

**STANDING COMMITTEE ON  
PETROLEUM & NATURAL GAS  
(2021-22)**

**SEVENTEENTH LOK SABHA**

**MINISTRY OF PETROLEUM & NATURAL GAS**

**NATIONAL GAS GRID INCLUDING PNG AND CNG**

**ELEVENTH REPORT**



**LOK SABHA SECRETARIAT  
NEW DELHI**

*March, 2022 / Chaitra, 1944 (Saka)*

CP&NG NO.

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PETROLEUM & NATURAL GAS  
(2021-22)**

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**MINISTRY OF PETROLEUM & NATURAL GAS**

## **NATIONAL GAS GRID INCLUDING PNG AND CNG**

*Presented to Lok Sabha on 25.03.2022*

*Laid in Rajya Sabha on 25.03.2022*



**LOK SABHA SECRETARIAT  
NEW DELHI**

*March, 2022 / Chaitra, 1944 (Saka)*

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**COMPOSITION OF THE STANDING COMMITTEE ON PETROLEUM & NATURAL  
GAS (2021-22)**

**Sl. No. Names of Members**

**LOK SABHA**

**Shri Ramesh Bidhuri - Chairperson**

- |    |   |
|----|---|
| 2  | Smt. Chinta Anuradha                    |
| 3  | Shri Ramesh Chand Biri                  |
| 4  | Shri Pradyut Bordoloi                   |
| 5  | Shri Girish Chandra                     |
| 6  | Shri Topon Kumar Gogoi                  |
| 7  | Shri Naranbhai Kachhadiya               |
| 8  | Shri Santosh Kumar                      |
| 9  | Shri Rodmal Nagar                       |
| 10 | Shri Mitesh Rameshbhai (Bakabhai) Patel |
| 11 | Shri Unmesh Bhaiyyasaheb Patil          |
| 12 | Shri M.K. Raghavan                      |
| 13 | Shri Chandra Sekhar Sahu                |
| 14 | Shri Dilip Saikia                       |
| 15 | Dr. Bharatiben Dhirubhai Shiyal         |
| 16 | Shri Janardan Singh Sigriwal            |
| 17 | Shri Lallu Singh                        |
| 18 | Shri Vinod Kumar Sonkar                 |
| 19 | Shri Ajay Tamta                         |
| 20 | Dr. Kalanidhi Veeraswamy                |
| 21 | Shri Rajan Baburao Vichare              |

**RAJYA SABHA**

- |    |                                 |
|----|---------------------------------|
| 22 | Shri Birendra Prasad Baishya    |
| 23 | Shri Ripun Bora                 |
| 24 | Smt. Kanta Kardam               |
| 25 | Shri Om Prakash Mathur          |
| 26 | Shri Rambhai Harjibhai Mokariya |
| 27 | Shri Surendra Singh Nagar       |
| 28 | Shri Subhas Chandra Bose Pilli  |
| 29 | Dr. V. Sivadasan                |
| 30 | Shri A. Vijayakumar             |
| 31 | Ch. Sukhram Singh Yadav         |

**SECRETARIAT**

- |   |                            |                             |
|---|----------------------------|-----------------------------|
| 1 | Smt. Abha Singh Yaduvanshi | Additional Secretary        |
| 2 | Shri H. Ram Prakash        | Director                    |
| 3 | Shri Deepak Kumar          | Assistant Executive Officer |

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## **INTRODUCTION**

I, the Chairperson, Standing Committee on Petroleum & Natural Gas having been authorised by the Committee to submit the Report on their behalf, present this eleventh report on the subject "National Gas Grid including PNG and CNG".

2. The Committee took briefing of the representatives of the Ministry of Petroleum & Natural Gas/PSUs and the Petroleum and Natural Gas Regulatory Board (PNGRB) at their sittings held on 07.07.2020 & 23.12.2020 respectively.

3. The Report was considered and adopted by the Standing Committee on Petroleum and Natural Gas on 07.02.2022.

4. The Committee wish to express their thanks to the representatives of the Ministry of Petroleum and Natural Gas/PSUs and PNGRB for placing their views before them and furnishing the information desired in connection with examination of the subject.

5. The Committee also place on record their appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

New Delhi;  
24 March, 2022  
3 Chaitra, 1944 (Saka)

RAMESH BIDHURI,  
Chairperson,  
Standing Committee on  
Petroleum & Natural Gas.

## Chapter – I

### National Gas Grid (NGG)

#### Introduction

Indian economy is on healthy growth path. The expanding economy along with growing population is going to increase the consumption of primary energy resources such as Coal, Crude Oil, Natural Gas and Renewable Energy in the country. India is not only 3rd largest energy consumer in the world after China and USA but also one of the fastest growing energy consumers among its peers.

Among the available energy sources, Natural Gas being an environment friendly clean fuel has a potential to play a significant role in providing solutions to the environmental challenges as well as ever growing energy needs in a sustainable manner. Accordingly, Government of India has focused to promote the usage of natural gas as a fuel/feedstock across the country to increase the share of natural gas in primary energy mix from current level of 6.2% to at least 15% in coming years and move towards a gas based economy.

Over the last 33 years, Gas pipeline infrastructure in the country is being developed in synchronization with the development of gas sources (domestic + Imported LNG) and upcoming projects of major gas consuming sectors i.e. fertilizer, power, LPG manufacturing, Refinery, Petrochemical, Steel, other industrial units and City Gas Distribution (CGD) sector. At present, country is having about 20,227 Km long Natural Gas pipeline network in operation.

Gas Pipeline infrastructure is an economical and safe mode of transporting the natural gas by connecting gas sources to gas consuming markets. Gas pipeline practically determines the structure of the gas market and its development. Therefore, an interconnected National Gas Grid is envisaged to ensure the adequate availability and equitable distribution of natural gas in all parts of the country.

Government of India has been consistently taking steps to develop Gas Infrastructure across the country. It has granted authorization for developing a number of pipeline sections to entities in order to form a gas grid. Further, Government also established the Independent Regulator [i.e. Petroleum and Natural Gas Regulatory Board (PNGRB)] on 1st Oct 2007 under the PNGRB Act, 2006. PNGRB was also empowered to grant authorization to develop new gas pipeline infrastructure as per provisions of the Act.

Government has envisaged to make available natural gas as clean fuel by developing a vibrant gas market across the country by the development of additional around 17,000 km pipelines to complete the National Gas Grid (NGG). These pipelines have already been authorized by PNGRB and work at these pipelines is at various stages of execution as per approved work plan. Development of National Gas Grid would connect all major demand and supply centre in India. This would ensure easy availability of natural gas across all regions and also potentially help to achieve uniform economic and social progress.

### Global Energy Scenario

1.2 When enquired about the share of natural gas in the total energy consumption globally, the Ministry submitted the following information:

"As per BP World Energy Stats-2020, Total primary consumption in the world stands at 13946 Mtoe (Million Tonnes of Oil Equivalent), out of which natural gas consumption accounts for 3378 Mtoe. Thus, share of natural gas in total energy consumption is approx. 24.2%.

Long term trend of World Primary Energy Consumption and Share of Various Energy sources in the energy basket is as depicted below:

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Primary energy Consumption-World (Mtoe)	12086	12380	12539	12776	12880	12973	13151	13385	13763	13946
Natural gas Consumption-World (Mtoe)	2718	2784	2856	2903	2923	2991	3060	3146	3312	3378
Gas Share	22%	22%	23%	23%	23%	23%	23%	24%	24%	24%

### Trends in Indian Energy Consumption

1.3 When asked as about India's share of natural gas consumption in the total energy basket of the country vis-à-vis the global average, the Ministry submitted the following information:

"As per BP World Energy Stats-2020, share of natural gas in Indian primary energy consumption basket is 6.3 % against world average of 24.2%".

1.4 When asked about the steps taken to increase the consumption of gas to 15% in the next decade, the Ministry submitted the following information:

"Government intends to increase the share of natural gas in the primary energy basket from present level to 15% by 2030. Govt. has undertaken various policy reforms to make natural gas as people's fuel. Brief details of policy measures taken by govt. is as below:

#### Upstream sector:

- Introduction of Hydrocarbon Exploration and Licensing Policy (HELP)/ Open Acreage Licensing Policy (OALP) replacing NELP/PSC
- Policy Framework to Promote and Incentivize Enhanced Recovery Methods for Oil and Gas: fiscal incentives and an enabling ecosystem to improve productivity of existing fields and enhance overall production of domestic hydrocarbons.
- Introduction of Discovered Small Field Policy (DSF) Policy for early monetization of un-monetized discoveries of National Oil Companies (NoCs)
- National Seismic Programme of Un-appraised areas: proposal for conducting 2D seismic survey for data Acquisition, Processing and Interpretation (API) of 48,243 Line Kilo Metres (LKM).
- Introduction of New Domestic Natural Gas Pricing Guidelines, 2014 to market link price of domestic natural gas to the international prices.
- Marketing freedom including pricing freedom for the gas produced from discoveries in High Pressure-High Temperature (HPHT), Deepwater& Ultra Deepwater in 2016 subject to a ceiling price on the basis of landed alternative fuel.
- Pricing and marketing freedom to producers of natural gas from coal seams (CBM) in 2017.

Since 2014, Govt. has taken various steps through policy interventions and monetary support to promote use of natural gas in Midstream and Downstream sectors to maximize the coverage of natural gas to the country's population. Details are as follows:

### **Midstream Sector:**

- Government of India has identified the requirement of development of additional 17000 Km of Gas Pipeline and various pipeline sections to complete the Gas Grid. Petroleum and Natural Gas Regulatory Board (PNGRB) has authorized pipelines, which are at various stages of execution.
- Construction of Natural Gas Grid & 40% Capital Subsidy for construction of Jagdishpur-Haldia-Bokaro-Dhamra pipeline (JHBDPL) – project popularly known as Urja Ganga. Extension of JHBDPL to Guwahati (BGPL) connecting NE India to national gas-grid.
- Formation of a Joint Venture (JV) company, named Indradhanush Gas Grid Ltd, to develop North East India Gas Grid of about 1650 Km in a phased manner at an estimated cost of about Rs. 9265 Crore. Capital grant of 60% (Rs. 5559 Cr.) approved for North East India Gas Grid.

### **Downstream Sector:**

- 9<sup>th</sup> round of CGD bidding covering 86 GAs and 10<sup>th</sup> CGD bidding covering 50 GAs have been successfully completed in 2018. With conclusion of 10<sup>th</sup> CGD round, CGD coverage will cover about 70% country's population spreading over 53% of India's area.
- Pan-India CGD coverage has been expanded from 34 Geographical Areas (GAs) spread over 66 districts (partial/full) in May 2014 to 232 GAs spread over 407 districts till February 2020
- 11<sup>th</sup> round of CGD bidding round is under public consultation.
- GoI is working closely with Oil & Gas companies along with its Joint Venture/ subsidiary CGD companies who have firmed up plans to expand the coverage of PNG network to achieve additional 1 Crore PNG households by 2024 (From Oct'19 level).
- MoPNG vide guidelines dated 14.11.2013, 03.02.2014 & 20.08.2014 ensured no cut in gas allocation/supply to city gas distribution (CGD) entities for PNG (Domestic) and CNG (Transport) purpose.
- Draft CGD policy to be adopted by states
- Public Utility Status granted to CGD Projects by Ministry of Labour and Employment (MoLE).
- Ministry of Defense (MoD) has issued guidelines for use of PNG in its residential areas/unit lines
- Dept. of Public Enterprises (DPE) has issued guidelines to Public Sector Enterprises (PSEs) to have the provisions of PNG in their respective Residential complexes.
- Ministry of Housing & Urban Affairs (MOHUA) has directed to CPWD & NBCC to have the provisions of PNG in all Government Residential complexes.
- SATAT scheme to promote Bio-CNG assuring fixed price for compressed Bio Gas producers by PSU OMCs and GAIL".

1.5 When enquired about the action plan before the Ministry to increase the gas production in the country, the Ministry submitted the following information:

"As per the present policy, Government is meeting the entire requirement of CNG (Transport) and PNG (Domestic) segment of CGD networks by supplying domestic gas, under no cut category, which is cheaper than imported gas.

Further, Government has taken several policy measures/initiatives to enhance exploration & production of oil and gas in the country which include:

- (i) Policy for Relaxations, Extensions and Clarifications under Production Sharing Contract (PSC) regime for early monetization of hydrocarbon discoveries, 2014
- (ii) Discovered Small Field Policy, 2015
- (iii) Hydrocarbon Exploration and Licensing Policy, 2016
- (iv) Policy for Extension of Production Sharing Contracts, 2016 and 2017
- (v) Policy for early monetization of Coal Bed Methane, 2017
- (vi) Setting up of National Data Repository, 2017
- (vii) Appraisal of Unappraised areas in Sedimentary Basins
- (viii) Re-assessment of Hydrocarbon Resources
- (ix) Policy framework to streamline the working of Production Sharing Contracts in Pre-NELP and NELP Blocks, 2018
- (x) Policy to Promote and Incentivize Enhanced Recovery Methods for Oil and Gas
- (xi) Policy framework for exploration and exploitation of Unconventional Hydrocarbons under existing Production Sharing Contracts, Coal Bed Methane contracts and Nomination fields, 2018.
- (xii) Grant of Marketing including pricing freedom, on natural gas production from High Pressure-High Temperature (HP-HT) reservoirs and deepwater and ultra deep water areas (with ceiling), gas produced from CBM blocks, blocks awarded under Hydrocarbon Exploration and Licensing Policy (HELP) and Discovered Small Fields (DSF) Policy, commercial gas produced from North-Eastern Region (NER) on or after 1<sup>st</sup> July, 2018 and also in those new gas discoveries whose Field Development Plan (FDP) has been approved after February, 2019. To incentivize additional gas production from Administered Price Mechanism (APM) fields, reduction in royalty by 10% of the applicable royalty has also been granted on the additional production over and above business-as-usual scenario.
- (xiii) In addition, Government in February, 2019 approved major reforms in exploration and licensing policy to enhance exploration activities, attract domestic and foreign investment in unexplored/unallocated areas of sedimentary basins and accelerate domestic production of oil and gas from existing fields. The policy reforms inter alia aim to boost exploration activities with greater weightage to work programme, simplified fiscal and contractual terms, bidding of exploration blocks under Category II and III sedimentary basins without any production or revenue sharing to Government. Further, reforms envisage simplified fiscal incentives and incentivizing gas production including marketing and pricing freedom. The policy also provides more functional freedom to National Oil Companies for collaboration and private

sector participation for production enhancement methods in nomination fields. Streamlining approval processes and promoting ease of doing business including electronic single window mechanism is also an important aspect of policy reforms.

- (xiv) In November 2018, PNGRB conducted the 10<sup>th</sup> round of bidding for CGD network. After completion of the bidding, total of 232 GAs in 407 districts (27 states /UTs) covering 53% of the area and 71% of population in the country will have access to CGD network.
- (xv) Domestic gas, wherever applicable, is allocated under various gas utilization policies framed from time to time. Creation of free gas market through gas trading hub(s)/exchange(s) is desirable to unleash competition and promote efficiency across sectors. In this regard, it has been conceptually agreed to create a free gas market by - Allowing trade of domestic gas through Gas Trading Hub(s)/Exchange(s), and Establishing a Transport System Operator (TSO) with the sole responsibility of developing and operating the National Gas Grid on common carrier/contract carrier principle.
- (xvi) PNGRB has so far authorized around 32,600 Km of natural gas pipelines in the country. Out of these pipelines a total length of about 17,100 Km pipelines are operational and about 15,500 Km are under various stages of construction. About 15,500 Km of Natural Gas Pipelines are expected to be added to the country's existing pipeline infrastructure by 2024-25. The existing and upcoming pipelines will be a part of the basic National Gas Grid in the Country".

### **Demand-Supply Issues**

1.6 When asked to furnish details of availability of natural gas from various sources including imports indicating the share of each source in the country vis-à-vis demand during the last three years, in written reply it was submitted that:

"The source-wise supply details for the last three years (as per PPAC) is enclosed as **Annexure-I**.

The details of LNG imports during the last three years (as per PPAC) is enclosed as **Annexure-II**.

The details of natural gas consumption in the country during the last three years (as per PPAC) is enclosed as **Annexure-III**".

1.7 When enquired about the methods followed for the import of natural gas and the global practice, in this regard the Ministry submitted the following information:



"GAIL imports natural gas based on approved guidelines. Further, the guidelines describe the sourcing methodology based on following types:

- **Spot Transactions** – Sourcing of a cargo that shall be delivered upto a 12-month period.
- **Strip Transactions** – Sourcing of 2 or more cargoes in a single case that shall be delivered upto a 12-month period.
- **Short-Term Transactions** – Sourcing of volume in a single case where the cargoes shall be delivered over a period of more than 12 months and upto 36-months starting from the delivery of 1<sup>st</sup> cargo, irrespective of the number of cargoes.
- **Medium-Term Transactions** - Sourcing of volume in a single case where the cargoes shall be delivered over a period of more than 36 months and upto 60-months starting from the delivery of 1<sup>st</sup> cargo, irrespective of the number of cargoes.
- **Long-Term Transactions** - Sourcing of volume in a single case where the cargoes shall be delivered over a period of more than 60-months period starting from the delivery of 1<sup>st</sup> cargo.

Further, the above categorizations have been made based on experience gathered over the years.

The nature of transaction could vary from country to country. Example: Long term LNG contracts with USA based entities has destination flexibility (i.e., Buyer has a choice of delivering the cargo to any global destination) while the Qatar /Australian contracts are generally have fixed destinations of delivery.

While most companies sourcing processes are confidential in nature, they may be broadly divided into enquiries and bilateral discussions depending on the volumes, tenure and the organizational preference".

1.8 The Committee further wanted to know the mode of import of natural gas done in the country, to which the representative of the PNGRB stated that:

"There are both types of systems. What we call it like there are long-term contracts where the price is fixed on a benchmark basis. If the crude oil price is 50 dollars, 12 or 13 per cent of that will be LNG price. So, those are long-term contracts. Then, there is a spot market of LNG. The spot market keeps on varying. Currently, it is in the range of 6-7 dollar per mmBtu but at one stage it has gone down to two dollars also. So, these are spot markets. But in case of India, the major contracts are long-term contracts and short-term contracts are less".

1.9 The Committee desired to know how the LNG is being imported into the country and the various regulatory norms applicable, to which the representative of the PNGRB during the oral evidence submitted as under:

"We do not have any transnational pipeline. So, whatever gas we are importing is coming as LNG, Liquified Natural Gas. This LNG can be imported only by people who are having LNG terminals in India. The major player is Petronet LNG which is a joint venture of Oil PSUs. So, 50 per cent is held by the Oil PSUs and the remaining 50 per cent is with the public. So, it is both a public company and a private company. So, the major part of gas import is done by them. Then, all our oil companies, including GAIL, Indian Oil, BPCL, HPCL, are importing it. Some LNG is also imported by GSPL, which is a Gujarat State company and some by private companies also, like H-Energy. It depends upon the use. If it is a large consumer, they can also import their own requirement directly from foreign sources and then they use the liquefaction facilities here in India. They use the pipeline facility and take the gas to their plant. So, it is mainly done by public sector companies".

1.10 When asked about the availability of gas to meet the projected demand in future, the representative of the PNGRB stated that:

"... आज की तारीख में भी जो देश का गैस उत्पादन है, वह 50 पर्सेंट घरेलू गैस उत्पादन है और 50 पर्सेंट के करीब हम आयात करते हैं। धीरे-धीरे आयात वाला प्रतिशत बढ़ ही रहा है। पिछले साल शायद 51 प्रतिशत के करीब था। लेकिन दुनिया में गैस की कमी नहीं है। अगले तीन सौ सालों तक का गैस का रिजर्व है। इसलिए ऐसी कुछ परेशानी नहीं है। अगर देश में गैस की खपत बढ़ती है तो हम उतनी गैस इंपोर्ट कर लेंगे।"

1.11 The Committee wanted to know about the steps being taken to ensure adequate supply of gas to meet the demand, the Ministry submitted the following information:

"To bridge demand supply gap due to decline in the availability of domestic gas, GAIL & other importers (GSPC, IOCL, BPCL etc.) have contracted for supply of sufficient amount of imported LNG (RLNG). Accordingly, there is no shortage in the availability of gas in the country. However, imported LNG (RLNG) is often costlier than domestic gas because of regasification and other import related components and because it is based on international market conditions.

Further, to incentivize the production of indigenous natural gas in the country, Govt brought various policies such as:

- Discovered Small Field Policy (DSF), in 2015

- Hydrocarbon Exploration and Licensing Policy (HELP), in 2017
- Marketing including pricing freedom for the gas to be produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas, in 2016
- Policy Framework for Early Monetization of Coal Bed Methane (CBM), in 2017
- Natural Gas Marketing Reforms, in 2020”;

## **Sectoral Allocation and Consumption of Gas**

### **I. Sectoral Allocation**

1.12 When asked to furnish a note on the sectoral demand and allocation of natural gas to various sectors/industries and source of gas, the Ministry submitted the following information:

	FY 2020-21		
Sector	Domestic	RLNG	Total
Fertilizer	17.96	30.76	48.72
Power	19.92	9.76	29.68
CGD	13.08	12.21	25.29
Others	16.12	33.93	50.05
Total	67.08	86.66	153.74

*Source: PPAC Monthly Report on Natural Gas, April 2021(unit missing)*

**Domestic Gas:** Domestic gas supplied to different end users is broadly comprised of the following categories:

#### **A.APM Gas**

- The APM gas was allocated to various customers in priority sectors by the erstwhile Gas Linkage Committee (GLC). GLC was constituted on 22nd of July 1991 under the chairmanship of Secretary (P&NG) with inter-alia responsibility of recommending requests for allocation of natural gas by downstream consumers. GLC made a total allocation of around 120 MMSCMD gas from nomination fields allocated to ONGC & OIL by the Government.
- Subsequently, MoP&NG vide order dated 20.06.2005 notified new gas allocation and pricing policy, which inter-alia provide that the available APM gas will be supplied to the power and fertilizer sectors against their existing allocations as well as to specific end users committed under court orders/small consumers having allocations up to 0.05 MMSCMD at APM price. In the backdrop of above policy dated 20.06.2005 and since no further allocable natural gas was

available for allocation, GLC was wound up vide order dated 09.11.2005. During FY 2020-21, around 23.13 MMSCMD of APM gas was supplied by GAIL.

#### **B. Non-APM/MDP Gas**

MoP&NG vide order dated 28.06.2010 issued guidelines on pricing and commercial utilization of Non-APM gas produced by National Oil Companies (NOCs). As per the said guidelines, while quoting decision of Empowered Group of Ministers (EGoM) for NELP gas, MoP&NG directed NOC's producing non-APM gas to approach customers in the following order of priority: -

- a) Gas based fertilizers plants
- b) LPG plants.
- c) Power plants supplying to the grid.
- d) City Gas Distribution systems for domestic & transport sectors.
- e) Steel, refineries & petrochemicals plants for feedstock purposes.
- f) City Gas Distribution systems for industrial & commercial customers.
- g) Any other customers for captive & merchant power, feedstock of fuel purposes.

MoP&NG vide guidelines dated 14.11.2013, 03.02.2014 & 20.08.2014 placed Gas Allocation/Supply to City Gas Distribution (CGD) entities for PNG (Domestic) and CNG (Transport) purpose under no cut category. In view of the MoP&NG guidelines to meet the demand of CGD sector, cuts are being applied on domestic gas (Except NELP gas) being supplied to non-priority sectors and power sector. During FY2020-21, around 18 MMSCMD of Non-APM gas was supplied by GAIL.

#### **C. Gas purchased under Pre-NELP/NELP PSCs**

During FY 2020-21, about 0.72 MMSCMD of Ravva JV gas was supplied by GAIL to designated customers. In addition, GAIL is also supplying around 0.04 MMSCMD of gas from PY-1 fields of Hindustan Oil Exploration Limited (HOEC) to customers.

MoP&NG has also allocated gas from NELP fields of Madanam in Cauvery Basin and Uber & Aliabet fields in South Gujarat to GAIL to supply in line with NELP priority order

#### **D. Gas purchased from Deep Water, High Temperature High Pressure fields:**

The developers of domestic gas from deep water, ultra-deep water and High Pressure- High Temperature (HTHP) fields have been given marketing and pricing freedom subject to ceiling price of gas declared by Production Planning and Analysis Cell (PPAC) on half yearly basis as per MoP&NG guidelines dated 21.03.2016. In recent years RIL-BP and ONGC have come out with open tenders to sell gas from their HP-HT fields in KG basin. The gas was purchased

by various buyers across the country including GAIL through participation in tenders and at various price levels.

#### **E.Domestic gas Purchased from Coal Bed Methane (CBM) blocks.**

As per MoP&NG guidelines dated 11.04.2017 on early monetization of CBM gas, contractors of CBM blocks have been given pricing and marketing freedom to sell the CBM gas in domestic market at arm's length price discovered through tenders.

Further, to meet shortfall on account of declining domestic gas production from APM & NAPM fields, LNG is imported through Open General License (OGL) by different suppliers. Both private and government companies are in the business and are importing LNG from various international sources. End users are free to contract RLNG from supplier of their choice as per the agreement".

1.13 When asked about the details of natural gas that have been allocated to various industrial sectors during the last five years, the Ministry submitted the following information:

"Due to ageing of the field the domestic gas production from existing gas producing fields of National Oil Companies i.e. ONGC, OIL is declining over a period of time. Accordingly, supply as per availability is being made from nominated field as per gas utilization policy issued from time to time. Government has accorded priority to CNG (Transport) & PNG (Domestic) segments. GAIL has been entrusted to meet upto 110% of CNG (T) and PNG (D) segments.

During last five years, this Ministry has allocated gas from ONGC field to other entities and GAIL for further supplying it to all technically feasible priority sector consumers [viz. CGD, Fertilizers (Urea), LPG, Grid connected Power Sector etc.] as under:

<b>Nomination fields</b>				
<b>Sr. No</b>	<b>Date</b>	<b>Field Name</b>	<b>Quantity (MMSCMD)</b>	<b>Customer</b>
1.	15.03.2016	Ramnad	0.9	SPIC
2.	02.08.2017	Daman field, Western offshore	As per field profile, (peak 9.7)	GAIL
<b>NELP Fields</b>				
1.	08.02.2017	Madanam	0.66	GAIL
2.	26.03.2018	Nagayalanka, KG Basin	0.09	MEIL, RAK Ceramics & Sentini Sanitarywares (P) Ltd.
3.	26.03.2018	Aliabet, Ankleshwar	0.35	GAIL
4.	26.03.2018	Uber, Ankleshwar	0.04	GAIL
<b>Others</b>				
1	31.05.2019	Panna-Mukta	As per field profile, (peak 3.36)	GAIL

1.14 On being asked as to which agency lays down the policy guidelines in this regard, the Ministry submitted the following information:

"Based on GLC, EGoM and other MoP&NG allocations, GAIL supplies domestic gas to various sectors like Power, Fertilizer, CGD, LPG, Petrochemicals, Refineries, Ceramic, Tea Garden, Glass Industries across the country. Policy guideline supply of domestic gas is being laid by GoI/MoP&NG. Additionally, imported LNG/RLNG is supplied based on bilateral agreements between GAIL and its customers".

