



Energy Sector in Brazil

Minister Eduardo Braga

Brazil - Texas Chamber of Commerce - BRATECC
May/2015



Brazil a Strong Economy



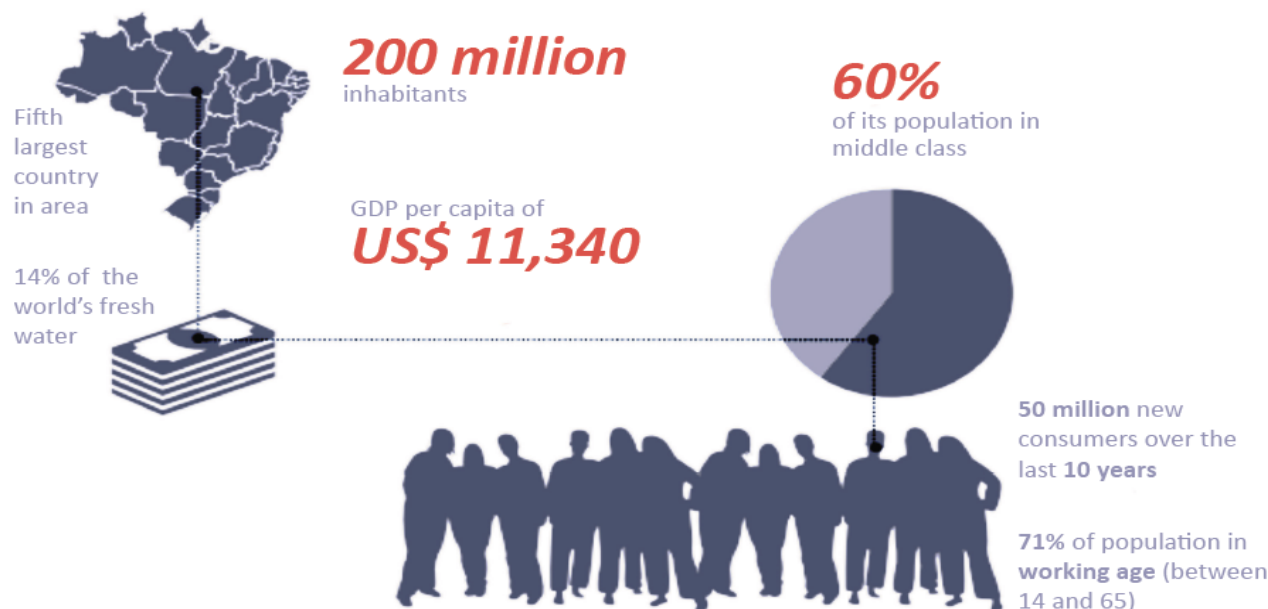
Brazil – A Global and Stable Economy

- World's 7th largest economy;
- Investment grade
- Fiscal adjustment taking place;
- Inflation being controlled;
- Large and diversified productive sector;
- Abundant natural resources;
- High infrastructure investment
- Consolidated democracy;
- Solid macroeconomic foundations;



Brazil – A Strong and growing domestic market

DOMESTIC MARKET: ONE OF THE MAIN DRIVERS OF GROWTH

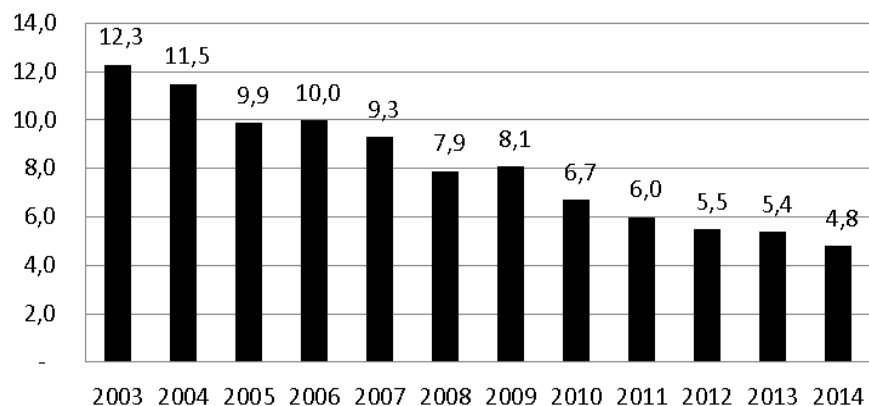


Source: APEX/PricewaterhouseCoopers (PwC) - 2014, IBGE and Property UK.

