



equinor

# Equinor Brazil

Shaping the future of energy

August 2019



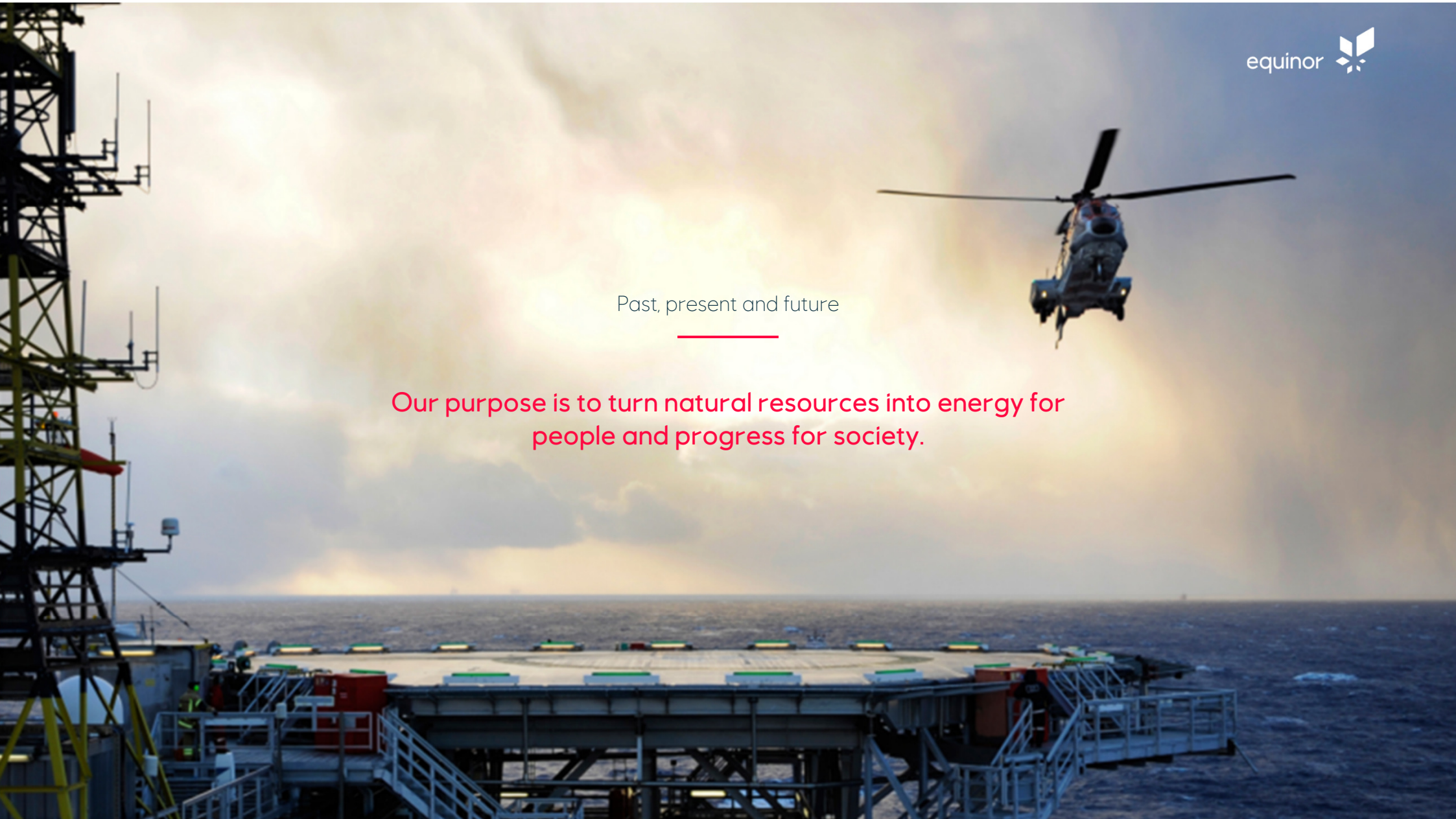
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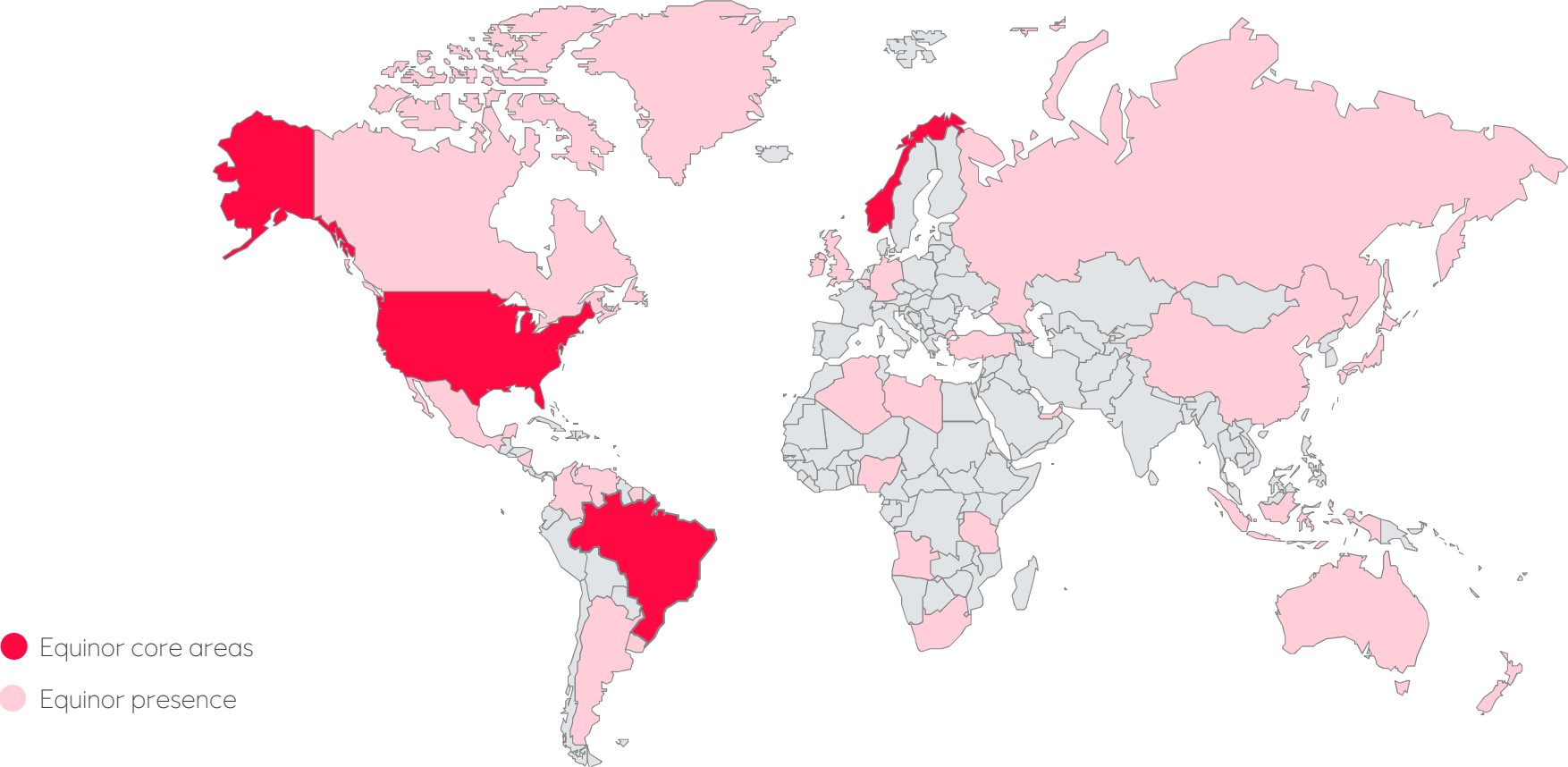
Past, present and future