## II. Sectoral Consumption

1.15 Sectoral Consumption of natural gas as per the information available with PPAC in last two years including RLNG is as under:

(Figures in MMSCM)		
Sector	2018-19	2019-20 (P)
(1)	(2)	(3)
<b>(a) Energy Purpose</b>		
Power	12005	10796
Industrial	944	568
Manufacturing	142	132
City or Local Natural Gas Distribution Network incl. Road Transport	9206	10764
Agriculture (Tea Plantation)	192	200
Internal Consumption for Pipeline System	541	525
Refinery	7047	7805
Miscellaneous	3393	4166
<b>Total (a)</b>	<b>33470</b>	<b>34957</b>
<b>(b) Non-Energy Purpose</b>		
Fertilizer Industry	14987	16083
Petrochemical	3386	3567
Sponge Iron	1124	708
LPG Shrinkage	874	858
<b>Total (b)</b>	<b>20370</b>	<b>21216</b>
<b>Total Sectoral Sales (a+b)</b>	<b>53840</b>	<b>56174</b>

1.16 When asked to furnish the state-wise volume of consumption of natural gas in its various forms by various consumers in public, private and domestic sectors, category wise, during the last three years, the Ministry submitted the following information:

"Based on the information submitted by CGD entities to PPAC, State wise PNG & CNG gas consumption data from the FY 2019-20 (H1 & H2) and the FY 2020-21 (H1) is attached herewith as Annexure-IV".

### Pipeline Projects under National Gas Grid

1.17 When enquired about the main objectives behind National Gas Grid, the Ministry submitted the following information:

"The existing major cross-country Natural Gas Pipelines are transporting natural gas towards the West, North and East (under execution) parts of India. At present, there is not sufficient connectivity of these pipelines to Central India, North-East and part of East Coast with various sources in other parts of India. There are also few isolated networks in the southern region. Hence, a need for National Gas Grid (NGG) was felt, to ensure availability and distribution of natural gas across the length and breadth of the country, which aims to remove regional imbalance within the country with regard to access to natural gas and providing clean and green fuel throughout the country. Further, the NGG will connect gas sources to major demand centers and ensure availability of gas to consumers in various sectors and development of City Gas Distribution Networks in various cities for supply of CNG and PNG. Very importantly, the NGG will also help to manage any demand fluctuation impacting pipeline hydraulics".

1.18 When asked about the total length of Natural Gas pipeline infrastructure required to be laid under National Gas Grid and the total length of pipeline infrastructure completed till date, the Ministry submitted the following information:

"With the aim to create National Gas Grid, PNGRB has authorized approximately 33,548 Km Natural Gas Pipeline Network across the country, as on 30.09.2021. Out of this, 20,227 Km length of natural gas pipelines including spurlines are operational. A total of 15,004 Km pipeline is under various stages of construction.

About 15,500 Km of Natural Gas Pipelines are expected to be added to the country's existing pipeline infrastructure by 2024-25. The existing and upcoming pipelines will be a part of the basic National Gas Grid in the Country. However, development of the NGG is a continuous process and the expansion of pipeline infrastructure is done based on gas demand assessment of various regions".

1.19 When asked to provide details w.r.t. Liquefied Natural Gas (LNG) imports, LNG terminal capacity and upcoming LNG terminals in the country, the Ministry submitted the following information:

"As per the information submitted by the entities to PPAC, as on 31.03.2020 for the FY 2019-20, 33867 (P) MMSCM liquified natural gas was imported into the country. LNG terminal capacity reported to PPAC as on 31.03.2020 was 42.5 MMTPA.

LNG TERMINAL INFRASTRUCTURE (capacity and upcoming terminals)

No.	TERMINAL	DEVELOPERS	CAPACITY (MMTPA)
<b>Existing Terminal</b>			
1	Dahej	Petronet LNG Limited	17.5
2	Hazira	Royal Dutch Shell, Total Gaz Electricity	5.0
3	Dabhol*	GAIL, NTPC	1.7
4	Kochi	Petronet LNG Limited	5.0
5	Ennore	Indian Oil Corp	5.0
6	Mundra	GSPC, Adani	5.0
<b>TOTAL EXISTING</b>			<b>39.2</b>
<b>Under construction</b>			
7	Jaigarh FSRU)	H Energy	4.0
8	Dhamra	Adani	5.0
9	Jafrabad (FSRU)	Swan	5.0
10	Chhara	HPCL & Shapoorji Pallonji	5.0
<b>TOTAL UNDER-CONSTRUCTION /construction completed</b>			<b>19.0</b>
<b>GRAND TOTAL</b>			<b>61.5</b>

(\*Name plate capacity is 5 MMTPA but in absence of the breakwater, the terminal can only operate at ~1.7 MMTPA)

1.20 The Committee further wanted to enquire about the criteria adopted for creation of gas pipeline infrastructure and which agencies are involved therein, the Ministry submitted the following information:

"Petroleum and Natural Gas Regulatory Board (PNGRB) is the Regulator which grants authorization for development of new pipeline infrastructure in India. The entity desiring to develop gas pipeline submits the Expression of Interest to PNGRB along with requisite details of the proposed pipeline. PNGRB on suo-motu basis also invites bid for development of pipeline on any route across India. As regards to gas demand, the entities carry out detailed survey of gas demand assessment falling enroute of the any proposed pipeline. Based on the demand assessment, entity submit the EoI to develop such Natural Gas pipeline.

However, PNGRB has entered into an agreement with United States Trade Development Agency (USTDA) with the approval of Government of India for conducting a study on Technical Assessment of the National Gas Grid in India.



The said study is being executed through the contractor, ICF Resources, LLC, USA. One of the key objectives of the said study is to update the gas demand analysis, including anchor consumers, industries, city gas distribution, and emerging demand centers such as CNG and LNG for road transport. ICF is expected to submit its report shortly".

### Funds for National Gas Grid

1.21 When asked about the sanctioned amount for pipeline projects under National Gas Grid since its inception and how much has been spent till date and details of the expansion along with funds earmarked in this regard, the Ministry submitted the following information:

"Presently, following projects are being executed by GAIL, IOCL and IGGL under "National Gas Grid":

Sl. No.	Pipeline Project	Entity	Length (Kms.)	Sanctioned Amount (Rs. Cr.)	Spent Amount (Rs Cr.)	Funds earmarked in BE 20-21 (Rs. Crore)
1	Jagdishpur-Haldia & Bokaro-Dhamra(Phase 2&3)	GAIL	1905	12214	5000	1390
2	Barauni - Guwahati		729		1670	430
3	Dhamra-Haldia		240	1030	-	100
4	Kochi-Kootanad-Bangalore-Mangalore(Ph-II)		887	5909	3150	230
5	Vijaipur-Auraiya (VAPL)		352	2881	1430	210
6	Angul-Srikakulam		690	2658	3	800
7	Mumbai - Nagpur - Jharsuguda		1755	7844	-	500
8	Sultanpur-Jhajjar-Hissar section of CJHPL		135	327	13	150
9	Haridwar-Rishikesh-Dehradun section of DBNPL		54	218	48	25
10	Ennore-Thiruvallur-Bangalore-Nagapattinam-- Madurai - Tuticorin Natural gas pipeline	IOCL	1444	6025	2815	1314
11	North East Gas Grid	IGGL	1665	9265	37	464
<b>Total</b>			<b>9856</b>	<b>48371</b>	<b>14166</b>	<b>5613</b>

Further, various private entities are also laying gas pipelines under National Gas Grid".

1.22 When asked to provide details about the entities that have been involved either directly or indirectly in the production, supply, marketing and distribution of natural gas in the country, the Ministry submitted the following information:

"The major Government entities involved in production, supply, marketing and distribution of natural gas in India are as below:

- (i) Oil and Natural Gas Corporation Limited.
- (ii) Oil India Limited.
- (iii) GAIL (India) Limited.
- (iv) Indian Oil Corporation Limited.
- (v) Hindustan Petroleum Corporation Limited.
- (vi) Bharat Petroleum Corporation Limited.

In addition to the above mentioned major CPSEs, their subsidiaries/Joint Ventures are also involved in the production, supply, marketing and distribution of natural gas in the country".

1.23 When asked to furnish the updated status on funds utilized out of sanctioned amount for pipeline projects under National Gas Grid since its operation till date and by when the fund will be fully utilized, the Ministry submitted the following information:

"The total fund sanction by the Govt. till dated is Rs. 1030 crore out of which Rs. 180 crore was released on 31.03.2021 and Rs. 850 crore was released on 22.06.2021. As per information submitted by IGGL, as on 15.06.2021, the total Govt. Grant utilized is Rs. 249.6 crore. The remaining Rs. 780.4 core shall be utilized by the end of the FY 2021-22".

1.24 When asked about the details of gas pipeline laying projects that have been received budgetary support in the form of viability gap fund (VGF) till date, the Ministry submitted the following information:

"CCEA has approved Capital Grant/ VGF for following gas pipeline projects:

- (i) Jagdishpur-Haldia & Bokaro-Dhamra Pipeline: CCEA has approved Capital grant of Rs. 5176 Crores (40% of the estimated project cost of Rs. 12,940 crores) to GAIL (India) Ltd.

- (ii) North East Gas Grid Pipeline: Capital grant of Rs.5559 Crores (60% of the estimated project cost of Rs.9,265 crores) has been approved by CCEA. M/s Indradhanush Gas Grid Limited (IGGL) is executing North East Gas Grid Pipeline Project which is a Joint Venture company formed by equal participation (20% each) from GAIL, Indian Oil Corporation Ltd. (IOCL), Oil India Limited (OIL), Oil and Natural Gas Corporation Limited (ONGC) and Numaligarh Refinery Limited (NRL)".

### **Regulatory framework**

1.25 The Committee sought details about policy guidelines/framework being envisaged by the government for the promotion of natural gas in the country, the Ministry submitted the following information:

"Both Private and Government Entities have substantial role in the entire gas value chain in the country as detailed below:

**Production:**

- To incentivize the production of domestic gas in the country, Govt brought various policies such as:
  - Discovered Small Field Policy (DSF), in 2015
  - Hydrocarbon Exploration and Licensing Policy (HELP), in 2017
  - Marketing including pricing freedom for the gas to be produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas, in 2016
  - Policy Framework for Early Monetization of Coal Bed Methane (CBM), in 2017
  - Natural Gas Marketing Reforms, in 2020

The policy initiatives were taken with the objective of incentivizing investment of private sector in upstream natural Gas production in the country. Private companies currently doing natural gas production in India include; Reliance Industries Limited - BP; Vedanta Ltd.; Essar Oil and Gas Exploration and Production Limited; Hindustan Oil Exploration Co. Ltd.

**Marketing:**

	Domestic Gas (MMSCMD)	RLNG (MMSCMD)	Total (MMSCMD)
Natural Gas consumption in India during FY 20-21	76.12 (46%)	90.03 (54%)	166.15
Natural Gas consumption in India during FY 20-21 by Downstream Consumers (excluding IC by upstream producers)	67.07 (44%)	86.67 (56%)	153.74

Source: PPAC

Natural gas demand in India is being fulfilled through domestic gas production and LNG sourced from overseas and brought to India in LNG ships.

Earlier marketing of domestic natural was done only by Government PSUs based on the allocation of gas done by MoP&NG. However, there have been various reforms done by Govt of India and now the producers of natural gas from specified type of fields have been given marketing and pricing freedom wherein the producers invite bids sale for the gas produced by them. These producers include both Private and Govt companies.

Further, the demand supply gap in the country is met through imported LNG. In India, LNG is imported through **Open General License (OGL)**. Both private and government companies are in the business and are importing LNG from various international sources and they are free to sell/ consume the same as per their requirement tie-ups.

Various private companies that are presently in the business of natural gas for both reselling as well as for meeting captive demand are – Adani Total Private Limited; Shell Energy India Private Limited; H-Energy Private Limited; Torrent Power Limited; Adani Gas Limited; ArcelorMittal Nippon Steel India Limited; Reliance Industries Limited; India Gas Solutions.

These LNG brought by these parties is re-gasified at various LNG terminals in the country- Dahej (17.5 MMTPA), Hazira (5 MMTPA), Kochi (5 MMTPA), Dabhol (1.9 MMTPA), Mundra (5 MMTPA), Ennore (5 MMTPA), H-Energy Jaigarh (4 MMTPA), to be commissioned shortly). Most of these existing and upcoming LNG Terminals are owned by private companies.

#### **Supply/Transportation:**

PNGRB has framed Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008. Under the aforesaid regulations entities desirous of laying, building, operating or expanding a natural gas pipeline may submit an expression of interest to the Board in the form of an application along with an application fee as specified under the PNGRB Regulations. Also, the Board may suo-motu initiate a proposal inviting entities to participate in the process of selection of an entity for laying, building, operating or expanding natural gas pipeline along any route.

Hence, there is no restriction on Private Companies from participating in the bids invited by PNGRB for development of any Natural Gas pipeline network.

In the midstream sector, there are a number of private firms who have laid natural gas pipelines in the country which is used for transportation of Natural Gas from various sources to the consumption/ demand centers. NG pipelines laid by private firms are as under:

- Pipeline Infrastructure Limited: East West Pipeline (EWPL)
- H-Energy Gateway Private Limited:

- a. Jaigarh to Dabhol Tie-in pipeline;
- b. Jaigarh-Mangalore P/L;
- c. Kanai-Chhata P/L

- Reliance Gas Pipelines Limited: Shahdol-Phulpur P/L
- Other Dedicated Pipeline/ Tie-in P/L: Essar, Torrent, RIL, KEI-RSOS etc.

#### **City Gas Distribution:**

In the downstream CGD business also there are a number of private firms which are involved in distribution of natural gas in a number of Geographical Areas. As of now PNGRB has authorized 230 GA's to different entities including Public and Private sector for development of CGD network in the Country. Some of the major private entities in CGD business are - Torrent Gas Pvt Ltd; Adani Gas Limited; IOAGPL; Think Gas etc".

1.26 When asked about the role of states in the expansion of National Gas Grid, the Ministry submitted the following information:

"PNGRB had notified the regulation for authorization viz. PNGRB (Authorizing Entities to lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 in which Regulation 4(1) and 4(2), Regulation 5, and Regulation 7 specifies the selection of entity and bidding criteria.

Similarly, Regulation 6 (Invitation by Board for laying, building, operating or expansion of natural gas pipeline) states that the Board may *suo-motu* form a view regarding the development of a natural gas pipeline in a specific area, region or route, and in such a case, the procedure as specified in regulation 5 (except aspects relating to the expression of interest shall be replaced by project details as prepared by the Board) shall apply.

Following above Regulation, PNGRB is authorizing various new pipelines which will be part of a natural gas grid. Apart from the above, Regulation 17 is included for acceptance of the pre-PNGRB authorization of Central Govt. Similarly, Regulation 18 is also introduced for the entity who had laid the pipeline with any other authorization before the appointed day i.e., 01.10.2007.

Moreover, PNGRB Act, 2006 has provision for Central Govt. to issue policy directions to PNGRB. Under this section, the Central Govt. issued direction to authorize Bokaro - Dhamra as a part of its previously authorized Haldia – Jagdishpur pipeline. Similarly, Government also issued policy direction to PNGRB to authorize Indradhanush Gas Grid Limited (IGGL) for 1656 km North East Gas Grid which will be part of National Gas Grid.

The State Governments have a paramount role in facilitating speedy and timely completion and operation of gas pipeline, city or local natural gas distribution

network projects by facilitating ROU and ensuring various statutory and other clearances on a fast track basis".

### **Status of Pipeline Projects**

1.27 The Committee while noting that 9856 kms out of 15,500 kms length of National Gas Grid being executed by GAIL, IOCL and IGGL is under various stages of construction, sought to know the information with respect to remaining 5000 kms of pipelines, the Ministry submitted the following information:

"With the aim to create nationwide gas grid, PNGRB has authorized approximately 33,764 Km Natural Gas Pipeline Network across the country, as on 31.03.2021. The authorized NGPL entity is allowed to lay spur lines as per the provisions of the regulations. Accordingly, 19,998 Km of natural gas pipelines are operational and 15,369 Km are under various stages of construction, as on 31.03.2021. This length includes dedicated natural gas pipelines, spur lines, tie-in connectivities, sub-transmissions pipeline and additional spur lines laid in the tariff corridor of the natural gas pipelines".

1.28 The Committee wanted to know about the steps taken to connect the different pipelines to various parts of India, the Ministry submitted the following information:

1. **"Steps taken to connect gas pipelines in Southern India with various sources are as follows:**

- i. In order to connect Southern India, PNGRB in May, 2011, authorized 1,104 km Kochi-Kootanad- Bangalore-Mangalore Natural Gas pipeline to GAIL (India) Limited which emanates from Kochi and terminates at Mangalore.
- ii. PNGRB in July, 2014, authorized 275 km of Kakinada – Vizag –Srikakulam Natural Gas pipeline to Andhra Pradesh Gas Distribution Corporation Limited, which emanates from Kakinada and terminates at Srikakulam.
- iii. PNGRB in December, 2015, authorized 1431 km of Ennore-Tuticorin Natural Gas pipeline to Indian Oil Corporation Limited which emanates from Ennore and terminates at Tuticorin.
- iv. PNGRB in February 2018, authorized Kakinada-Vijayawada-Nellore Natural Gas pipeline (KVNPL) to IMC Limited, which emanates from Kakinada and transverses through Rajahmundry-Vijayawada-Guntur- Ongole and terminates at Nellore.

- v. PNGRB in July, 2019, authorized 690 km of Srikakulam - Angul Natural Gas pipeline to GAIL (India) Limited which includes the length of Trunk line and Spur lines. It emanates from Srikakulam and transverses through Ganjam-Nayagarh-Khordha-Cuttack-Dhenkanal and terminates at Angul.

2. **Steps taken to connect gas pipelines in Central India with various sources are as follows:**

- i. To connect the Central India with National Gas Grid, PNGRB, in May, 2020, authorized Mumbai-Nagpur-Jharsuguda Natural Gas pipeline to GAIL. Apart from that, Pipeline Infrastructure Limited (PIL) is operating 1460 km long East-West Natural Gas pipeline.
- ii. Further, PNGRB has also authorized GSPL India Transco Limited (GITL) to develop Natural Gas pipeline from Mallavaram-Bhopal Bhilwara via Vijaipur. All three said pipelines have provision to inter connect to various gas pipelines existing on Western and Eastern Coast of India.

3. **Steps taken to connect gas pipelines to North-East and part of East Coast with various are sources:**

- i. To cater to the requirement of North-East and part of East Coast, GAIL is developing 3546 km long Jagdishpur-Haldia-Bokaro-Dhamra Natural Gas pipeline (JHBDPL) transverse through Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal and Assam, which will cater to the various Fertilizer plants, City Gas Distribution networks (CGD) and Petrochemical plants, which are/were stranded for gas pipeline connectivity.
- ii. Besides this, JHBDPL through the Barauni-Guwahati pipeline also connect to Indradhanush Gas Grid Limited's under construction North-East Grid, which will cater to eight North-East states namely Assam, Sikkim, Mizoram, Manipur, Arunachal Pradesh, Tripura, Nagaland and Meghalaya in a phased manner.
- iii. PNGRB in July, 2019, authorized Kanai Chhata - Shrirampur Natural Gas pipeline to Hooghly Pipelines Private Limited".

1.29 Further, the status of National Gas Grid projects is as under:

Sl.	Project Details	Approved Project Cost (Rs. Cr.)	Status/Progress
1	Kochi - Kootanad - Bengaluru-Mangaluru Pipeline Project Ph-II  Total Length - 891 Km	5,909	Overall Physical Progress: 66.8%.  • <b>Kochi Kootanad Mangaluru Section (450 Km):</b> Commissioned on 23.11.2020 & dedicated to nation by Hon'ble Prime Minister on 05.01.2021.  • <b>Kootanad Bengaluru Section (441 Km):</b>

Sl.	Project Details	Approved Project Cost (Rs. Cr.)	Status/Progress
	States: Kerala- 515 Km Karnataka- 57 Km Tamil Nadu- 319 Km		<ul style="list-style-type: none"> <li>- Koottanad (Kerala) to Walayar (Kerala) section (95 Km): Commissioned on 26.04.2021.</li> <li>- Walayar (Kerala) to Coimbatore (Tamil Nadu) section (12 Km): Welding completed and lowering of pipes completed except for 40 mtr. Section</li> <li>- Coimbatore to Krishnagiri section in Tamil Nadu (286 Km): Pre-construction activities being undertaken. Tendering &amp; ordering under progress.</li> <li>- Singasandra (Karnataka) to Krishnagiri (Tamil Nadu) section (48 Km): 22 Km section in Karnataka commissioned. Remaining 26 Km section lies in Tamil Nadu in which 10 Km lowering completed.</li> </ul> <p>Time Overrun: Yes, (w.r.t. Original completion schedule.)</p> <ul style="list-style-type: none"> <li>• Original approved Sch.: Dec'12</li> <li>• Revised approved Sch.: Feb'22</li> </ul> <p>Anticipated completion:</p> <ul style="list-style-type: none"> <li>- Walayar to Coimbatore ( Kerala &amp; Tamil Nadu) &amp; Singasandra to Krishnagiri section (Tamil Nadu) (38 Km): Progressively by Dec'2021.</li> <li>- Coimbatore to Krishnagiri section in Tamil Nadu (286 Km): 30 months from availability of hindrance free RoU in Tamil Nadu.</li> </ul> <ul style="list-style-type: none"> <li>• Reason for time overrun:               <ul style="list-style-type: none"> <li>- Stiff resistance from Farmers in Kerala &amp; Tamil Nadu and Instruction of Govt. Of Tamil Nadu to lay the pipeline along the Highways led to stalling of construction activities of KKB MPL Project in the year 2013.</li> <li>- With the support from Govt. of Kerala project activities of KKB MPL Project resumed in the state of Kerala in the year 2015.</li> <li>- High level "Expert Committee" was formed by Govt. of Tamil Nadu on 14.12.2015 to study feasibility of laying gas pipeline alongside NH/SH/ roads. The</li> </ul> </li> </ul>



Sl.	Project Details	Approved Project Cost (Rs. Cr.)	Status/Progress
			<p>Expert Committee was re-activated in Oct'17.</p> <ul style="list-style-type: none"> <li>- However, despite of several meetings and follow up by GAIL at various levels, there was no way forward till March 2020</li> <li>- Govt. of Tamil Nadu conveyed expression of support in March'2020. However, construction works in the state of Tamil Nadu are still held up due to stiff resistance from farmers.</li> </ul> <p>Cost Overrun: Yes, (w.r.t Initial approved cost)</p> <p>Initial approved cost : Rs 2918 Crores</p> <p>Revised approved cost : Rs 5909 Crores</p> <ul style="list-style-type: none"> <li>• Reason for Cost overrun: <ul style="list-style-type: none"> <li>- Increased cost of laying &amp; associated works and other components of project cost due to significant time overrun of approx. 10 years.</li> <li>- Significant increase in RoU compensation and land acquisition cost for stations.</li> </ul> </li> </ul>
2	Srikakulam Angul Pipeline Project Total Length – 744 Km States: Andhra Pradesh- 125 Km Odisha- 619 Km	2,658	<p>Overall Physical Progress: 27.9%</p> <p>RoU acquisition under progress.</p> <p>No time &amp; cost overrun in the project.</p> <ul style="list-style-type: none"> <li>• Original approved Sch.: July'22</li> <li>• Anticipated completion: July'22</li> </ul>

### Challenges in Pipeline Projects

1.30 When asked about the reasons for delays in Pipeline Projects and whether any institutional framework has been devised to expedite and resolve, it has been submitted that:

"Time & cost overrun has been witnessed in Kochi - Koottanad -Bengaluru-Mangaluru Pipeline Project Ph-II due to agitation by Farmers in the state of Kerala (Resolved Now) & in the state of Tamil Nadu (still ongoing).

GAIL has been following up with the State Govt. for resolution of the farmers protests affecting the project works. Some of the measures undertaken by Govt. of Tamil Nadu in this regard are as under:

- High level "Expert Committee" was formed by Govt. of Tamil Nadu on 14.12.2015 to study feasibility of laying gas pipeline alongside NH/SH/ roads. The Expert Committee was re-activated in Oct'17 to discuss the pipeline re-alignment plan (wherever feasible), and way forward for the pipeline execution in Tamil Nadu.
- Farmers awareness programme was conducted regarding benefits of Natural Gas pipeline for the state of Tamil Nadu.
- Govt. of Tamil Nadu issued G.O.(Ms) No.54 dt 14.02.2020 for determining Land & Crop compensation in line with Kerala model for all P&NG pipeline Projects in Tamil Nadu.
- Peace meetings conducted by District administration with the Farmers union in the District of Coimbatore and Krishnagiri.

However, in spite of the above efforts by GAIL & Govt. of Tamil Nadu, project works of KKB MPL-II project are still under hold in the state of Tamil Nadu. Following Monitoring, reporting and Issue Resolution Mechanism are being used:

- Monitoring status updates and Resolution of issues thru e- Samiksha and e- Pragati Portals.
- Periodic reports are being submitted to Ministry Monitoring Cell comprising issues pertaining to the land acquisitions.
- Periodic monitoring of the progress and issues of the projects thru monthly PMO report.
- Issues resolution based monitoring by Project Monitoring Group (PMG). Issues posted on PMG Portal. MoPNG take up the issues with Chief Secretary of the States and other concerned authorities.
- Escalating issues at District Collector, Secretary and Chief Secretary Level.
- Regular review of issues by GAIL at various levels.

- Meeting with various stakeholders including farmers, public representatives, officials of district administration for resolution of issues".

1.31 When enquired about the operational challenges and practical constraints faced by GAIL in the completion of projects under National Gas Grid, the Ministry submitted the following information:

"The major constraint being faced by GAIL while implementing pipeline projects are:

- (i) Delay in acquisition of Right of Use due to non-availability of land ownership records in Bihar and Jharkhand.
- (ii) Dense forest and presence of fringe elements in many districts of Jharkhand.
- (iii) Long drawn process and delay in getting Forest permission in Jharkhand and Odisha.
- (iv) Delay in RoU notification, rate determination by Govt of West Bengal and slow distribution of compensation to land owning farmers.
- (v) Hindrance from Villagers and demand of higher compensation rates, which is not as per PMP Act.
- (vi) Strong resistance in Tamil Nadu by farmers
- (vii) Hostile terrain of Western Ghat in Kerala and Karnataka and presence creek, rivers and large number of water bodies in Kerala.
- (viii) Absence of single window clearance for various statutory permission in states.
- (ix) Delay in deputing Competent Authority by state authority for land acquisition activities".

1.32 On being asked about the factors responsible for delay in implementation of the Jagdishpur-Haldia- gas pipeline projects, the Ministry submitted the following information:

"GAIL has successfully implemented section-1 of Jagdishpur-Haldia & Bokaro-Dhamra Pipeline project without delay. Further, GAIL is also committed to complete the balance section of project and all out efforts are being done to resolve the issues / hindrances which are beyond the control of GAIL. Currently, following factors are hampering the progress of Jagdishpur-Haldia & Bokaro-Dhamra Pipeline Project:

In Odisha State:

- (i) RoU acquisition issues in Sundergarh & Jharsuguda district - Villagers seeking higher rate of compensation.
- (ii) Pending Forest permission - 80 Km pipeline passing through forest area (covering 13 forest divisions).
- (iii) Pending determination of rates for Compensation of Trees in RoU (other than forest).

