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#### Arunachal Pradesh Innovation & Investment Park (APIIP)

Niti Vihar, Itanagar Arunachal Pradesh 791 111

The APIIP was established by Investment Division aiming to facilitate invesentrepreneurial ecosystem in the state. APIIP officers also look after Ease of Doing Business (EoDB) and Investment Policy inputs for better synergy. The APIIP was inaugurated on 14th August 2021 Hon'ble Chief Minister and Deputy Chief Minister.









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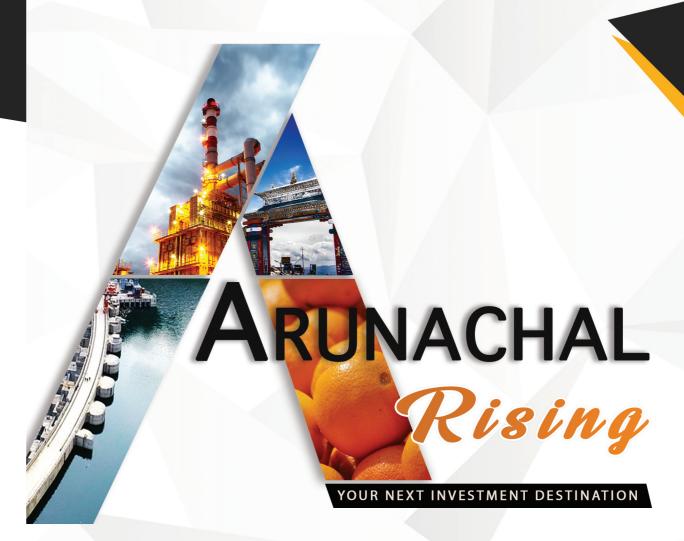
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# The Next Hydrocarbon **Destination**



# Arunachal Investment Advantages

Largest state in North East Region

Gateway to ASEAN countries

Expanding Connectivity

**Favourable Policies** 

Ease of Doing Business (EoDB) in Arunachal

EODB

Single Window Clearance License & clearances / NOCs / Payment of Fees Online without physical touchpoints

EoDB Act passed

Central Inspection System notified







"We shall take every step needed to facilitate investment in hydrocarbon sector in Arunachal, as I strongly believe this will be the economic backbone of our state as well as the nation in the time to come."

- Pema Khandu, Hon'ble Chief Minister

### **Governance & Policy Advantages**

#### e-Pragati

Regular progress monitoring of at the highest level

#### **EODB**

Ease of Doing Business launched in Arunachal

## Single Window Clearance

Multiple Departments coming under the ambit of single window clreance

#### e-Office

File movements and approvals online

# Progress in Investor friendly digital governance

# No Physical Touchpoints

Approvals obtained remotely

#### e-ILP

Easier travel to the State

### **Focus Sectors**



#### **Agro-Forest & Food Processing**

# Agri-Horti Powerhouse of North East India"

with high quality produce, over 100,000 MT market surplus and scope of expansion in 86% of cultivable area.



#### **Tourism**



# "Curabitur suscipit placerat mi"

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur vel scelerisque leo.



#### Oil, Gas & Minerals



# "The Next Hydrocarbon Destination"

18% of India's hydrocarbon reserves in the surrounding belt with 73% of resources under 'yet to discover'



#### **Hydropower**

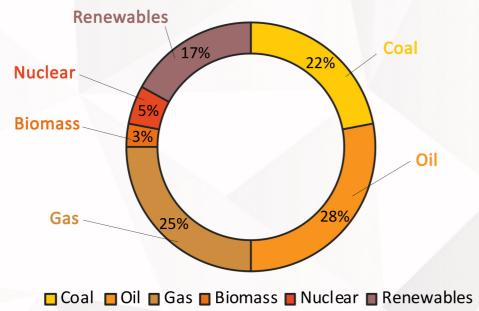


#### "India's Hydropower Hub"

with over 40% of India's hydropower potential.



#### World Primary Energy Demand by Fuel, 2040





### **Energy Demand and Capacity in India**

#### **High Demand**

- Third largest energy consumer and growing to be the first
- Natural Gas Consumption to grow at 9% till 2024, total estimated growth is 25 Billion Cubic Meters (BCM)
- Energy demand to grow at a rate of 4.2% from 2017-2040

#### **Increased Capacity**

- O Estimated hydrocarbon resources at 41.87 Billion Metric Ton
- Second-largest refiner in Asia after China, refinery capacity increased to 247.57 MTPA
- O Rapid infrastructure expansion first LNG Plant in Nagpur in 2021

# Arunachal Governance & Policy Advantages









Low Power Tariffs in the range of Rs 3.35 to 4.3 per kWh. Economically available land at low rates and lease for 50 years

Private land lease up to 99 years

Blessed with good water access.