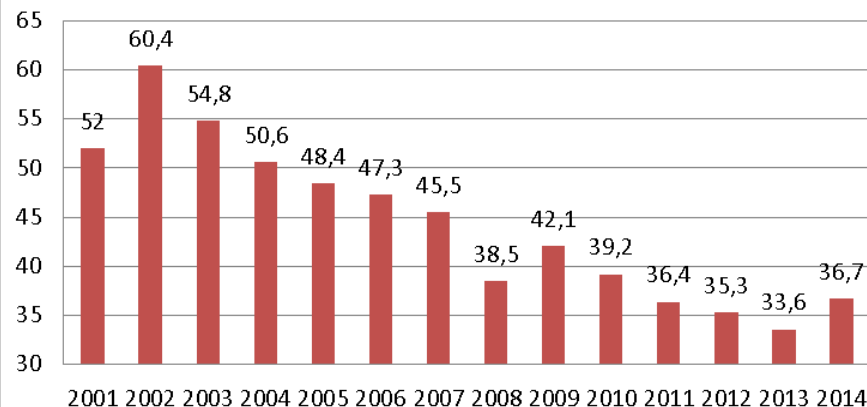


Robust Macroeconomic Figures

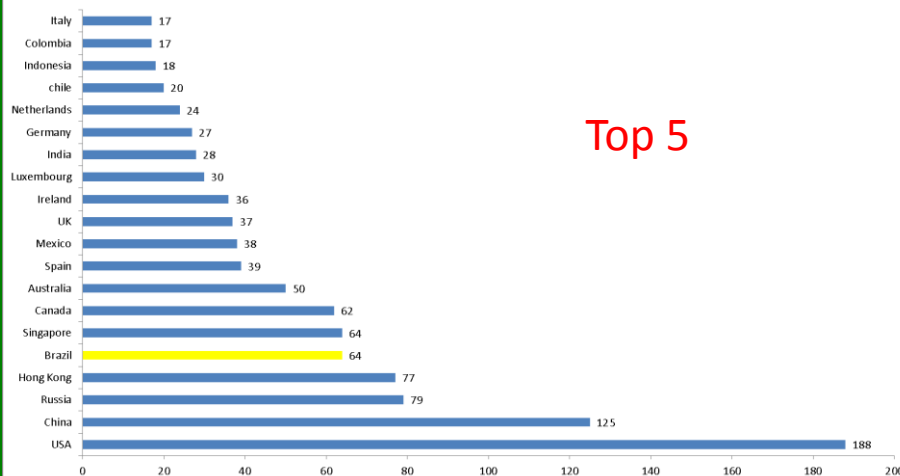
Unemployment Rate (%)



