MAYER BROWN

Energy Roundtable



Oil & Gas Outlook: Brazil, Angola, Mozambique and Mexico

September 18, 2019

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Introduction

- Welcome to the second annual Brazil, Angola, Mexico & Mozambique ("BAMM") Round Table.
- These are four key countries in the oil and gas industry upon which our energy practice group expends much effort for our clients.
- A lot has changed (both positively and negatively) in the prior year in the BAMM countries and our panelists will discuss those changes.
- As the end of a decade approaches, we focus on the 20's and whether they will likely be <u>roaring</u> or <u>boring</u> for the oil industry in each country.
- There will be a Q&A session at the end. Please hold questions until then to assure we adequately cover the major BAMM issues.

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BRAZIL

O&G Figures and Prospects *Different E&P Regimes*



Concession Regime

Law 9,478/1997 (Petroleum Law). Applicable to all blocks other than the pre-salt and strategic areas. Open access through competitive bids, individually or in consortium / Farm-in and Farm-out

Production Sharing Regime

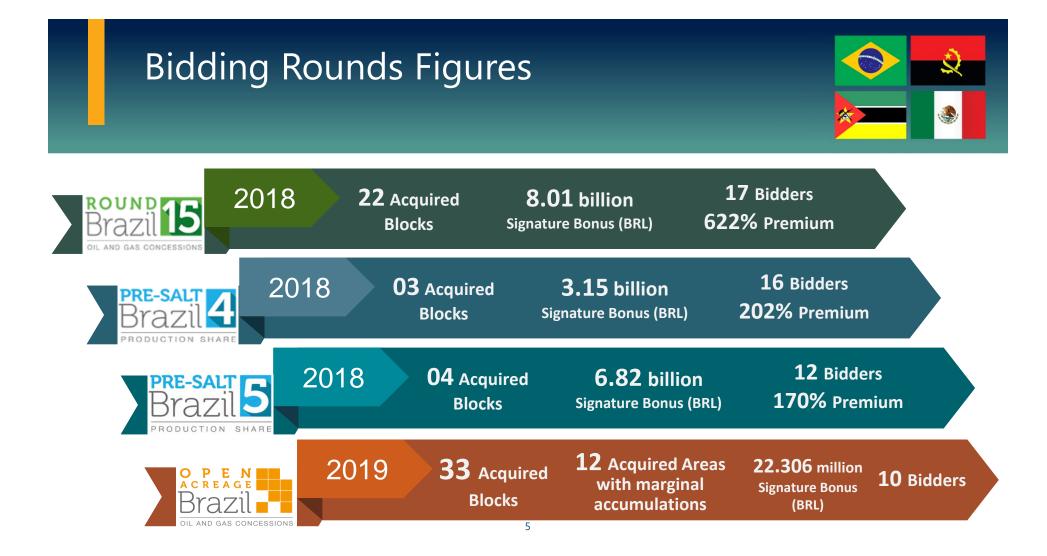
Law 12,351/2010 (PSA Law). Pre-Salt and strategic areas. Open access through competitive bids individually or in consortium (Petrobras has preferential rights to hold 30% PI and to be the Operator) / Direct Contracting of Petrobras / Farm-in and Farm-out.

Poligono pré-sal Government for the fat areas to Petrobras on ToR Law does not ent and ToR Law are

Sul de Sapinhoá

Transfer of Rights ("ToR")

Law No. 12,276/2010 (ToR Law). Created by the Brazilian Government for the capitalization of Petrobras - assigned E&P rights in pre-salt areas to Petrobras under very attractive government takes. Original regulation on ToR Law does not allow any kind of assignment of Petrobras P.I. ToR Agreement and ToR Law are currently under review process.



