

Map indicative only



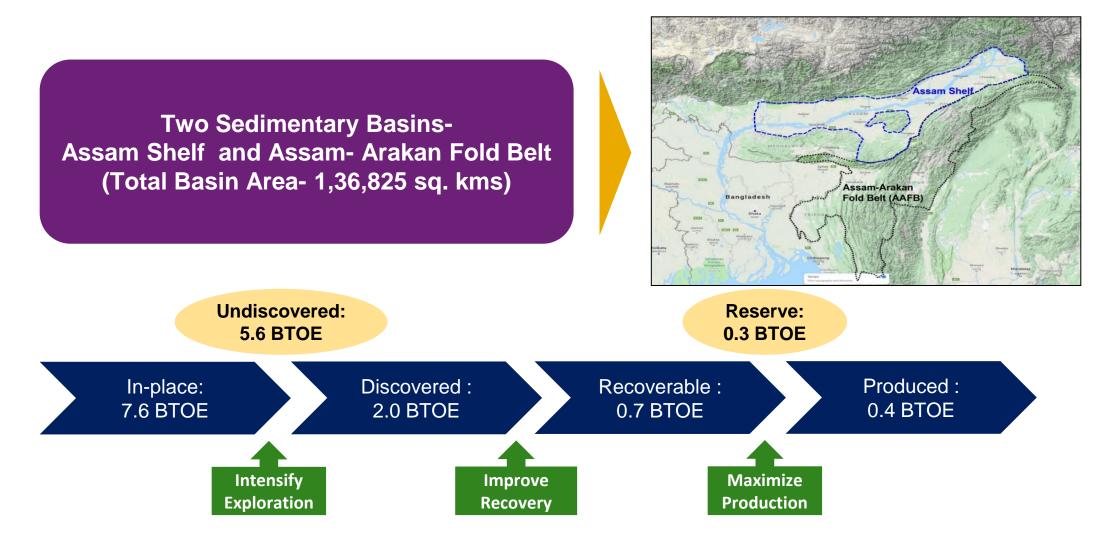




# IVESTMENT OPPORTUNITIES IN UPSTREAM OIL & GAS

Guwahati, 24<sup>th</sup> September 2021

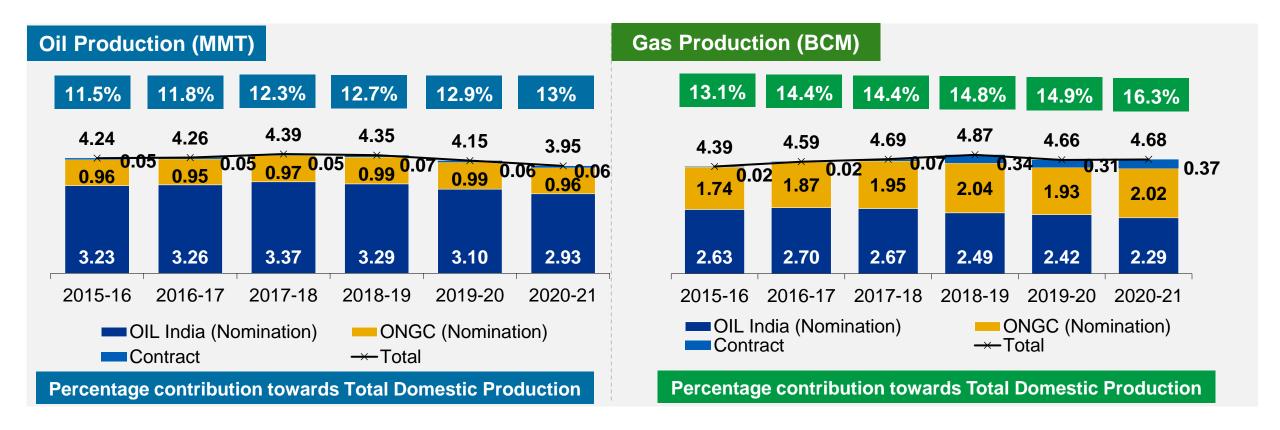
# **Hydrocarbon Resource Potential in NER**



Area under Petroleum Exploration License (PEL) ~ 22% of sedimentary basin area (No. of active PELs- 50)

Area under Petroleum Mining Lease (PML) ~8 % of sedimentary basin area (No. of active PMLs- 99)

