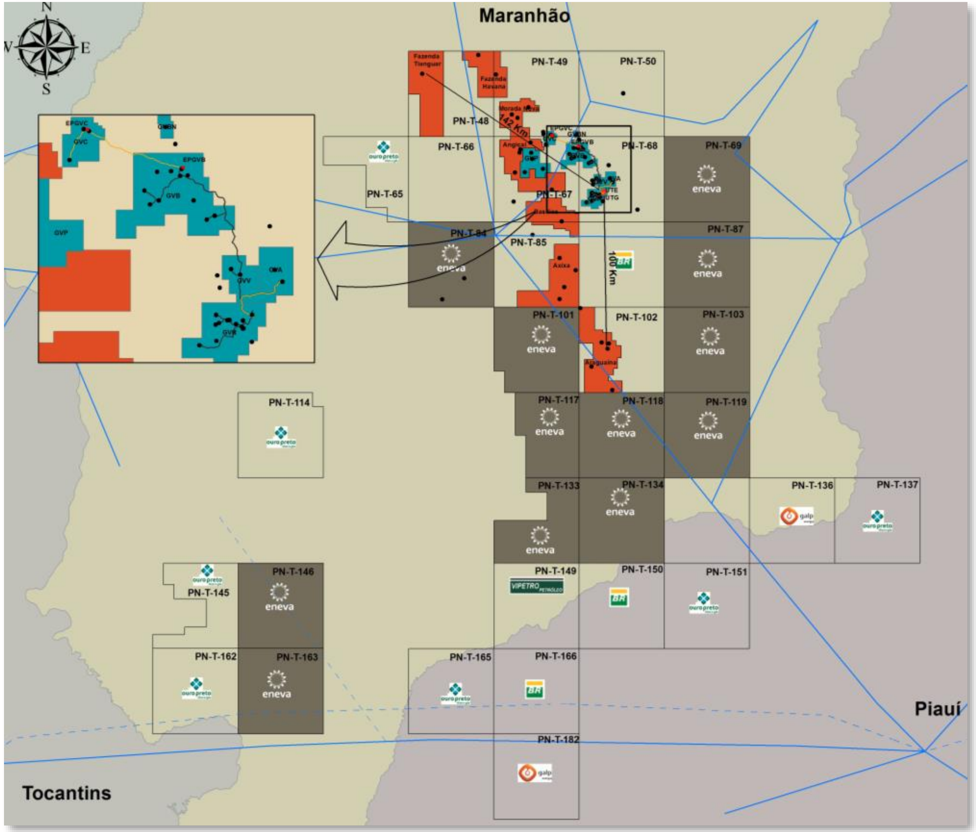
Future potential

Only 38% of the total acreage was fully explored



Producing Fields

PADs

Exploration Blocks

Transmission lines

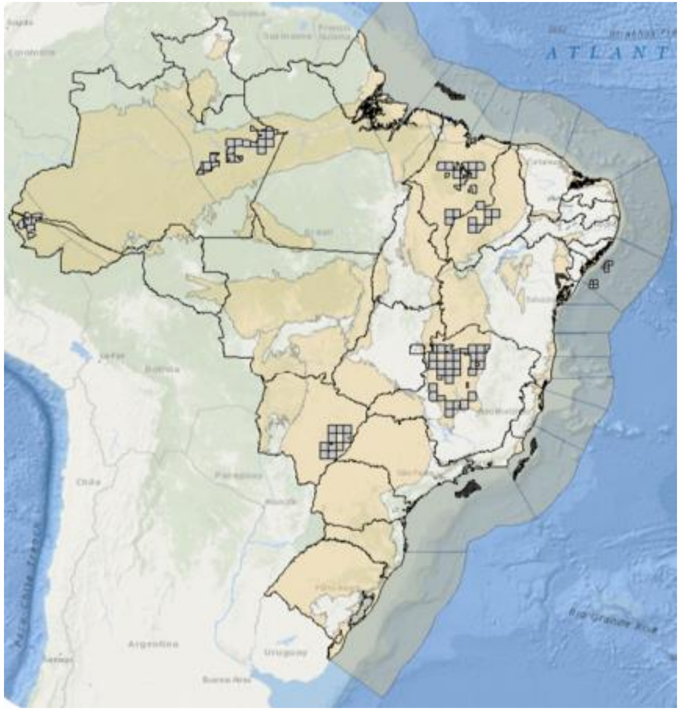
LARGE EXPLORATION ACREAGE
12 blocks with ~35,000 km² – ~3 times Recôncavo Basin (~12,000 km²)