O&G Figures and Prospects *Recent Pre-Salt Bidding Rounds*



Area	PSC Round	Operator	WI	Company #2	wı	Company #3	wı	Company #4	wı	Company #5	WI	Profit Oil of Federal Government	Contract Signed	Signature Bonus (R\$)	Signature Bonus (US\$)
Libra	1	Petrobras	40%	Shell	20%	Total	20%	CNPC	10%	CNOOC	10%	41.65%	13-Dec	15,000,000,000	6,398,498,486
Sul de Gato do Mato	2	Shell	80%	Total	20%							11.53%	18-Jan	100,000,000	31,627,554
Entorno de Sapinhoá	2	Petrobras	45%	Shell	30%	Repsol Sinopec	25%					80.00%	18-Jan	200,000,000	63,255,108
Norte de Carcará	2	Equinor	40%	ExxonMobil	40%	Petrogal	20%					67.12%	18-Jan	3,000,000,000	948,826,618
Peroba	3	Petrobras	40%	BP	40%	CNPC	20%					76.96%	18-Jan	2,000,000,000	632,551,078
Alto de Cabo Frio Oeste	3	Shell	55%	Qatar Petroleum	25%	CNOOC	20%					22.87%	18-Jan	350,000,000	110,696,439
Alto de Cabo Frio Central	3	Petrobras	50%	ВР	50%							75.80%	18-Jan	500,000,000	158,137,770
Uirapuru	4	Petrobras	30%	ExxonMobil	28%	Equinor	28%	Petrogal	14%			75.49%	18-Dec	2,650,000,000	677,489,454
Dois Irmãos	4	Petrobras	45%	BP	30%	Equinor	25%					16.43%	18-Dec	400,000,000	102,262,559
Três Marias	4	Petrobras	30%	Shell	40%	Chevron	30%					49.95%	18-Dec	100,000,000	25,565,640
Saturno	5	Shell	50%	Chevron	50%							70.20%	18-Dec	3,125,000,000	798,926,243
Titã	5	ExxonMobil	64%	Qatar Petroleum	36%							23.49%	18-Dec	3,125,000,000	798,926,243
Pau Brasil	5	BP	50%	CNOOC	30%	Ecopetrol	20%					63.79%	18-Dec	500,000,000	127,828,199
SO de Tartaruga Verde	5	Petrobras	100%									10.01%	18-Dec	70,000,000	17,895,948

M&A News Petrobras Divestment

PetroReconcavo

PETRONAS



34 ONSHORE FIELDS

Sale of 100% PI to Potiguar E&P S.A. [Petrorecôncavo

S.A.]

USD 384,2 Million

TARTARUGA VERDE AND MODULE III ESPADARTE

> Sale of 50% PI to PETRONAS

> USD 1,29 Billion

MAROMBA FIELD

Sale of 70% PI to BW

USD 90 Million

BAÚNA FIELD Sale of 100% PI to Karoon

USD 665 Million

TAG Sale of 90% PI to ENGIE & CDPQ

ENGIE & CDPQ

Karoon

engie

PAMPO & ENCHOVA CLUSTER

Sale of 100% PI to Trident Energy



USD 851 million



(Pargo, Carapeba & Vermelho fields) Sale of 100% PI to Perenco



USD 370 Million



Petrobras & CADE Settlement Agreement – TCC





Shares in Gas Transportation and Distribution Companies

Petrobras and the Brazilian Antitrust Authority ("CADE") executed a Term of Cessation of Conduct ("TCC"), where Petrobras committed to divest several of its assets in the gas market until 2021. Petrobras divestment in the sector is essential to unlock further investments and improve competitiveness since the company operates almost all main infrastructure of the gas market. The TCC is key for the promotion of the so-called New Gas Market in Brazil.

Refining Assets

Petrobras executed a TCC with CADE which consolidates understandings on the divestment process in connection with the national refining sector.

Petrobras undertook to completely sell/divest the refining assets mentioned in its April announcement, basing on a schedule agreed by the parties, in accordance with company's divestment process.

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What is next?



Bidding Rounds Transfer of Rights Surplus Bidding Round



Signature Bonus

Area	Signature Bonus (in BRL)
Búzios	68,194,000,000.00
Sépia	22,859,000,000.00
Atapu	13,742,000,000.00
ltapu	1,766,000,000.00

After the Bid Round, the amount of BRL 29,250,000.00 of the total signature bonus collected will be destinated to PPSA.