In Jharkhand State:

- (i) Security issues: Pipeline is passing through Chatra district which is affected by hard liner fringe group.
- (ii) Disbursement of land compensation is slow due to non-availability of Land possession certificate (LPC) across the state. Matter is being taken up with the respective District collectors.
- (iii) RoU acquisition issues in Hazaribag district: Villagers are demanding higher land compensation.

In West Bengal State:

1.33 RoU acquisition: Long pending in Durgapur Haldia and Barauni Guwahati Section (Affected sections Approx. - 550 Km). No work could be started due to non-availability of ROU.

However, steps are being taken to resolve the issues with the help of Central / State Authorities".

1.34 When asked about the feasibility of laying gas pipelines alongside the all weather roads in Uttarakhand in order to reduce expenditure, the Ministry submitted the following information:

"The route of cross country gas pipeline is generally finalized considering techno-economic, environmental and safety factors. The pipeline route should be shortest and feasible having minimum environmental sensitive zones like forest, wild life sanctuary, national park and other geotechnical challenges river beds, soil condition, terrain profile etc. GAIL is implementing 54 km of Haridwar-Rishikesh-Dehradun pipeline project in Uttarakhand State".

Issues in Land Acquisition for NGG

1.35 When asked about the practical constraints / right of use issues faced by GAIL for acquiring land for projects under National Gas Grid in the country, the Ministry submitted the following information:

"GAIL is facing following Right of Use (RoU) issues for acquiring land:

For New Pipelines:

- (i) Farmers/ land owners stiff resistance: Availability of Right of Use (RoU) & Land and permissions from various authorities are the primary enablers for construction of pipeline. In most of the cases, ROU & land acquisition are a major hurdle and projects delays on account of the same. Projects are often faced stiff resistance from farmers to either re-route the pipeline or demand of exorbitant compensation. GAIL is supposed to pay compensation as per provisions of P&MP Act, 1962.
- (ii) Non Availability of Land Possession Certificate (LPC) or Land records / obsolete ownership records: Land possession certificate is required for distribution of

compensation to the farmers. Non availability of LPC or obsolete ownership records delays distribution of compensation.

- (iii) Non-availability of Hindrance free Right of way: Other difficulties in laying pipeline in urban areas are constrained working space because of restricted areas, encroachment issues, existence of utilities, restricted time for working etc.
- (iv) For re-opening of ROU for repairs/ replacement/ capacity augmentation of existing Pipelines: Landowners/farmers demand land compensation afresh although the pipeline work is done in the acquired ROU for which land compensation is already paid. While re-opening of RoU, compensation is demanded again (This is not applicable as per P&MP Act,1962). However, while re-opening of ROU, compensation of crop and other damages are paid as per rules.

1.36 On being asked about the mechanism available with GAIL to coordinate with multiple stakeholders in acquisition of land for laying of natural gas pipeline projects for time-bound completion, the Ministry submitted the following information:

"Primary stakeholders for pipeline projects are Land owning farmers, District administration including revenue department, police department, irrigation, PWD, forest deptt. etc. Following mechanism is adopted for RoU acquisition and pipeline laying:

- (i) GAIL execution in-charge along with small team is deployed at pipeline construction site offices. Deputy Collector or equivalent level officer or Special Land acquisition officer from the respective State Governments are deputed for the project normally on deputation and is notified as "Competent Authority" (C.A.) for RoU and Land acquisition. C.A is supported by a team of Revenue staff, who are either taken from State Govt. working or retired employees on contract basis. GAIL and revenue team led by C.A. carry out RoU and land acquisition activities as per provisions of the applicable act, rules and regulations. Right of User (RoU) is acquired as per Petroleum and Mineral Pipeline (PMP) Act -1962. Initial intention to acquire RoU is published through 3(1) notifications and notices are served to land owners. Hearing of objections are carried out by the Competent Authority. Based on the same, final RoU is published through 6(1) gazette notification. Determination of compensation of lands, crops, trees are carried out by Competent Authority in consultation with revenue, forest and other departments of the State Government.
- (ii) Competent Authority and GAIL team coordinate with Collector's office for necessary supports. Team also reaches out to Village Panchayat and other bodies and its representatives, whenever required. They also seek support from police when required.

- (iii) For acquisition of permanent lands for stations en-route the pipeline, GAIL's multi-disciplinary committee is formed. The committee, with the help of C.A. and revenue team, identifies and negotiate with the land owners, for the permanent acquisition.
- (iv) GAIL team also take permissions and approvals from statutory authorities having jurisdiction, namely, PWD, Irrigation, NHAI, Railways, Forest Department etc. as per procedures of the respective authorities. The work involves application, documentation including plan, proposals, drawings, fees and deposits, follow up with respective stakeholders at various levels.
- (v) Pipeline laying and related construction works are carried out through contractors appointed through tendering.
- (vi) Establishment of Single window clearance at the level of State Govt. for all permissions and approvals, will facilitate time bound implementation of pipeline projects".

1.37 When asked as to how many land acquisition problems have been solved till date and how many are still pending in the National Gas Grid Project, the Ministry submitted the following information:

"RoU land acquisition issues are being resolved progressively with the help central and state authorities however RoU acquisition is still pending at following places:

- (i) Jagdishpur-Haldia & Bokaro-Dhamra Pipeline Project (JHBDPL) & Barauni-Guwahati Pipeline:
  - a. In West Bengal State: RoU acquisition of approx. 550 km pipeline section is pending
  - b. In Jharkhand State: RoU acquisition of approx. 35 Km
  - c. In Odisha State: RoU acquisition of approx. 120 Km
- (ii) Kochi-Koottanad-Bangalore-Mangalore Pipeline Phase-2: RoU acquisition of approx. 300 Km pipeline section is pending in Tamil Nadu state".

### **Capacity utilization of Pipelines**

1.38 When asked to furnish details of the capacity utilization of the existing gas pipelines under NGG and whether the pipelines running to their optimum and the steps being taken to improve the same, the Ministry submitted the following information:

"Details of the capacity utilization of the existing natural gas pipelines of GAIL (India) Limited, based on the average flow of natural gas during April' 20 – Feb' 2021 is as follows:

S No	Pipeline Name	Percentage Utilization
(i)	Integrated Hazira-Vijaipur-Jagdishpur Natural Gas Pipeline (HVJ)	67%
(ii)	Dahej-Uran-Panvel Natural Gas Pipeline (DUPL-DPPL)	79%
(iii)	Mumbai Regional Network (Uran-Thal-Usar&Trombay-RCF)	67%
(iv)	Gujarat Regional Natural Gas Pipeline Network	58%
(v)	KG Basin Natural Gas Pipeline Network	26%
(vi)	Cauvery Basin Natural Gas Pipeline Network	20%
(vii)	Dabhol-Bengaluru Natural Gas Pipeline (DBPL)	11%
(viii)	Kochi-Koottanad-Bengaluru-Mangalore (KKBMPL)*	29%
(ix)	Dadri- Bawana-Nangal Pipeline (DBNPL)*	20%
(x)	Chhainsa-Jhajjar-Hissar Natural Gas Pipeline (CJHPL)*	11%
(xi)	Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL)*	2%

*\*Utilization percentage based on commissioned capacity of these under construction pipelines*

As regards whether the aforesaid pipelines are running to their optimum, if not, what steps are being taken to improve the same, the reply is as follows:

It can be seen that generally the pipelines which have been in operation for at-least more than 10 years (Sl. Nos. (i) to (vi) above) have been witnessing reasonable capacity utilization, except the KG Basin Network and Cauvery Basin Network which have been so far constrained mainly by limited availability of domestic gas supplies into them.

As regards the other newer pipelines (Sl. Nos. (vii) to (xi) above), their utilization percentages are currently in the lower side, mainly due to relatively slower and gradual materialization of demand along these newer pipeline routes.

In general, natural gas pipelines entail long gestation periods of 15-25 years for optimum demand realization. Some of the major factors upon which the gas pipeline utilization depends are:

- Some of the envisaged gas consumer industries come up in synchronization with the pipeline while some others may defer their plans or some do not come up at all later due to changes in their respective business scenarios
- Availability of domestic gas supplies
- Availability of imported gas at competitive prices
- Some Gas Based Power plants connected to gas pipelines have become stranded (approx. 14,305 MW) due to non-availability of domestic gas supply and imported gas not fully being used by them due to price challenges
- Synchronized commissioning/conversion of upcoming gas-based Fertilizer units, Refinery Units, Steel Industries etc., along the pipeline route
- Development of CGD Networks along the pipeline route

g. Interconnection of various gas pipelines with one another

#### **Steps being taken by GAIL for Improving Pipeline Capacity Utilization**

- i. Addition of more new sources of gas into the existing pipelines: Recently there have been additional discoveries of domestic gas in KG Basin, Rajasthan, Cauvery Basin and Coal Bed Methane (CBM) discoveries. GAIL has taken steps to provide Tie-in connections to the upcoming new gas sources so that the availability/allocation of new domestic gas from these new discoveries to customers shall result in increased pipeline utilization. GAIL's recent/upcoming Tie-in connectivities include:
  - a. ONGC's Madanam: Memathur, Cauvery Basin Network
  - b. ONGC's Bantumilli: Ulumpuru, KG Basin Network
  - c. ONGC's Odalarevu: Bodaskurru, KG Basin Network
  - d. ONGC's Suvali : Kawas, Integrated HVJ Network
  - e. Jaigarh LNG terminal: Dabhol, DUPL-DPPL
  - f. CBM Bokaro and Jharia: JHBDPL.
  - g. CBM gas at Shadol: Phulpur, Integrated HVJ
- ii. Inter-connection with Pipelines of other Operators: At present, GAIL is the only operator who has provided multiple inter-connections to almost all the other pipeline operators in the country. GAIL has provided interconnection to various other pipeline operators like M/s PIL's EWPL (at Oduru/Ankot/Mhaskal) with its KG Basin NG pipeline Network, DUPL and HVJ Pipelines, M/s IOCL's DadriPanipat NGPL (at Dadri) with its HVJ Pipeline, M/s GSPL HP Gujarat Gas Grid (Dahej) with its HVJ Pipeline, GIGL's Bhatinda-Jammu-Srinagar NGPL (at Jalandhar) with its DBNPL, RGPL (at Phulpur) with its JHBDPL, thus providing access to almost all the other operators to its pipelines.
- iii. Inter-connection with more upcoming pipelines: GAIL would also be providing inter-connection of its JHBDPL pipeline with the upcoming Indradhanush Gas Grid of M/s IGGL to connect the entire North-East region with the main grid. In the south also, GAIL would be inter-connecting its KG Basin Network with M/s APGDC's upcoming Kakinada-Srikakulam Pipeline. Furthermore, GAIL would also be providing inter-connection of its Dabhol-Bengaluru pipeline and its upcoming KKMBPL at Bengaluru with the upcoming Ennore-Thiruvallur-Bengluru-Puducherry-Nagapatinam-Madurai-Tuticorin pipeline of M/s IOCL, thus connecting the entire southern region with the main grid.
- iv. Gas being sourced from various international suppliers: GAIL has sourced various long term/short term LNG from various international sources at different indices. A wider gas portfolio would be helpful in improving long-term price stability of gas supplies; subject to conclusion of commercial terms with downstream customers, the pipeline utilization is further expected to improve.
- v. On-line pipeline open access portal: GAIL is the only gas pipeline company who has developed online platform for easier and transparent booking of Common



Carrier Capacities in its natural gas pipeline. This will also help to increase the gas pipeline utilization.

- vi. Hooking-up connectivity to CGD sector along GAIL's pipelines: PNGRB has authorized about 136 Geographical Areas (GA) in the 9<sup>th</sup> and 10<sup>th</sup> round bidding for development of CGD. Most of these GAs are falling on GAIL's trunk line. GAIL is providing Hooking-up arrangement to these GA(s) on priority so that with the development and penetration of CGD infrastructure in the authorized areas, capacity utilization of the pipeline will increase.
- vii. Last Mile Connectivities to New Customers: Further, GAIL also provides last mile connectivity to various industrial consumers so as to enable them consume natural gas and shift from other alternative fuels.
- viii. Facilitating Gas exchange: GAIL has firmed up modality with Indian Gas Exchange operator for transportation of gas traded in Gas Exchange which also leads to increased pipeline utilization with the gradual increase of trade in Gas Exchange.
- ix. Tie-ups with new/upcoming Fertilizer Plants, Refineries: The tie-up with fertilizer plants, refineries along JHBDPL & other pipelines would also increase its utilization upon conversion/commissioning of these plants".

### Gas based Power Plants

1.39 When asked about details of natural gas based power plants operational/non-functional in the country, the Ministry submitted the following information:

"List of gas based power plants monitored and of gas based power plants not operational (nil generation) is at **Annexure-V & VI**".

1.40 When the Committee asked about the reasons for nil generation of 201 power plants with an installed capacity of 6099 MW and by when these are expected to start generating power again, the Ministry submitted the following information:

"As against the domestic gas allocation of around 85 MMSCMD, domestic gas supplied to gas based power plants in the country was about 19.20 MMSCMD and 18.55 MMSCMD during 2019-20 and 2020-21 (April 20 to Feb 21) respectively.

Thus due to non-availability of sufficient quantum of domestic gas, significant gas based capacity is stranded or operating at sub-optimal levels. Further, the supply of gas from KG-D6 to power sector has been operating at very low PLF which was about 23% during 2019-20 and 24.4% during 2020-21 (April 20 to Feb 21).

Imported natural gas (RLNG – Regasified Liquefied Natural Gas) is kept under Open General License (OGL) and gas based power plants can also use RLNG for power generation. However, due to high price of RLNG, cost of generation

on RLNG is substantially higher than domestic gas, which makes it difficult for scheduling in merit order dispatch”.

1.41 When asked as to whether any gas supply agreement with the gas based power plants has been made by GAIL, the Ministry submitted the following information:

“Apart from domestic Gas (APM/Non-APM) allocation in accordance with MoP&NG directions from time to time, GAIL has long term RLNG tie-ups with following gas-based Power plants in the country for supply of power to the grid:

- RGPPL, Ratnagiri (Maharashtra)
- IPGCL, Delhi
- PPCL, Delhi
- PPCL Bawana
- NTPC (Anta)
- NTPC (Auraiya)
- NTPC (Dadri)
- NTPC (Faridabad)

Further, short term tie ups are also done with NTPC plants, Sravanthi Energy Pvt. Ltd. (Uttarakhand) & Gama Infraprop Pvt. Ltd. (Uttarakhand) from time to time. All such tie ups added together are in the range of 6 to 7 MMSCMD. Actual offtake under these contracts varies based on their power offtake schedules”.

1.42 When asked as to whether natural gas is provided to fertilizer companies as per requirements of agricultural sector, the Ministry submitted the following information:

“As per policy and/or pricing guidelines issued by MoP&NG from time to time. Natural Gas is being supplied to Fertilizer companies for production of Urea in accordance with the domestic gas allocation made to fertilizer industries and balance requirement is met with Imported RLNG”.

### **Impact of Covid-19**

1.43 On being asked about the impact of COVID-19 pandemic on the progress of project under National Gas Grid, the Ministry submitted the following information:

“Pipeline Entities’ have informed about serious impacts of the ongoing pandemic and related disruptions on the project schedule which are outlined as:

- (i) Non-availability of required manpower/labour for suppliers and contractors. Further due to the return of migrant workers back to their respective home towns, there is bound to be a shortage of skilled workforce and labour for execution of the pipeline projects. Maintaining social distancing is likely to continue for some more time and would also affect the pace of execution of the projects
- (ii) Closure of the manufacturing units during lockdown causing likely delay in availability of steel coils for the manufacture of line pipes.
- (iii) Anticipated delay in approval process by the State Government due to their preoccupation with the health emergency.
- (iv) Delay in handing over the RoU, due to the delay in notification of schedule for RoU acquisition and consequent delay in completion of mainline works and inability to hold public objection hearing.
- (v) Pace of engineering activities by EPCM have slowed down. Survey Works and basic engineering activities have been put on hold due to social distancing norms
- (vi) Delay in receipt of various imported items like valves and sub ordered components required in various process equipment like control valves, surge relief system, Fire alarm systems, SCADA and Telecom equipment".

1.44 When as to whether GAIL has made any financial contributions towards PM-CARE Fund for COVID-19 relief activities, the Ministry submitted the following information:

"GAIL and its employees have contributed around Rs.54 crore to PM-CARES Fund. In addition, several CSR measures such as distribution of PPE kits, mask, food and ration etc. to the needy across districts were arranged as a relief measure worth Rs.4.8 crore based on the requests received".

1.45 When asked about the progress of the Indradhanush Gas Grid project in the northeast region and whether any delays are expected in the project due to the prevailing COVID-19 pandemic, the Ministry submitted the following information:

"Presently, project activities like detail survey, ROU acquisition, obtaining required clearances, detail engineering, tendering for procurement of line pipes and other required material including works packages is under way. Govt. of India has also approved Viability Gap Funding to the tune of 60% of the cost of the project. Final authorization of PNRGB is expected shortly.

Due to the prevailing COVID-19 pandemic, the following pre project activities have adversely affected:

- (i) Frequent complete/ weekend lockdowns and restrictions being imposed on the inter district/interstate movement, ROU acquisition activities like serving of 3(i) notification and soil investigation etc. have been affected in the state of Assam and Tripura.
- (ii) Cadastral survey activities have been affected in the state of Meghalaya and Mizoram.
- (iii) Detail engineering survey has been affected in the state of Nagaland, Manipur, Sikkim and West Bengal.

IGGL is, however, taking all required actions to expedite the project activities in spite of Covid-19 constraints by implementing a catch-up plan so that overall project implementation schedule remains unaffected".

## **Chapter – II**

### **PNGRB**

The Petroleum and Natural Gas Regulatory Board Act, 2006 (No. 19 of 2006) (hereinafter referred to as the Act), was passed by the Parliament and got the assent of the President on 31<sup>st</sup> March, 2006.

As per the Preamble, the Act is to provide for the establishment of Petroleum and Natural Gas Regulatory Board to regulate the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas excluding production of crude oil and natural gas so as to protect the interests of consumers and entities engaged in specified activities relating to petroleum, petroleum products and natural gas and to ensure uninterrupted and adequate supply of petroleum, petroleum products and natural gas in all parts of the country and to promote competitive markets and for matters connected therewith or incidental thereto.

With the aim to increase the Natural Gas infrastructure in the country and to implement "One Nation One Gas Grid Policy", PNGRB has authorized approximately 32,559 Km Natural Gas Pipeline Network across the country, as on 30.09.2020, out of this 17,016 Km is operational and 15,543 Km is under various stages of construction. In addition, PNGRB has invited bids for developing 290 Km Natural Gas Pipeline from Langtala to Pachpadra in the State of Rajasthan, to be connected to Mehsana-Bhatinda Natural Gas Pipeline of GIGL.

### **Composition of PNGRB**

2.1 When asked about the composition of PNGRB and whether the Board Members have a fixed tenure, the Ministry in its reply submitted the following information:

"The Board consists of a Chairperson, a Member (Legal) and three other Members who are appointed by the Central Government.

The Chairperson and other Members hold office for a term of five years from the date on which they enter upon their offices or until they attain the age of sixty-five years, whichever is earlier.

The composition of the Board as in the past 5 years is as below:

S. No.	Period	Chairperson	Member (Legal),	Member (1)	Member (2)	Member (3)
1	2020-21	Vacant since 04.12.2020	Vacant since 20.03.2020	Shri Satpal Garg	Vacant since 16.08.2017	Vacant since 19.05.2020
2	2019-20	Shri D.K. Sarraf	Dr. S.S. Chahar (till 19.03.2020)	Shri Satpal Garg	Vacant since 16.08.2017	Shri. S. Rath
3	2018-19	Shri D.K. Sarraf	Dr. S.S. Chahar	Shri Satpal Garg	Vacant since 16.08.2017	Shri. S. Rath
4	2017-18	Vacant- 1.4.2017 to 3.12.2017 Shri D.K. Sarraf (from 04.12.2017)	Vacant- 1.4.17 to 3.12.17 Dr. S.S. Chahar (from 04.12.17)	Vacant- 1.4.17 to 26.7.17 Shri Satpal Garg (from 27.07.17)	Dr Basudev Mohanty - till 15.08.17; Vacant from 16.08.17 to 31.3.2018	Vacant- 1.4.17 to 3.12.17 Shri. S. Rath (from 04.12.2017)
5	2016-17	VACANT	Shri S. C. Batra (till 31.12.16) Vacant from 01.01.2017	Shri P K Bishnoi till 02.7.2016; Vacant from 01.4.2016 to 03.7.2016	Dr. Basudev Mohanty	Shri K. K. Jha (till 06.01.17) Vacant from 07.01.2017

2.2 When the Committee desired to know what steps have been taken to fill up the vacancies in the board, during the oral evidence, a representative of PNGRB made the following submission:

"I really thank you very much for raising this issue because this helps us also and we are able to work well. You rightly mentioned that Mr. D.K. Sarraf retired on 3<sup>rd</sup> December, just 20 days back. Till then we were having quorum and we were functioning. टोटल पांच की स्ट्रेंथ है और कोरम दो का है। यह प्रॉब्लम अभी पिछले 20 दिन में अराइज हुई है। उनके रिटायर होने से पहले हमने एक काम किया था कि बोर्ड ने कुछ फंक्शन्स मुझे डेलीगेट कर दिए हैं। जिससे मैं उतना काम कर पा रहा हूँ सिर्फ एक्ट के सैक्शन 58 में बार है कि रेग्युलेशन बनाने के काम को डेलीगेट नहीं किया जा सकता है। इसके अलावा मेजर डिसीजन नहीं ले सकते हैं, बाकी डे-टू-डे वर्क कर सकते हैं, जिनको मैं कर पा रहा हूँ।"

Normally, the tenure of a Member or the Chairperson of the Board is for 5 years or till they attain the age of 65 whichever is earlier. In the case of Mr. D.K. Sarraf, his term was for 3 years only and it expired on 3<sup>rd</sup> December. एक मैम्बर लीगल मार्च में रिटायर हुए थे और दूसरे मैम्बर टेक्निकल मई में रिटायर हुए थे। एक मैम्बर की पोस्ट अगस्त, 2017 से खाली है। इनके लिए प्रोसेस चल रहा है। वैसे तो इस काम को मिनिस्ट्री करती है, लेकिन अभी दो मैम्बर्स की विजिलेंस क्लीयरेंस वगैरह का काम चल रहा है। मैम्बर लीगल के लिए कोई स्यूटेबल पर्सन नहीं मिला था इसलिए इसको रीएडवर्टाइज कर रहे हैं। चेंयरमैन के लिए भी अप्लीकेशंस ऑलरेडी आ चुकी हैं और उनके अपॉइंटमेंट का भी प्रोसेस चल रहा है।

2.3 When asked to furnish an updated note on the vacancy position of PNGRB and when these vacancies arose and the steps taken to fill the same and by when the process is expected to be completed, the Ministry submitted the following information:

"At present, the Board consist of a single Member. Selection and Appointment of Chairperson and Members is under the purview of the Ministry of Petroleum and Natural Gas. The matter regarding appointment of Member(s) and Chairperson in PNGRB is at advance stage in Ministry of Petroleum and Natural Gas".

2.4 When asked as to whether PNGRB ensure that the decisions were taken with a majority and about the problem of quorum is resolved, the Ministry submitted the following reply:

"There statutory obligations towards the Board Meetings are governed by The Petroleum and Natural Gas Regulatory Board (Meetings of the Board) Regulations, 2007, that state:

1. Three Members of the Board, including Chairperson or in his absence the Member presiding over the meeting, shall constitute the quorum for transaction of business at a meeting of the Board:

Provided, in case the Board has at any times less than five Members due to vacancy or any other reason, two Members of the Board, including Chairperson or in his absence the Member presiding over the meeting, shall constitute the quorum for transaction of business at a meeting of the Board.

2. All questions which come before any meeting of the Board shall be decided by a majority vote of the Members present and voting and in the event of any equality of votes, the Chairperson, or in his absence, the Member presiding over the such meeting, shall have a second or casting vote:

Provided that, in case of a meeting where only two members are present, including Chairperson or in his absence the Member presiding over the meeting, who duly constitute the quorum, then in such circumstances, Chairperson or the Member presiding over the meeting, shall not have the second or casting vote".

### **Mandate/functions of the PNGRB**

2.5 The Committee note that mandate of PNGRB covers notified petroleum products and natural gas. However, it has also been informed that no petroleum product or natural gas have been notified as yet. When the Committee asked as to whether PNGRB regulate the issues pertaining to petroleum products and natural gas, the Ministry submitted the following reply:

"As none of the Petroleum, Petroleum Products and Natural Gas have been notified by the government, the Board is not carrying out the following functions mentioned in the Section 11 of the PNGRB Act, 2006.

- (a) registration of entities to market notified petroleum and petroleum products and, subject to the contractual obligations of the Central Government, natural gas;
- (b) functions in respect of notified petroleum, petroleum products and natural gas -
  - i. ensure adequate availability;
  - ii. ensure display of information about the maximum retail prices fixed by the entity for consumers at retail outlets;
  - iii. monitor prices and take corrective measures to prevent restrictive trade practice by the entities;
  - iv. secure equitable distribution for petroleum and petroleum products;
  - v. provide, by regulations, and enforce, retail service obligations for retail outlets and marketing service obligations for entities;
  - vi. monitor transportation rates and take corrective action to prevent restrictive trade practice by the entities".

2.6 When asked about the powers of PNGRB and the rules that have been notified, the Ministry submitted the following information:

"The current powers and functions of the Board, drawn from Section 11 of the PNGRB Act, 2006, state that the Board shall:

- a. protect the interest of consumers by fostering fair trade and competition amongst the entities;
- b. register entities to-



- i. market notified petroleum and petroleum products and, subject to the contractual obligations of the Central Government, natural gas; \*
  - ii. establish and operate liquefied natural gas terminals;
  - iii. establish storage facilities for petroleum, petroleum products or natural gas exceeding such capacity as may be specified by regulations;
- c. authorize entities to-
- i. lay, build, operate or expand a common carrier or contract carrier;
  - ii. lay, build, operate or expand city or local natural gas distribution network;
- d. declare pipelines as common carrier or contract carrier;
- e. regulate, by regulations, -
- i. access to common carrier or contract carrier so as to ensure fair trade and competition amongst entities and for that purpose specify pipeline access code;
  - ii. transportation rates for common carrier or contract carrier;
  - iii. access to city or local natural gas distribution network so as to ensure fair trade and competition amongst entities as per pipeline access code;
- f. in respect of notified petroleum, petroleum products and natural gas \*-
- i. ensure adequate availability;
  - ii. ensure display of information about the maximum retail prices fixed by the entity for consumers at retail outlets;
  - iii. monitor prices and take corrective measures to prevent restrictive trade practice by the entities;
  - iv. secure equitable distribution for petroleum and petroleum products;
  - v. provide, by regulations, and enforce, retail service obligations for retail outlets and marketing service obligations for entities;
  - vi. monitor transportation rates and take corrective action to prevent restrictive trade practice by the entities;
- g. levy fees and other charges as determined by regulations;
- h. maintain a data bank of information on activities relating to petroleum, petroleum products and natural gas;
- i. lay down, by regulations, the technical standards and specifications including safety standards in activities relating to petroleum, petroleum products and natural gas, including the construction and operation of pipeline and infrastructure projects related to downstream petroleum and natural gas sector;
- j. perform such other functions as may be entrusted to it by the Central Government to carry out the provisions of this Act. On 01.07.2020, Government issued directive u/s 42 of the Act, assigning function u/s 11(j)

of the Act to PNGRB for regulating the establishment and operations of gas trading exchange(s).