EXISTING INFRASTRUCTURE
(Pipelines, Grid Access, Transmission Lines)

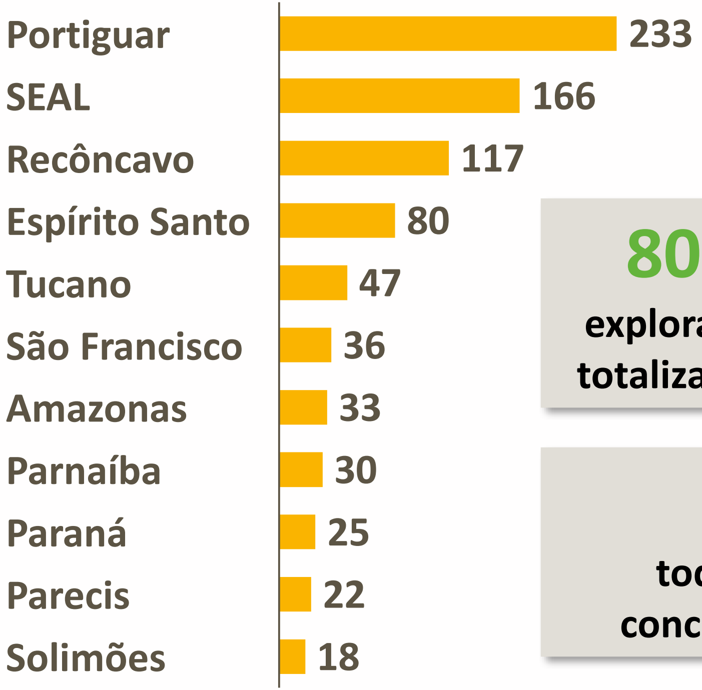
A oferta permanente incluiu ~800 blocos onshore por todo o país

OFERTA PERMANENTE É OPORTUNIDADE

Localização da oferta permanente



Divisão dos blocos por bacia



807 Blocos

exploratórios ofertados totalizando 784.000 km²

4X

toda a área sob concessão no Brasil

Fonte: Rodadas – ANP

O investimento no mercado Onshore tem impacto regional relevante

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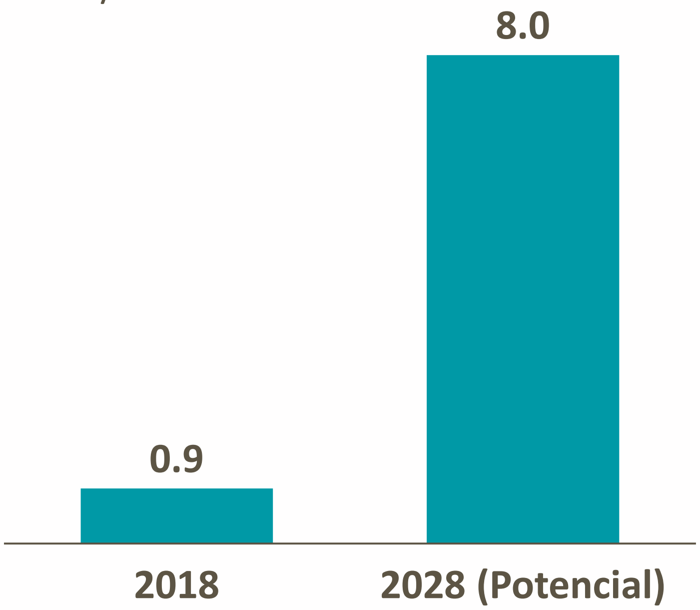
IMPACTOS DO DESENVOLVIMENTO DO MERCADO ONSHORE

Investimento anual em gás onshore

B BRL/ano



+ 60 mil
empregos gerados

+ 2 GW/ano
capacidade Instalada

Aumento de até 4x na renda
da população

+1.8 B BRL/ano
no PIB dos municípios impactados

+1.5 B BRL/ano
em royalties para os municípios

+200 MM BRL
em royalties pagos para os proprietários de terras

Fonte: Multiplicador de Emprego – UFRJ; Portal Brasil em Síntese – IBGE; Royalties – Jornal Valor Econômico

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