Net Debt % of GDP

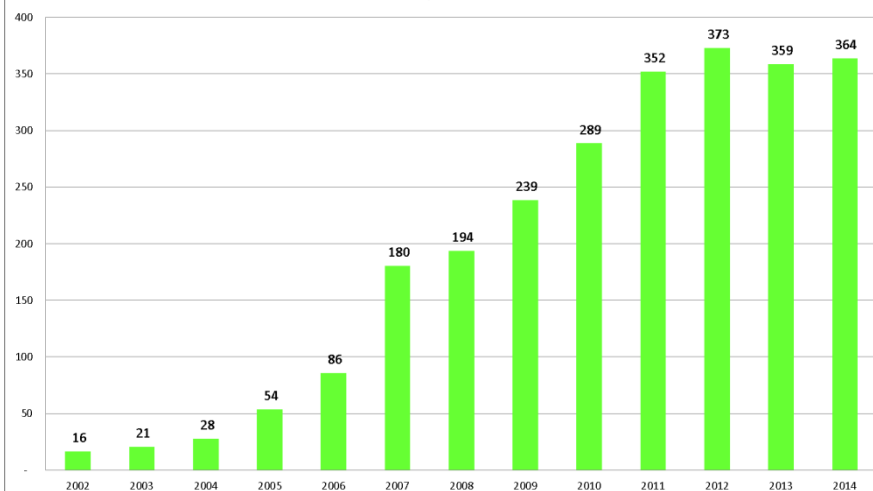


Foreign Direct Investment - 2013 US\$ billion



Top 5

International Reserves US\$ billion





Brazil's Energy Sector

A Great Opportunity to Invest



Brazilian Electrical Sector



Installed capacity 133,912 MW

Transmission lines 125,833 km

Maximum recorded consumption 85,708 MW (02.05.2014)

Structural balance - No shortage, even with the most severe hydrology for two years

Generation

**Installed
capacity**

67%

2001

80,315 MW

2014

133,912 MW

Additional capacity required – 4.4 GW/y

Transmission (only 1% isolated)