\*As none of the Petroleum, Petroleum Products and Natural Gas have been notified by the government, the Board is not in a position to undertake functions such as (b) (i) and (f) above.

The Board also has certain Powers regarding complaints and resolutions of disputes, as enumerated below:

(1) The Board shall have jurisdiction to:

(a) adjudicate upon and decide any dispute or matter arising amongst entities or between an entity and any other person on issues relating to refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas according to the provisions of Chapter V, unless the parties have agreed for arbitration;

(b) receive any complaint from any person and conduct any inquiry and investigation connected with the activities relating to petroleum, petroleum products and natural gas on contravention of-

(i) retail service obligations;

(ii) marketing service obligations;

(iii) display of retail price at retail outlets;

(iv) terms and conditions subject to which a pipeline has been declared as common carrier or contract carrier or access for other entities was allowed to a city or local natural gas distribution network, or authorisation has been granted to an entity for laying, building, expanding or operating a pipeline as common carrier or contract carrier or authorisation has been granted to an entity for laying, building, expanding or operating a city or local natural gas distribution network;

(v) any other provision of this Act or the rules or the regulations or orders made there under.

(2) While deciding a complaint under sub-section (1), the Board may pass such orders and issue such directions as it deems fit or refer the matter for investigation according to the provisions of Chapter V of the PNGRB Act.

**The Rules that have been notified are:**

1. PNGRB (Salary, Allowances and other Conditions of Service of Chairperson and Members) Rules, 2006.
2. PNGRB (Salary, Allowances and other Conditions of Service of Secretary) Rules, 2006.
3. PNGRB (Annual Report) Rules, 2006.

4. PNGRB (Payment of Compensation) Rules, 2006.
5. PNGRB (Procedure for Appointment of a Person or Constitution of an Authority for Conducting Inquiry against Chairperson or a Member) Rules, 2006.
6. PNGRB (Eligibility Conditions for Registration of Liquefied Natural Gas Terminal) Rules, 2012.
7. PNGRB (Annual Statement of Accounts and Records) Rules, 2017.
8. PNGRB (Salary, Allowances and other Conditions of Service of Officers and Employees) Rules, 2020".

2.7 When asked as to whether Ministry is planning to increase the role of PNGRB in petroleum sector, the Ministry replied that presently there is no proposal under consideration of the Ministry.

#### **Sources of funds/revenue for PNGRB**

2.8 When asked about the sources of funds/revenue of PNGRB and its budgetary allocation, annual income, profitability and funds spent on various accounts during the last three years, the Ministry stated as under:

"Sources of fund/revenue of PNGRB, budgetary allocation, annual Income, profitability and funds spent are tabulated below:

₹in Crore

	2017-18	2018-19	2019-20
<b><u>Budgetary allocation</u></b>			
Salary Head	7.97	10.47	9.19
General Head	10.37	18.25	9.90
<b>Total Grant-in-Aid</b>	<b>18.34</b>	<b>28.72</b>	<b>19.09</b>
<b><u>Source of funds/revenue of PNGRB</u></b>			
Levy of Other Charges	2.56	4.13	23.4
Interest on Deposits	7.45	12.29	17.72
Penalty	27.57	1.55	4.04
Other receipts excl. grants	0.98	75.21	2.44
<b>Total Income</b>	<b>38.56</b>	<b>93.18</b>	<b>47.60</b>
<b>Grant-in-Aid received</b>	<b>18.34</b>	<b>28.72</b>	<b>19.09</b>
<b>Annual Income</b>	<b>56.90</b>	<b>121.90</b>	<b>66.69</b>

Fund Spent on various accounts			
Salary Head	9.36	13.55	12.69
General Head	16.51	26.25	8.87
<b>Total Spent *</b>	<b>25.87</b>	<b>39.80</b>	<b>21.56</b>
<b>Profitability</b>	<b>31.03</b>	<b>82.10</b>	<b>45.13</b>

*\* The amount spent on expenses over and above the Grant-in-Aid received has been met from PNGRB Fund.*

2.9 When asked about the sources of revenue other than budgetary allocation, during the oral evidence, it was further informed that:

"So far as source of funds is concerned, we are now more or less self-sufficient. We have revenue from other charges and we levy certain penalties on the companies who are not able to perform. So, these funds take care of our day-to-day expenditure. So, whatever budget we have, we are able to take care of that out of our own revenues. We are meeting the entire budget of PNGRB from our internal resources".

### Regulatory provisions of CGD Progress

#### 2.10 Regulatory Provisions for Monitoring of CGD Projects

(a) An authorised entity shall abide by all the terms and conditions specified in the regulations and any failure in doing so shall be dealt in accordance with the provisions laid down in the regulations. Accordingly, the entities are required to submit information to the Board in a prescribed format on a regular basis. The Board in line with the submissions monitor the progress of the entity in achieving various targets with respect to the CGD network project, and in case of any deviations or shortfall, advise remedial action to the entity by calling entities for progress review meeting(s) or statutory hearings under relevant provisions of extant Regulations to discuss the issues faced and latest status regarding achievements made with respect to laying of Inch-Km pipeline and PNG connections in their authorized Geographical Areas (GAs). In case the authorized entity despite giving an opportunity fails to comply or has shortfall in achieving the targets as specified in terms and conditions of Authorization, requisite

action(s) is taken in line with the provisions of extant Regulations. PNGRB conducts Review Meetings/Hearings for every authorized CGD network to discuss their latest developments and the issues faced by them in implementing and executing the authorized CGD project.

(b) In case the Board, on an application of an affected party or on its own, is satisfied that the authorized entity has failed to comply with any conditions of authorisation can either suspend the authorisation for such period or cancel the authorisation as per Section 23 of the Act, i.e., Suspension or cancellation of authorisation.

### **Open Access to the CGD networks**

2.11 With the notification of CGD Guiding principles and amendment in the CGD Access code regulations, provisions are now available for opening up of the CGD business in the CGD networks.

These regulations are to regulate the open access and to protect the interest of consumers and entities by fostering fair trade and competition. Once the CGD networks, for which marketing exclusivity has been expired, shall be declared as common carrier or contract carrier, open access will be provided to the third party for using these authorized CGD networks. This will result in overall development of the CGD networks and increase in share of natural gas in the energy basket of India.

PNGRB will now be initiating action for taking up the process for declaration of CGD Networks that have completed its exclusivity period, as Common Carrier or Contract Carrier.

### **Online Portal for CGD**

2.12 (a) PNGRB has initiated action for development of Online Reporting Portal for authorized City Gas Distribution networks, Natural Gas Pipelines and Petroleum & Petroleum Product Pipelines across the Country. In this regard, the development work of the online portal for the City Gas Distribution (CGD) Networks has been implemented.

(b) The system, that has been developed and put in place, envisages effective monitoring of CGD Infrastructure in the Country and would also help in the generation of various types of Reports required from time to time.

(c) The Online Reporting Portal covers the compilation and monitoring of various parameters such as Piped Natural Gas Connections, Pipeline Infrastructure, CNG Stations and Sale of Natural Gas etc. for all the authorized CGD Networks in the Country.

### Quality of Service

2.13 To Protect the interest of consumers by fostering fair trade and competition amongst the entities, PNGRB has notified, "Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010". These regulations lay down code of practice for promoting reliable service to consumers and the public and obligations of consumers besides conforming to minimum levels of service to be provided by the entity authorized for laying, building, operating or expanding CGD Networks in a geographical area.

2.14 When asked about the role of PNGRB Board to ensure healthy competition in PNG/CGD networks, the Ministry submitted the following information:

"There has been a steady increase in the consumption of PNG and CNG in the last five years, which is expected to increase in the coming years. However, PNGRB has no power over allocation of natural gas. Such allocation is done by MoPNG, therefore this data may be provided by MoPNG".

### Gas Exchange

2.15 When asked whether the PNGRB is planning to go ahead with Gas exchange and whether it obtained necessary approvals for the same, the Ministry in its written reply submitted as under:

a. "PNGRB vide letter dated 1<sup>st</sup> July 2020 received policy directives u/r 42 of PNGRB Act, 2006 where Central Government assigned a function under Section 11 (j) for regulating the establishment and operations of gas exchange(s) which is expected to secure equitable distribution and increase availability of natural gas by creating a free gas market to usher in gas-based economy in the country. In this regard, PNGRB has authorized India Gas Exchange on 02.12.2020 for working as Gas Exchange in the country.

b. Gas Exchange provides a digital platform that brings producers, suppliers, aggregators, marketers, traders, infrastructure providers and customers together and integrate the market in a real time and in an open, transparent and non-discriminatory manner. Just like a competitive bidding process, gas price is determined by interaction of numerous sellers and buyers. Sellers do not have any visibility on who are their potential buyers. Gas price determined on an exchange is therefore considered as an arms-length, transparent, truly competitively discovered market price.

c. Further to increase liquidity of gas in the market by facilitating its trading on the Gas Exchange, following decisions are required from the Government:

- i. modification in the Gas allocation/ utilization policy so as to make sizeable percentage of natural gas available for trading in the Gas Exchange;
- ii. separation of gas transportation and marketing functions initially with legal separation and laying down roadmap for ownership separation;
- iii. to set up an independent Transmission System Operator (TSO) or NGGMS.
- iv. to bring natural gas under the ambit of GST.

Setting up an independent TSO under item iii. is already announced by Hon'ble Finance Minister in its 2021 Budget Speech. The decision on the other items is yet to be received from the Government.

2.16 Further elaborating on the issue during the oral evidence, the representative of the PNGRB submitted as under:

“हमने सितम्बर, 2020 में गैस एक्सचेंज रेगुलेशंस बनाए हैं। हमने 2 दिसंबर, 2020 को इंडियन गैस एक्सचेंज नामक एक कंपनी को गैस एक्सचेंज ऑपरेट करने के लिए ऑथराइज किया है। अभी तक इंडिया में गैस का प्राइस सरकार फिक्स करती है या फिर बिडिंग के द्वारा डिटरमाइन किया जाता है, जहां भी गैस प्राइसिंग फ्रीडम है। हमें गैस एक्सचेंज के आने से एक प्लेटफार्म मिल गया है। हम इसके थ्रू मार्केट प्राइस डिटरमाइन कर सकते हैं। हमने रिसेंटली एलएनजी स्टेशंस पर एक क्लैरिफिकेशन जारी किया है कि एलएनजी स्टेशंस कोई भी सेटअप कर सकता है। यह जरूरी नहीं है कि सिर्फ ऑथराइज्ड एनटिटी ही एलएनजी स्टेशंस लगा सकती है। अगर कोई चाहता है तो वह किसी भी एरिया में एलएनजी स्टेशंस लगा सकता है। आदरणीय मंत्री जी ने रिसेंटली 50 एलएनजी स्टेशंस का उद्घाटन किया था। यह एक शुरुआत है और अगले चार-पांच वर्षों में देश में 1,000 नए एलएनजी स्टेशंस आ सकते हैं। इसके साथ ही देश में काफी इन्वेस्टमेंट और एम्प्लॉयमेंट जनरेट होगा।”

### **PNGRB and Pipeline Projects**

2.17 When asked as to how many authorizations for laying of pipeline are pending with PNGRB presently, the Ministry in its written reply submitted the following information:

"At present, Authorization of three Tie-in connectivities are pending with the Board, which would be deliberated, once the quorum of Board is available.

Sr. No	Name of Tie-in connectivity	Entity	Date of receipt	Details
1.	Bokaro CBM Block to Jagdishpur-Haldia-BokaroHaldia Natural Gas pipeline (JHBDPL)	GAIL	04.05.2020	Length: 23 km. Dia.: 12" Capacity: 0.991 MMSCMD including Common Carrier
2.	Jharia CBM block to JHBDPL pipeline	GAIL	04.05.2020	Length: 6 km. Dia.: 8" Capacity: 0.869 MMSCMD including Common Carrier
3.	Swan LNG Private Limited's FSRU based LNG terminal, Jafrabad to GPPC Terminal, Jafrabad	Gujarat State Petronet Limited (GSPL)	20.11.2019	Length: 3 km. Dia.: 30" Capacity: 18 MMSCMD including Common Carrier

PNGRB has also invited bids for development of following Natural Gas pipeline and Petroleum and Petroleum Products pipeline, which would be subsequently authorized to successful entities, on completion of bid evaluation process of each pipeline respectively:

Sr.No	Name of Pipeline	Bid submission start date	Bid Opening date	Details of pipeline
<b>Natural Gas pipeline</b>				
1.	Langtala - Pachpadra Natural Gas Pipeline	01.12.2020	01.07.2021	Length: 290 km. Capacity: 4 MMSCMD
<b>Petroleum and Petroleum Products pipeline</b>				
2.	Jawaharlal Nehru Port Trust (JNPT), Navi Mumbai to Navi Mumbai International Airport (ATF) pipeline	10.09.2020	10.05.2021	Length: 15 km. Capacity: 2 MMTA
3.	Devangonhi - Chitradurga (Karnataka) Petroleum and Petroleum Products pipeline (DCPL) *	10.06.2019	28.10.2019	Length: 230 km. Capacity: 1 MMTA

(\*DCPL pipeline is under financial Bid evaluation stage for which authorization would be granted after vacation of stay imposed by APTEL)

In addition to the above, PNGRB has received the Expression of Interest (Eoi)/Proposal from various entities to develop following Natural Gas pipeline and Petroleum Products pipeline, on which the Board will take decision on the basis of their techno-commercial feasibility and supply/demand scenario:



Sr.No	Name of Pipeline	Entity	Date of receipt of EoI	Details of pipeline
<b>Natural Gas pipeline</b>				
1.	Jamnagar-Dwarka Natural Gas spurline	GSPL	18.01.2021	Length: 100 km Capacity: 3 MMSCMD Dia.: 18"
2.	Kondapalli-Tirupati Natural Gas pipeline	GAIL	17.11.2020	Length: 450 km Capacity: 4 MMSCMD
3.	Anjar-Palanpur Natural Gas spurline	GSPL	21.12.2020	Length: 274 km Capacity: 12 MMSCMD Dia.: 30"
<b>Petroleum and Petroleum Products pipeline</b>				
4.	Palwal to Jewar Airport Petroleum and Product pipeline (ATF)	Indian Oil Corporation Limited	24.12.2020	Length: 36 km Capacity: 2.5 MMTPA Dia.: 14"
5.	Kandla-Samakhiali Petroleum and Petroleum Products (LPG) pipeline	IMC Limited	17.10.2018	Length: 70 km Capacity: 1.2 MMTPA
6.	Paradip to Hyderabad Petroleum Products pipeline *	AARDVARK Developers LLP & H Energy Private Limited	09.05.2017	Length: 1150 km Capacity: 4.5 MMTPA
7.	Paradip-Haldia-Durgapur-Patna-Muzaffarpur-Raxal Petroleum Products pipeline *	AARDVARK Developers LLP	10.04.2017	Length: 1388 km Capacity: 1.5 MMTPA
8.	Ennore to Madurai Petroleum and Petroleum Product pipeline *	IMC Limited	20.12.2016	Length: 526 km Capacity: 1.5 MMTPA
9.	Dhamra to Asanol/Duttpulia Petroleum and Petroleum Product (LPG) pipeline *	Adani Gas Limited	02.04.2016	Length: 650 km Capacity: 1.60 MMTPA

(\*These EoIs have been kept on hold as IOCL is laying pipeline on the same route)

2.18 When asked as to how far this vision has been realised by PNGRB in the last five years, the Ministry submitted the following information:

"In terms of growth of infrastructure to cater uninterrupted supply of Natural Gas and Petroleum and Petroleum Products on pan India basis, PNGRB authorized

around 9959 km Natural Gas pipeline and 5210 km long Petroleum and Petroleum Products pipeline in last five years.

As on 31.03.2017, there were around 35.22 Lakh PNG domestic connections and 1,141 CNG Stations operational across the country. Further, as on 28.02.2021, there are 76.05 Lakh PNG domestic connections and 2,830 CNG Stations are operational across the country.

During the last five years, approx. 40.83 Lakh PNG domestic connections and 1,689 CNG stations have been added in the gas infrastructure of the country.

2.19 When asked about the problems that are being faced by the PNGRB in respect of laying of pipelines for any gas distribution network, the Ministry submitted the following:

"Laying of the pipelines (Steel and MDPE) is the part of development of CGD Networks and the same is carried out by the entities authorized by PNGRB. Based on interaction with various entities during review meetings and other communications, CGD Entities have conveyed that they face difficulties in obtaining multiple permissions from multiple statutory authorities like State Industrial Development Corporation, Pollution Control Board – Central & State, Forest Department, Irrigation Department, NHAI, MoEF & CC, Railways, SEZ, PESO etc. in a time bound manner and is the major hurdle being faced by them in development of CGD Networks in various States".

2.20 On being enquired about the problems with obtaining clearances from other governmental agencies for laying pipelines and bottlenecks faced by PNGRB, the Ministry submitted as under:

"Obtaining permissions/ clearances from various statutory authorities, is the sole responsibility of the authorized entity. However, with the aim to facilitate the project, as and when it requires, PNGRB often sends requests to the concerned authorities for expediting the same".

### Litigations

2.21 When enquired about any instance of litigation between PNGRB and CGD companies and the outcome of such legal proceedings, the Ministry submitted the following information:

"Yes, there are litigation pending between PNGRB & CGD Entities, the list repressing the cases pending before APTEL, High Court & Supreme Court details of same are provided in Annexure-VII.

The outcome of the proceedings varies upon case-to-case basis, however, the list of some cases representing the issues related to CGD Entities are provided in Annexure-VIII".

2.22 When asked about the litigations pending with/against PNGRB and the mechanism evolved for defending the cases, the Ministry submitted the following information:

"PNGRB has drawn a panel of counsel for its assistance and representation before various forums. Moreover, PNGRB also take assistance/legal advice from Ld. Attorney General of India, Solicitor General of India, Add. Solicitors General of India and other Senior Advocates".

2.23 Further, elaborating on the issue during the oral evidence, it was submitted that:

"... we have a good number of litigations because entities have a habit of going to the court on the smallest pretext. In APTEL, we have 36 cases. In High Court, we have 25 and in the Supreme Court, we have 12. APTEL is the body against whom the PNGRB's appeal goes and then there is High Court and the Supreme Court.

... So, the litigation system in PNGRB, people can go to APTEL which is a special terminal for handling cases of PNGRB and electricity sector. So, that is APTEL. Thereafter, it goes to Supreme Court".

2.24 Clarifying on arbitration, it was further informed that:

"... आर्बिट्रेशन वाले केसेज हमारे परव्यू में नहीं आते हैं, लेकिन लिटिगेशन के केसेज या तो एपटेल में होते हैं या फिर सुप्रीम कोर्ट में होते हैं। वहां हम अपने आपको डिफेंड करते हैं। हमारा सक्सेस रेट ठीक-ठाक ही है, अच्छा है तो लिटिगेशन की इतनी प्रॉब्लम नहीं है।

2.25 When the Committee sought to know whether PNGRB is appointing any special advocate for defending the cases, it was informed that:

"We have a panel of advocates whom we engage for handling the cases in APTEL. Sometimes, we also engage senior advocates also for the cases which are in the High Courts and Supreme Court for which we do not have a fixed panel. So, looking at the case, we engage advocates".

2.26 When asked to furnish a detailed note on the Dispute Resolution Mechanism adopted by PNGRB, the Ministry submitted as under:

"At present, there is no scope of the ADR Mechanism in the cases related to PNGRB. Moreover, PNGRB adjudicate the compliant in accordance with

Section 25 and settle/adjudicate the disputes in accordance with Section 24 of the Act”.

2.27 When asked how does the Board ensure level playing field in ensuring fair trade practices among the competing entities in various activities of petroleum sector like laying of infrastructure for transportation of petroleum goods and distribution and marketing of petroleum products, the Ministry submitted as under:

“To ensure fair trade and competition amongst entities, PNGRB has already notified the NGPL Access code regulations and CGD Access code regulations to ensure access to common carrier pipelines and CGD networks.

PNGRB is in the process of revising Uniform Access Code including Operating Code and standard GTA for natural gas pipelines so that, all common carrier and contract carrier capacity can be booked through an independent Transmission System Operator (TSO) in a transparent manner.

Further, PNGRB follows the transparent competitive bidding process for authorizing entities for laying, building, operating or expanding Natural gas pipelines, Petroleum product pipelines and development of CGD networks.

As on date, Petroleum Products and Natural Gas have yet to be notified by the government, accordingly activities related to marketing of petroleum products is not under purview of the PNGRB”.

2.28 When enquired about how many contractors have been penalized/blacklisted and fines levied for not completing the work within the stipulated time, the Ministry submitted as under:

“As per the NGPL, PPPL and CGD Authorization Regulations, the Board shall allow a reasonable time to the authorized entity for fulfilling its obligations under the extant Regulations. However, in case of failure to take remedial action by the entity, the Board may initiate penal action as per the Regulations”.

### **Safety issues**

2.29 When asked about the recent initiatives taken to improve the safety of gas stations, the representative of the PNGRB informed that:

“..... हम लोग सेफ्टी पर काफी काम कर रहे हैं। इसे टी-4 एस रेगुलेशंस बोलते हैं। हमने टेक्नोलॉजिकल चेंजेज पर बेस्ड कई सारे रेगुलेशंस को अपडेट किया है। कई नए रेगुलेशंस भी बनाए गए हैं। जैसे पहले पेट्रोलियम इंस्टालेशन के लिए सेफ्टी रेगुलेशंस नहीं थे। हमने उनके लिए नए रेगुलेशंस बनाए हैं। जैसे ऑयल टर्मिनल्स होते हैं, डीपोज़ होते हैं, वहां क्या सेफ्टी प्रिकॉशन लेने

चाहिए, उसके लिए रेगुलेशंस बनाए गए हैं। पहले एलएनजी डिस्पेंसिंग के लिए भी सेफ्टी रेगुलेशंस नहीं थे, वह भी बनाए गए हैं।

हमने अमेरिकन सोसायटी ऑफ मैकेनिकल इंजीनियर्स के साथ एक एमओयू साइन किया है, जो यूनाइटेड स्टेट्स का एक प्रतिष्ठित रेगुलेटर है। उनके साथ एमओयू करने से यह फायदा होगा कि जो डेवलपमेंट्स वहाँ होंगी, हम उनको इंडिया में भी अप्लाई कर सकते हैं।

इसी तरह से, सेफ्टी रेगुलेशन बनाने के बाद यह चेक करना होता है कि उन रेगुलेशंस को कम्पनीज फॉलो कर रही हैं या नहीं? उसके लिए हम थर्ड पार्टी इंस्पेक्शन एजेंसीज एप्वाइंट करते हैं। लगभग 70 ऐसी इंस्पेक्शन एजेंसीज हैं, जो इन एनटिटीज को इंस्पेक्ट करती हैं कि वे सेफ्टी रेगुलेशंस फॉलो कर रहे हैं या नहीं?

एक एमरजेंसी रिस्पांस डिजास्टर मैनेजमेंट प्रोग्राम (ईआरडीएमपी) है। एनटिटीज के लगभग 500 से ज्यादा डॉक्यूमेंट्स थे, जिनको टीपीआइज के द्वारा चेक करवाए गए हैं। इन डॉक्यूमेंट्स को कम्पनीज के बोर्ड्स ने भी अप्रूव कर दिए हैं।

2.30 On being asked about accidents that have taken place in the last five years in CNG and PNG outlets/pipelines and the nature of accidents, the Ministry submitted as under:

"Entities have reported the following major incidents in CNG and PNG outlets/pipelines in last 5 years: -

Year	2016-17	2017-18	2018-19	2019-20	2020-21
Number of accidents	31	16	16	12	15

2.31 When the Committee sought to know further about the main types of accidents and action taken thereto, the representative of PNGRB submitted that:-----

"... whenever any major accident takes place, we have defined major accident as an accident in which a fatality has taken place or fire has lasted for more than 15 minutes or it has led to shut down of the plant or there is a loss of more than Rs.20 lakh. So, we have a defined regulation called, ERDMP, Emergency Response and Disaster Management Plan. In that we have defined which of these accidents are to be investigated by the respective entity. We have defined what kind of committee they have to constitute. They have to submit their recommendations to us. In some of the major incidents where we find the disaster is much bigger or we find the gravity is much higher, then in that case, we appoint our own investigation team and that investigation team investigates the incident and submits its report to the Board. In that report what they cover is, what are the causes of failure and what are the recommendations to prevent it in the future. They identify that. These recommendations are collated on the

accidents and shared with the industry through the meetings and we also webhost it on our portal so that everyone can take action on that. We also do regular follow up with the industry against the compliance of those recommendations.

In addition to that, the reports of these committees are put up to the Board of the respective entity so that the entire company Board takes cognizance of that and the Action Taken Report of the Board is again submitted back to the PNGRB. So, the system is strengthened. In the past we had observed that there was gross negligence like there was an accident in GAIL, Tatipaka in 2014 where the Board has also imposed a penalty on the entity for non-compliance with the regulation in line with the Act. So, that way we have a very structured system and we regularly hold capacity building workshop with the industry where these incidents are presented and learnings are shared. The technical experts share their views as to how to reduce such incidents in the future. If any change is required in our regulations, we change and update our regulations".

2.32 On being asked about actions that have been taken in regard to those accidents and the compensation paid out to those affected by such incidences, the Ministry submitted the following information:

"Majority of the incidents are due to: -

- a. Fire due to rupture/ breakage/ leakage of underground gas lines due to excavation jobs done by different service providers/ third party without the knowledge of the entity.
- b. Disposal of garbage over the MDPE (plastic) lines and subsequent burning of garbage leading to failure of gas lines and fire.
- c. Bursting of CNG cylinders at the time of filling due to use of spurious CNG cylinder by vehicle owner.

"Actions taken in regard to those incidents: -

- a. Each accident had been investigated by a multidisciplinary team comprising senior officials not directly involved in the activity where accident had taken place. Reports are submitted by the entity within 30 days from the date of incident to PNGRB.
- b. Compliance of Action taken Report (ATR) is provided by the entity on recommendations of the enquiry committee to PNGRB so as to prevent recurrence of similar incident in future.
- c. All recommendations of enquiry committee of accidents across the CGD industry have been compiled by PNGRB and shared with all CGD entities to prevent recurrence of similar accident in future.

- d. Workshops are organized by PNGRB with all Industry members at regular intervals where major accident cases are discussed for common learning/ sharing of experience amongst all concerned.
- e. PNGRB approved TPIAs (Third Party Inspection Agencies) carry out on site audit and mock fire drill across all CGD installations on behalf of PNGRB once in every five years. This has helped to improve the safety standard of the installations and also brought awareness amongst employees on how to handle emergency in case of outbreak of fire, rescue, relief operations etc".