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Our purpose is to turn natural resources into energy for  
people and progress for society.



# The Equinor journey



*\*does not include offices without assets*

## Our values | At Equinor, the way we deliver is as important as what we deliver



### Open

- We promote transparency.
- We embrace diversity and new perspectives.
- We raise ethical dilemmas and act with integrity.



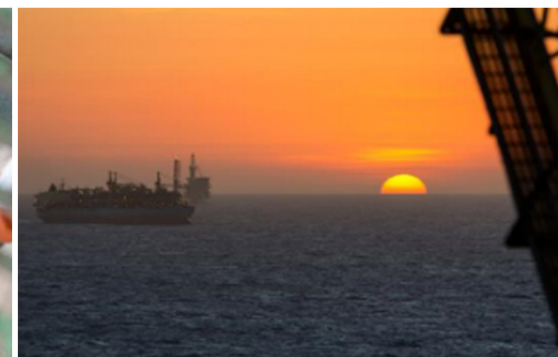
### Collaborative

- We work together as one team.
- We share knowledge and help each other succeed.
- We engage with, respect and earn the trust of our business partners and society.



### Courageous

- We are curious, innovative and commercial.
- We continuously improve.
- We use foresight, identify opportunities and manage risk.



### Caring

- We seek zero harm to people.
- We respect each other and contribute to a positive working environment.
- We act in a sustainable, ethical and socially responsible manner.