80%

2001

70,034 km

2014

125,833 km



Accelerating Contracted Projects



Power Plants	Period	Capacity (MW)
522	2015/2019	38.425



Lines	Perlod	Lenth km
240	2015 / 2018	30.609



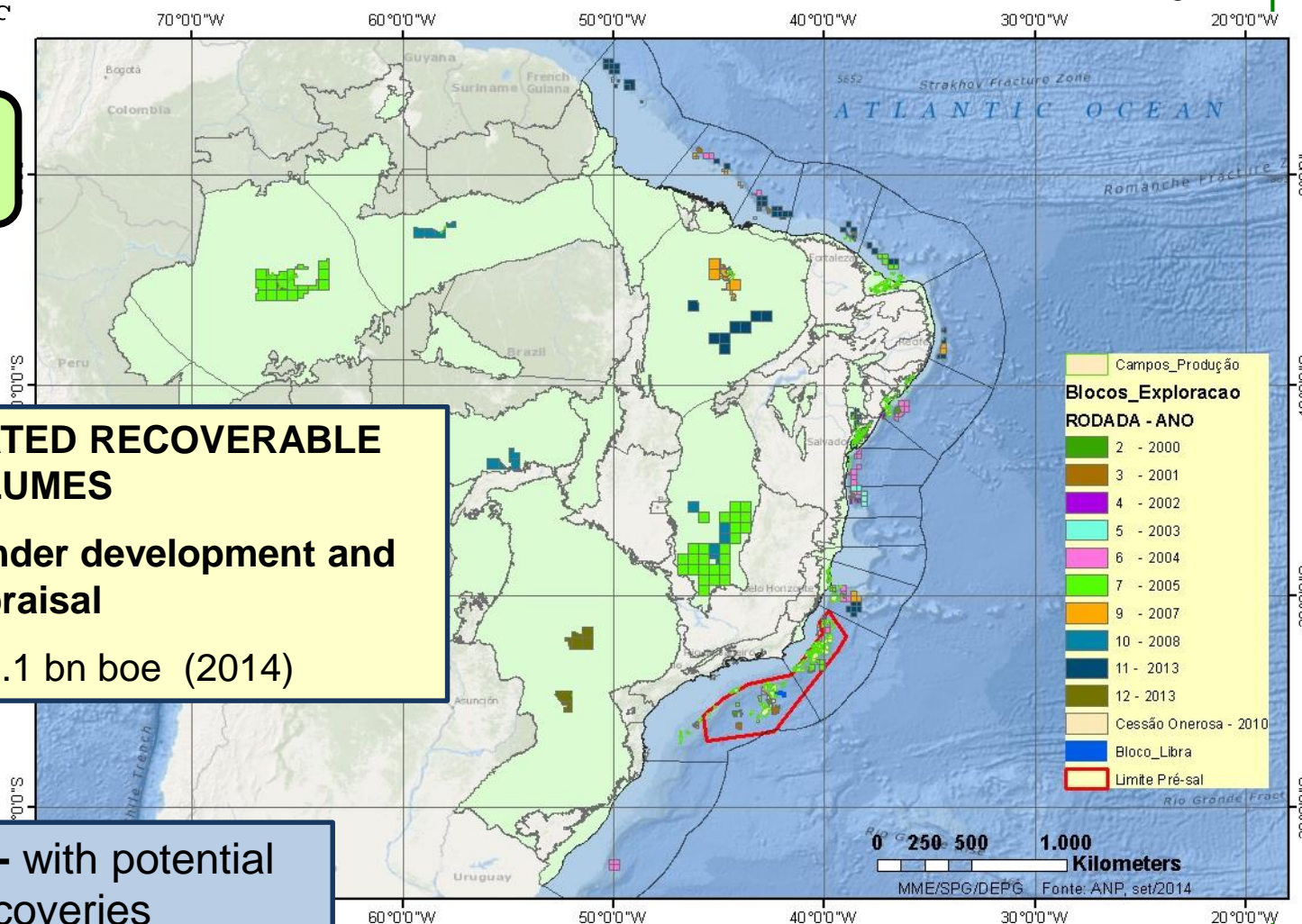
**Proved reserves
(2013): 18.5 bn boe**

PRE-SALT ESTIMATED RECOVERABLE VOLUMES

**only discoveries under development and
appraisal**

from 40.1 to 50.1 bn boe (2014)

- **2.8 million km²-** with potential for oil & gas discoveries
- **307.7 thousand km²** granted
- **430** producing fields
- **110 E&P** companies