Peaceful & stable law and order environment



Attractive incentives & subsidies



Single Window
System inline with
EoDB norms



Front-ended power subsidies up to Rs 2 Cr INR per annum - one of the highest in the country.



60% of the population in age group of 15-59 years and proficient in both Hindi and English

Forest Clearance

Forest Clearance will be provided as per the timelines of the Forest (Conservation) Rules 2003 as per the timelines below.

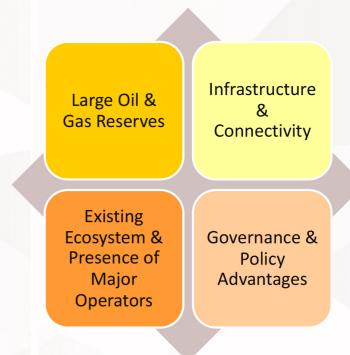
Activity Level	Number of Days for Area in Hactares (Ha)				
Activity Level	5 Ha	5- 40 Ha	40 – 100 Ha	> 100 Ha	
Nodal Officer	10	10	10	10	
DCF	30	30	45	60	
District Collector	30	30	43	00	
CF	10	10	30	30	
Nodal Officer/PCCF	10	10	25	30	
State Govt	30	30	30	30	
Transit Period	20	20	20	20	
Total Days	110	120	160	180	

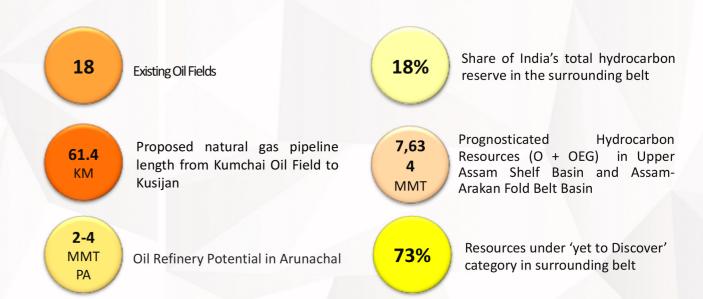


### Policy Incentives @ Arunachal

- ✓ Interest Subsidy on Plant, Machinery and Working Capital Loan
- ✓ Income Tax Reimbursement
- ✓ CGST & SGST Partial Exemption
- ✓ Capital Investment Subsidy
- ✓ Stamp Duty & Registration Fees
- ✓ Insurance and employment incentives