# **E&P Industry in NER**



No. of Companies 21

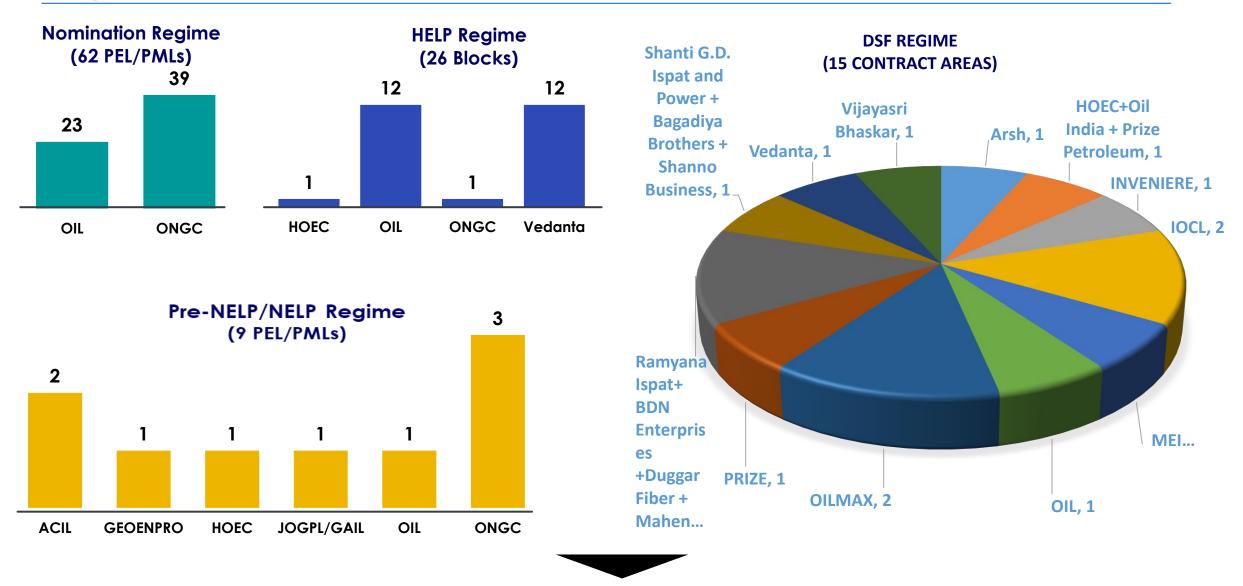
Area under Petroleum Exploration License ~30,000 Sq. Kms.

Area under Petroleum Mining Lease ~11,000 Sq. Kms.

Total Oil and Gas
Production for FY 20-21
8.6 MMTOE

(15% of total domestic production)

# Regime Wise E&P Investors in NER



21 E&P companies under various Regimes (Nomination, Pre-NELP/NELP, HELP, DSF)

# **Investment Opportunities**

### India Provides Huge Potential and Conducive Business Environment for Exploration and Production



- Revenue sharing mechanism, reducing regulatory burden
- Unified license for all hydrocarbons with full freedom for marketing & pricing
- **Graded royalties** and other fiscal incentives
- Freedom to bidders to carve out their own blocks
- 105 blocks awarded in 5 OALP rounds, totalling 1,56,579 sq. km of acreage.
- OALP Bid round-VI has been launched- 21 Blocks on offer covering ~35,500 Sq. Km of area



- Attracted investors to small and isolated fields with discovered hydrocarbon potential
- Discovered Fields No exploration risk
- Technical experience not required
- DSF I and II rounds Award of 54
  Contract Area (total area of 3,777 sq. km)
- DSF Bid round-III has been launched- 32 Contract areas on offer covering ~14,500 Sq. Km of area



- 15 CBM Blocks on Offer with total area of ~8500 sq.km spread across six (06) states
- Offered blocks covering four sedimentary basins-
  - Bengal-Purnea (No. of blocks- 03)
  - South Rewa (No. of blocks- 09)
  - Satpura (No. of blocks- 01)
  - Pranhita-Godavari (No. of blocks- 02)
- No Revenue Sharing till Windfall Gain