## Developing a distinct and competitive portfolio



Johan Sverdrup

### Norwegian continental shelf

Build on unique position

- Highly cost competitive
- Attractive project pipeline
- Exploration potential

### International oil & gas

Deepen core areas

- Enhance Brazil portfolio
- Flexible US position
- New growth options



Peregrino

Always safe,  
High value,  
low carbon



Kårstø

### Midstream and marketing

Access premium markets

- Flow assurance
- Asset backed trading
- Capital light

### New energy solutions

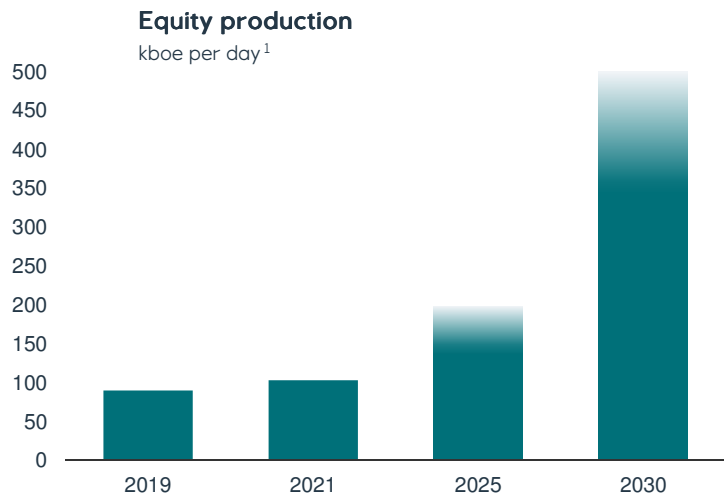
Industrial approach

- Offshore wind focus
- Low-carbon solutions
- Ventures, R&D

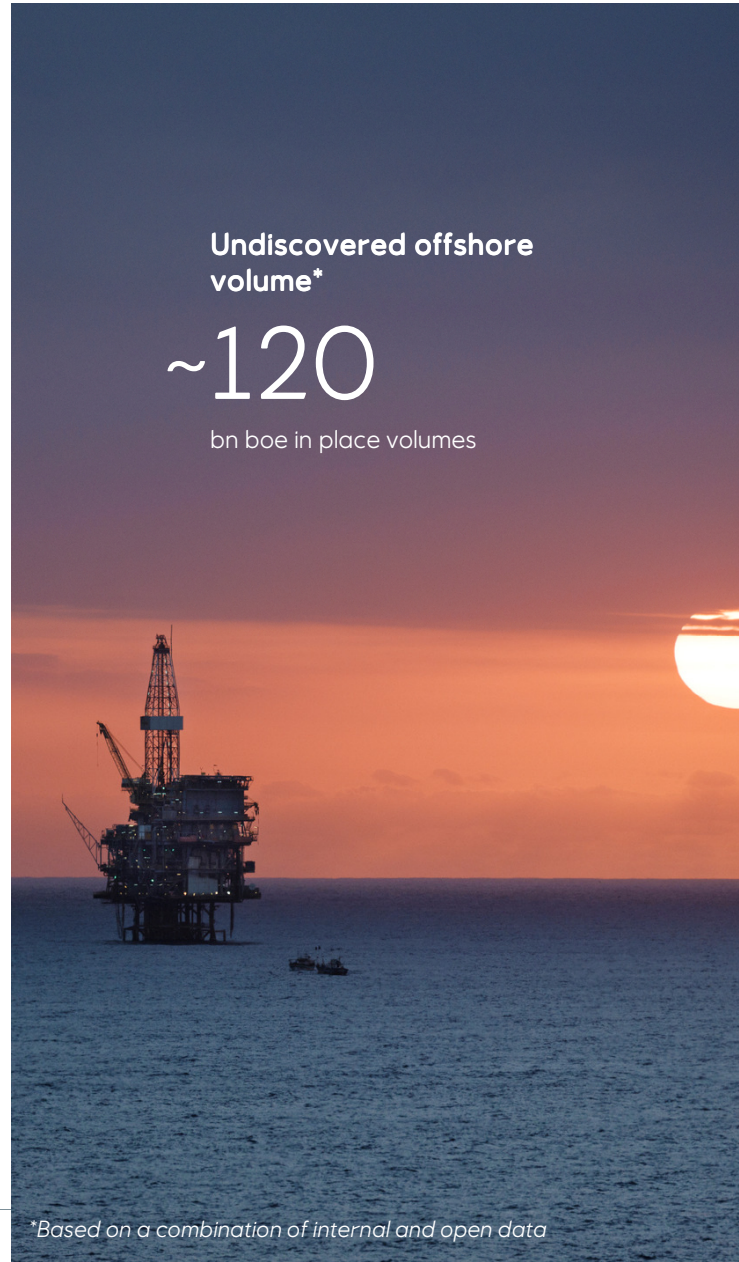


Offshore wind

# Brazil offers an attractive and wide-ranging opportunity set



1. Total production including projects under development, non-sanctioned projects and risked exploration and IOR.



Undiscovered offshore volume\*

~120

bn boe in place volumes



Development of the domestic gas market

4

Percent average growth per year up to 2030

New gas to power projects

~16

GW by 2030

Capacity expansion in renewables

~28

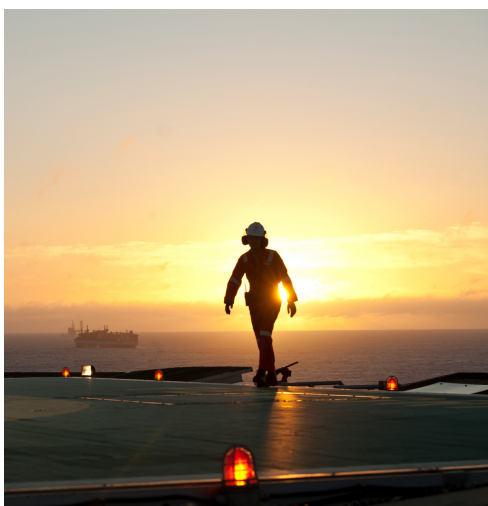
GW by 2030

\*Based on a combination of internal and open data

Equinor's internal beliefs

## Brazil 2030 ambition

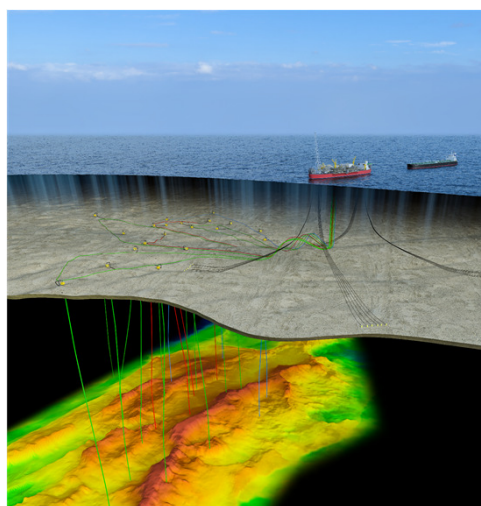
“Deliver safe, high-value and low-carbon growth throughout the energy value chain, from upstream exploration to power generation.”



Deliver on current portfolio



Establish a gas value chain solution



Shape portfolio for higher value lower carbon



Build position as a power supplier



Present in Brazil  
since 2001

**~3%**

of the Brazilian  
Domestic oil production

Value creation  
in a core area

**>500**  
Employees

**>700**  
Contractors offshore

**2<sup>nd</sup>**  
Largest operator

**20**  
production and  
exploratory licenses

## Delivering a high value, low carbon portfolio

- Peregrino phase 2, first oil in 2020
- BM-C-33, opportunity to build a gas value chain
- Carcará, access to a world class pre-salt asset
- Roncador, execution of strategic partnership with Petrobras
- Five firm exploration and appraisal wells with rig options for more in 2018-2020
- Apodi, Equinor's first solar development project

