Agenda

• PPSA - Roles and Responsibilities
• Pre-salt Case study
• Challenges and Opportunities
Roles & Responsibilities

Production Sharing Agreement (PSA) management

Unitization on behalf of the Government

Commercialization of Oil & Gas Government share

Maximize pre-salt economic results for the Brazilian Government share
Oil & Gas Industry Best
practices

Audit & Monitoring Project Execution

Audit & Monitoring costs (CAPEX & OPEX)

E&P Projects develop. phases evaluation

Diligent action on local Content fulfillment

Obligations
Pre-salt Case Study
Case study: PSAs Expected results

17 Production Sharing Agreements
14 Signed PSAs
3 PSAs to be signed in 2020
Timeframe: 2020-2032
Main premises

First oil date & Production curves from existing Development Plans (DP).
Exploratory Projects (W/O DP), first oil estimated in 8 years from Contract signature with simulated Production curves using Oil in place, pre-salt exploratory success rate, average ramp-up time and declining production rate.

- **CAPEX** from the existing Development Plans (DP).
- **Exploratory Projects (W/O DP)**, Costs estimated on in-house generated costs cash flows.
- The investments cash flows in 4 years, 3 years before 1st Oil and on the first production year.

**FPSO's - Production Units capacity considered**
50,000 to 220,000 barrels/day depending on the size of reserves.

**Cost premises used:**
10% depreciation rate
Profit oil percentage, cost recover limits and signature bonus from each specific project.
Exchange rate: 1 USD to 4 Reais

**1 Producer Well** for each 20,000 barrels of FPSO capacity.
1 Injector Well for each Oil Producer.
1 Exploratory Well per Project.

Oil price of US$ 60/bbl
Gas price of US$ 5/MMBtu
Oil Production estimated in the 17 PSAs

3,9 Millions barrels/day in 2032

Brazilian oil production

2,92 millions barrel/day (Sept 19)

Offshore Oil & Gas Brazil Summit 2019
Government Expected volume to be commercialized

1,22 Millions barrels/day in 2032

Government’s Profit Oil

Variable in each Project

Minimum percentage:
Sudoeste de Tartaruga Verde: 10,01%

Maximum percentage:
Entorno de Sapinhoá: 80%
Government Take

Amount paid to Federal, States and local Governments

1. Government Profit oil & gas Commercialization;
2. Royalties;
3. Others Taxes.
Government Profit oil Commercialization

R$ 424 billions from 2020 to 2032

(Billions R$)
Royalties

R$ 349 Billions from 2020 to 2032

(Billions R$)

Taxes

R$ 227 billions from 2020 to 2032

(Billions R$)
Government Take (2020-2032)

R$ 424 billions with Government Profit Oil Commercialization

R$ 349 billions with Royalties

R$ 227 billions with Taxes

R$ 1 trillions up to 2032 (Billions R$)

Offshore Oil & Gas Brazil Summit 2019
CAPEX estimated (2020-2032)

- R$ 196 billions
  Production Platforms

- R$ 168 billions
  Subsea Systems

- R$ 196 billions
  Wells

R$ 560 billions
from 2020 to 2032
CAPEX Distribution

(Billions R$)

- 474 Wells
- 28 FPSOs
- 2500 km Subsea lines
- 474 WCT
General impact of 17 PSAs from 2020 to 2032

- Average production 3.9 Millions barrels/day in 2032
- Government profit Oil: 1.2 Millions barrels/day in 2032
- Government take of R$ 1 Trillion
- Oil & Gas Government Revenue of R$ 424 Billions
- R$ 560 Billions invested in the Industry OPEX as a upside!
- Multiplier effect on the Jobs and Brazilians income
Challenges and Opportunities
Challenges and Opportunities

- Process Plant footprint optimization to face GOR increasing.
- Lack of gas export infrastructure.
- Subsea Process & Pumping to handle GOR increasing.
Final Remarks

• The PSC’s are improving due to collaboration between PPSA & Operators

• Health, Safety & Environment as a key value to Pre salt Projects

• Gas management & Monetization as one of the biggest Pre salt opportunity
Obrigado!

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