# **Hydrocarbon Exploration and Licensing Policy (HELP)**

# Blocks on offer in OALP Bid round VI

- 21 OALP blocks
- 11 Basins covered
- ~35,500 sq.km on offer

# Bidding window for OALP Round-VI is open till 6<sup>th</sup> October 2021

#### 1 - Ganga-Punjab Basin

- 2 Blocks (611 sq.km)
- Both Onland

#### 2 - Kutch Basin

- 1 Blocks (314 sq.km)
- Onland

#### 3 - Cambay Basin

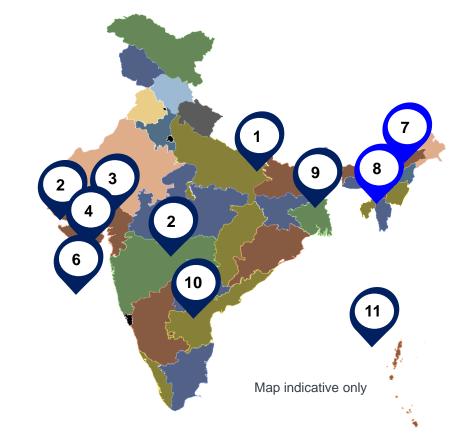
- 4 Blocks (659 sq.km)
- (Onland 3, Shallow Water - 1)

#### 4 - Saurashtra Basin

- 1 Blocks (2,484 sq.km)
- Onland

#### 5- Narmada Basin

- 1 Blocks (2,999 sq.km)
- Onland



5 blocks under offer in Assam Shelf & Assam Arakan Fold Belt, covering a total area of 890 sq.km.

#### 6 - Mumbai Offshore Basin

- 3 Blocks (7,566 sq.km)
- All Shallow Water

#### 7 - Assam Shelf Basin

- 1 Blocks (25 sq.km)
- Onland

#### 8 - Assam Arakan Fold Belt

- 4 Blocks (865 sq.km)
- Onland

#### 9 – Bengal Purnea Basin

- 1 Blocks (2,873 sq.km)
- Onland

#### 10- Cuddapah Basin

- 1 Blocks (3,306 sq.km)
- Onland

#### 11- Andaman Nicobar Basin

- 2 Blocks (13,645 sq.km)
- 2 Ultra-Deep Water

# **Discovered Small Field Policy**

## **Broadening the operator base: 27 Companies including 12 new entrants**

#### **Policy Features**

- ☐ Single License for Conventional and Unconventional Hydrocarbons
- **☐** Exploration allowed during entire contract period
- ☐ Royalty in line with HELP and no Cess
- **☐** No upfront Signature Bonus
- ☐ 100% participation from foreign companies/JV

DSF Rounds	Awarded Contracts		
DSF-I (2017)	30		
DSF-II (2019)	24		
Total	54		

Field Development Plans (FDPs) - 29

Hydrocarbon In-place ~ 100 MMTOE

Anticipated Investment ~ 1.76 billion USD

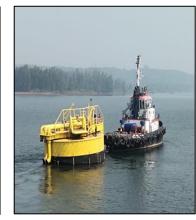
#### Rig in place & Flaring at Hazarigaon





#### First MOPU in Western Offshore at B-80 Field





Well site, Kamboi Field, Gujarat





# **Contract Areas on Offer in DSF Bid Round-III**

#### 1 – Rajasthan

Contract Area: 2 Discoveries: 3

#### 2 - Gujarat

Contract Area: 1 Discoveries: 1

#### 3 - Gujarat-Kutch Offshore

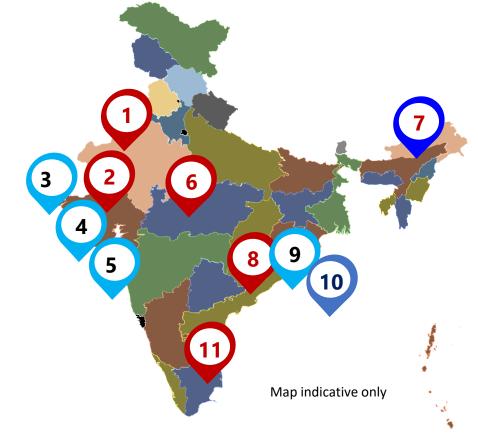
Contract Area: 2 Discoveries: 9

#### 4 – Cambay Offshore

Contract Area: 2 Discoveries: 5

#### 5- Mumbai Offshore

Contract Area:10 Discoveries: 22



#### 6- Madhya Pradesh

Contract Area: 1 Discoveries: 2

#### 7 – Assam

Contract Area: 3 Discoveries: 4

#### 8 – Andhra Pradesh

Contract Area: 3 Discoveries: 8

#### 9 – KG Offshore (SW)

Contract Area: 6 Discoveries: 18

#### 10 - KG Offshore (DW)

Contract Area: 1 Discoveries: 2

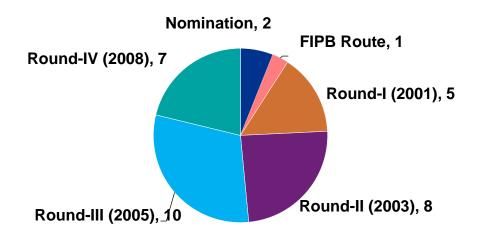
#### 11- Tamil Nadu

Contract Area:1 Discoveries: 1

Туре	Discoveries	Contract Area	Area (Sq. Km)	Hydrocarbon Resource (MMTOE)	
Onshore	19	11	3271.1	24.3	
Shallow Water	54	20	9729.4	205.2	232 MMTOE
Deepwater	02	01	203.9	2.5	