*1. Equinor is the operator of Peregrino, BM-C-33 and Carcará.*



## Strong position to capture long term value from Brazil



<p><b>Peregrino</b></p> <p><b>&gt;180MM</b> bbl produced</p> <p>40,000 barrels per day (equity production)</p>	<p><b>Peregrino Phase II</b></p> <p><b>2020</b> first oil</p> <p>New wellhead platform</p>	<p><b>Carcará</b></p> <p><b>2023-24</b> first oil</p> <p>Oil production capacity of 220 Kbbl per day and Break-even &lt;35 USD per bbl</p>	<p><b>BM-C-33</b></p> <p><b>3</b> discoveries Light oil, gas &amp; condensate</p> <p>Equinor operatorship</p>
<p><b>Roncador</b></p> <p><b>60,000 barrels</b> per day (equity production)</p> <p>increase the recovery factor by at least 10 percentage points</p>	<p><b>Apodi</b></p> <p><b>162MW</b> solar project</p> <p>20 years power purchase agreement</p>	<p><b>EXP Portfolio</b></p> <p><b>5 high</b> impact prospects</p> <p>Pre-salt exploration wells in the next 3 years</p>	<p><b>Value from Natural Gas</b></p> <p><b>Increasing</b> market potential</p> <p>Market opening initiatives</p>

## Strengthening the position in Brazil

Operational excellence

World class recovery

Leading project delivery

Premium market access

Digital leader

Production in 2030

# 300-500

Kboe per day

Higher ambition for Roncador

# ~10

Percentage-point increase in recovery factor

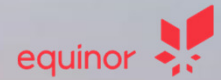
Field estimate of 10 bn boe in place

Break-even

# < 40

USD per bbl

Carcará and BM-C-33



## Higher impact prospects <sup>1</sup>

# 5

Pre-salt exploration wells in the next 3 years

<sup>1</sup> Above 250 mmbob of recoverable resources 100% or above 100 mmbob Equinor share

# Peregrino | Campos Basin

## Safe production

Serious incident frequency<sup>1</sup>

Below  
**0.6**

Barrels of oil produced<sup>2</sup>

**>180**  
million

Actual production

**40 000**  
barrels per day  
(equity production)

## Peregrino

Operated, long life asset

Production started

April  
**2011**

Reserves

**400**  
mill bbls

FPSO capacity

**100 000**  
bbls/day

## Peregrino – Phase II

Field life extension

First Oil planned

from  
**2020**

Adding more resources

**273**  
mill bbls

WHP-C Capacity

**60 000**  
bbls/day

<sup>1</sup> Per million hours worked.  
<sup>2</sup> Since first oil in 2011.