2.33 When asked about the agency that conducts investigation into such incidents and whether PESO clearance/certificate mandatory for setting up CNG/PNG stations, the Ministry submitted the following information:

"As per PNGRB ERDMP Regulations, all major incidents shall be investigated by multi-disciplinary team to identify the shortfalls, convey root cause and suggest recommendations to prevent reoccurrence of such incidents as under;

- i. A multidisciplinary team consisting of senior level officials from other industries constituted by PNGRB on case-to-case basis.
- ii. A multi-disciplinary team of senior officials constituted by entity from within the industry".

It was also informed that PESO clearance is a mandatory requirement for setting up CNG/PNG stations".

2.34 When asked whether there is any Public Liability Insurance Policy for consumers similar to LPG consumers provided by OMCs, the Ministry submitted the following information:

"Yes. In compliance of Regulation 9(1) of PNGRB (ERDMP) Regulations 2010, it is mandatory to comply with the Public Liability Insurance Act 1991 and accordingly CGD entities are required to have "Public Liability Insurance Policy" for consumers".

### **Bidding Rounds**

2.35 When asked to furnish details of the 8th and 9th round of bids by MoPNG their terms and conditions along with their progress and whether the terms and conditions and timelines are being complied as agreed upon, the Ministry submitted the following information:

"The 8<sup>th</sup> CGD Bidding round was launched on 22.11.2016 and the following GAs were bid out for development of CGD Network:

Sr. No.	GA Name	State	Authorized entity	Date of authorization
1	South Goa District	Goa	Indian-Oil Adani Gas Private Limited	07.02.2018
2	Karnal District	Haryana	Indraprastha Gas Limited	08.02.2018
3	Ambala&Kurukshetra Districts	Haryana	HPOIL Gas Private Limited	02.07.2019
4	Kolhapur District	Maharashtra	HPOIL Gas Private Limited	02.07.2019
5	Bulandshahr (part) District	Uttar Pradesh	Indian-Oil Adani Gas Private Limited	06.03.2018
6	Bagpat District	Uttar Pradesh	Baghpat Green Energy Private Limited	10.04.2019

#### 9<sup>th</sup> CGD Bidding round –

The 9<sup>th</sup> CGD Bidding round was launched on 12.04.2018 for development of CGD network in 86 GAs which included 174 districts (156 full and 18 part), spread over 22 States and Union Territories in the country covering 24% of India's geographical area and 29% of its population. More than 400 bids were received in respect of all the 86 GAs offered in the bidding round.

With the aim to achieve the assigned targets, PNGRB closely monitors the progress of CGD projects across the country. However, COVID-19 pandemic has impacted the progress of CGD projects in the country".

2.36 PNGRB have further informed that In order to further expand the CGD Network, PNGRB is in the process of finalizing the list of GAs for the 11<sup>th</sup> bidding round. A tentative list of 44 GAs (120 districts & 1-part district) was web-hosted on 4<sup>th</sup> February, 2020 seeking views and suggestions from various stakeholders. The launch of 11<sup>th</sup> CGD bidding round has, however, been delayed due to the current COVID-19 pandemic situation.



### **Chapter – III**

#### **CGD Networks**

In order to facilitate speedy implementation of the authorized CGD networks, MoP&NG requested PNGRB to draft a CGD policy, which was formulated with the involvement of the CGD entities and MoP&NG. The Government on 23<sup>rd</sup> January 2020 has released the draft policy that provides guidelines for the State Governments for implementation, which would be beneficial for the overall growth of the CGD sector.

#### **Safety of the City Gas Distribution Networks**

- (a) As mentioned above, PNGRB has notified the PNGRB (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations, 2008. These Regulations cover the design, materials, fabrication, installation, inspection and testing, commissioning, operation, maintenance, modifications and abandonment of CGD network for domestic, commercial and industrial users and apply to all pipelines, distribution mains and piping facilities downstream of inlet isolation valve of city gate station (CGS) up to and including consumer meter for commercial or industrial customer and up to final isolation valve including connecting hose to gas appliance for domestic consumer.
- (b) All entities are required to demonstrate compliance to these regulations through assessment of conformity of various activities at different stages through appropriate certification, monitoring, control and mitigation mechanism including statutory audits, third party inspections etc. by accredited third party agencies at specified periodicity and through appropriate submissions to the Board. The compliance assessment through accredited third-party agencies are an accepted national / international practice.
- (c) Presently, 27NABL accredited Third Party Agencies are empanelled to undertake these inspections/ audits. Further, PNGRB also undertakes compliance assessments through multi-disciplinary teams to check compliance of these Regulations. The compliance status of the recommendations made during these

inspections/ audits is also monitored. However, the prime responsibility for safety of oil and gas pipelines lies with the entity.

### Expansion of CGD Network

3.2 When asked to furnish a note on the role of the Ministry and PNGRB vis-a-vis City Gas Distribution Network, respectively, the Ministry submitted the following information:

"Petroleum & Natural Gas Regulatory Board (PNGRB) is the authority to grant authorization to the entities for the development of City Gas Distribution (CGD) network in Geographical Areas (GAs) as per PNGRB Act, 2006. PNGRB identifies GAs for authorizing the development of CGD network in synchronization with the development of natural gas pipeline connectivity, natural gas availability and techno-commercial viability. Providing PNG (domestic) connections is a part of development of City Gas Distribution (CGD) Network by an authorized entity.

Further, as per Section 42 of PNGRB Act, "The Central Government may, from time to time, by writing issue to the Board such directions as it may think necessary in the interest of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States or public order".

3.3 When asked to provide details w.r.t. the PNG (Piped Natural Gas for domestic households) and CNG (Compressed Natural Gas for vehicular population) consumption during the last five years, the Ministry submitted the following information:

"As per the information submitted by entities to PPAC following is the consumption reported for PNG and CNG:

(in MMSCM)			
Year	PNG	CNG	Total
2015-16	470	3029	3498
2016-17	522	3346	3868
2017-18	589	3737	4326
2018-19	674	4292	4965
2019-20	771	4632	5403

3.4 On being asked about the details of steps taken for increasing PNG households and CNG stations in the next ten years, the Ministry submitted the following information:

"Providing Piped Natural Gas Connections (PNG) to households, commercial & industrial establishments and Compressed Natural Gas (CNG) to vehicles are the part of development of CGD Network and the same is carried out by the entities authorized by PNGRB. Presently, there are 228 Geographical Areas (GAs) authorized by PNGRB for development of CGD Network across the country till 10th CGD Bidding Round.

Remaining areas of the country will be covered in future bidding rounds for development of CGD Network based on availability of natural gas pipeline/ source and techno-commercial viability.

As per information available with PNGRB, as on 28th February, 2021, PNG domestic connections have been provided to approx. 76.05 Lakh households and 2,830 CNG Stations are operational across the country.

Under 9th and 10th CGD Bidding Rounds, CGD entities have made commitment to provide 4.23 Crore PNG Domestic Connections and set up 8181 CNG Stations over a period of 8/ 10 years across the country. In this regard, PNGRB has granted additional time period to CGD entities on account of COVID-19 pandemic, which varies from 129 days to 251 days.

In order to create competition in CGD areas, PNGRB has notified Guiding Principles for declaring City or Local Natural Gas Distribution Networks as common carrier or contact carrier Regulations to provide non-discriminatory open access to third party entities. In order to further increase the coverage of CGD network, which includes both CNG and PNG, PNGRB on 04.02.2020 had released a list of 44 GAs consisting of 120 districts identified on the basis of availability of natural gas source in their vicinity. With implementation of this prospective list proposed for the 11<sup>th</sup> CGD bidding round, the number of districts authorized for development of CGD Network would reach 520 districts, which would cover approximately 70% of the country's Geographical area and 84% of its population".

#### **Geographical Areas under CGD**

3.5 When asked to provide a list of Geographical Areas that have been covered by Natural Gas Pipeline infrastructure in the country, the Ministry submitted the following information:

"List of GAs that have been covered by Natural Gas Pipeline is enclosed as Annexure-IX".

3.6 When asked to provide a list of Geographical Areas that are yet to be covered by Natural Gas Pipeline infrastructure in the country, the Ministry submitted the following information:

"Further, Government is committed to provide Natural Gas to all GAs in the country for the PNG and CNG uses".

3.7 With regard to the development of Geographical Areas (GAs) for increasing the CGD Network, it has been informed that:

"PNGRB, vide Public Notice dated 2nd June, 2020, clarified that any entity can set up an LNG Station in any Geographical Area (GA) or anywhere else, even if it is not the authorized entity for that GA. However, such entity shall comply with the Provisions of the PNGRB Act and regulations made thereunder, such as T4S Regulations. Subsequently, queries of the stakeholders in this regard were addressed by vide Public Notice dated 23rd July, 2020".

During the oral evidence, it was further informed that:

"हमने 230 ज्योग्राफिकल एरियाज़ ऑथोराइज़्ड किए हैं। पिछले महीने इनमें से 2 एरियाज़ कैंसिल कर दिए गए थे, because of some problems. अभी ये 228 एरियाज़ हैं और 400 से ज्यादा जिले कवर्ड हैं। हम लोग सिटी गैस डिस्ट्रिब्यूशन के अंतर्गत 29 राज्यों और 7 यूनियन टेरिटरीज़ को कवर कर रहे हैं। 53 per cent of the geographical area and 70 per cent of the population will have access to CGD network after our last bidding round".

3.8 When asked the criteria of calculating the coverage of population in a particular GA, during the oral evidence, it was further informed that:

"... regarding your question that how do we calculate the coverage of 53 per cent in terms of area and 70 per cent in terms of population, you are very right when you said that even in Delhi, 70 per cent population is not covered. So, how do we do it is that if we have authorised Delhi, so we count that people has access to city gas distribution. So, whether people are taking connection or not taking connection, that is their choice. There may be certain areas where pipeline has not been laid by the authorised company. But then that we take care of when we monitor the progress of that particular area. If there is a certain fixed commitment there in terms of work programme that they have to lay so much steel pipelines and then they have to give so many PNG connections; they have to set up defined number of CNG stations. If they are not completing those targets, then we can take action against those companies. So, this 53 per cent and 70 per cent is basically like if an area has been authorised, so that

entire area and the entire population we consider it as covered by CGD. It will not happen that on day one, that entire area will have CGD connections or gas connections. But over a period of eight to ten years, we expect that the entire area will have either gas connection or they will have an access. Then, it is their choice whether they use LPG or they use piped gas".

It was further submitted that:

"...जो वर्क प्रोग्राम हमने दिया हुआ है, जैसे दिल्ली में आईजीएल है, उन्होंने कहा कि हम एक लाख किलोमीटर की पाइपलाइन ले करेंगे और फर्ज कीजिए कि दिल्ली में 20 चार्ज एरिया हैं, मतलब हमने आगे उसको फिर चार्ज एरिया में डिवाइड किया हुआ है तो उनको सारे चार्ज एरिया कवर करने होते हैं। उन्होंने जितने किलोमीटर लाइन कमिट की हुई है, उतनी पाइपलाइन उनको ले करनी पड़ती है। अगर वे नहीं कर रहे हैं तब हम उनके खिलाफ कार्यवाही करते हैं।"

3.9 When asked about the mechanism after the expiry of the term of a particular geographical area, the representative of the PNGRB informed that:

"अभी पुराने ज्योग्राफिकल एरिया का मार्केटिंग एग्जिक्यूटिव पीरियड पांच वर्षों का होता है। ये समय सीमा काफी एरिया में पहले ही खत्म हो चुकी है। हमने अभी एक गाइडिंग प्रिंसिपल रेगुलेशन पास किया है। उसके साथ-साथ एक्सेस कोड रेगुलेशन को रिवाइज किया गया है और सीजीडी टैरिफ रेगुलेशन बनाने हैं। इन सब रेगुलेशन के बनने के बाद जहां पर मार्केटिंग एग्जिक्यूटिव पीरियड खत्म हो चुका है, हम उस एरिया को कॉमन कैरियर डिक्लेयर कर सकते हैं। वहां पर ऑथराइज्ड एनटिटी के अलावा अगर कोई और भी काम करना चाहे, तो वह काम कर सकता है। वह कैपेसिटी बुक करके और अपना टैरिफ पे करके काम कर सकता है। इससे मार्केट में कंपीटीशन आएगा और हम यह उम्मीद करते हैं कि कंपीटीशन की वजह से रेट्स भी कम हो सकते हैं, जिससे सर्विसेज बेटर मिलेगी और देश में गैस का कंजप्शन बढ़ेगा।"

### **Retail CNG Outlets**

3.10 When asked of the guidelines/criteria for setting up of CNG stations in the country how CNG station allotments are made and which agency is responsible for granting necessary permission for the same and are the conditions for issuing license/permits on CNG stations in various cities, the Ministry submitted the following information:

"PNGRB authorizes entities to lay, build & operate CGD Networks through competitive bidding process. From 9<sup>th</sup> CGD Bidding round onwards, targets for establishment of CNG Stations has also been included as one of the bidding criteria. The entities participating in the bid have to quote the number of CNG stations that they propose to setup in the next eight years (in some cases ten

years) in the subject GA along with number of PNG domestic connections and inch-km of pipeline to be laid within that GA. Technically eligible entities submit their quotations against the CNG, PNG and inch-km numbers and a composite score is derived for each entity. Thereafter, the entity with the highest composite score is declared as the successful entity. After that, the successful entity has to submit a Performance Bank Guarantee to PNGRB to fulfill their commitment for the development of CGD Network. Thereafter, the authorization letter is issued to the entities with terms and conditions to be complied by them. The authorized entity has to achieve the year wise target with respect to the number of CNG stations to be established, PNG connections to be provided and inch-km of pipeline to be laid, as mentioned in the authorization letter".

3.11 When enquired as to whether the CNG stations are Company owned-Company operated (CoCo) or are license to some authorized agents and also, where do these CNG stations source their gas from i.e. IGL providing CNG to all the stations or from some other distributor, the Ministry submitted the following information:

"Once authorized, the CGD entity has to setup CNG stations in their GA as well as provide PNG connections. Entities have their own system of allotment of CNG stations, they only have to fulfil their targets of each year as mentioned in their authorization letter. These CNG stations may be CoCo or licensed to some other agents for operation, but have to be owned by the authorized entity only as per the terms and conditions of the authorization letter and shall comply with all the technical and safety standards of PNGRB. The authorized entity has to lay pipeline within their CGD network in order to transport natural gas within their GA to provide PNG connections and supply natural gas to their CNG stations. For this purpose, the entity may source natural gas from any natural gas pipeline which is in the vicinity of their GA or through cascades from a feasible natural gas source, at their discretion. All CNG stations within a GA are owned by the sole entity and the natural gas for consumption in these CNG stations has to be sourced by the same entity".

3.12 When asked if there is sufficient gas available to meet the increasing demand and if not, how does it intend to meet this demand and how many CNG stations are planned to be opened in next five years, the Ministry submitted the following information:

"As per Minimum Work Program assigned through competitive bidding in the 9th and 10th CGD Bidding Rounds, the authorized entities have committed to set up 8,181 CNG Stations over a period of 8/10 years across the country. 6,941 CNG Stations are expected to be set up across the country by FY 2025-26".

### Coverage under PNG

3.13 When asked as to whether any exclusive rights given to distributors in geographical area for a particular period of time of the projects and for how long do they enjoy this privilege along with state-wise data in this regard, the Ministry submitted the following:

"The entities have been given two types of exclusivities: -

- i. Exclusivity for laying, building and operating a CGD Network – This exclusivity is given for a period of twenty-five years from the date of authorization.
- ii. Exclusivity from the purview of Common Carrier or Contract Carrier – This exclusivity is given for a period ranging from three years to 10 years as per the provisions of PNGRB's extant regulations.

As per terms and conditions of the authorization for development of CGD Network, the entities are allowed an exclusivity period of 3/5/8/10 years from the date of authorization in terms of an exemption from the purview of the contract carrier or common carrier for the respective CGD Network.

In this regard, PNGRB has notified Guiding Principles for declaring City or Local Natural Gas Distribution Networks as common carrier or contract carrier Regulations to provide non-discriminatory open access to third party entities".

3.14 When asked to furnish district wise details of number of households that have been covered with PNG network in the last five years in the country, the Ministry stated as under:

"GA wise details of PNG domestic connections in the last five years in the country are given in **Annexure-X**".

3.15 When asked about the parameters on which it is decided whether an area has been accessed/covered by Piped natural gas, the Ministry submitted the following information:

"City Gas Distribution or CGD Networks are established based upon the availability of natural gas in their vicinity. The Geographical Areas (may consist of single district, part district, two or more districts or any such combination) are identified on this basis and upon finalization are bid out in the subsequent CGD Bidding round".

3.16 When asked as to whether PNGRB is focusing upon intensifying PNG connection within a Geographical Area (GA) for expanding coverage, the Ministry in its written reply submitted as under:

"Yes, PNGRB has amended the CGD Authorization regulations on 06.04.2018 and increased the percentage weightage of number of domestic PNG connections quoted by the entities to 50% in the bid evaluation criteria. Subsequent to this amendment, 9<sup>th</sup> and 10<sup>th</sup> CGD Bidding rounds have been concluded by PNGRB attracting bids for providing approximately 4.24 crore domestic PNG connections in the coming 8-10 years".

### **Pricing of PNG & CNG**

3.17 When asked to provide details w.r.t. India's natural gas pricing formula, the Ministry submitted the following information:

"The guidelines notified by MoPNG w.r.t Natural Gas pricing formula is attached as Annexure-XI".

3.18 The Committee desired to know the price of natural gas for PNG/CNG consumers fixed and asked about complete break-up of the pricing formula and factors that impact the pricing of CNG/PNG in retail, the Ministry submitted the following information:

"Petroleum and Natural Gas Regulatory Board (PNGRB) has authorized GAIL (India) Limited for implementation of City Gas Distribution Projects in six Districts namely Varanasi, Patna, Ranchi, East Singhbhum, Khordha and Cuttack.

The Pricing mechanism for CNG/PNG segments for GAIL's CGD Projects is typically linked to 'cost plus' pricing with consideration of economic benefits to 'alternate fuel' pricing. Cost plus pricing is based on the principle of reasonable return on the capital employed and operating expenses incurred in the GA. The same is incorporated in pricing structure in the form of gas costs, supply and distribution costs & entity margin.

It is the endeavour to benchmark the selling price CNG/PNG w.r.t. the energy equivalent price of the respective alternate fuel being replaced, typically at discounts which induce the customer to switchover to PNG/CNG.

In view of the changing market dynamics of CGD industry, other factors such as price acceptability in the market competitive environment etc. are also taken into consideration while determining the pricing for CNG/PNG.



### **Cost Elements of Delivered Gas for segment up to CGS of respective GA:**

A. Delivered cost of Gas shall be worked out on considering following parameters:

- Ex Terminal gas price
- Exchange rate
- Marketing Margin
- Trunk Pipeline Transmission Charges
- Taxes and Duties

B. Supply and Distribution Cost

Supply and Distribution (S&D) Cost include the cost incurred for sale of CNG/PNG products covering Operation and Maintenance expenses and incidental/ other expenses as follows:

#### **S&D for PNG**

- Operating Expenses
- Utilities (Power & Fuel)
- Consumable Stores & Spares & AMC / Repairs & Maintenance of network
- CGD Network Transportation Tariff
- Transportation cost of Cascades (apportioned for PNG Consumption if PNG is supplied through Cascades)
- Other Expenses / Marketing /Sales Promotion

#### **S&D for CNG**

- Operating Expenses
- Utilities (Power & Fuel)
- Consumable Stores & Spares & AMC / Repairs & Maintenance of CNG Station Forecourt management / CNG Equipment
- CGD Network Transportation Tariff
- Transportation cost of Cascades
- Other Expenses / Marketing /Sales Promotion

C. Entity Margin

Entity Margin include the trade margin / facility charges etc. payable to Dealers / Oil Marketing Companies (OMCs) and entities marketing margins.

D. Taxes and Duties

All the applicable taxes and duties

### **Illustration of Pricing Formula:**

Sample Pricing Formula for the CNG and PNG Price is illustrated below:

Domestic PNG	Unit Price
Cost of Natural Gas to CGD Entity at City Gate Station	A
Supply & Distribution Cost of CGD Entity	B
Entity's Margin	C
Basic Selling Price	$D = A+B+C$
Value Added Tax (If applicable)	$E = \text{VAT Rate} \times (D)$
Any Other Tax (If applicable)	F
Retail Selling Price (Rs/SCM)	$D+E+F$

CNG	Unit Price
Cost of Natural Gas to CGD Entity at City Gate Station	A
Supply & Distribution Cost of CGD Entity	B
Entity's Margin (incl. Dealer / OMCs)	C
Basic Selling Price	$D = A+B+C$
Excise Duty	$E = 14\% \times D$
Value Added Tax (If applicable)	$F = \text{VAT Rate} \times (D+E)$
Any Other Tax	G
Retail Selling Price (Rs/KG)	$D+E+F+G$

#### Factors that impact the pricing of CNG

- Cost of Natural Gas:** The prices of domestic gas is determined and declared by Petroleum Planning and Analysis Cell (PPAC) on half yearly basis as per New Domestic Natural Gas Pricing Guidelines, 2014 notified by Ministry of Petroleum and Natural Gas.
- Trunk Pipeline Transportation Tariff:** Trunk Pipeline Transportation is determined and notified by PNGRB as per PNGRB (Determination of Natural Gas Pipeline Tariff) Regulations, 2008
- Market Demand:** Higher demand of CNG/ PNG yields better utilization of the infrastructure capacity, thereby eases S&D cost
- Taxes and Duties:** 14% excise duty is applicable on production of CNG. Further, Value Added Tax as per the respective State Govt. Tax Rate. Value Added Tax (VAT) rate on CNG is very high in different states e.g. 14.5% in Uttar Pradesh and Andhra Pradesh, 15% in Gujarat, 14% in Madhya Pradesh, 20% in Bihar etc. while the same is exempted in Delhi".

3.19 When asked about the cost benefit for consumers for a fixed amount of volume of gas by PNG vs LPG, the Ministry submitted the following information:

"The current retail selling price of a domestic LPG cylinder as of 01.04.2021 at Delhi is Rs.809 per 14.2 Kg cylinder. Since May, 2020, while there is no subsidy to LPG consumers on Domestic LPG in some markets like Delhi, for

consumers in far-flung and remote areas, Government continues to provide some subsidy due to higher inland freight from port to bottling plant.

An example based on Delhi-NCT GA, the PNG v/s LPG calculations are as under:

(April 2021)

GCV of 1 Kg of LPG	11900	Kcal
1 Kg of LPG	0.047	MMBTU
<b>1 Cylinder of LPG: 14.2 Kg (A)</b>	<b>0.67</b>	<b>MMBTU</b>
Price in Delhi (B)	809	Rs.
<b>Domestic Gas</b>		
Cost of 1 SCM of PNG in Delhi (C)	28.41	Rs.
GCV of 1 SCM of PNG	9880	Kcal
1 MMBTU	252000	Kcal
GCV of 1 SCM of PNG(D)	0.039	MMBTU
<b>19.88 SCM of PNG equivalent</b>	<b>564.79</b>	<b>Rs.</b>
conversion used= 1kg= 1.4 SCM		

Comparison in Terms of Energy and prices		
	PNG	LPG
Cost in Rs/MMBTU	724.63	1206.46
	(C/D)	(B/A)

3.20 When asked about the prevalence of varying taxes in different states on gas, it was submitted that:

“यह टैक्स वाला जो इश्यु है, यह काफी महत्वपूर्ण है। हमारी काफी पुरानी रिक्वेस्ट है, जैसे हमने गैस एक्सचेंज तो बना दिया, परंतु जब तक गैस जीएसटी पर नहीं आएगी तब तक गैस एक्सचेंज भी सक्सेसफुल नहीं होगा और गैस का जो वेट है, वह राज्यवार पांच पर्सेंट से 24-25 पर्सेंट तक वैरी करता है। इसलिए एक बड़ा एलिमेंट जो गैस की कॉस्ट का है, वह टैक्स है। अगर यह जीएसटी में जाता है, हम यह नहीं कहते हैं कि जीएसटी में पांच पर्सेंट रेट लगाएं, रेट जो मर्जी लगा लें लेकिन कम से कम इसको जीएसटी में शामिल कर लिया जाए तो पूरी इंडस्ट्री, कंज्यूमर्स और गैस एक्सचेंज को भी काफी मदद मिलेगी”।

3.21 When asked about the tariff mechanism in case of GAs connected through multiple pipelines, the representative of the PNGRB informed that:

".....यूनिफाइड टैरिफ में एक रेगुलेशन पास किया गया है। इसका एक फायदा होगा। Till now, the consumers had to pay tariff for each pipeline. If a gas is passing through multiple pipelines, the consumers had to pay a cascading tariff. So, to avoid this cascading tariff, we have introduced the concept of unified tariff. All the natural gas pipelines - which are interconnected and which are forming a part of National Gas Grid - will be subjected to unified tariff. The consumers who are there on this network of the National Gas Grid System, have to pay only one single tariff. So, that will make gas affordable in far-flung areas and it will make gas affordable for the people who are using multiple pipelines. इसका एक फायदा यह होगा कि के.जी. बेसिन में जो डोमेस्टिक गैस प्रोड्यूसर्स हैं, जैसे ओएनजीसी और रिलायंस, उनको फायदा होगा। गैस एक्सचेंज, जो हमने अभी अथॉराइज किया है, इससे उसकी सुविधा भी मिलेगी क्योंकि गैस एक्सचेंज के लिए अगर उनको मल्टीपल टैरिफ लगता है, तो प्रॉब्लम होती है और सिंगल टैरिफ है, तो लोग ज्यादा गैस ट्रेडिंग कर सकते हैं।

इससे एक फायदा यह भी होगा कि देश में जो नए एलएनजी टर्मिनल्स आते हैं, अगर उनको मल्टीपल टैरिफ पे करना पड़े, तो वह अनवायवल हो जाता है। लेकिन अब यूनिफाइड टैरिफ की वजह से नए टर्मिनल्स वायवल रहेंगे और इससे नए टर्मिनल्स में इन्वेस्टमेंट ज्यादा होगा। इससे गैस-ऑन-गैस कम्पीटिशन भी बढ़ेगा। अभी कंज्यूमर्स को गैस लेनी होती है, तो वह यह देखता है कि वह किस पाइपलाइन पर है और वह पाइपलाइन किस की है, तो वे नॉर्मली उसी पाइप लाइन कम्पनी से गैस खरीदते थे। लेकिन अब चूंकि पूरे देश में एक ही टैरिफ है, तो अब गैस कहीं से भी लिया जा सकता है। इसलिए इससे गैस-ऑन-गैस कम्पीटिशन देश में आएगा।"

### 3.22 Elaborating during the oral evidence about the discrepancies in tariff rate due to the distance, the representative of the PNGRB submitted that:

"...आपने एक सवाल उठाया था कि यूनिफाइड टैरिफ की वजह से कुछ कस्टमर्स ऐसे होंगे जो सोर्स के नज़दीक हैं, उनको ज्यादा देना पड़ेगा और जो दूर वाले हैं, उनको कम देना पड़ेगा तो इस तरह से क्रॉस सब्सिडाइजेशन तो नहीं है। इसका ध्यान रखने के लिए हमने पाइपलाइन के दो जोन यूनिफाइड टैरिफ के लिए बनाए हैं - जोन - 1 और जोन - 2 हैं। जोन-1 के जो कस्टमर्स हैं, उनको सिर्फ 4 पर्सेंट पे करना पड़ेगा, जितना कि जोन-2 वाले कस्टमर्स पे कर रहे हैं। जोन-2 में अगर 70 रुपये हैं तो जोन-2 वाले को 26 रुपये और 65 रुपये, रफली यह रेट आता है। उसका ध्यान हमने यूनिफाइड टैरिफ में रखा है।

अभी हम क्या करते हैं कि जैसे अलग-अलग पाइपलाइंस हैं, मतलब दो तरह की पाइपलाइंस हैं। एक तो जो प्री-पीएनजीआरबी है, जो पीएनजीआरबी के आने से पहले की है, उनको हम 12 पर्सेंट रेट ऑफ रिटर्न के बेसिस पर टैरिफ फिक्स करते हैं और जो बिडआउट पाइपलाइंस हैं, उनका जो बिड के माध्यम से रेट आया है, वह रेट उनको मिलता है। तो पाइपलाइन कंपनीज़ को टैरिफ मिलेगा वह उतना ही मिलेगा, जितना पहले मिल रहा था। अब उनको कम्बाइंड करने के बाद, जो रेट कम्बाइंड पाइपलाइन का

निकलेगा, तो कस्टमर्स को वह पे करना पड़ेगा। इस तरह से यह पूरा सिस्टम है। इसमें सरकार का रोल नहीं है। पूरा रोल हमारा ही है।

3.23 The Committee pointed out that there is a huge difference in the prices of CNG in Delhi and in regions in neighboring states. When asked about the reasons for this huge difference in prices of CNG and does this not put burden on consumers of Delhi, the Ministry submitted the following information:

"While allocating domestic Natural Gas to various industry sectors in India, Government has placed City Gas Distribution (domestic PNG and CNG for transport) in the highest order of priority. The relatively cheaper domestic gas (when compared with imported Natural Gas) is allocated to CGD entities based on their actual consumption of all types of gases (domestic and RLNG) in the previous 6 months. The price of domestic gas is periodically notified by the Government and the same is passed on to CGD entities as the base cost.