# **Snapshot of Earlier Coal Bed Methane (CBM) Rounds**

# Blocks awarded in previous rounds (Total Blocks Awarded-33)





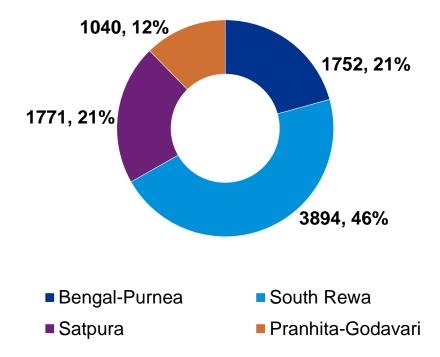
Investment Incurred: 2 Billion USD.

Cumulative Production Achieved: ~4400 MMSCM

# **Special CBM Bid Round-2021**

15 Coal Bed Methane (CBM) Blocks in 6 states

Basin Wise Area (Sq. Kms.)



Prognosticated Resources ~700 BCM

- All Blocks on offer in Category-III basin i.e. no revenue sharing until windfall gain.
  - 2 Single License for Conventional & Un-conventional Hydrocarbon
    - Full Marketing and Pricing Freedom for Gas produced.
    - 4 Exploration allowed during entire contract period.
    - No overlap with existing/proposed Coal Blocks/Mines and Forest land.
  - 6 100% participation from foreign companies/Joint ventures.
- Gas Pipeline infrastructure through GAIL Pradhan Mantri Urja Ganga Pipeline

## Coal Bed Methane Bid Round-2021- Area on offer

#### 1 - Bengal-Purnea Basin

- 3 Blocks
- States Covered- Jharkhand and West Bengal

#### 2 - South Rewa Basin

- 9 Blocks
- States Covered- Madhya
   Pradesh, Chhattisgarh, Odisha

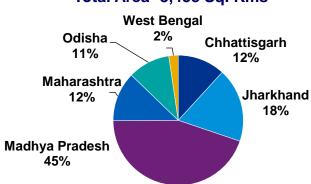
#### 3 – Satpura Basin

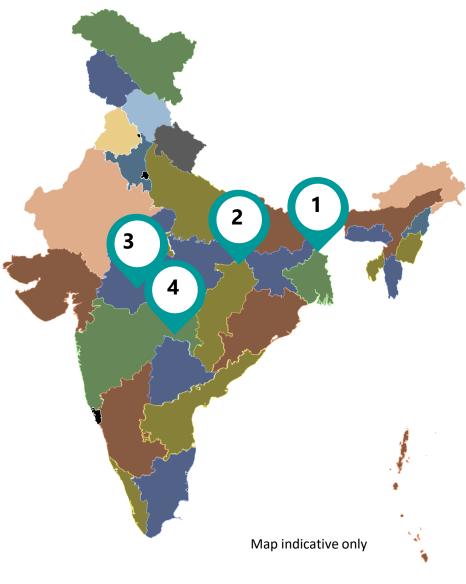
- 1 Block
- States Covered- Madhya Pradesh