Local Content

Búzios, Atapu and Sépia*							
Development (%)							
Well	Stationary Unit						
25	40	25					

*In the area of Itapu, minimum local content requirements will be in accordance with local content percentage required in the adjacent area of Oeste de Atapu (area of Iara – Block BM-S-11A) 11

- ToR Surplus Bidding Round will be in accordance with ToR Agreement and its amendment;
- PSCs will consider the following minimum percentage of Profit Oil oil to the Brazilian Government:

Atapu: 25.11%Sépia: 27.65%Búzios: 23.25%Itapu: 19.82%

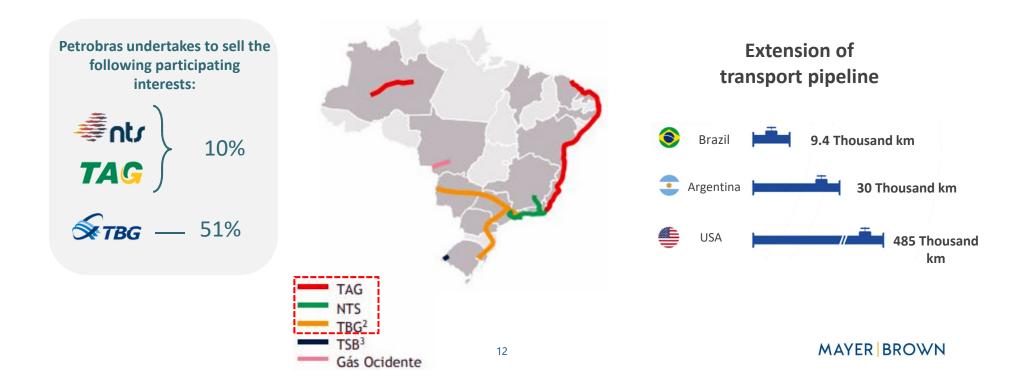
CNPE Resolution No. 20/2019

Allowed for the payment in installments of the Signature Bonus, for bidders offering <u>at least 5%</u> additional to the minimum profit oil, as follows:



Gas Market *Transport Assets*





Gas Market Distribution Assets



Petrobras is also committed to sell 20 local distribution companies.





Petrobras is the shareholder of 20 out of 27 gas distribution companies, being 19 as an indirect shareholder through Gaspetro. BR Distribuidora has 100% of the local distribution company of Espítito Santo.

Refining *Refineries*





The TCC classified the following assets as "competing" assets and cannot be acquired by the same buyer or companies belonging to the same economic group:

- 1) Refinery Landulpho Alves (RLAM) and Refinery Abreu e Lima (RNEST);
- 2) Refinery Presidente Getúlio Vargas (REPAR) and Refinery Alberto Pasqualini (REFAP);

3) Refinery Gabriel Passos (REGAP) and Refinery Landulpho Alves (RLAM).

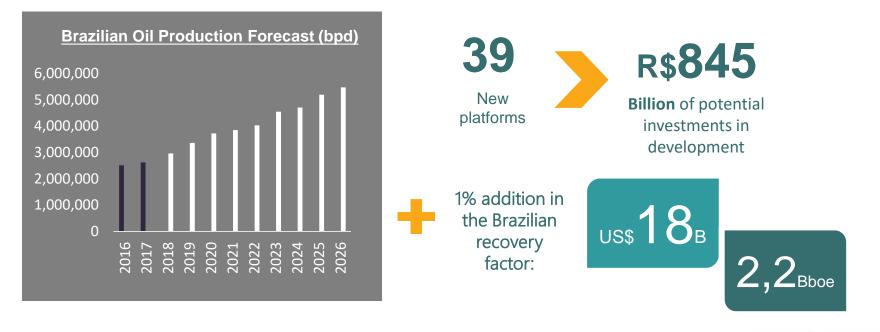


What is the future?



Potential investments and forecast production (2027)





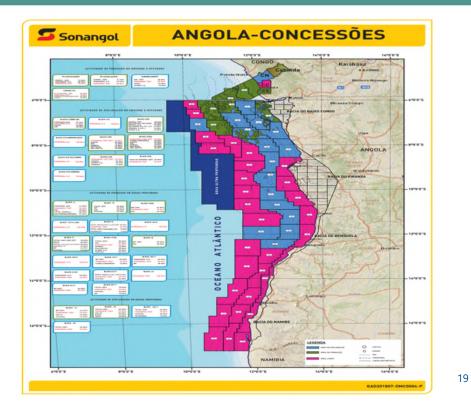
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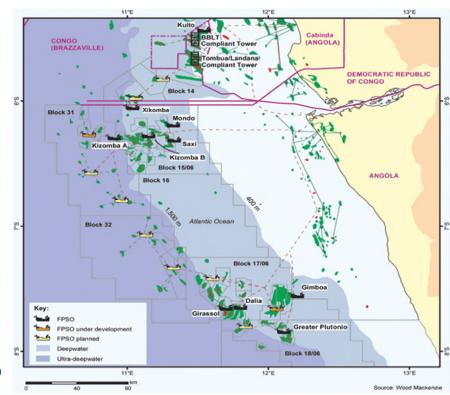