Exploration & Production Activities

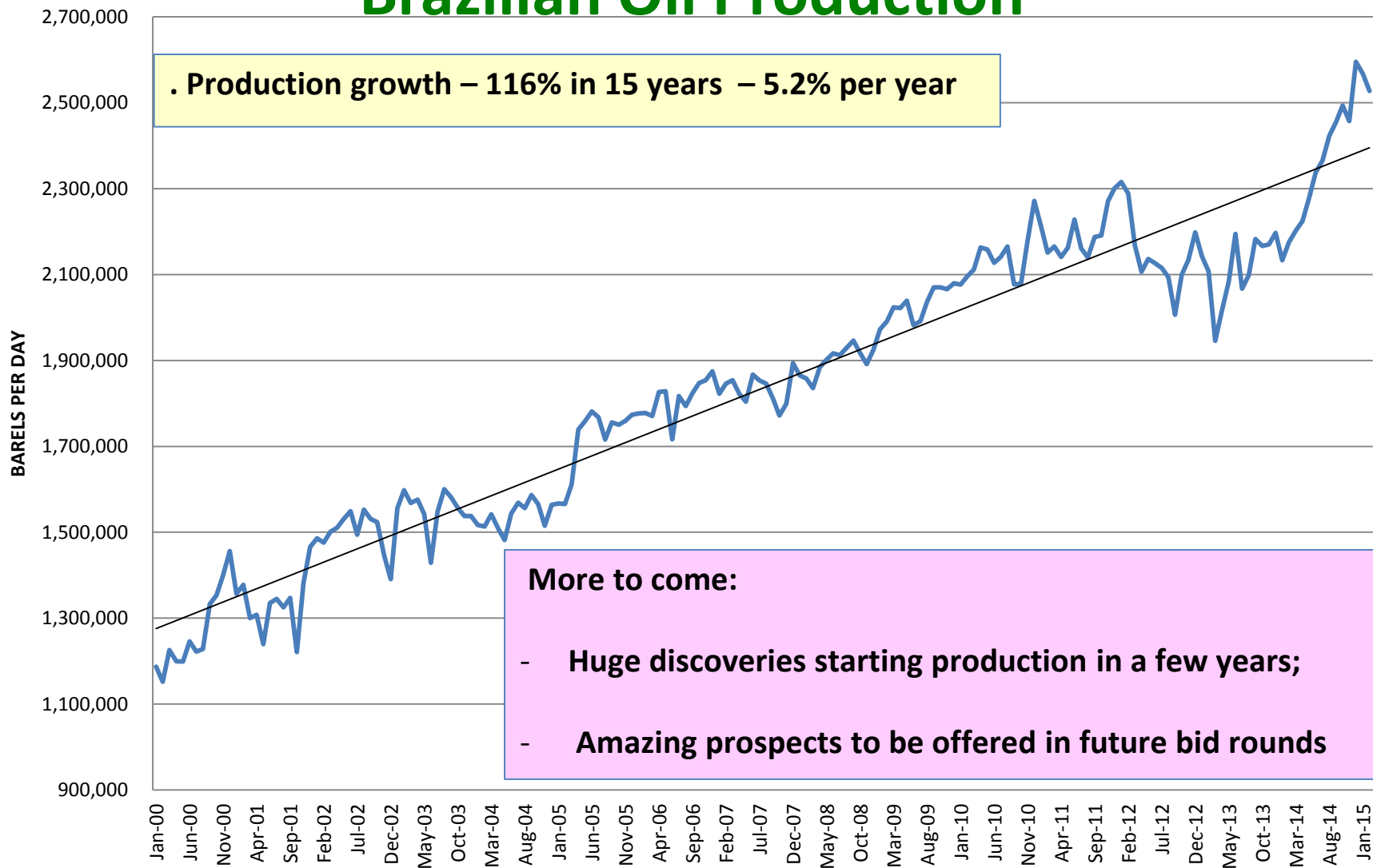


The Oil and Gas Sector in Brazil

- **Strong regulatory Agency;**
- **Stable rules;**
- **12 bid rounds on Concession Model, and 1 bid on Production Sharing Model - full transparency - no claims;**
- **All big companies are working in Brazil;**
- **26 companies operating producing fields in Brazil;**
- **Friendly environment for business – government support;**
- **Huge potential for new discoveries;**
- **No restrictions on oil exports – More than 500 thousand barrels per day exported in 2014, by 17 companies – Petrobras 45%; other companies 55%.**



Brazilian Oil Production

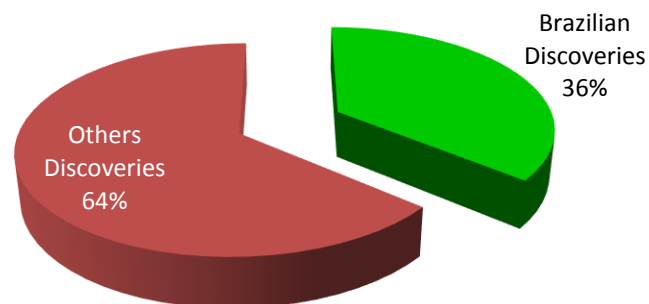




Oil Discoveries in Brazil

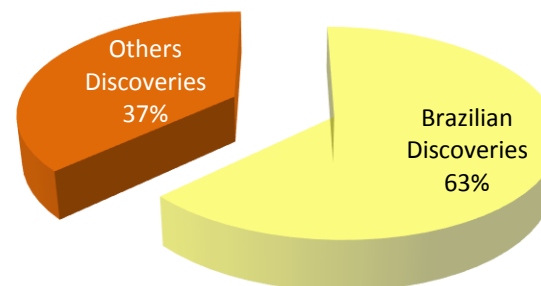
36% of the oil discovered worldwide in the last 5 years were in Brazil (22.9 bn bbl)

Oil discoveries in the world - 2010 -2014



63% of the deep water discoveries in the last 5 years were in Brazil (22.2 bn bbl)