## Carcará | Developing a world class asset

- Value creation through early production and increased capacity
  - Phased development
  - Standard FPSO solution with enhanced technical specifications
- Phase 1 gas re-injection to increase oil recovery
- Appraisal phase 2 complete at end of 2019

### Phase 1

First oil

2023-24

Oil production capacity

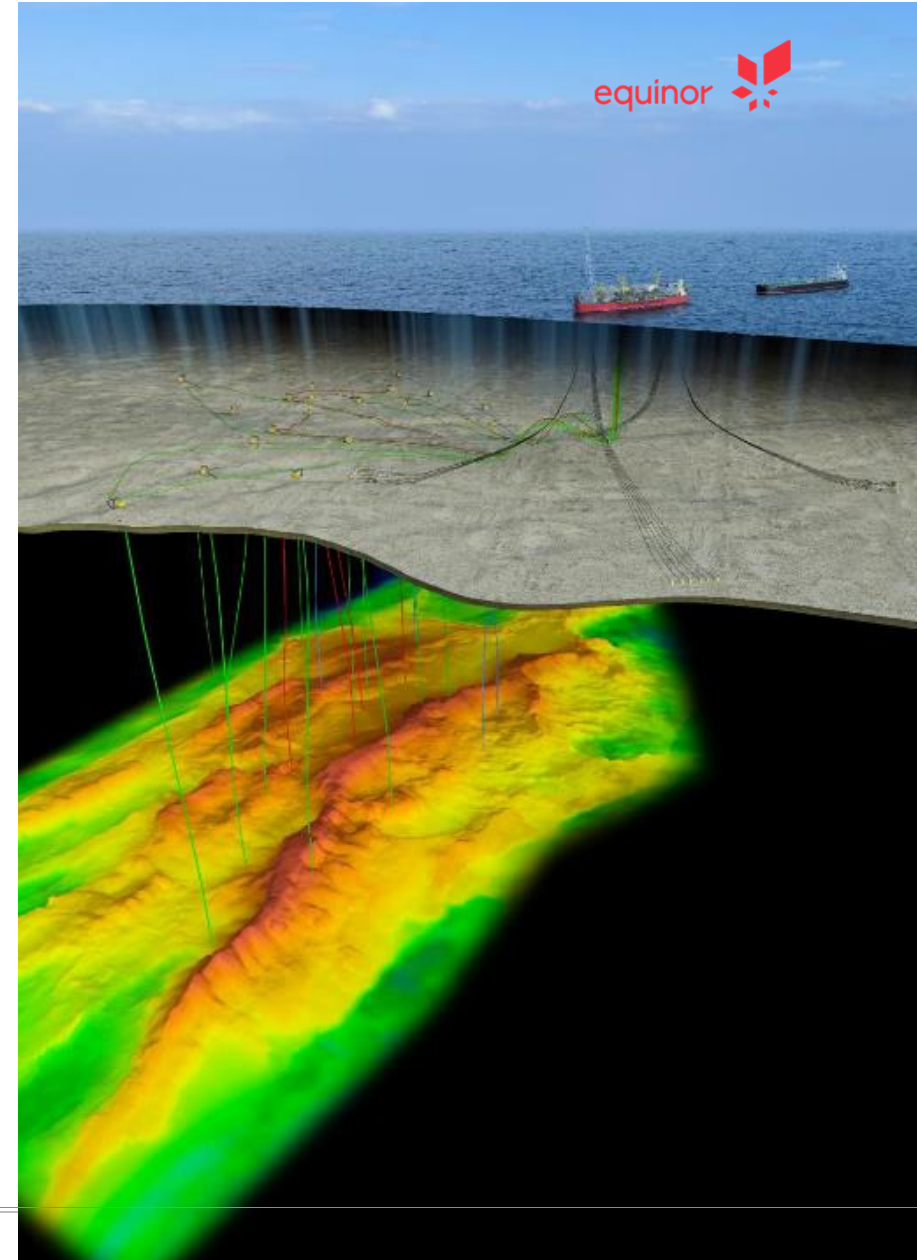
220

Kbbl per day

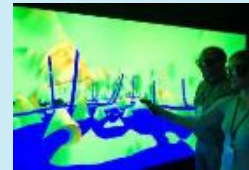
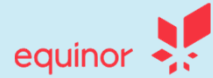
Break-even