ANGOLA

ANGOLA



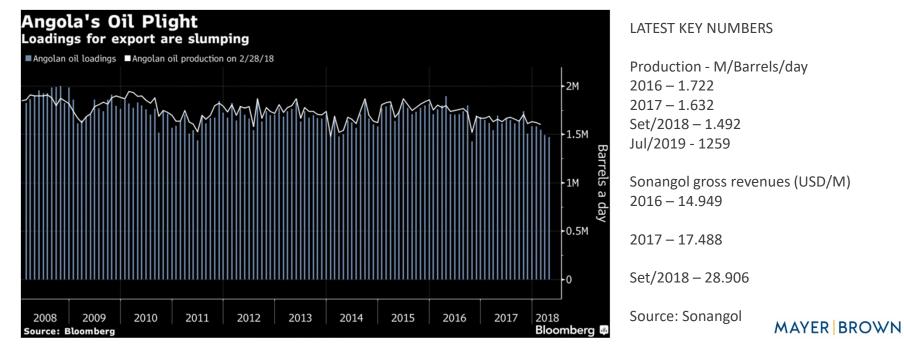








NEEDING A BOOST







PRODUCTION FORECAST

	2019	2020	2021	2022	2023
M/barrels/day	1.572	1.567	1.577	1.570	1.655

WILL REMAIN RELATIVELY FLAT FOR THE NEXT 5 YEARS

Source: SONANGOL







VINTAGE TEXAS BUMPERSTICKER



"Please God, give us another oil boom, we promise not to piss it away this time"

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ANGOLA'S DICHOTOMY

How to revitalize the country's crucial oil and gas sector in the face of (i) volatile oil prices; (ii) declining proven reserves and production; (iii) decreased foreign investment; and (iv) political change?







OBJECTIVES

- Increase (or at least stabilize) proven oil reserves and production.
- Attract and increase foreign investment in the petrolum sector.
- Utilize and commercialize significant natural gas reserves.
- Streamline and enhance petroleum governance and administrative structures.
- Ensure that Angola and Angolans adequately benefit from petroleum activities.

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ANGOLA



KEY LEGISLATION AFFECTING PETROLEUM SECTOR

- 2004 Laws on Petroleum Activities, Taxation and Customs.
- Legislative Presidential Decree 7/18 on Natural Gas Exploration and Production.
- Presidential Dispatches 307/17 and 112/18 regarding reorganization of SONANGOL and creation of independent petroleum agency.
- Decree 86/18 (New Rules and Procedures for Public Tendering in O&G Industry in Angola).

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Law 3/10 Public Probity Law.





KEY RECENT LEGISLATIVE OUTCOMES

- Creation of new Petroleum Agency and restructuring of SONANGOL.
- New framework for natural gas exploration and development.
- Incentives for development of marginal fields and more attractive tax rates generally.
- Improvement of contract award approval process.
- Selective enforcement of Angola's anti-corruption laws.



ANGOLA



WHAT IS BEING DONE?

Development and Production

- Various approvals re ongoing projects in Block 0, Block 15/06 and Block 32 (Kaombo)
- Negotiations towards extensions on Blocks 15 (ENI), 17 (Total) and 18 (BP)
- Negotiations among LNG Partners, SNL and third parties in respect of Block 2 non-associated natural gas and its possible application for LNG project

Seismic activities

• 18.900 SqKm 2d, 11.000 SqKm 3d and 1,089 SqKm 4d on the Namine Basin and onshore regions