Deepwater oil discoveries in the world - 2010-2014



Source: Wood Mackenzie

**The three biggest discoveries in the last 10 years took place in Brazil
Lula, Libra and Búzios**



Brazil has the biggest offshore area under development





Local Content Policy – oil sector

Phase 1 - (ongoing):

- Amazing development of local industry;
- Operators Resistance:
 - Additional cost
 - Additional time
- Contracts being respected



Phase 2 – (to be implemented):

- New scenario:
 - Huge demand;
 - Prices variation
- Adjustments are required—we need:
 1. Competitive suppliers;
 2. Development of new suppliers;
 3. Investments in innovation
- Contracts must be respected





Natural Gas in Brazil

1. Regulated Open Access to all existent pipelines before 2020;
2. New pipelines under concession regime – open season - all companies can contract capacity;
3. Demand growing fast – 50% provided by imported gas;
4. Spot LNG is responsible for 38% of the imported natural gas – local production is a great opportunity;
5. Local gas production for new electrical power plants are very welcome;



Petrobras

1. The biggest Brazilian company is facing serious challenges – but the solution will come soon;
2. The company has **full and unconditional** government support;
3. The company continues to work hard and to overcome challenges:
 - Pre-salt production – 674 thousand barrels/day – March 2015 – less than 9 years after the first discovery;
 - Developing technologies;
 - Winning awards;
4. Brazilian people remain proud of our most successful company.