The retail CNG price is then a build-up of various cost heads such as taxes, transportation charges, dealer margin, supply and distribution costs etc. The retail price therefore depends on the CGD entity and the location of Geographical Area (GA). It is important to point out that since Natural Gas is outside the ambit of GST, taxes such as State VAT and Central Excise duty continue to be applicable on CNG, causing price differences across regions/States".

#### **Grievance Redressal Mechanism**

3.24 When asked as to whether there are any Marketing Discipline Guidelines (MDG) applicable to PNG/CNG outlets to prevent act any irregularities / malpractices indulged if any, by these outlets, the Ministry submitted the following information:

"With regard to Marketing Discipline Guidelines (MDG) applicable to PNG/ CNG outlets to prevent act any irregularities/ malpractices, it is informed that there are no such specific guidelines issued by PNGRB. However, obligations of CGD entities and the consumers regarding the requirements to maintain quality of service pertaining to PNG domestic connections and CNG stations have been provided in PNGRB (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010".

3.25 On being asked about the system put in place for disposal/redressal of consumer complaints against PNG/CNG companies/entities and how many

companies have been penalized for non-compliance of guidelines, the Ministry submitted the following information:

"PNGRB addresses the grievances in a time bound manner under Centralized Public Grievance Redress and Monitoring System received from PMO/ MoP&NG.

In addition to this, PNGRB also flags the complaints/ issues received from various consumers to the concerned CGD entities for timely disposal. The same is being done by the concerned entities in time bound manner. In this connection, as on date, there are no instances wherein CGD entities have been penalized for the same by PNGRB".

## Recommendations/Observations

### Recommendation No. 1

#### National Gas Grid Network

The Committee note that India is the world's third largest energy consuming nation and a large part of hydrocarbon requirement of about 87 percent is met through imports of crude oil. India's share in global energy consumption is set to rise and high reliance will be on import. The Committee also note that natural gas being an environment friendly clean fuel has a potential to play a significant role in providing solutions to the growing energy needs and to address environmental challenges.

The Committee further note that the Government is now focused to promote usage of natural gas across the country so as to increase the share of natural gas in the primary energy mix from the current level of 6 percent to at least 15 percent in the coming years and move towards a gas based economy. Towards this end the gas pipeline infrastructure in the country is being developed alongwith development of gas sources in the form of domestic production and import of Liquefied Natural Gas into the country. The Committee are also aware that gas pipeline is an economical and safe mode of transporting the natural gas.

The National Gas Grid has been envisaged to ensure the availability and equitable distribution of natural gas in all parts of the country. At present, about 20,227 kms of natural gas pipeline network is in operation and in order to develop an vibrant gas market, an additional 15,500 kms of pipeline is being executed across the country to complete the gas grid which will connect all major demand and supply centres in the country.

The Committee also note that Government has plans to create infrastructure like LNG terminals for import of LNG into the country to meet the rising natural gas demands. The Committee also observe that the Ministry/PNGRB has invited bids for of City Gas distribution network in many

geographical areas in the country in the recent 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> rounds. After completion of these rounds of bidding, it is noted that 238 Geographical Areas (GAs) in 407 districts have access to CGD network.

The Committee are of the opinion that a national gas grid is an important energy infrastructure project in the country which will help the country achieve social and economic progress along with development of associated projects namely execution of pipelines projects, CGD networks and LNG terminals, etc. The Committee appreciate the move of the Government to create an infrastructure with a planned gas pipeline of 35,700 kms of across the country, out of which 20,227 kms are operational and 15,500 kms are under various stages of construction and expected to be completed by 2024-25. Considering the efforts and importance, the Committee recommend that the Ministry should periodically review the progress of the national gas grid projects and take appropriate steps and coordinate with the concerned authorities at the highest level so that this important infrastructure project is not delayed and completed well in time and without cost overruns.

### Recommendation No. 2

#### Single-Window Fast Track System for approvals/clearances

The Committee note that the laying of pipelines have been delayed due to multiplicity of agencies involved in granting clearances and permissions. The Committee also observe that there have been delays in RoU notification, rate determination, demand of higher compensation rates and due to non-availability of land ownership records with many State Governments.

National Gas Grid project is of national importance and therefore, there is a need to bring uniformity in permissions and clearances from various central / state / local bodies / departments to lay pipeline network. The Committee exhort the Ministry/PNGRB to consider issuing a blanket approval for pipeline laying, with a half-yearly/yearly reconciliation mechanism and a forum for joint consultative mechanism involving elected representatives from local and at



state/district level should be evolved to iron out all the differences arising among various agencies and in this regard, there can be a Infrastructure Approvals Committee at State/District level which can take up such clearances and fast track them. The Committee, therefore, recommend that the Ministry/PNGRB should bring out a mechanism for a single-window fast track system which will help in reducing the time to process such permissions.

### Recommendation No. 3

#### Gas Grid Infrastructure

The Committee note that pipelines are being laid across the country under National Gas Grid project to transport gas and spur lines from these trunk pipelines are being drawn to take gas to end-user. The country is having a total length of about 20,227 kms operational pipelines and about 15,500 kms of additional pipeline are to be added by 2024-25. The Committee further note that spur lines from these trunk pipelines are being drawn to take gas to the end users.

The Committee although impressed with the expansion of pipeline infrastructure are concerned to note that the work on Haldia-Jagdishpur Pipeline, Kochi-Koottanad-Bengaluru-Mangaluru Pipeline (KKMPL) and Angul-Srikakulam Pipeline has been delayed for various reasons like demands for higher compensation by farmers, issues of right of use (RoU), forest clearance, etc. These projects are of national importance in building a stable energy security architecture for the country. There have been some instances where the State Governments in the above pipeline projects have been less than enthusiastic towards completing these projects.

The Committee are of the strong view that National Gas Grid is central to development of gas distribution networks in the country and it is essential that the completion schedule of these trunk pipelines should be strictly adhered to. The Committee expresses their unhappiness on the delay on the laying of

important trunk pipelines in few stretches which adversely affects the connected portion of the national gas grid.

The Committee, therefore, recommend that the Ministry of MoPNG should evolve and devise better coordination mechanism for the active involvement of the State Governments to complete the laying of pipeline infrastructure in a time bound manner and also to ensure accountability of different stakeholders.

#### Recommendation No. 4

##### Demand and Supply of Natural Gas

The Committee note that Natural Gas has emerged as one of the important source of energy in the world. Due to its inherent advantages over other fossil fuels, there is a global trend to shift in energy mix towards to natural gas. However, in case of India, share of natural gas in total energy mix currently accounts only 6 percent as against global share of 24.2 percent. As the Government has been adopting policies to boost economic growth and the demand for natural gas is only going to increase by 2030. The Committee observe that this rise in demand will widen the gap between demand and supply of gas in the country. Unless domestic production is increased from or due to new discoveries the demand has to be met through LNG imports. However, these imports are also subject to price fluctuations in the international market.

The Committee are of the view that MoPNG should evolve a plan to explore all possible options to increase the domestic production and supply of natural gas in the country. Towards this end, the Committee desire that the Ministry should increase the blocks awarded for exploration, intensify activities for exploration and production from already discovered fields and pursue strong diplomatic efforts to expedite construction of transnational pipelines from neighbouring regions to bring gas and try to enter into longer term contract with countries for import of natural gas/LNG at economic cost. The Committee further desire that unconventional sources of gas like Gas Hydrates, CBM, Shale Gas etc. should be seriously pursued for exploration and development. CBG plants may

also be looked at as an important option to fulfill the demand. Therefore, the Committee recommend that Ministry should prepare a blue print and way forward for enhancing the supply and domestic production of natural gas through exploitation of unconventional hydrocarbons, expediting production activities in awarded blocks alongwith with fiscal and monetary incentives like tax breaks, stable tax regime etc.

#### Recommendation No. 5

##### Capacity Utilization of Gas Pipelines

The Committee observe that the capacity utilization of existing natural gas pipelines are currently on the lower side. Some of them are operating in the level of 10 percent to 20 percent level of utilization. It is also seen that the pipelines which have been in operation for more than 10 years have not been running to their optimum levels and are constrained mainly by limited availability of domestic gas. Some Gas Based Power plants connected to gas pipelines have become stranded (approx. with installed capacity 14,305 MW) due to non-availability of domestic gas supply and imported gas is very expensive.

The Committee understand that natural gas pipelines entail long gestation periods for optimum demand realization. However, there is a strong need to address the challenges impacting the full utilization of these gas pipelines for various sectors namely industrial, power and fertilizer usage. The Committee note that the investments of this magnitude requires a full and efficient capacity utilization of such important infrastructure in the absence of which such projects drain away the precious resources invested for the project. It is, therefore, recommended that immediate steps be taken to expedite enhancement of domestic production specially through exploitation of unconventional sources and to interconnect various gas pipelines, synchronized commissioning / conversion of upcoming gas-based Fertilizer units, Refinery Units, Steel Industry etc., along the pipeline routes by making gas available to these sectors.

### Recommendation No. 6

#### Functioning of PNGRB

The Committee note that PNGRB was established after the Petroleum and Natural Gas Regulatory Board Act, 2006 was passed by the Parliament and got the assent of the President on 31<sup>st</sup> March, 2006. The Board consists of a Chairperson, a Member (Legal) and three other Members who are appointed by the Central Government. The Chairperson and other Members hold office for a term of five years or until they attain the age of sixty-five years, whichever is earlier. Three Members of the Board, including Chairperson presiding over the meeting, shall constitute the quorum for transaction of business at a meeting of the Board:

The Committee note that the PNGRB board has not been fully constituted for the last few years. There are several vacancies in the board and even the post of Financial Advisor has been vacant and many a time even the number required for quorum is not available. The Committee are surprised to note that in the absence of any quorum or full strength of the Board, an important organization like PNGRB will be unable to take decisions resulting in policy paralysis and delay in decision making would render the agency into meaningless and toothless organization. Such vacancies over long periods of time hamper the day-to-day use of functioning also and particularly when the Government has plans to increase use of natural gas in the country and is currently undertaking such massive expansion of CGD network in the country.

The Committee further note that these vacancies will preclude PNGRB in the way of gaining stability and establishing itself as an efficient regulator and fails to understand why PNGRB has not been manned by persons with appropriate professional background and experience. The Committee view with seriousness at the long period of vacancies and recommend that the Government urgently needs to address the vacancy positions in the PNGRB and a mechanism to select candidates well in advance before the vacancies arise and also strengthen the organization in terms of human resources at all levels to fully

handle and manage the rapid growth of the natural gas pipeline sector. The action taken for filling up the vacancies may be intimated to this Committee.

#### Recommendation No. 7

##### Reorienting the role/power of PNGRB

The Committee note that 238 GAs are covering 400 districts across the country covering approximately 70 percent of the country's Geographical Areas (GA's) and 84 percent of its population with the 11<sup>th</sup> CGD bidding round.

The Committee observe that with such a network/infrastructure and large number of consumers, the safety of the pipelines and the consumers should be of utmost priority. However, till now PNGRB has a limited role in these areas as it has been empowered in authorizing entities to lay, build, operate or expand city or local natural gas distribution network. There is an urgent need to reorient the mandate of PNGRB on the lines of other regulators and needs to be empowered with monitoring and regulating the entire sector entrusted to them.

The Committee desire that Ministry should review the function of PNGRB and strengthen it further by inducting qualified manpower so as to play a more effective role in regulating the sector. The Committee recommend that Ministry of Petroleum and Natural Gas in coordination with other related Ministries should frame rules and regulations and for enforcement on safety aspects for the oil and gas sector be brought under the supervision and regulation of PNGRB so as to avoid overlapping mandates among various agencies and a centralized framework, would streamline the processes and enforce rules and regulations effectively and reduce the delays. The Committee also desire that necessary changes in legislation be brought out to this effect sooner than later.

#### Recommendation No. 8

##### Dispute Resolution Mechanism

The Committee observe that PNGRB is facing litigation against it in some cases and are before Appellate Tribunal for Electricity (APTEL), High Courts and some of the arbitration cases are pending in Supreme Court. With many legal

issues, the progress of pipelines and CGD networks gets affected and completion of various projects is delayed which hampers and delay growth of gas sector in the country. The Committee have been informed that legal advice is obtained by PNGRB from Attorney General, Solicitor General and other Senior Advocates and also from a panel of advocates who represent it in various judicial bodies.

The Committee have been informed by PNGRB that as of now there is no scope for Alternate Dispute Resolution mechanism. The Committee desire that PNGRB/Ministry consult various stakeholders to identify the common problems and prepare a standard operating procedure for resolution mechanism. The Committee stress that avenues must be explored to bring alternate dispute resolution mechanism by wider consultation for brining transparency and efficiency in handling legal issues. A speedy resolution to legal issues would pave the way for an efficient and continuous progress of sector which would improve the confidence of stakeholders. The Committee recommend that steps be taken to reduce the number of cases by engaging with the parties and arrive at an amicable solution rather than taking recourse to courts in every matter.

The Committee while emphasizing the need for reduction of litigation, recommend the Ministry to review the status of pending litigations related to CGD and pipeline networks. Accordingly, the Ministry should create a robust and transparent institutional mechanism through engaging with parties before proceeding to various legal recourse to settle disputes so that valuable time and resources can be saved.

#### Recommendation No. 9

##### Public Liability Insurance Policy

The Committee observe that in compliance of Regulation 9(1) of PNGRB (ERDMP) Regulations 2010, it is mandatory to comply with the Public Liability Insurance Act 1991 and accordingly CGD entities are required to have "Public Liability Insurance Policy" for consumers. The Committee also note that the customer base has increased to 76 lakhs and is targeted to 4.23 crores

households and currently 2830 CNG station and plans to set up 8181 CNG stations under 9<sup>th</sup> and 10<sup>th</sup> CGD bidding rounds. With such a huge network coming up, safety issues need to be addressed seriously. Therefore, it is imperative that the awareness among PNG/CNG consumers need to be increased about the details of this policy along with the safe practices.

Also, consumers should be informed that in case of any untoward incident which causes injury/property damage or death of life where PNG/CNG is the primary cause of fire, they may file a claim from the insurance company. The Committee also desire that Ministry may review the process of claim settlement and make public liability insurance policy simple to be understood by common people. Such advisories may be printed in the bills issued to consumers / customers so as to increase the awareness among them along with a toll free number to seek clarifications in this regard. The Committee, therefore, recommend that awareness campaigns should be carried out among consumers so as to avert any untoward incident. –

#### Recommendation No. 10

##### Need to re-define Coverage in Geographical Areas

The Committee are happy to note that the number of geographical areas (GAs) have been increasing consistently and 238 GAs are covering 400 districts across the country with a commitment to reach 520 districts, which would cover approximately 70 percent of the country's Geographical area and 84 percent of its population in 11<sup>th</sup> CGD bidding round.

The Committee note the ambitious targets with concern over the actual number of beneficiaries of these projects. The Committee further note that even when an area has been marked as covered in a particular geographical area, the connections do not reach every household. The definition of declaring a GA does not necessarily mean the coverage to the people in the majority households in that region. The Committee note that CGD Networks are established based upon the availability of natural gas in their vicinity and Geographical Areas may consist

of single district, part district, two or more districts or any such combination without taking into account the actual number of connections.

For instance of Delhi where CGD network is being handled by IGL since 1998, and only 20 percent to 30 percent of population has access to PNG despite Delhi being divided into 70 charge areas corresponding to 70 assembly constituencies even after more than twenty years.

While expressing satisfaction in the long strides made in the pipeline infrastructure, the Committee are unhappy to note that the parameters of defining coverage in a particular area under a GA remain ambiguous. To reflect the actual penetration in ground reality, it is important to have a proper framework for measuring statistics of beneficiaries. The Committee desire that the Ministry/IGL should quicken the expansion of household connections to uncovered areas in Delhi to achieve 100% connection in GA areas where IGL/MGL Network are already in place. The Committee recommend that penetration levels in each district should be a major criteria of declaring the district as covered under PNG network. The Committee, therefore, also recommend that the coverage should be based on the actual number of households having access to PNG and not simply by virtue of an area being declared a charge area under a GA.

#### Recommendation No. 11

##### Competition in Geographical Areas

The Committee observe that the entities are allowed marketing exclusivity period of certain years from the date of authorization in terms of an exemption from the purview of the contract carrier or common carrier for the respective CGD Network. This deadline has already expired in many areas. The Committee feel that there is an urgent need to review and update for City or Local Natural Gas Distribution Networks be declared as common carrier or contract carrier to provide non-discriminatory open access to third party entities.



It should be opened to increase the competition in providing the Piped Natural Gas (PNG) so as to benefit to the maximum number of people. Also, the people should be given the choice to shift to any operator after the exclusivity period. With the increase in competition, a person will have the choice of availing the connection as and when one wishes and therefore should not be dependent on the CGD entity. The Committee recommend that there is a need for more players to participate in this nascent and growing sector and hence when the exclusivity period is over, the entire process of inviting, allotting and operating of new players should be anticipated and acted well in advance. The Committee further, hope that this will enhance the quality of service and delivery in a particular geographical area leading to better customer satisfaction and hopefully will lead to more consumers opting for PNG and gradually shifting away from LPG.

#### Recommendation No. 12

##### Rationalization of Restoration Charges on CGD Entities

The Committee observe that in the absence of notified standardized charges very high restoration charges are levied on CGD entities for laying pipeline network by the authorities and moreover, the charges are not uniform across States. This leads to time and cost overruns on the projects and there is an urgent need to bring uniformity in the restoration charges.

The Committee have been informed that to bring commonality, uniformity and parity in the restoration charges the following models can be examined: (i) these charges may be streamlined by adopting Dig & restore by CGD entity whereby CGD entity restores road, entailing zero permission charges, and a mechanism may be developed wherein CGD entity provides a security deposit to ensure satisfactory restoration works; (ii) Another framework that can be evolved is wherein CGD entity gets a general permission and designated authorities restore the roads, and pays permission charges (based on CPWD rates) towards restoration works; (iii) Otherwise, CGD entity pay annual charges at some fixed

rate (say 2%-3%) of the prevailing retail selling price of domestic PNG to respective Municipal Corporation / Nagar Nigam for first 10 years. At the time of payment, such annual charges may be based on the total number of domestic PNG connections in that particular GA. In return, there should be no payment for all the road restoration charges i.e., at the time of laying pipelines.

The Committee, therefore, recommend that the issue of digging and restoration should be addressed urgently and MoPNG should take up the matter with Urban Development Ministry and with Municipal Authority/Local Bodies in state government to arrive at a standard mechanism across the country for restoration areas in the states and throughout the country.

The Committee desire that MoPNG/PNGRB should consider these suggestions in depth and consult other CGD entities on the restoration norms and arrive at a consensual mechanism after discussion with Urban / Municipal / local bodies so as to streamline the issue.

#### Recommendation No. 13

##### CNG Network

The Committee note that good progress have been made in making 2,830 CNG Stations operational across the country. Delhi and Mumbai have adequate number of CNG Stations mainly due to the IGL and MGL operating in these areas. The Committee are happy to note that the existing retail outlets of OMCs which dispense auto fuels have been modified to provide CNG also. However, most of the other cities where CGD is operational do not have high penetration of CNG stations. The Committee feel, with sparse network of CNG Stations, the people in these cities have not been able to get the full benefit of CNG for their requirement.

The Committee have noted that under 9<sup>th</sup> and 10<sup>th</sup> bidding rounds, a total of 8181 CNG Stations are planned to be set up. The Committee have been informed that the bids for 11<sup>th</sup> round have also been invited. The Committee recommend that all the stations planned in these rounds be made fully operational in a way

that leads to widespread and equitable and balanced network across the geographical areas rather than concentrate in a few select metro areas.

#### Recommendation No. 14

##### CNG Stations on highways

The Committee note that there is an inadequate number of CNG stations along the national highways causing hardships to commuters particularly the commercial vehicles using CNG fuel on these routes. This situation needs to be remedied by giving the licenses are awarded to entities to operate CNG stations in the highways. The Committee, observe that the new CNG stations should be based on the potential of emerging smart cities. As many new highways and expressways are being built by Union government and State governments, MoPNG must discuss with MoRTH/NHAI for provisioning of compressed natural gas stations and accordingly, entities who have won bids in these geographical areas should be mandated to provide the same concomitant with the commissioning of highways. This will go a long way in providing comfort to vehicle users to switch to CNG vehicles. The Committee, therefore, recommend that a much more nuanced, proactive and scientific approach needs to be adopted so that CNG is made available at convenient locations on these both existing and under construction highways to cater to the needs of users.

#### Recommendation No. 15

##### Increasing PNG Coverage

The Committee note that use of natural gas as fuel has considerable advantage over traditional fuels as it is cleaner, more efficient, convenient and safe. The Government is promoting City Gas Distribution (CGD) projects in a phased manner which comprises providing piped natural gas (PNG) and Compressed Natural Gas (CNG) to, domestic, commercial and industrial consumers.

The Committee note that 76.05 Lakh domestic connections have been provided to households so far and under 9<sup>th</sup> and 10<sup>th</sup> CGD Bidding Rounds, commitments have been made to provide 4.23 Crore PNG Domestic Connections. The Committee feel that PNG has many advantages over the LPG which is still the dominant fuel for domestic purposes. The natural gas which is transported / supplied in a piped network is a safe and economical way over the logistics involved in the distribution and supply of LPG cylinder to households. Also the customers are always apprehensive about lower volume/under weight of LPG domestic cylinders whereas, PNG consumption is metered. The Committee, therefore, recommend that the PSU oil marketing companies which have the dominant market share in the LPG cylinder business should aggressively enter the CGD network so as not to lose their customers as the country is set for a bigger and wiser CGD network coverage. One of the major goals could be saving on subsidies being given to domestic LPG cylinders. As the price of PNG is lower than the price of LPG, the consumers will also benefit from lower costs and is a win-win situation for both consumers and the Government.

#### Recommendation No. 16

##### Gas can accelerate renewable energy shift

The Committee observe that the future of energy lies in innovation and technological intervention in establishing a stable energy security framework. The recent announcements by Hon'ble Prime Minister during the COP26 summit regarding net-zero emission targets by 2070, and reaching 500 GW of non-fossil fuel capacity and fulfilling 50 per cent of energy requirement from renewable energy by 2030 requires intensives and extensive development of robust energy infrastructure, will usher in a new investment climate within the country

India has to be at the forefront in decarbonising the power sector towards net-zero emissions. India must take this transition in a smooth, reliable and affordable manner. Dissimilar technologies like coal and gas have in them the most complementing characteristics which can continue to support the grid in its

operations while continuing to significantly decarbonise the sector and provide electricity at an affordable price. Gas power offers a value proposition and can turn out to be a key enabler to diversify into more renewable energy into the national grid and meet the increasing power demand in the country.

The Committee is of the opinion that Green hydrogen is attracting a lot of interest lately and there should be a strong push to bring down its cost of generation and make it affordable for a cleaner and greener future of energy. The Committee, therefore, recommend that the gas marketing PSUs like GAIL, Petronet LNG can explore the supply of gas to encourage the possibility of gas-based hybrid power plants to aid and accelerate India's renewable energy transition.

New Delhi;  
24 March, 2022  
3 Chaitra, 1944 (Saka)

RAMESH BIDHURI,  
Chairperson,  
Standing Committee on  
Petroleum & Natural Gas.

Appendix -I

**MINUTES**  
**STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS**  
**(2019-20)**  
**TENTH SITTING**  
**(07.07.2020)**

The Committee sat on Tuesday, 07<sup>th</sup> July, 2020 from 1100 hrs. to 1300 hrs. in Main Committee Room, PHA, New Delhi.

**PRESENT**

Shri Ramesh Bidhuri - Chairperson

**MEMBERS****LOK SABHA**

2. Shri Girish Chandra
3. Shri Santosh Kumar
4. Shri Rodmal Nagar
5. Shri Unmesh Bhaiyyasaheb Patil
6. Shri Janardan Singh Sigriwal
7. Shri Lallu Singh
8. Shri Ajay Tamta

**RAJYA SABHA**

9. Shri Narain Dass Gupta
10. Smt. Kanta Kardam
11. Shri Kanakamedala Ravindra Kumar
12. Shri Om Prakash Mathur

**SECRETARIAT**

- |    |                            |   |                     |
|----|----------------------------|---|---------------------|
| 1. | Smt. Abha Singh Yaduvanshi | - | Joint Secretary     |
| 2. | Shri H. Ram Prakash        | - | Director            |
| 3. | Shri Tirthankar Das        | - | Additional Director |
| 4. | Shri Vinay Pradeep Barwa   | - | Deputy Secretary    |
| 5. | Shri Mohan Arumala         | - | Under Secretary     |

### Representatives of the Ministry of Petroleum & Natural Gas

1	Shri Tarun Kapoor	-	Secretary
2	Shri Ashish Chatterjee	-	Joint Secretary (Gas Pricing)
3	Dr. Navneet Mohan Kothari	-	Joint Secretary (Marketing)
4	Smt. Indrani Kaushal	-	Economic Advisor

### Representatives of PNGRB

1	Shri Satpal Garg	-	Member
2	Ms. Vandana Sharma	-	Secretary

### Representatives of Public Sector Undertakings

1	Shri S.M. Vaidya	-	Chairman, IOCL
2	Shri Manoj Jain	-	C&MD, GAIL
3	Shri Alok Gupta	-	ED, HPCL
4	Shri M.A. Khan	-	ED, BPCL

2. At the outset, the Hon'ble Chairperson of the Committee welcomed Members of the Committee and representatives of the Ministry of Petroleum and Natural Gas/PSUs to the sitting of the Committee which was convened to have briefings by the representatives of the Ministry of Petroleum and Natural Gas/PSUs on the subjects "National Gas Grid" and "Review of Performance of OMCs". He then requested the representatives of the Ministry/PSUs to give a brief overview of the subjects, after introducing his colleagues to the Committee. Thereafter, the Secretary, Ministry of P&NG introduced his colleagues to the Committee and gave a brief overview of both the subjects.