Drilling activities

• 11 exploration wells and 4 appraisal wells over the next 3 years



ANGOLA – Upcoming Bid rounds



Blocks for bid rounds



Directed negotiation

2019		2020		20	21	202	23	2025	
BLOCO	BACIA	BLOCO	BACIA	BLOCO	BACIA	BLOCO	BACIA	BLOCO	BACIA
BLOCO 10	BENGUELA	ſ				BLOCO CON 2	CONGO	BLOCO 22	KWANZA
BLOCO 11	NAMIBE	BLOCO CON 1	CONGO	BLOCO 7	CONGO	BLOCO CON 3	CONGO	BLOCO 23	KWANZA
BLOCO 12	NAMIBE	BLOCO CON 5	CONGO	BLOCO 8	CONGO	BLOCO CON 7	CONGO	BLOCO 24	KWANZA
BLOCO 13 -	NAMIBE	BLOCO CON 6	CONGO	BLOCO 9	CONGO	BLOCO CON 8	CONGO	BLOCO 25	KWANZA
BLOCO 27	NAMIBE	BLOCO KON 5	KWANZA	BLOCO 16	CONGO	BLOCO KON 1 BLOCO KON 3	KWANZA KWANZA	BLOCO 25	KWANZA
		BLOCO KON 6	KWANZA	BLOCO IN	CONGO	BLOCO KON 7	KWANZA		
BLOCO 28		BLOCO KON 8	KWANZA	BLOCO 33	CONGO	BLOCO KON 10	KWANZA	BLOCO 35	KWANZA
BLOCO 29	NAMIBE			BLOCO 34	CONGO	BLOCO KON 13	KWANZA	BLOCO 36	KWANZA
BLOCO 41	NAMIBE	BLOCO KON 9	KWANZA			BLOCO KON 14	KWANZA	BLOCO 37	KWANZA
BLOCO 42	NAMIBE	BLOCO KON 17	KWANZA	BLOCO 31*	CONGO	BLOCO KON 15	KWANZA	BLOCO 38	KWANZA
BLOCO 43	NAMIBE	BLOCO KON 20	KWANZA	BLOCO 32*	CONGO	BLOCO KON 19	KWANZA	BLOCO 40	KWANZA
KNO 4	KWANZA								
KON 11	KWANZA.	Chevr	0.0	EN/IONI		bp		-	-
KON 12	KWANZA	Chevi		EXON		A			Sume P
KON 16	KWANZA .				-				3/37 3
BLOCO 1/14	KWANZA			Mobil	-	Contraction of the second		C	eni
BLOCO 15/14	KWANZA.						TOTAL		
BLOCO 2/15	KWANZA								
BLOCO 6	KWANZA								
BLOCO 6/15	KWANZA		aala				-		
BLOCO 18/15	KWANZA	0	galp			Charles		nangol	
BLOCO 30	NAMIBE		energia	SOMO		Statoil	- P	esquisa e	Produção
BLOCO 44	NAMIBE								
BLOCO 45	NAMIBE								
BLOCO 46	CONGO	Nota:							
	CONGO	> * Blo		reas livres					