< 35

USD per bbl



# Roncador | Applying Equinor recovery experience



Reservoir management



Drilling performance



Subsea solutions



Lifetime extension

Large profitable production upside

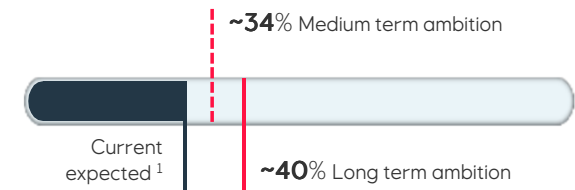
Barrels of oil in place

10 bn

Expected recovery factor increase

10%

## Recovery factor



## Technology deployment and Petrobras partnership

- Safety is first priority
- Leveraging NCS experience to create value in Brazil

<sup>1</sup> Expected ultimate recovery at year end 2018.



## BM-C-33 | Campos Basin



Equinor Brazil: Shaping the future of energy

Operated  
pre-salt asset



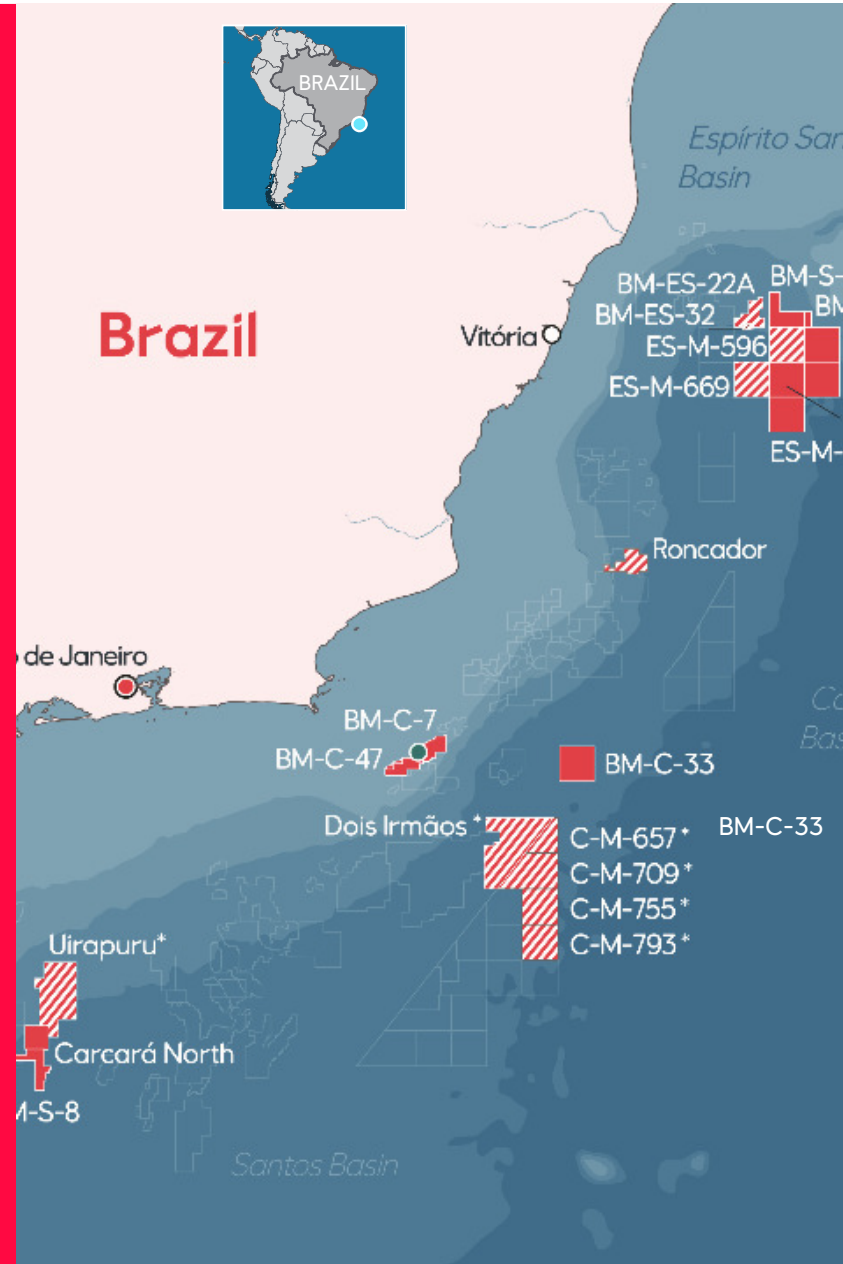
Excellent resource base  
~1 billion boe, upside  
potential