#### 4 - Pranhita-Godavari Basin

- 2 Blocks
- States Covered- Maharashtra

#### State Wise Area Distribution Total Area- 8,458 Sq. Kms



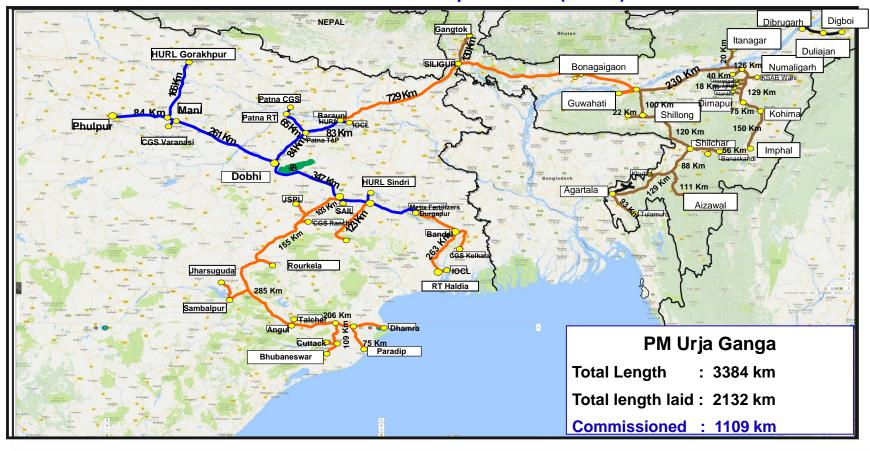


#### **Details of Blocks on Offer**

SI. No.	BASIN	BLOCK	STATE	AREA (SQ.KM.)
		BP-ONHP(CBM)-2021/1	Jharkhand	564
	Bengal- Purnea	BP-ONHP(CBM)-2021/2	Jharkhand	991
		BP-ONHP(CBM)-2021/3	West Bengal	197
2	South Rewa	SR-ONHP(CBM)-2021/1	Madhya Pradesh	272
		SR-ONHP(CBM)-2021/2	Madhya Pradesh	222
		SR-ONHP(CBM)-2021/3	Chhattisgarh	408
		SR-ONHP(CBM)-2021/4 Madhya Pradesh		418
		SR-ONHP(CBM)-2021/5 Madhya Pradesh		515
		SR-ONHP(CBM)-2021/6 Madhya Pradesh		585
		SR-ONHP(CBM)-2021/7	Chhattisgarh	590
		SR-ONHP(CBM)-2021/8	Odisha	191
		SR-ONHP(CBM)-2021/9	Odisha	693
3	Satpura SP-ONHP(CBM)-2021/1 Madhya Pradesh		1771	
	Pranhita- Godavari	PG-ONHP(CBM)-2021/1	Maharashtra	331
4		PG-ONHP(CBM)-2021/2	Maharashtra	709
		8458		

# **Pipeline Infrastructure Plan in NER**

#### **North East Natural Gas Pipeline Grid (NEGG)**



Length of Pipeline Grid

1656 Kms

Capex INR 9265 crore

Throughput **4.75 MMSCMD** 

Gas Source

**BGPL & Indigenous sources** 

**Delivery Locations** 

Numaligarh, Silchar, Shillong, Itanagar, Dimapur, Kohima, Imphal, Agartala, Aizawl, Gangtok

#### Implementation Schedule Of NEGG

Phase	Section Name	Section Length (Km)	Length (Km)	Dia (Inch)	Compl. Date
ı	Guwahati- Numaligarh	386	440	24	Mar' 2023
	Gohpur- Itanagar	27	413	8	Sept' 2023
	Silchar - Panisagar	112	234	18	
	Panisagar- Agartala	118		12	
	Khubal Feeder Line	4		12	
	Silchar CGD	56	621	12	
II	Guwahati- Silchar	196		18	Sept' - 2023
	Panisagar- Aizawl	127		12	
	Dergaon- Dimapur	128		12	
	Agartala- NEEPCO Spurline	6		12	
	Shillong CGD	22		8	
	Tulamura Feeder line	86		12	
Ш	Dimapur- Kohima- Imphal	180	304	12	Mar 2024
	Siliguri- Gangtok	124		12	

# Key touch points for facilitation



Ministry of Petroleum and Natural Gas

Website-http://petroleum.nic.in/

I Contact us:

https://mopng.gov.in/en/about-us/phone-directory



Directorate General of Hydrocarbons

Website- http://dghindia.gov.in/

Contact us:

http://dghindia.gov.in/contact\_english.php

**National Data Repository** 

**P** 

Website- https://www.ndrdgh.gov.in/NDR/

Email: indr@dghindia.gov.in

Hydrocarbon Exploration and Licensing Policy OALP Bid Rounds

Website- <a href="http://online.dghindia.org/oalp/">http://online.dghindia.org/oalp/</a>

**I** Facilitation Desk

Email: Facilitationoal@dghindia.gov.in

**DSF Bid Rounds** 

Website- <a href="http://online.dghindia.org/dsf3">http://online.dghindia.org/dsf3</a>

**Facilitation Desk** 

Email: Facilitationdsf@dghindia.gov.in

For DSF, Data is available on cloud