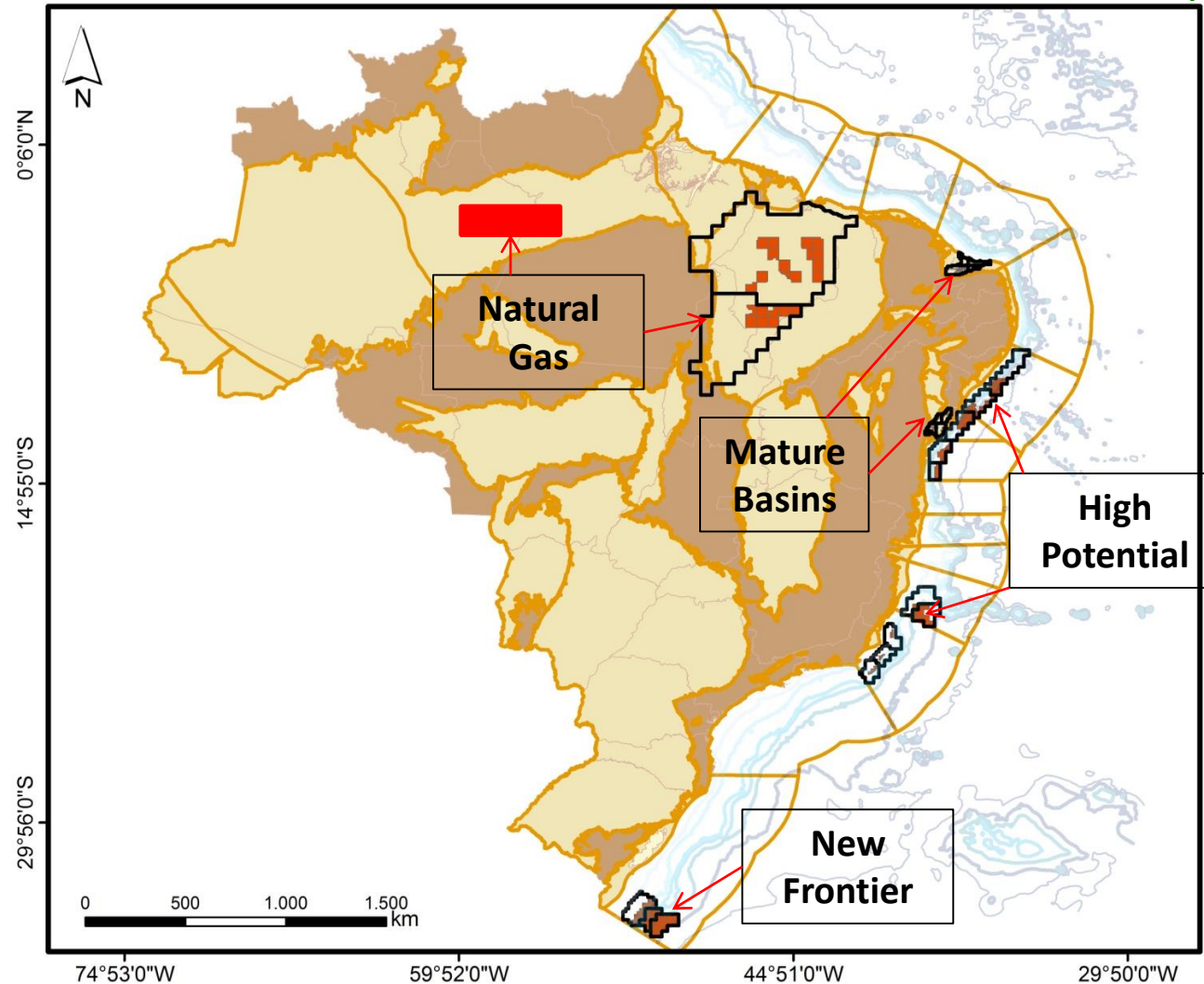
New Bid Rounds and Energy Auctions



Concession Model

13th Bid Round

- October 2015;
- 269 onshore and offshore blocks;
- Mature, new frontiers and high potential basins





13th Bid Round - Blocks

Basin	onshore/offshore	Potential	Fluid	Number of Blocks	Coments
Amazonas	onshore	New Frontier	gas	7	to be confirmed
Parnaíba	onshore	New Frontier	gas	22	important gas discoveries
Potiguar	onshore	Mature	oil and gas	71	
Reconcavo	onshore	Mature	oil and gas	85	
Sergipe/Alagoas	offshore	High Potential	Gas and light oil	10	Most important area
Jacuipe	offshore	New Frontier	oil and gas	4	close to SE/AL
Camamu-Almada	offshore	New Frontier	oil and gas	9	
Espírito Santo	offshore	High Potential	oil and gas	7	Amazing prospects
Campos	offshore	High Potential	oil and gas	3	only shalow water
Pelotas	offshore	New Frontier	oil and gas	51	Good Potential
Total				269	



For The Future – Oil Sector

- **Concession Model - periodic rounds - considering:**

- The oil companies necessity;
- The service companies demand;
- The local industry capacity;
- ANP studies on the areas;
- Recent discoveries;

TARGET – Not more than two years without a bid

- **Production Sharing Model – rounds depend on:**

- Brazilian target for oil export;
- The local industry capacity;



Generation – New Investments

Auctions 2015



1st Auction for Reserve Energy

Date: may 29th 2015

Source of energy: Gas power plants

Auction A-3

Date: July 24th 2015

Source of energy: Hydro, Gas, solar and wind

2nd Auctions for Reserve Energy

Date: August 14th 2015

Source of energy: Solar Photovoltaic

3rd Auction for Reserve Energy

Date: 13 de novembro de 2015

Source of energy: Solar Photovoltaic e Wind



Transmission – New Investments

4 Auctions in 2015

Date: June, July, September and December



● **Total Extension**
18,200 km

● **Transformation Capacity**
33,600 MVA

● **Forecast Investment**
US\$ 9 billions



Final Remarks



Brazilian Energy Sector Offer:

- **A good opportunity to invest:**
 - **if you are an oil company** (13th bid round could be the path);
 - **if you provide goods and services for oil companies;**
 - **If you want to generate energy;**
 - **If you want to invest in transmission**
- **Huge potential for oil and gas – not only within the Pre-Salt polygon;**
- **Many opportunities to generate energy from renewable sources**
- **Stable regulatory framework and two strong Agencies;**
- **Political stability:**
 - **Institutions working;**
 - **Free press;**
 - **Free manifestations**



Thank you very much,

I hope to see you soon in Brazil