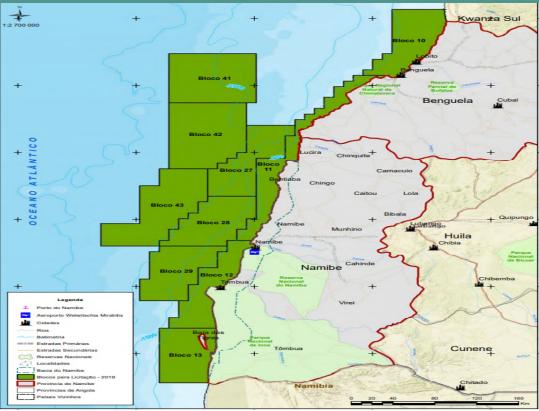
ANGOLA – 2019 Bid Round

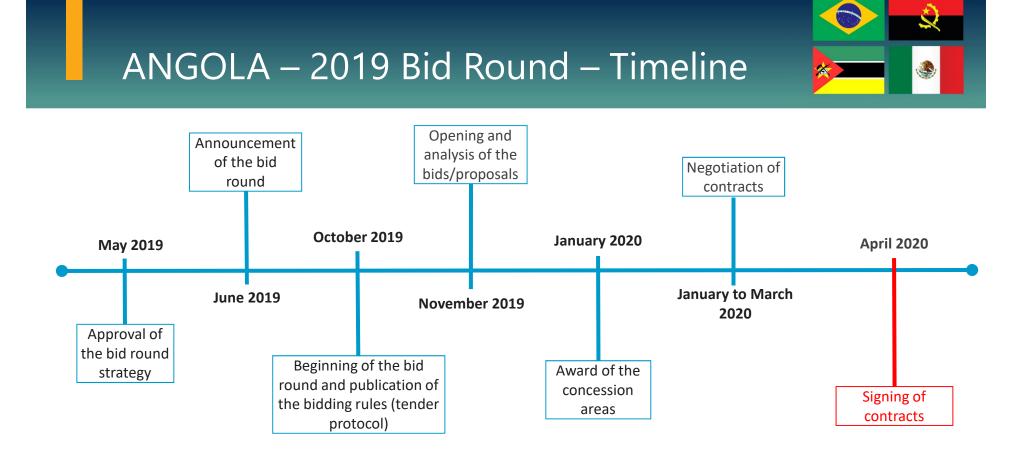


Areas being offered include blocks in both the Namibe and Benguela basins (new frontiers):

- Blocks 11, 12, 13, 27, 28, 29, 41, 42 and 43 in the Namibe Basin; and
- Block 10 in the Benguela Basin.

This list might be amended before the formal bidding round launch.



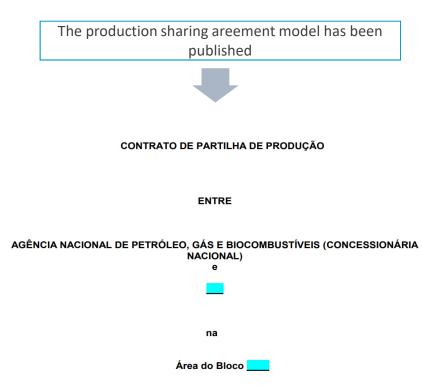


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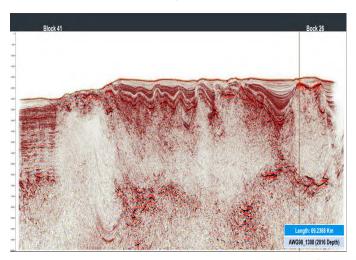
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ANGOLA – 2019 Bid Round



The data package



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ANGOLA

Sonangol Affiliates Privatization Plan – Oil sector

Joint Venture	Partner
Sonangalp	Petrogal
Sonadiets	Dietsmann
Sonasing	SBM Offshore
Sonaid	Spie Oil & Gas
Sonatide	Tidewater
Sonasurf	Bourbon Offshore
Sonimech	EnerMech
Sonamet Sonacergy	Tecnip Acergy
	32



MOZAMBIQUE

Mozambique

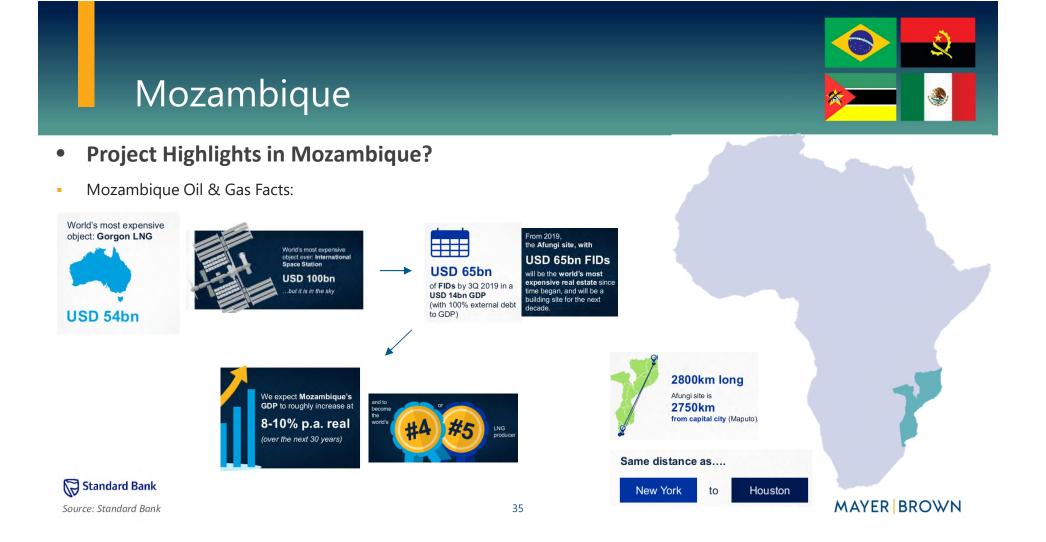
- Project Highlights in Mozambique?
- Mozambique Oil & Gas Facts:
 - Among Largest Natural Gas reserves in Africa (estimate 1st 3rd) and in the World (estimate 4th – 7th);
 - Natural Gas estimated reserves: 200 Tcf; with more than 150 Tcf of recoverable Natural Gas resources in Offshore Area of Rovuma Basin with one of the world's largest liquefied natural gas (LNG) projects;
 - Over the past two decades (1998-2015), Mozambique's GDP has grown by more than 7%/year;
 - One of the newest hydrocarbons producing countries and has been recently experiencing a gas exploration boom;
 - Great opportunities for Oil & Gas and infrastructure investments with development policies focused on private investment.