3. Subsequently, Members of the Committee raised several issues related to the subjects such as budgetary allocations, targets fixed and current progress of the implementation of natural gas pipeline projects under National Gas Grid, impact of nation-wide lockdown imposed during COVID-19 pandemic on ongoing projects, steps taken to complete projects in a time-bound manner, benefits of granting 'infrastructure status' to gas pipeline projects across the country, feasibility of achievement of 15% share of natural gas in India's total energy basket by the year 2030, the amount of fuel available as stock with refineries, storage capacity of crude oil reserves to meet

exigencies, the impact of COVID-19 pandemic on overall sales and production by OMCs and financial contribution of OMCs towards 'PM CARES Fund' for COVID-19 relief activities.

4. Further, other issues like factors responsible for delay in the progress of Jagdishpur-Haldia gas pipeline project, current status of Karanpur-Moradabad-Kashipur-Rudrapur gas pipeline project, to explore the feasibility of laying gas pipelines along the under construction all weather roads in Uttarakhand to reduce expenditure, current status of the proposed gas pipeline projects in Chapra, Bihar and Andhra Pradesh, number of districts yet to be covered by gas grid across the country including UP, practical constraints faced by OMCs in timely project completion like land acquisition issues and compensation to farmers, promotion of self-reliance among OMCs in view of the Government's call on 'Vocal about Local,' number of non-functional gas-based power plants in the country and the reasons for the same, supply of gas to power and fertilizer plants, eligibility criteria under Bharat Aarogya Insurance Scheme, details about profitability of OMCs as on 31st March, 2020, causes for the drastic fall in profit margins of OMCs prior to the national lockdown, formula of pricing of natural gas in India, rationale behind increasing petrol and diesel prices despite falling crude oil prices in the international market, feasibility of bringing natural gas, petrol and diesel under Goods and Services Tax (GST) network, findings of the National Gas Grid Technical Assistance Programme based on an agreement between PNGRB and US Trade Development Agency, extension of PMUY coverage to economically weaker sections of General Category population and plans for diversification of imports of oil and natural gas also came up for discussion during the sitting. Thereafter, representatives of the Ministry/PSUs clarified on several issues raised by the Members and assured the Committee that the required details would be sent to the Secretariat.

5. At the end of the sitting, the Chairperson appreciated the efforts of the Ministry and OMCs for hassle-free provision of essential services during the COVID-19 pandemic. He then thanked representatives of the Ministry/PSUs for expressing their views and answering queries raised by the Members of the Committee. Further, to the



queries where replies were not readily available, the Ministry was instructed to furnish the same to the Secretariat within fifteen days.

6. Verbatim proceedings of the sittings is not available in the Branch as the reporters did not turn up owing to restriction on the number of persons to be present during the sitting due to COVID-19 as per the instruction of CCB circular. No arrangement was also made by the GW Branch/CPWD for audio recording of the proceedings. The matter is being taken up separately.

**The Committee then adjourned.**

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Appendix -II

**MINUTES**  
**STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS**  
**(2020-21)**  
**FIFTH SITTING**  
**(23.12.2020)**

The Committee sat on Wednesday, 23 December, 2020 from 1100 hrs. to 1310 hrs. in Committee Room 'D', PHA, New Delhi.

**PRESENT**

Shri Ramesh Bidhuri      -      Chairperson

**MEMBERS****LOK SABHA**

2. Shri Ramesh Chand Bind
3. Shri Pradyut Bordoloi
4. Shri Girish Chandra
5. Shri Janardan Singh Sigiwal
6. Shri Lallu Singh
7. Shri Rajan Baburao Vichare

**RAJYA SABHA**

8. Shri Narain Dass Gupta
9. Smt. Kanta Kardam
10. Shri Kanakamedala Ravindra Kumar
11. Shri Om Prakash Mathur
12. Shri K.K. Ragesh
13. Shri A. Vijayakumar
14. Ch. Sukhram Singh Yadav

**SECRETARIAT**

1. Smt. Abha Singh Yaduvanshi      -      Additional Secretary
2. Shri H. Ram Prakash      -      Director
3. Shri Vinay Pradeep Barwa      -      Deputy Secretary

**Representatives of the PNGRB**

1. Shri Satpal Garg      -      Member
2. Ms. Vandana Sharma      -      Secretary

2. At the outset, the Hon'ble Chairperson of the Committee welcomed the Member, Secretary and other officials of the Petroleum and Natural Gas Regulatory Board (PNGRB) to the sitting of the Committee on the subject "National Gas Grid

including PNG and CNG - Recent Developments in Expansion of CGD Network". Thereafter, Members of the Committee deliberated on various issues related to the subject such as the vision and role of PNGRB as a regulator for issuing licenses to entities for expanding CGD network in various geographical areas, how the percentage of coverage is being calculated, marketing exclusivity of authorized entities in CGD business, ninth round bidding of CGD, share of natural gas consumption in the energy basket and its diversification in the country, pricing of gas to consumers depending on the distance, promotion of natural gas through subsidy etc.

3. Further, composition of the Board, vacancy positions, lack of quorum in the Board of PNGRB, functioning and execution of projects by CGD companies during COVID-19, causes for delay in execution of pipeline projects, action taken against the defaulting contractors, shortage of staff, safety and security of natural gas pipelines, fire accidents in natural gas pipelines, land acquisition and compensation issues, environmental clearances for pipeline laying, status of pending litigations and coordination with State Governments and Municipalities of various cities for expanding CGD projects, under-utilization of natural gas pipeline infrastructure due to non availability of natural gas in some parts of the country, varying pricing of natural gas in different geographical areas, expansion of CGD projects in northeastern states viz Indradhanush Gas Grid, concerns about the transportation charges levied by Assam Gas Company, seamless connectivity of IGG with the existing gas pipelines in Assam including those owned by the AGC, availability of natural gas to meet the targets set for the year 2030, progress of under construction natural gas pipeline projects like Kakinada-Vishakhapatnam, Kakinada-Vijayawada-Nellore etc. also came up for discussion. The representatives of PNGRB replied to most of the issues. On some of the issues, they assured to send the replies in writing.

4. A copy of the verbatim proceedings of the sitting has been kept for record.

**The Committee then adjourned.**

Appendix-III

**MINUTES**  
**STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS**  
**(2021-22)**  
**EIGHTH SITTING**  
**(07.02.2022)**

The Committee sat on Monday, the 7 February, 2022 from 1500 hrs. to 1530 hrs. in Main Committee Room, PHA, New Delhi.

**PRESENT**

Shri Ramesh Bidhuri      -      Chairperson

**MEMBERS****LOK SABHA**

8. Shri Pradyut Bordoloi
9. Shri Naranbhai Kachhadiya
10. Shri Santosh Kumar
11. Shri Rodmal Nagar
12. Shri M.K. Raghavan
13. Dr. Bharatiben Dhirubhai Shiyal
14. Shri Janardan Singh Sigriwal

**RAJYA SABHA**

9. Shri Birendra Prasad Baishya
10. Shri Ripun Bora
11. Shri Om Prakash Mathur
12. Shri Rambhai Mokariya
13. Dr. V. Sivadasan
14. Shri A. Vijayakumar

**SECRETARIAT**

1. Smt. Abha Singh Yaduvanshi - Additional Secretary
2. Shri Vinay Pradeep Barwa - Deputy Secretary
3. Shri Mohan Arumala - Under Secretary

2. At the outset, Hon'ble Chairperson welcomed the Members to the sitting of the Committee. The Committee then took up consideration of the draft Report on the subject 'National Gas Grid including PNG and CNG' and adopted the same with minor modifications.

3. The Committee then authorised the Chairperson to finalize the Report and present/lay the Report in both the Houses of Parliament.

4. XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX.

**The Committee then adjourned.**

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**XXX: Matter not related to the subject.**



(in MMSCM)

Trend of Natural Gas Production in India, 2018-19 to 2020-21			
(in MMSCM)	2018-19	2019-20	2020-21
ONGC+OIL			
0	27399	26414	24352
Net Production	26916	25726	23715
Private / JVCs			
0	5477	4770	4321
Net Production	5242	4531	4068
TOTAL			
Gross Production	32875	31184	28672
Net Production <sup>1</sup>	32058	30257	27784
In MMSCMD	88	83	76

State-wise Production (in MMSCM)			
State	2018-19	2019-20	2020-21
<b>A. Onshore</b>			
Assam & Arunachal Pradesh			
Gross Production	3317	3187	3051
Net Production	3093	2942	2815
Gujarat			
Gross Production	1402	1342	1138
Net Production	1349	1287	1059
Tamil Nadu			
Gross Production	1208	1097	911
Net Production	1168	1051	857
Andhra Pradesh			
Gross Production	1082	912	827
Net Production	1045	874	783
Tripura			
Gross Production	1554	1473	1634
Net Production	1554	1472	1634
West Bengal (CBM)			
Gross Production	350	306	307
Net Production	309	277	250
Jharkhand (CBM)			
Gross Production	4	5	2
Net Production	4	5	2
Madhya Pradesh (CBM)			
Gross Production	357	345	334
Net Production	356	344	333
Rajasthan			
Gross Production	1483	1883	2040
Net Production	1378	1772	1938
<b>A. Onshore Total</b>			
Gross Production	10756	10549	10243
Net Production	10254	10025	9670
<b>B. Offshore</b>			
Mumbai High + Eastern Offshore			
Gross Production	19044	18576	17086
Net Production	18773	18226	16810
Private / JVCs			
Gross Production	3075	2059	1343
Net Production	3030	2005	1303
<b>Total (A&amp;B)</b>			
Gross Production	32875	31184	28672
Net Production	32058	30257	27784

NOTE : <sup>1</sup> Denotes natural gas available for consumption, which is derived by deducting from gross production, the quantity of gas flared/loss by producing companies.

Source: ONGC, OIL &amp; DGH

MMSCM: Million Standard Cubic Metre

## Annexure - II

Import of Liquefied Natural Gas		
Year	2018-19	2019-20
Total LNG Imports (Long Term, Spot) in MMT	21.7	25.6
Total LNG Imports (Long Term, Spot) in MMSCM	28740	33887
Total LNG Imports (Long Term, Spot) in MMSCMD	79	93

Source: LNG importing companies and DGCIS

MMT: Million Metric Tonnes

1 MMT = 1325 MMSCM



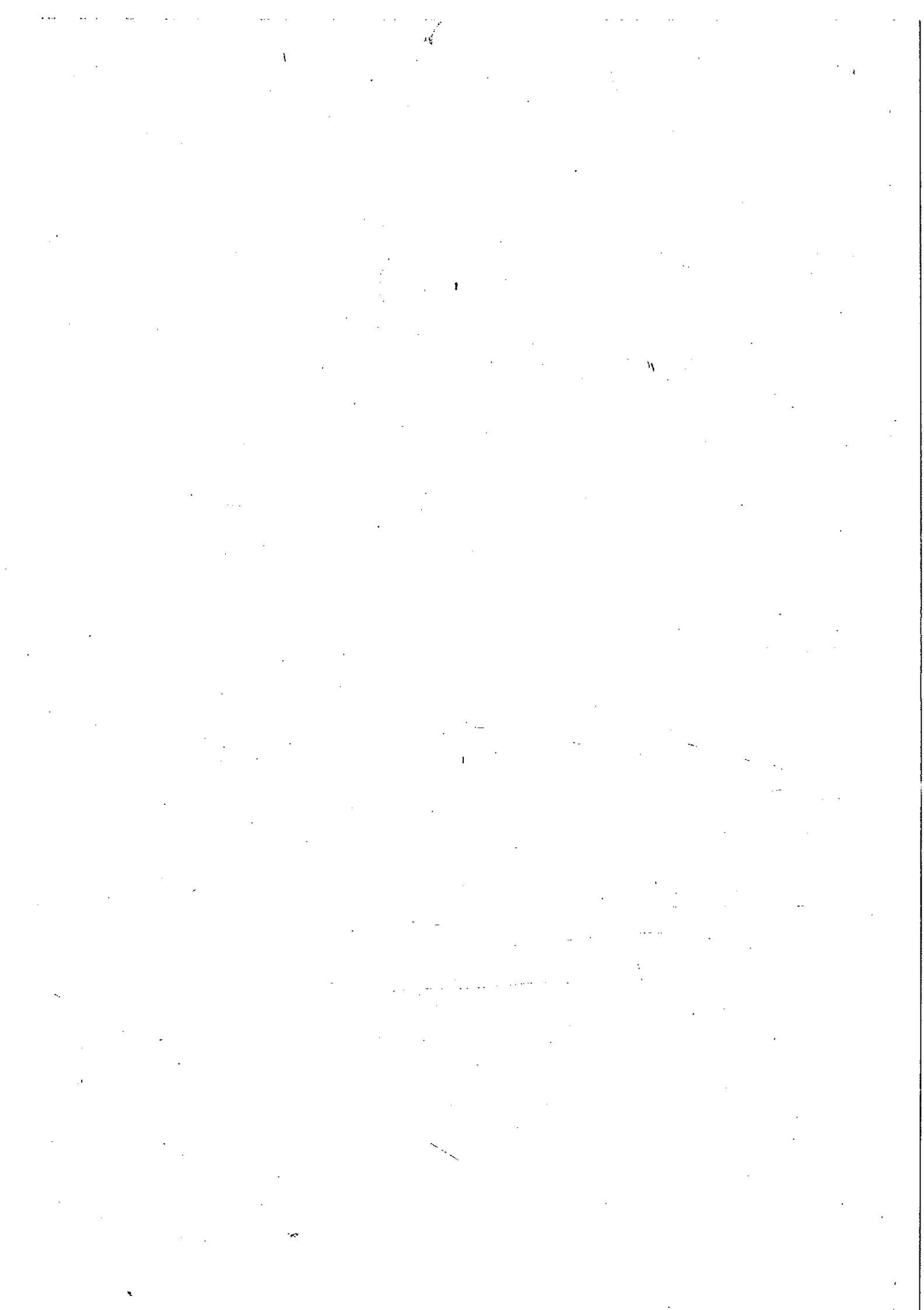
## Annexure - III

Trend of Natural Gas Consumption in India (including internal consumption)			
Financial Year	2018-19	2019-20	2020-21
Net Production in MMSCM	32058	30257	27784
LNG Import in MMSCM	28740	33887	32861
Total Consumption (Net Production + LNG Import) in MMSCM	60798	64144	60645
Total Consumption (Net Production + LNG Import) in MMSCMD	167	176	166

Note : Net production is derived by deducting gas flared and loss from gross production by producing companies.

Source: ONGC, OIL, DGH, LNG importing companies and DGCIS

MMSCM : Million Standard Cubic Meter



## Statewise PNG Consumption (FY 2020-21) (H1 upto September 2020)\*

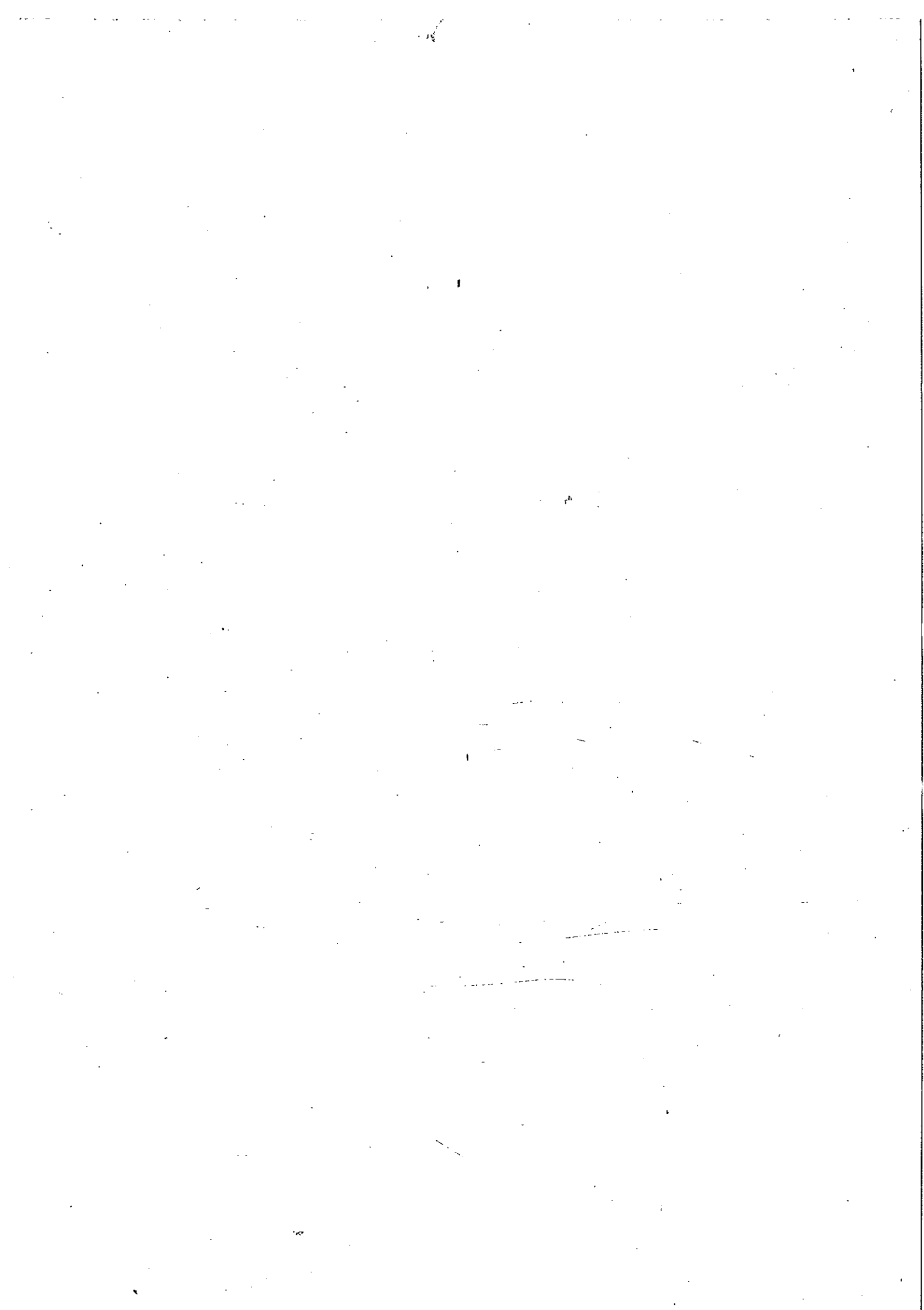
State (s) / Union Territory	Total
Andhra Pradesh	3.131724
Assam	6.560612
Bihar	0.084252
Chandigarh, Haryana, Punjab & Himachal Pradesh	1.646451
Dadra & Nagar Haveli	0.426968
Daman and Diu	0.128873
Delhi	57.895484
Goa	0.004950
Gujarat	187.071819
Haryana	8.560560
Jharkhand	0.086428
Karnataka	3.474936
Kerala	0.198456
Madhya Pradesh	6.440257
Maharashtra	99.431031
Odisha	0.052164
Punjab	0.430892
Rajasthan	0.180510
Telangana	3.623103
Tripura	6.934648
Uttar Pradesh	39.712266
Uttarakhand	1.072645
<b>Grand Total</b>	<b>427.149019</b>

\* As reported by CGD Entities (subject to revision if any)

## Statewise PNG Consumption (FY 2019-20)\*

State (s) / Union Territory	Total
Andhra Pradesh	6.161722
Assam	10.647979
Bihar	0.117074
Chandigarh, Haryana, Punjab & Himachal Pradesh	2.939007
Dadra & Nagar Haveli	0.420933
Daman and Diu	0.186944
Delhi	103.609864
Goa	0.001816
Gujarat	351.279645
Haryana	16.540158
Jharkhand	0.068693
Karnataka	3.560721
Kerala	0.251367
Madhya Pradesh	10.791320
Maharashtra	176.687964
Odisha	0.046071
Punjab	0.454317
Rajasthan	0.271725
Telangana	3.350141
Tripura	12.930487
Uttar Pradesh	69.556464
Uttarakhand	1.115602
<b>Grand Total</b>	<b>770.990015</b>

\* As reported by CGD Entities (subject to revision if any)



## LIST OF GAS BASED POWER PLANTS IN THE COUNTRY (AS ON 30.06.2020)

S. No	Name of Power Station	Developer	Installed Capacity (MW)	Name of the State	P/I
<b>(A) CENTRAL SECTOR</b>					
1	NTPC, FARIDABAD CCPP	NTPC	431.59	HARYANA	P
2	NTPC, AHMEDABAD CCPP	NTPC	419.33	RAJASTHAN	P
3	NTPC, AURANGABAD CCPP	NTPC	443.36	UTTAR PRADESH	P
4	NTPC, DADRI CCPP	NTPC	829.78	UTTAR PRADESH	P
	Sub Total (NTPC)		2124.06		
5	NTPC, GANDHAR (JHARKHAND) CCPP	NTPC	657.33	GUJARAT	P
6	NTPC, KANAKPURA CCPP	NTPC	656.2	GUJARAT	P
7	RATNAGIRI CCPP (ROPL)	ROPL	1697	MAHARASHTRA	P
	Sub Total (NTPC)		3245.89		
8	KATHALOURI	KEEPCO	291	ASSAM	I
9	AGARTALA	KEEPCO	135	TRIPURA	I
10	MOHARCHAK	KEEPCO	101	TRIPURA	I
11	TRIPURA CCPP	ONGC-Tripura (OTPC)	128.6	TRIPURA	I
	Sub Total (NER)		1265.6		
	Total (OS)-A		4411.55		
<b>(B) STATE SECTOR</b>					
12	LP CCPP	PPCL	270	DELHI	P
13	PRAGATI CCOT-M	PPCL	1600	DELHI	P
14	PRAGATI CCPP	PPCL	335.1	DELHI	P
15	CHOKPUR CCPP	REVAUL	330	RAJASTHAN	P
16	RAMGARH CCPP	REVAUL	273.9	RAJASTHAN	I
	Sub Total (NRA)		2169.2		
17	DHUVARAN CCPP	GSECL	574.72	GUJARAT	P
18	HAZIRA CCPP	GSECL	156.1	GUJARAT	P
19	HAZIRA CCPP EXT	GSECL	351	GUJARAT	P
20	PAPAVAV CCPP	GPPCL	702	GUJARAT	P
21	UTRAN CCPP	GSECL	374	GUJARAT	P
22	UTRAN CCPP	MAHAGENCO	672	MAHARASHTRA	P
	Sub Total (NRA)		2448.82		
23	GODAVARI (JEGURUPADU)	APFCL	225.4	ANDHRA PRADESH	P
24	KARAIKAL CCPP (PPCL)	Puducherry Power Corp. Ltd.	32.6	PUDUCHERRY	I
25	KOVVILPALLI (THIRUVAKOTTA)	TANGEDCO	107	TAMIL NADU	I
26	KUTTALAM CCPP	TANGEDCO	160	TAMIL NADU	I
27	VALUTHUR CCPP	TANGEDCO	185.2	TAMIL NADU	I
	Sub Total (NER)		681.1		
28	LAKWA GT	APGCL	87.2	ASSAM	I
29	LAKWA Replacement CCPP	APGCL	93.76	ASSAM	I
30	HAMRUP CCPP	APGCL	192.4	ASSAM	I
31	BARANUR GT	TSECL	54.5	TRIPURA	I
32	ROKHA GT	TSECL	111	TRIPURA	I
	Sub Total (NER)		532.86		
	Total (SS)-B		4771.93		
<b>(C) PRIVATE SECTOR</b>					
33	RITHALA CCPP	NOPL (Tata Power Distribution)	104	DELHI	P
34	GAYA CCPP	Ganga Enterprise	225	UTTARAKHAND	P
35	KASHIPUR CCPP	Ganga Enterprise	225	UTTARAKHAND	P
	Sub Total (NRA)		450		
36	BARODA CCPP	GPCL	160	GUJARAT	P
37	ESSAR CCPP	Essar Power	300	GUJARAT	P
38	PADUTHAI CCPP (CLP)	CLP India	655	GUJARAT	P
39	SUGEN CCPP (TORRENT)	Torrent Power	1147.5	GUJARAT	P
40	UKOSUGEN CCPP (TORRENT)	Torrent Power	512.5	GUJARAT	P
41	DOEN Muga CCPP (TORRENT)	Torrent Power	1200	GUJARAT	P
42	TROMBAY CCPP	Tata Power	180	MAHARASHTRA	P
43	MANGAON CCPP	PPCL	383	MAHARASHTRA	P
	Sub Total (NRA)		4413		
44	GAUTAM CCPP	GVA	464	ANDHRA PRADESH	P
45	GVR - KANAKA (Tentative)	GVR Energy	220	ANDHRA PRADESH	P
46	GVR - Rajamahendravaram Energy Ltd.	GVR Energy	768	ANDHRA PRADESH	P
47	GODAVARI (SPECTRUM)	Spectrum Power	208	ANDHRA PRADESH	P