Portfolio scale and diversity  
Synergies, production growth



Gas value uplift  
High-potential market





## Apodi | Solar Energy



Scalable and profitable growth opportunities



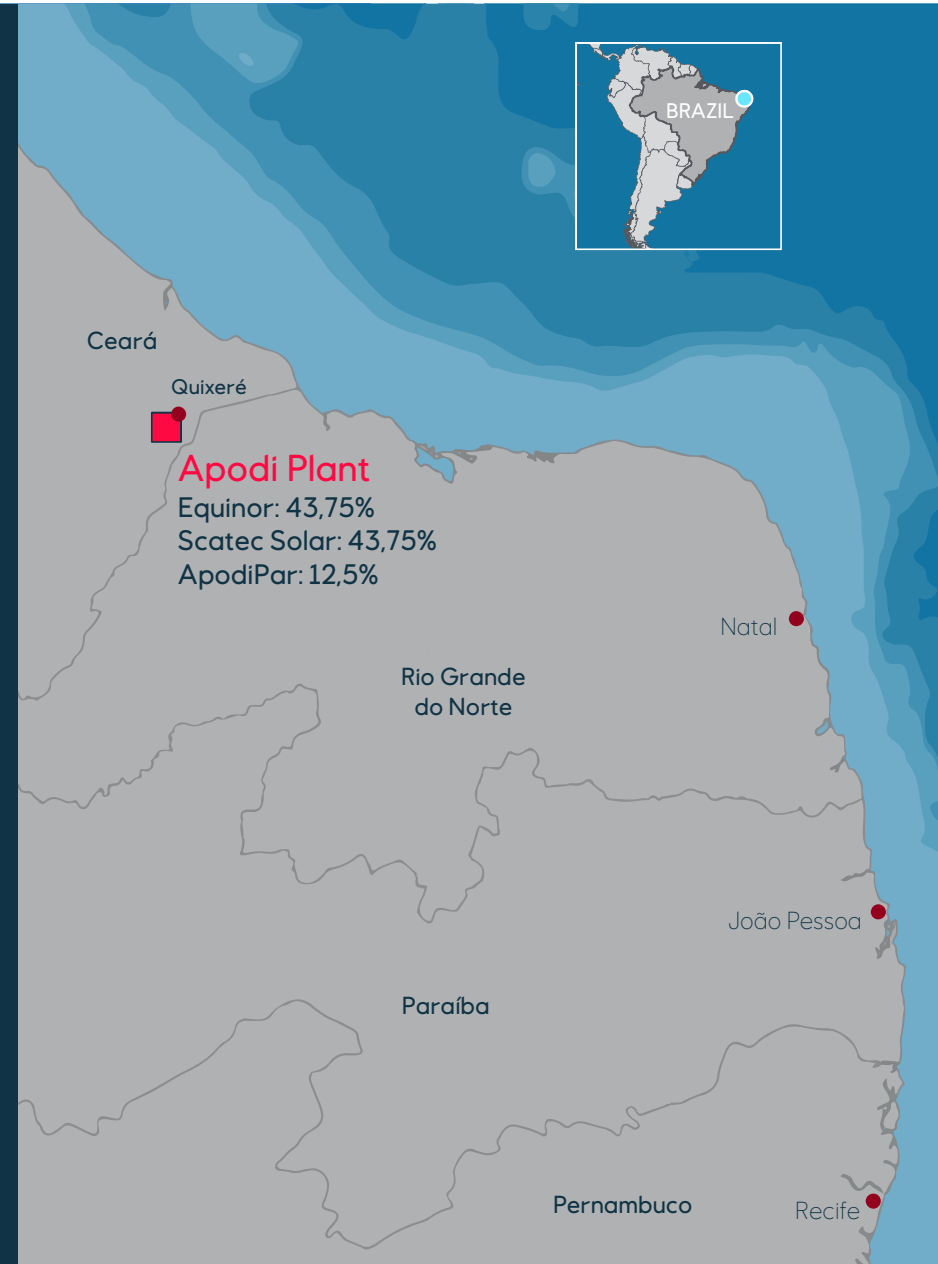
162MW  
Provide approx. 160,000 households with electricity