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Source: International Energy Agency, The Economist, Standard Bank



Mozambique

• Current Regulatory Structure?

Governmental Body	Competencies
Council of Ministers	Establish macro guidelines and policies. Regulate the legislation affected to the sector.
Ministry of Mineral Resources and Energy (MIREME)	Ensures the implementation of Government policy in geological investigation, exploitation of mineral and energy resources, and the development and expansion of electricity supply infrastructure, natural gas and petroleum products.
High Authority of Extractive Industry	Controls petroleum activities.
Institute of National Petroleum (INP)	Regulatory authority responsible for the administration and promotion of the Petroleum Operations to be carried out, in accordance with relevant legislation.
Empresa Nacional de Hidrocarbonetos (ENH)	NOC. 36



• Current Regulatory Structure?

- Main Characteristics (Concession/PSA hybrid Regime):
 - Production Sharing mechanism despite called Concession;
 - National Concessionaire (ENH) may participate in the concessions as representative of the Government (5% to 20%) and may partner with other Concessionaires;
 - Concessionaires could be national or foreign (if registered in Mozambique and incorporated in a transparent jurisdiction);
 - Acquisition of E&P Rights: Competitive Bids, Simultaneous Negotiation (exception), Direct Negotiation (exception), Assignment (Farm-out);
 - Exploration up to 8 years and Production up to 30 years from DP;
 - Establishes Financial Guarantee;
 - Distinction of rights between land and petroleum activities;
 - Conflict Resolution: International Arbitration, with ICSID or other international rules.
 - Government Take:
 - Contractual bonus;
 - Petroleum Production Tax PPT (Royalty) 6% or 10%;
 - Income Tax 32%;
 - Its Share of the Profit Oil.



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• Current Regulatory Structure?

- Main Characteristics (Rovuma Basin LNG special Regime):
 - More flexible foreign exchange regime;
 - More flexible rules to structure the financing of the projects;
 - More flexible rules for foreign labor workforce;
 - Concession up to 30 years from DP;
 - Specific bid rules for acquisition of goods and services;
 - Defines rules for maritime terminal in joint venture with Portos de Cabo Delgado PCD;
 - Fiscal and legal stabilization clause;
 - Exemption to competition rules and stock exchange listing;
 - Progressive PPT rate.



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- What's new? Trends taking place?
 - Area 4 Rovuma LNG FID upcoming;
 - 6th Bid Round;
 - Local Content current framework:
 - Main Legal Criteria: Territoriality or Nationality?
 - Preference to local Goods and Service, provided that: (i) Identical to those available abroad; and (ii) prices no more than 10% higher than the imported ones.
 - Government seeks to create mechanisms to promote "the involvement of national entrepreneurship in the petroleum enterprises".
 - A percentage of the revenues generated by petroleum activities is channeled in the State budget for the development of the communities where we are located where their oil ventures.
 - Concessionaires must promote involvement of local communities in the labor force and resettle local communities located in project areas.

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- Concessionaires must be listed in the Mozambique's stock exchange.
- Quota of 25% of produced petroleum to domestic market.
- Foreign Workers Quota: 5 a 10%.



