O&G INDUSTRY IN BRAZIL



PROJECTS

6th Production Sharing Bidding Round - The National Council for Energy Policy - CNPE, through Resolution No. 18/2018, has authorized the National ANP to hold the 6th Production Sharing Bidding Round. CNPE has also approved the technical parameters of the areas offered and defined Bumerangue area as strategic. The Resolution No 18/2018 was published in the Federal Official Gazette (DOU) on December 19, 2018.

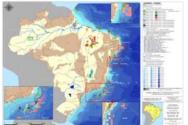
The blocks offered in this Round are Aram, Bumeranque, Cruzeiro do Sul, Southwest of Sagitário area and North of Brava.

The tender protocol of the 6th Production Sharing Bidding Round shall indicate that the mandatory participation of Petrobras as operator will be 30% in the areas of Aram, Southwest of Sagitário and North of Brava, according to Petrobras statement to the Ministry of Mines and Energy.



Bidding Process - Under the production sharing regime, the winning company is the one that offers the Brazilian Government the largest share of oil and natural gas (that is, the largest portion of the exceeding oil).

16th Bidding Round of Blocks - The National Council for Energy Policy -CNPE, through Resolution No. 17/2018, has authorized ANP to hold the 16th Bidding Round for Blocks for the Exploration and Prodution of Oil and Natural



Gas, under the concession regime. Resolution No 17/2018 was published in the Federal Official Gazette (DOU) of December 18, 2018.

Forty-two blocks will be offered in the sedimentary basins of Pernambuco-Paraíba, Jacuípe, Camamu-Almada, Campos and Santos, totaling 29,3 thousand km² of area.

"Transfer of Rights" Surplus Bidding Round (cessão onerosa)* - The transfer of rights contract was signed in 2010 between the Brazilian Federal Government and Petrobras, assigning Petrobras the rights to explore and produce oil, natural gas and other fluid hydrocarbons in certain areas of the pre-salt, limited to a maximum volume of 5 billion barrels of oil equivalent (BOE). The contract divided the exploration areas into six blocks, namely: Franco, Florim, Guará, Tupi, Northeast of Tupi and Surroundings of Iara. A contingent area, called Peroba, was also allocated to ensure the maximum volume established in the contract.

Government studies point to a production potential far above the contract value signed by Petrobras. According to CNPE Resolution No. 1/2014, the expectation is that the recoverable oil that exceeds the amount already contracted of 5 billion barrels will be 9.8 to 15.2 billion barrels in some blocks, as shown in the following table:

Area	Surplus volume – millions of BOE	0001 00.
Block 1: Florim	Between 300 and 500	
Block 2: Franco	Between 6,500 and 10,000	Vesolution
Block 3: Sul de Guará	-	cici
Block 4: Entorno de Iara	Between 2,500 and 4,000	4
Block 5: Sul de Tupi	-	7
Block 6: Nordeste de Tupi	Between 500 and 700	
Total	Between 9,800 and 15,200	01/2017

The government expects to carry out the bidding process by October 28. The signing bonuses are expected to lie between USD 20.6 billion and USD 25.8 billion.

SCHEDULE

6th Production Sharing **Bidding Round**

> quarter/ 2019

16th Bidding Round of Blocks

> quarter 2019

"Transfer of Rights" Surplus Bidding Round

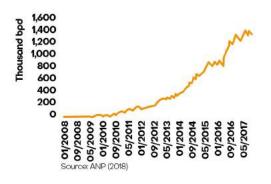
> Until October 28, 2019.

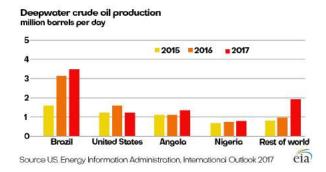
Exchange rate: 1 US\$ = 3,78 BRL, as of April 5, 2019.

^{*} The transfer of rights surplus bidding has not been qualified in the Investment Partnerships Program as yet.

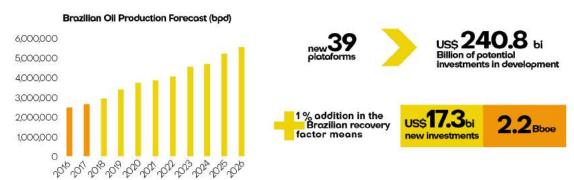
PRODUCTION SCENARIO: NEED TO ATTRACT INVESTMENTS

- Production is declining in all regions (conventional offshore and onshore), except for the pre-salt play;
- According to EIA, in 2016, Brazil accounted for the largest share of the global deep-water crude oil production (32%);
- Brazil's deep water has world-class resources and huge potential to increase production in the short term;
- Deep-water projects in Brazil are achieving lower break-even.





- According to Rystad Energy/NORW EP, Brazil, in the next four years, will be the largest offshore market in the world:
- There is potential to contract more than 30 production units in the next ten years;
- Blocks with huge potential that may be quickly developed shall be offered in the next PSC round;
- Brazil is home to the largest offshore oil discoveries in the last decade (63% of the world's deep water oil discoveries).



The pre-salt region has the potential to contribute with the largest non-OPEC production growth the decade to come. According to IEA, Brazil will be one of the four countries responsible for covering the world's demand growth up to 2020.

REGULATORY FRAMEWORK

Regulatory improvements have ensured successful auctions:

- New rules for local content certification for future contracts;
- REPETRO Special Customs Regime applicable to exporting/importing goods used in oil and gas exploration and drilling;
- Exclusion of mandatory participation of Petrobras as an operator;
- Planning of auction rounds (2017–2021) has brought predictability;
- Permanent offer of returned areas;
- Revision of the reference oil price;
- Royalties adjustments; and
- Environmental licensing processes prioritized.

LAST ROUNDS

Impressive results in the last rounds:

- Bonus raised (Pre-salt production sharing): US\$
 2.6 bi (4th e 5th rounds);
- Bonus raised (Round of blocks): US\$ 3.1 bi (14th e 15th rounds);
- Average premium Pre-salt: 202% (4th Round) and 171% (5th Round);
- Pre-salt: after 4 years without any auction, the 2nd, 3rd, 4th e 5th Rounds attracted the world's leading companies and achieved the record average premium in terms of profit oil (%) to the Brazilian Government.