20-year power purchase agreement



Total project capex is estimated to USD 215 million



## Leading exploration portfolio

- Well positioned in prolific basins
- Access as scale
- High impact prospects

## Recoverable resources

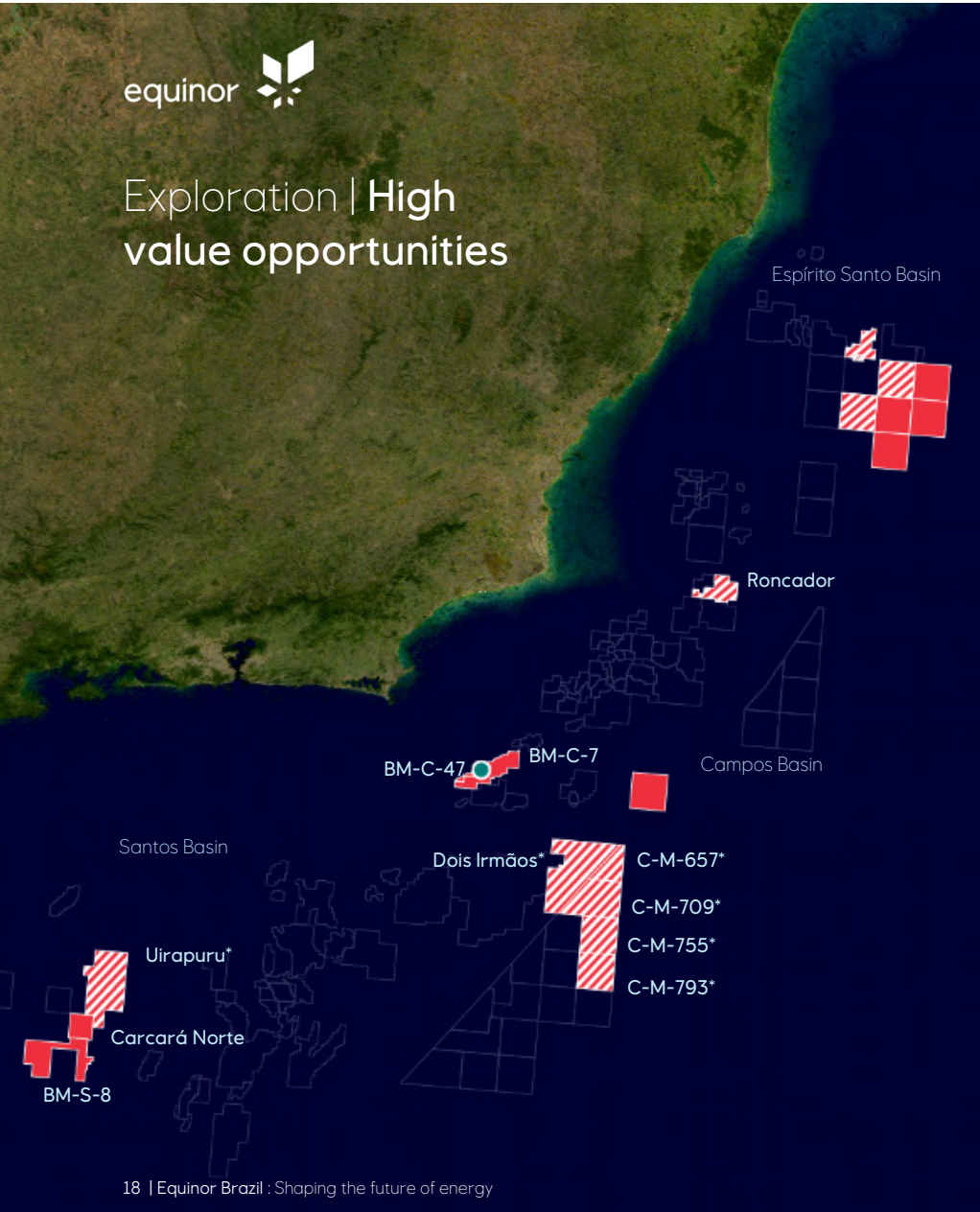
~ 1

Bn boe

Risked resources, Equinor equity,  
Current exploration portfolio



# Exploration | High value opportunities





## 5 high impact prospects in proven and prolific basin

- 2<sup>nd</sup> PSA round: Carcará North
- 15<sup>th</sup> round: Elis, Marissa, Aurora (2 blocks)\*\*
- 4<sup>th</sup> PSA round: Uirapuru and Dois irmãos

### Campos Basin

C-M-657	Equinor Brazil (30%)	Exploration (Pending ANP's approval)
C-M-709	Equinor Brazil (20%)	Exploration (Pending ANP's approval)
C-M-793	Equinor Brazil (40%)	Exploration (Pending ANP's approval)
C-M-755	Equinor Brazil (40%)	Exploration (Pending ANP's approval)
Dois Irmãos	Equinor Brazil (25%)	Exploration (Pending ANP's approval)

### Santos Basin

BM-S-8	Equinor Brazil (36,5%) 	Exploration
Carcará North	Equinor Brazil (40%) 	Exploration
Uirapuru*	Equinor Brazil (28%)	Exploration (Pending ANP's approval)

### Espírito Santo Basin

ES-M-598	Equinor Brazil (40%) 	Exploration
ES-M-671	Equinor Brazil (35%) 	Exploration
ES-M-673	Equinor Brazil (40%) 	Exploration
ES-M-743	Equinor Brazil (35%) 	Exploration
ES-M-596	Equinor Brazil (50%)	Exploration (Drilling Cachorro Quente well)
ES-M-669	Equinor Brazil (35%)	Exploration
BM-ES-22A	Equinor Brazil (25%)	Exploration
BM-ES-32	Equinor Brazil (40%)	Exploration

 Operator

\*\* Internal project names



## Equinor Brazil

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