# Arunachal Snapshot of Hydrocarbon Sector





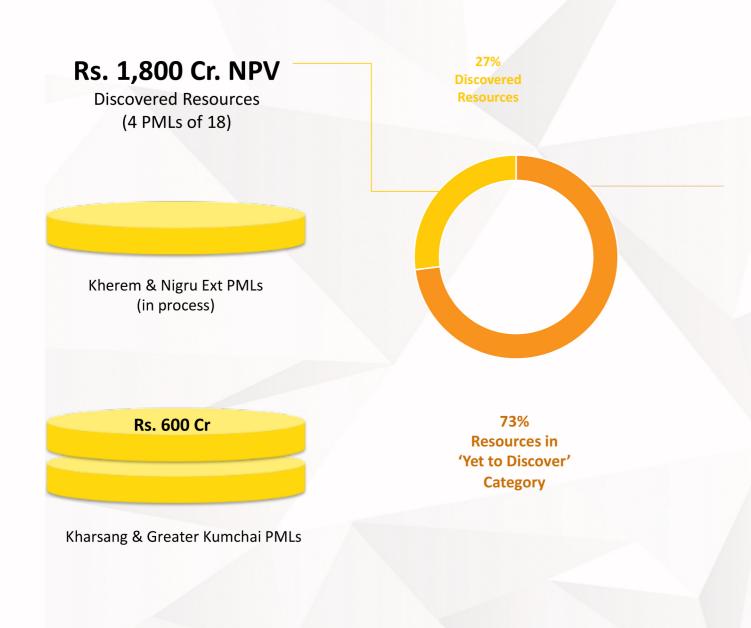
# Arunachal Hydrocarbon Reserves

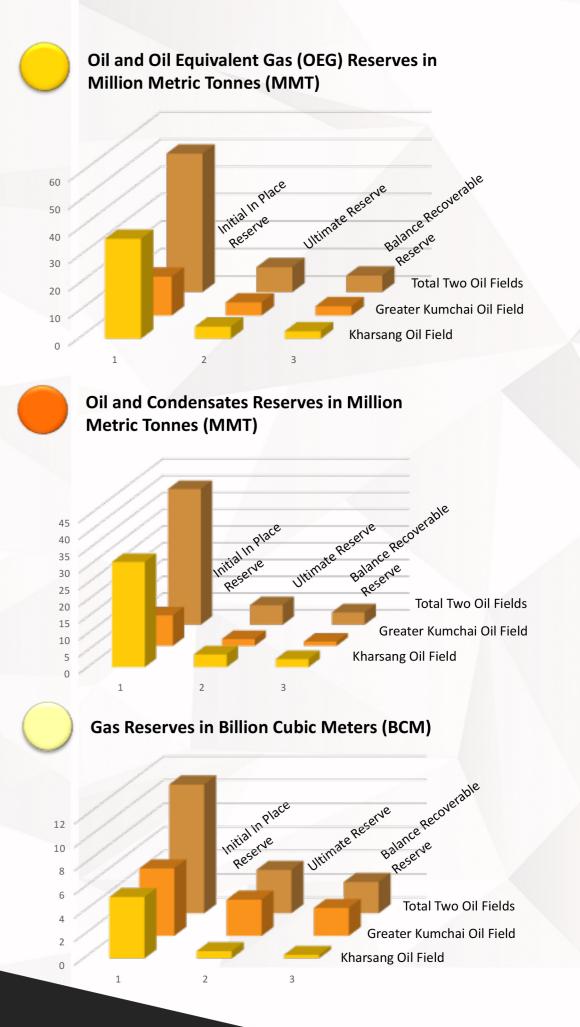
13 PELs Granted in 2 years 10 PELs to Oil India 3 PELs to Vedanta 'Yet to Discover' Resources 73% Discovered **Resources 27%** 2 PMLs under process Kherem Ningru Extension 6.013 MMT 3.629 MMT **Balance Recoverable Reserve** O + OEG in 2 Operational Oil Fields Kumchai Kharsang 2.652 BCM

Estimated Net Present Values (NPVs) of Hydrocarbon Resources, calculated after tax value of NPV for over a period of 20 years

> Rs. 7,000 Cr. NPV
Undiscovered Resources

# A r u n a c h a l Revenue Potential from Hydrocarbon

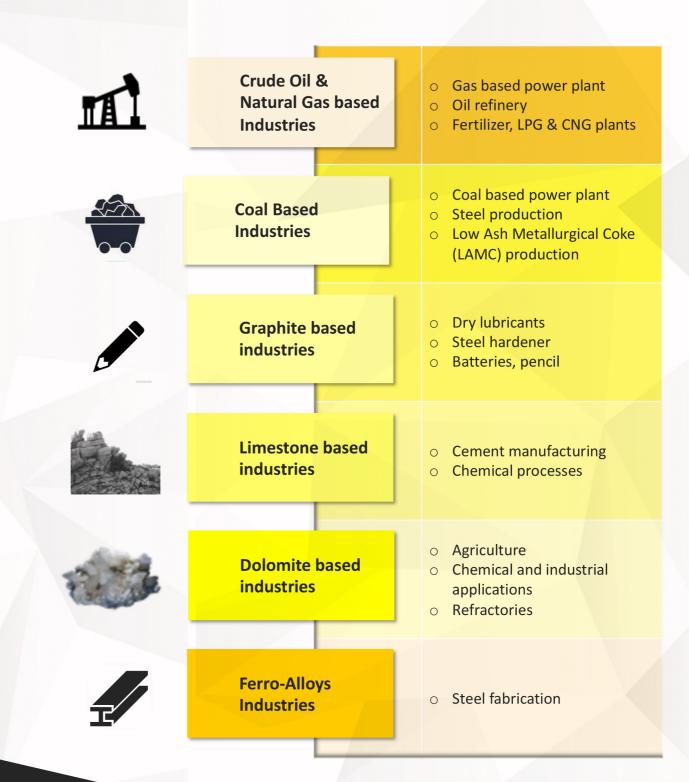








Hydrocarbon & Mining Investment Potential



# Existing Hydrocarbon Investors @ Arunachal











# Arunachal Major Oil Fields

#### Kharsang Oil Field, Changlang

Average Per Day production in Kilo-KL Liter (KL)

9.94
SQKM
Petroleum Mining Lease (PML) Area

Recoverable Oil from Existing Wells (2021-2030)

The Oil field located in Changlang district is operated by Geo-Enpro Petroleum Ltd. with a consortium of Oil India (40%), Geo-Petrol International Inc. (25%), Jubilant Energy Kharsang Pvt. Ltd.(25%) & Geo-Enpro Petroleum Ltd.(10%). Total drilled wells are 70 and total Producing Wells are 32 in numbers.