- What's new? Trends taking place?
- Bill of Local Content Law issues:
 - Applicability to all Mega Projects contracts (and subcontracts) (shifting to LSPs);
 - Nationality rather than territoriality, as general criteria;
 - Minimum local content percentages defined in Law;
 - Minimum mandatory equity for nationals in all companies (shifting to Stock Market Listing);
 - Unique and State owned certifying entity (shifting to allow private certification);
 - Prior authorization for subcontracting;
 - Prior authorization for importation;
 - Extensive local content information requirements for all contracting.

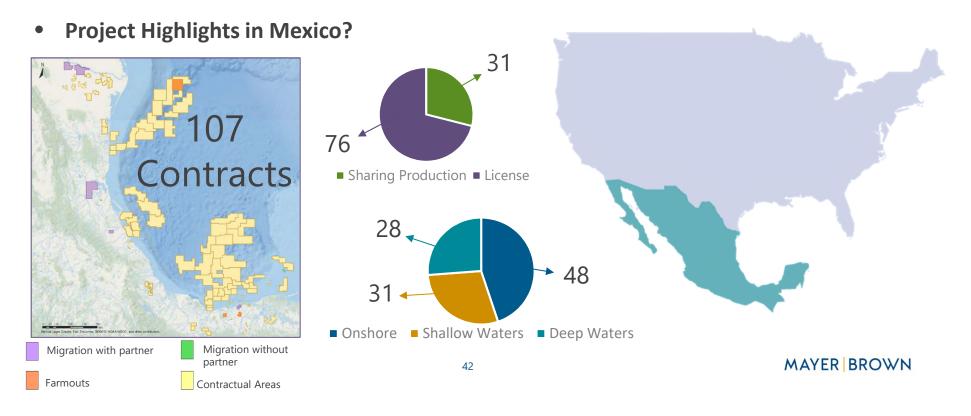


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MEXICO





Current Regulatory Structure?

Governmental Body

Comisión Nacional

de Hidrocarburos

SEMARNAT

ASEA

SECRETARÍA DEL MEDIO . RECURSOS NATURALES Competencies

SERER _____

Ministry of Energy ► Conducts Mexico's energy policy.

National Hydrocarbons Commission

Regulates and supervises recognition and surface exploration, hydrocarbon exploration and extraction, including collection from production points and up to its integration into the transport and storage system, and technically administrate oil and gas contracts.

Ministry of Environment and Natural Resources and National Agency on Industrial Safety and Environmental Protection in the Hydrocarbons Sector

Supervise and regulate the protection of people, environment and hydrocarbons facilities, regarding industrial safety and operational safety, abandonment, and integral control of waste and polluting emissions.





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Current Regulatory Structure?

Governmental Body

SHCP

SECRETARÍA DE HACIENDA Y CRÉDITO PÚBLICO

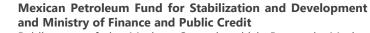
BFMP

Competencies



Energy Regulatory Commission

Development, supervision and regulation of oil, natural gas, LNG and petrochemicals transport, storage, distribution, compression, liquefaction, regasification, and commercialization, respectively.



Public trust of the Mexican State, in which Banco de Mexico participates as Trustee and the Ministry of Finance and Public Credit acts as Trustor. In charge of the administration of incomes and financial aspects of the oil and gas contracts.



Ministry of Economy

Regulates and supervises compliance of national content in oil and gas contracts.

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• Current Regulatory Structure?





1: As of July 1, 2019 *Pemex Perforación y Servicios* was merged to *Pemex Exploración y Producción* 2: As of July 1, 2019 *Pemex Etileno* was merged to *Pemex Transformación Industrial* 45

**: Pemex Cogeneración y Servicios was liquidated on July 27, 2018



• What's new? Trends taking place?







- Are there issues in any BAMM countries that we have not addressed that anyone would care to describe?
- What is the single most significant hurdle currently dampening your company's interest in any or all of the BAMM countries?
- Which of the BAMM countries do you believe will experience the <u>roaring</u> or <u>boring</u> 20's and why?
- Do you believe the BAMM countries or any subset (Brazil-Mexico) (Angola/Mozambique) could profit by increased cooperation? If so, in what form?
- If you could have a one-on-one meeting with the President of any BAMM country, what would you suggest as the top priority for the coming year or decade?

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THANK-YOU!



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