In addition to the existing oils, there is an estimated **1,106,495** KL recoverable Oil from 43 New Wells (2022-2030)

#### Ningru Oil Field, Namsai & Changlang

77.6
KL Average Per Day production in Kilo-Liter (KL)

**427**SQKM
Petroleum Mining Lease (PML) Area

**2.31**Estimated Ultimate Recovery of Oil in MMSKL
Million Standard Kilo-Liter (MMSKL)

Ningru Oil field is located in Changlang & Namsai districts and operated by Oil India Ltd. who was awarded Petroleum Mining Lease (PML) for 20 years (1983 – 2003) and now the same has been renewed till 2038. Out of total 14 oil wells, only 01 well is under production now and remaining are to be made functional.

### **Upcoming Natural Gas Pipeline**

**61.4** KM

**Proposed natural gas pipeline** from Kumchai Oil Field in Arunachal Pradesh to Kusijan, near Digboi Oil Refinery in Assam to evacuate excess gas.

Proposal is under consideration of the Ministry of Petroleum & Natural Gas, Government of India. Cadastral Survey is completed and Land acquisition is underway.

The estimated resources and reserves of natural gas of Kumchai field:

Gas Initial in Place (GIIP) (MMSCM)	Expected Ultimate Recovery of Gas (MMSCM)	Remaining Recoverable Gas (MMSCM)	
10029.06	3610.48	2853.14	

**700**KLPD

Transportation capacity of Crude Oil in Kilo Liter Per Day (KLPD) through 200 mm dispatch pipeline

**1**MMSCMD

Transportation capacity of Natural Gas in Million Metric Standard Cubic Meter Daily (MMSCMD) through 400 mm gas pipeline

**61.1** MCMPD

Average natural gas production in Million Cubic Meter per day



**Other Mineral Resources** 



Name of Minerals	Estimated Resources (in Million Tonnes)	Location	District
	Reported	Menga	Upper Subansiri
	224.47	Tidding	Anjaw
	07.00	Pangin	East Siang
Limestone	37.00	Lokpeng	East Siang
	225.00	Dali	West Siang
	Reported	Hunli	Dibang Valley
	Reported	Pawlang Sangri	Kra-Dadi
	0.50	Laa- Lamdak	Kamle
	2.46	Bopi	Kamle
Cranhita	100.00	Taliha	Upper Subansiri
Graphite	2.98	Dodeserum	Lower Subansiri
	3,23	Tai	Lepa Rada
	Reported	Lalpani	Lohit
Delemite	252.00	Rupa	West Kameng
Dolomite	11.13	Kaspi (Jameri)	West Kameng
Quartzite	1.25	Kaaktang	West Kameng







#### **Coal Reserves in Million Metric Tones (MMT)**

Estimated Reserve	Location	District
84.23	Namchik-Namphuk	Changlang
Reported	Miao	Changlang
Reported	Jairampur	Changlang
Reported	Naitong	Tirap
Reported	Talhat	Tirap
Reported	Kanubari	Longding





Coal occurrences in Miao Area

Coal occurrences in Khamdu Area





Coal occurrences in Naitong Area

11

Coal occurrences in Thalot Area

On completion of exploration works, potential areas shall be identified and subsequently be allocated for mining through competitive bidding process.

### Arunachal

### **Coal Assets**



Coal Occurrences in Arunachal Pradesh have been reported from Tertiary Coal Fields in **Naga-Pakai Ranges** in Eastern Part of the State. **Tertiary Coal** have been found in the various part of the Changlang, Tirap, & Longding districts of Arunachal Pradesh, which is the extension of the Makum Coal Field.

Earlier, Namchik Namphuk Coal field which lies in the eastern part of the Changlang district had been explored by GSI & MECL. Central Block of Namchik -Namphuk Coal Field was under active commercial production till 2012



The tertiary coal is medium to strongly caking in nature with **low ash and high sulphur content.** This coal can be effectively used in fertilizer or chemical industries and other suitable industrial purposes.



To explore the coal resources of Arunachal Pradesh, State Government signed a MoU with the **Central Mine Planning Design Institutes Ltd. (CMPDIL)**, a Govt organization under Ministry of Coal, in the year of 2021. The Ministry of Coal has approved the following coal blocks for Detailed & Regional exploration of coal jointly with CMPDIL.

SI.	Name of Block	Area (SQKM)	District	Remarks	
1	West & East Namchik- Namphuk Coal field	6.18	Changlang	Detailed Exploration	
2	Miao Bum	5.0	Changlang		
3	Khamdu I & II	5.0	Changlang	Decisional Fundamentics	
4	Naitong	5.0	Tirap	Regional Exploration	
5	Thalot	5.0	Tirap		