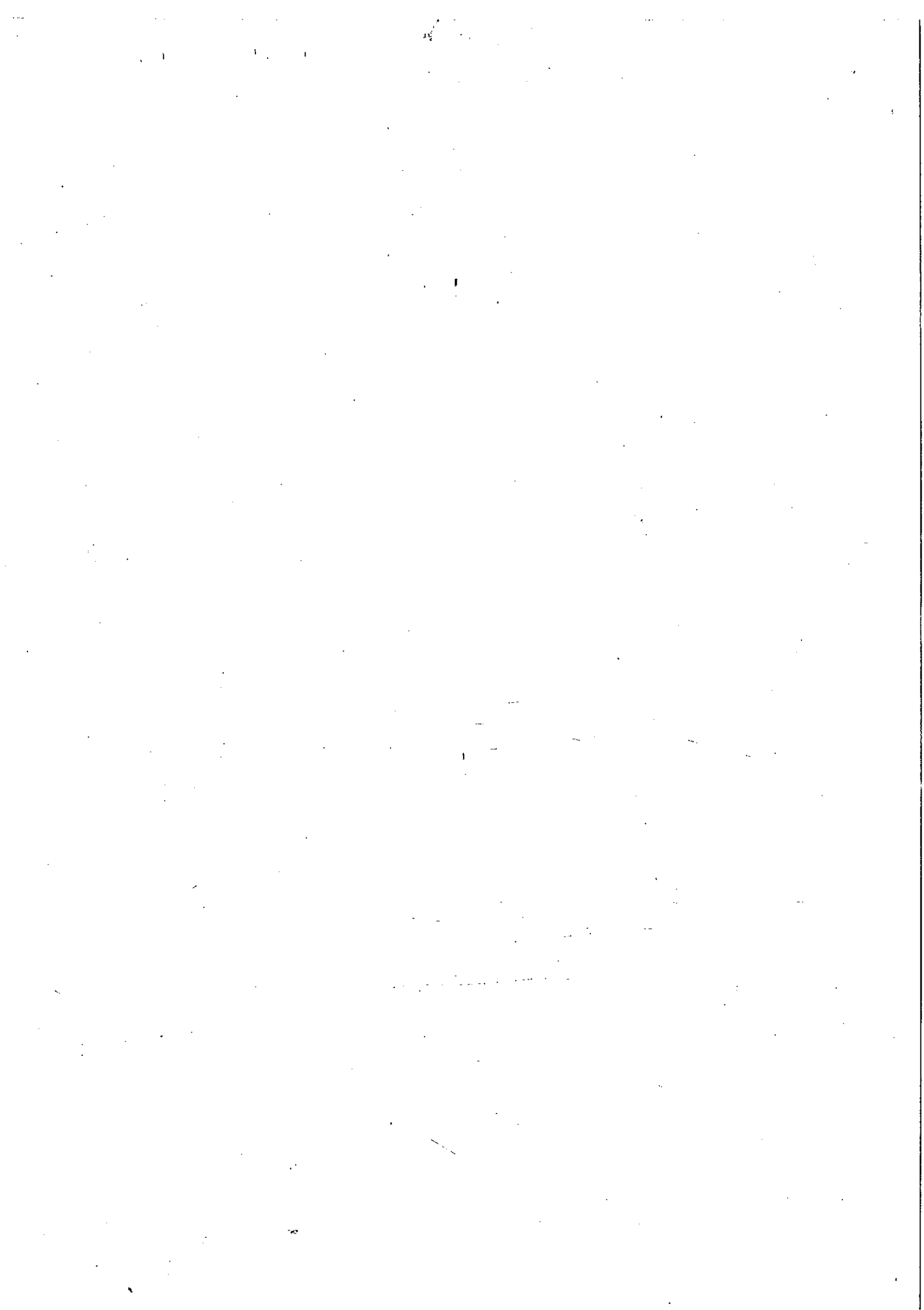
S. No	Name of Power Station	Developer	Installed Capacity (MW)	Name of the State	P/I
48	JEGURUPADU CCPP PHASE-II	OVK	220	ANDHRA PRADESH	P
49	KONASEEMA CCPP	Konaseema Power Ltd.	418	ANDHRA PRADESH	P
50	KONDAPALLI EXTN CCPP	Lanco	368	ANDHRA PRADESH	P
51	KONDAPALLI ST-3 CCPP	Lanco	742	ANDHRA PRADESH	P
52	KONDAPALLI CCPP	Lanco	318.4	ANDHRA PRADESH	P
53	PEODAPURAM	Reliance Infra	220	ANDHRA PRADESH	P
54	YEMAGIRI CCPP	GMR Energy	370	ANDHRA PRADESH	P
55	VUESWARAH CCPP	APGCL	272	ANDHRA PRADESH	P
56	PCL POWER AND HOLDINGS LH*	PCL POWER AND HOLDINGS LH*	30	ANDHRA PRADESH	P
57	RVK ENERGY*	RVK ENERGY*	28	ANDHRA PRADESH	P
58	SUK ROAD SUGAR*	SUK ROAD SUGAR*	35	ANDHRA PRADESH	P
59	LVS POWER*	LVS POWER*	55	ANDHRA PRADESH	P
60	KARUPPUR CCPP	Lanco	119.8	TAMIL NADU	I
61	PALLUR CCPP (PPH)	PPH Power	330.5	TAMIL NADU	I
62	VALANTARVY CCPP	Paras Electric	62.8	TAMIL NADU	I
	Sub Total (SR)		8314.28		
63	OLF ASSAM GT*		21.6	ASSAM	I
	Sub Total (IER)		21.6		
	Total (EVT/DP S)*C		10209.74		
	GRAND TOTAL=A+B+C		23856.97		

P=Supply through Pipe Line, I=Isolated, MW=Mega Watts  
\*Part under construction

## LIST OF PLANTS HAVING NIL GENERATION SINCE APRIL, 2019

S. No	Name of Power Station	Developer	Installed Capacity (MW)	Name of the State	P/I
STATE SECTOR					
1	DHOLPUR CCPP	RRVRR	330.00	RAJASTHAN	P
PVT APP SECTOR					
2	RITHALA CCPP	NOPL (Tata Power-Distribution)	100.00	DELHI	P
3	ESSAR CCPP	Essar Power	330.00	GUJARAT	P
4	PAGUTHAN CCPP (CLP)	CLP Infra	635.00	GUJARAT	P
5	MANDACH CCPP	PGPL	318.00	MAHARASHTRA	P
6	GAUTAM CCPP	GVK	464.00	ANDHRA PRADESH	P
7	GMR - KADHADA (Tachem)	GMR Energy	220.00	ANDHRA PRADESH	P
8	GMR-Rajmundry Energy Ltd.	GMR Energy	768.00	ANDHRA PRADESH	P
9	JEGURUPADU CCPP PHASE-II	GVK	220.00	ANDHRA PRADESH	P
10	KONASEEMA CCPP	Konaseema Power LM	445.00	ANDHRA PRADESH	P
11	KONDAPALLI EXTN CCPP	Lanco	366.00	ANDHRA PRADESH	P
12	KONDAPALLI ST-3 CCPP	Lanco	742.00	ANDHRA PRADESH	P
13	PEDDAPURAM	Refinco Ilya	220.00	ANDHRA PRADESH	P
14	VENAGIRI CCPP	GMR Energy	170.00	ANDHRA PRADESH	P
15	PCR POWER AND HOLDINGS LTD*	PCR POWER AND HOLDINGS LTD*	10.00	ANDHRA PRADESH	P
16	SVK ENERGY*	SVK ENERGY*	21.00	ANDHRA PRADESH	P
17	SRK ROAD SUGAR*	SRK ROAD SUGAR*	35.00	ANDHRA PRADESH	P
18	LVS POWER*	LVS POWER*	55.00	ANDHRA PRADESH	P
19	PJALLUR CCPP (PPH)	PPH Power	330.00	TAMIL NADU	I
20	DLF ASSAM GT*		26.50	ASSAM	I
TOTAL			6099.00		

\*Supply through Pipe Line, I-Installed, MU - MUMBAI  
\*Marked as Idle





Annexure VIILIST REPRESENTING THE CASES PENDING BEFORE APTEL, HIGH COURT & SUPREME COURTCASES PENDING BEFORE APTEL

<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
1.	Appeal No. 113 of 2015	Niko Resources Ltd Vs. PNGRB
2.	Appeal No. 122 of 2015	GAIL Gas Ltd. Vs. PNGRB
3.	Appeal No. 234 of 2016	GAIL India Ltd. Vs PNGRB
4.	Appeal No. 235 of 2016	GAIL India Ltd. Vs PNGRB
5.	Appeal No. 253 of 2016	GAIL India Ltd. Vs PNGRB
6.	Appeal No. 128 of 2016	GAIL India Ltd Vs. PNGRB
7.	Appeal No. 199 of 2016	GAIL Vs. PNGRB
8.	Appeal No. 254 of 2016	GAIL (India) Ltd. Vs. PNGRB
9.	Appeal No. 128 of 2016	GAIL India Ltd. PNGRB
10.	Appeal No. 131 of 2016	GAIL Vs. Sravanthi Energy Ltd.
11.	Appeal No. 132 of 2016	GAIL Vs. Gamma Infra
12.	Appeal No. 133 of 2016	GAIL Vs. Beta Infra
13.	Appeal No. 174 of 2016	Gujarat Gas Ltd Vs. Saint Gobain Pvt Ltd.

<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
14.	Appeal No. 160 of 2017	Gujarat State Petronet Ltd (GSPL) Vs. PNGRB
15.	Appeal No. 266 of 2017 and 267 of 2017	GAIL (India) Ltd. Vs. PNGRB
16.	DFR No. 3099 of 2018	Consortium of Deepak Kumar Vs. PNGRB
17.	Appeal No. 133 of 2018	GSPL India Gasnet Ltd Vs. PNGRB
18.	Appeal No. 134 of 2018	GSPL India Transco Ltd Vs. PNGRB
19.	Appeal No 25 of 2019 (Earlier DFR No. 5123 of 2018)	KEI RSOS Petroleum and Energy Pvt Ltd Vs PNGRB
20.	Appeal No. 64 of 2019 (DFR No. 147 of 2019)	GSPL India Gasnet Ltd Vs. PNGRB
21.	Appeal No. 161 of 2019 (DFR No. 1561 of 2019)	HPCL Vs PNGRB
22.	Appeal No. 254 of 2019 (DFR No. 1708 of 2019)	Petronet MHB Ltd Vs. PNGRB
23.	Appeal No. 308 of 2019 (DFR No. 2147 of 2019)	Gujarat Gas Ltd. Vs. PNGRB
24.	Appeal No. 244 of 2019	BPCL Vs. PNGRB
25.	DFR No. 2427 of 2019	Gas Transmission of India Limited v. PNGRB
26.	Appeal No. 110 of 2020	Mahanagar Gas Limited v. PNGRB

<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
27.	Appeal No. 121 of 2020	Megha Engineering and Infrastructure Ltd. Vs Bhagyanagar
28.	DFR No. 1184 of 2016	Hindustan Petroleum Corporation Ltd. Vs PNGRB
29.	Appeal No. 152 of 2020	Gail India Ltd. Vs PNGRB
30.	Appeal No. 153 of 2020	Gail India Ltd. Vs PNGRB
31.	Appeal No. 361 of 2020	Haryana City Gas Distribution Limited Vs PNGRB
32.	Appeal No. 239 of 2020	Think Gas Ludiana Pvt. Ltd Vs PNGRB
33.	DFR No. 467 of 2020	Jay Madhok Energy Private Limited Vs PNGRB
34.	DFR No. 01 of 2021	Jay Madhok Energy Private Limited Vs PNGRB
35.	Appeal no. 236 of 2020	Sanwariya Gas Ltd. Vs PNGRB
36.	DFR 453 of 2020	Maharashtra Natural Gas Ltd. Vs PNGRB
37.	DFR No. 315 of 2020	BPCL Vs PNGRB

CASES PENDING BEFORE HIGH COURT

<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
1.	CWP 13490 of 2008	Jatinder Moudgal Vs. UOI & Ors.

<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
2.	W. P.(C) No. 8211 of 2010	IOCL, BPCL and HPCL Vs. Reliance Industries, PNGRB & Ors
3.	W.P. (C) No. 7303 of 2013	IOCL, BPCL and HPCL Vs. CCI
4.	W.P.No.15259 of 2013	Bhagyanagar Gas Ltd Vs.PNGRB
5.	W.P.(C) No. 2445 of 2014	GAIL Vs. PNGRB
6.	SCA No.14604 of 2014	Torrent Power Vs. PNGRB & Ors
7.	W.P. (C) No 2611 of 2014	Great Eastern Energy Corporation Ltd. Vs. PNGRB
8.	W.P.(C) No. 9374 of 2015	Indraprastha Gas Limited Vs. PNGRB
9.	SCA No. 4512 of 2015	GH Gediya Vs. UOI & PNGRB
10.	W.P. No.35852 of 2015	Bhagyanagar Gas Ltd Vs. PNGRB
11.	W.P.(C) No. 1189 of 2016	GAIL India Ltd. Vs. PNGRB & Anr.
12.	W.P. (C) No. 2956 of 2016	GAIL India Ltd. Vs. PNGRB
13.	WP No.14956 of 2016	Subhas Datta Vs.UOI & Ors
14.	W.P.(C) No. 3685 of 2016	Adani Gas Ltd Vs UOI
15.	SCA No.4188 of 2017	Adani Gas Ltd Vs. PNGRB, Vadodra Gas Ltd.
16.	SCA No. 17174 of 2018	South Gujarat Consumer Association Vs PNGRB

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<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
17.	W.P. (C) No. 6270 of 2018	Adani Gas Ltd. Vs. PNGRB
18.	SCA No. 19028 of 2018	Torrent Power Vs. PNGRB & Ors
19.	W.P. (C) No. 248 of 2019	Deepak Fertilizers and Petrochemicals Corporations Ltd Vs. PNGRB
20.	W.P. (C) No. 927 of 2019	Deepak Fertilizers and Petrochemicals Corporations Ltd Vs. PNGRB
21.	WP No. 2001 of 2019	Munnalal Agarwal & Ors Vs UOI & Ors
22.	WP No. 464(W) of 2020	Subhas Dutta vs. MoPNG, PNGRB & State of West Bengal
23.	W.P.(C) No. 5076 of 2020	IMC Limited vs UOI & Ors.
24.	W.P.(C) No. 9711 of 2020	Mahanagar Gas Limited vs PNGRB & Union of India
25.	W.P.(C) No. 11148 of 2020	Mahanagar Gas Limited vs PNGRB & Union of India
26.	SCA No. 16873 of 2020	Gujarat Gas Limited vs PNGRB & Union of India
27.	W.P.(C) No. 407 of 2021	Indraprastha Gas Limited vs PNGRB & Union of India
28.	W.P.(C) No. 1017 of 2021	Gujarat Gas Limited vs PNGRB

CASES PENDING BEFORE SUPREME COURT

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<u>S. No.</u>	<u>Case No.</u>	<u>Case Title</u>
1.	Civil Appeal No. 3112 of 2015	LMJ Energy Infra Ltd Vs. PNGRB & Anr
2.	Civil Appeal No. 11304/2016	GAIL Vs. GSPC Gas Ltd (Later renamed as Gujarat Gas Ltd)
3.	SLP No. 28192-93 of 2018	Adani Gas Ltd Vs. UOI
4.	Civil Appeal No. 4989 of 2019	GSPC V. GAIL and Others
5.	Civil Appeal No. 1261 of 2019	Adani Gas and others Contempt Petition and MA Petition

Annexure-~~2~~ VII

CASES RELATED TO CGD

<u>S. No.</u>	<u>Court/Tribunal</u>	<u>Case No.</u>	<u>Case Title</u>	<u>Outcome</u>
1.	Supreme Court of India	Civil Appeal No. 4910/2015	Petroleum and Natural Gas Regulatory Board Vs Indraprastha Gas Ltd. & Ors.	The Hon'ble Supreme Court of India struck down the CGD Transportation Tariff Regulations and held that "the power to fix the tariff has not been given to the Board. In view of that the Board cannot frame a Regulation which will cover the area pertaining to determination of network tariff for city or local gas distribution network and compression charge for CNG".
2.	Delhi High Court	W.P.(C) No. 2113/2015	M/s Synergy Steels Limited Vs Petroleum and Natural Gas Regulatory Board and Another	The Hon'ble High Court of Delhi affirms the act of PNGRB to extend the time for furnishing PBG and held that "extension of time for furnishing the Performance Bank Guarantee is not contrary to the tender terms but is, in fact, an option available to PNGRB. It chose that option in public interest and therefore the grant of extension of time cannot be faulted and the petitioner cannot claim any right to seek quashing of this action on the part of PNGRB, particularly when the petitioner lost the race at

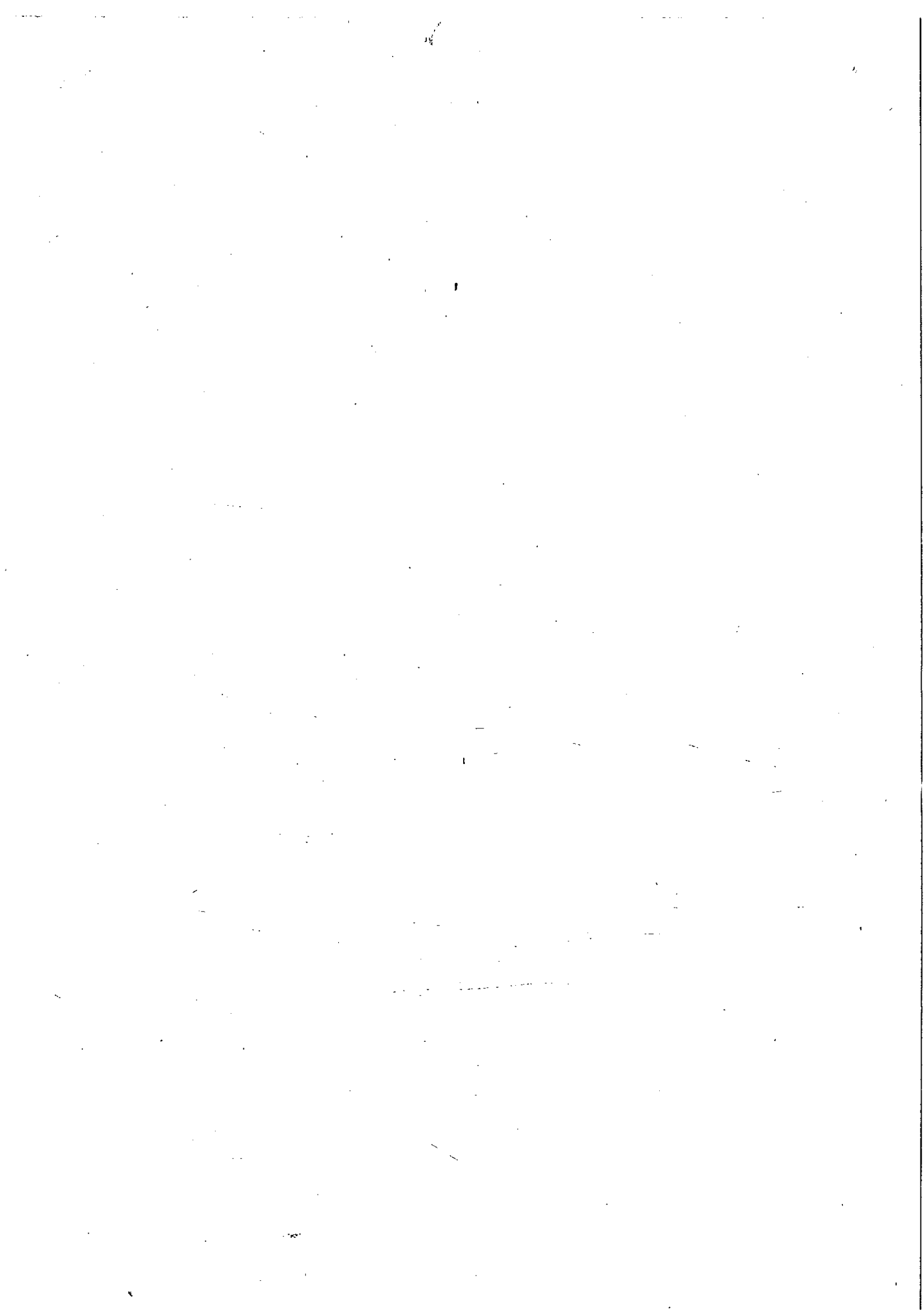
<u>S. No.</u>	<u>Court/Tribunal</u>	<u>Case No.</u>	<u>Case Title</u>	<u>Outcome</u>
				<i>the LOI stage and there was nothing in the tender terms barring the grant of extension of time to the successful entity."</i>
3.	APTEL	Appeal No. 88/2016	M Gail Gas Limited Vs. Petroleum & Natural Gas Regulatory Board and Ors.	PNGRB invoked bank guarantee submitted by Appellant in respect of its authorization to lay, build, operate or expand city or local natural gas distribution network for the Firozabad geographical area under Taj Trapezium Zone. The Hon'ble Tribunal upheld the decision of the Board and held that "Based on our discussions and also considering the relevant Sections of the PNGRB Act, 2006, relevant CGD Authorization Regulations and Exclusivity Regulations alongwith the above cited judgments and the text of the performance bank guarantee submitted by the Appellant, we find no substance in the instant appeal. The appeal is dismissed."
4.	APTEL	Appeal No. 104/2016	GAIL Gas Ltd. Vs. PNGRB	PNGRB had encashed the amount of bank guarantee



<u>S. No.</u>	<u>Court/Tribunal</u>	<u>Case No.</u>	<u>Case Title</u>	<u>Outcome</u>
				worth Rs. 3,53,81,000/- for the four geographical areas i.e. Kota, Dewas, Meerut and Sonapat. The Hon'ble APTEL upheld the decision of the Board and held that <i>"This case does not exhibit any fraud on the part of the Board as well as no irretrievable injustice has been caused to the Appellant. Hence, we do not want to interfere with the impugned decision of the Board"</i>
5.	APTEL	Appeal No. 51/2017	Central U. P. Gas Limited Vs Petroleum and Natural Gas Regulatory Board	PNGRB had encashed the amount of bank guarantee worth Rs. 1,50,00,000/- for the geographical areas of Jhansi. The Hon'ble APTEL upheld the decision of the Board and held that <i>"Having regard to the well settled principles laid down by the Apex Court, the High Court of Delhi and this Tribunal as stated supra, in view of the well considered order passed by the Respondent Board by assigning a valid and cogent reason and also taking into consideration that the PBG has already been encashed by the Board and the same is also replenished by the Appellant, the appeal filed by the Appellant is liable to</i>

<u>S. No.</u>	<u>Court/Tribunal</u>	<u>Case No.</u>	<u>Case Title</u>	<u>Outcome</u>
				<i>be dismissed."</i>
6.	APTEL	Appeal No. 297 & 300/2018	Jay Madhok Energy Pvt. Ltd. Vs. PNGRB & Ors.	The Appellant has challenged the decision of the PNGRB wherein inviting bids for grant of authorization of laying, building, operating or expanding City or Local Natural Gas Distribution Network in the geographic area of Jalandhar (except area already authorized), Kapurthala District and SBS Nagar District and the geographical area of Ludhiana (except area already authorized), Barnala District and Moga District respectively in the 9th round of bidding. The Hon'ble APTEL dismissed the appeal of the Appellant and held that " <i>In our considered opinion, we do not find any merit in the appeals warranting our interference. On overall considerations, the appeals are liable to be dismissed."</i>
7.	Supreme Court of India	Civil Appeal No. 3992 of 2019	Adani Gas Limited vs Petroleum And Natural Gas Regulatory Board & Ors.	The contest in the present batch of appeals has arisen over the grant of authorisation for laying, building, operating or expanding CGD networks in the following GAs:  (i) GA 51 - Puducherry

<u>S. No.</u>	<u>Court/Tribunal</u>	<u>Case No.</u>	<u>Case Title</u>	<u>Outcome</u>
				<p>District;</p> <p>(ii) GA 61 - Kanchipuram District; and</p> <p>(iii) GA 62 - Chennai &amp; Tiruvallur Districts.</p> <p>It was held by Hon'ble Supreme Court of India that "The sole question was whether the highest bidder's quote was reasonable, and the power to determine such reasonability resided solely with the Board by virtue of Clause 14.2 of the Bid Document. Thus, the presence and hearing of other bidders was not necessary. Therefore, we disagree with the opinion of the Chairperson and concur with the view which was taken by the Member Technical (Petroleum and Natural Gas) to dismiss the appeals."</p>



## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
1	Kakinada	Andhra Pradesh	Bhagyanagar Gas Limited
2	East Godavari District (excluding area already	Andhra Pradesh	Godavari Gas Private Limited
3	West Godavari District	Andhra Pradesh	Godavari Gas Private Limited
4	Krishna District (excluding area already	Andhra Pradesh	Megha Engineering & Infrastructure Limited
5	Vijaywada	Andhra Pradesh	Bhagyanagar Gas Limited
6	Anantapur and YSR (Kadapa) Districts	Andhra Pradesh	Consortium of AG&P LNG Marketing Pte Ltd. &
7	Chittoor, Kolar and Vellore Districts	Andhra Pradesh, Karnataka & Tamil Nadu	Consortium of AG&P LNG Marketing Pte Ltd. & Atlantic Gulf & Pacific
8	Upper Assam	Assam	Assam Gas Company Limited
9	Patna District	Bihar	GAIL (India) Limited
10	Aurangabad, Kaimur & Rohtas Districts	Bihar	Indian Oil Corporation Limited
11	Begusarai District	Bihar	Think Gas Begusarai Private Limited
12	Gaya & Nalanda Districts	Bihar	IndianOil-Adani Gas Private Limited
13	Arwal, Jehanabad, Bhojpur and Buxar Districts	Bihar	Indian Oil Corporation Limited
14	Lakhisarai, Munger and Bhagalpur Districts	Bihar	Indian Oil Corporation Limited
15	Nawada and Koderma Districts	Bihar & Jharkhand	Indian Oil Corporation Limited
16	Sheikhpura, Jamui and Deoghar Districts	Bihar & Jharkhand	Indian Oil Corporation Limited
17	Chandigarh	Chandigarh, Haryana, Punjab & Himachal Pradesh	IndianOil-Adani Gas Private Limited
18	UT of Dadra & Nagar Haveli	Dadra & Nagar Haveli	Gujarat Gas Limited
19	UT of Daman	Daman and Diu	IndianOil-Adani Gas Private Limited
20	Diu & Gir Somnath Districts	Daman and Diu & Gujarat	IRM Energy Private Limited
21	NCT of Delhi	Delhi	Indraprastha Gas Limited
22	North Goa District	Goa	Goa Natural Gas Private Limited
23	South Goa District	Goa	IndianOil-Adani Gas Private Limited
24	Ahmedabad District (EAAA)	Gujarat	Gujarat Gas Limited
25	Bhavnagar	Gujarat	Gujarat Gas Limited
26	Jamnagar	Gujarat	Gujarat Gas Limited
27	Kutch West	Gujarat	Gujarat Gas Limited
28	Kutch East	Gujarat	Jay Madhok Energy Private Limited led
29	Amreli District	Gujarat	Gujarat Gas Limited
30	Patan District	Gujarat	Sabarmati Gas Limited
31	Dahej Vagra Taluka	Gujarat	Gujarat Gas Limited
32	Dahod District	Gujarat	Gujarat Gas Limited
33	Banaskantha District	Gujarat	IRM Energy Private Limited
34	Anand District (excluding areas already	Gujarat	Gujarat Gas Limited
35	Panchmahal District	Gujarat	Gujarat Gas Limited
36	Gandhinagar, Mehsana, Sabarkantha	Gujarat	Sabarmati Gas Limited
37	Vadodara	Gujarat	Vadodara Gas Limited
38	Surat, Bharuch, Ankleshwar	Gujarat	Gujarat Gas Limited
39	Nadiad	Gujarat	Gujarat Gas Limited
40	Navsari	Gujarat	Gujarat Gas Limited
41	Rajkot	Gujarat	Gujarat Gas Limited
42	Surendranagar	Gujarat	Gujarat Gas Limited

## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
43	Ahmedabad City and Daskroi Area	Gujarat	Adani Gas Limited
44	Hazira	Gujarat	Gujarat Gas Limited
45	Valsad	Gujarat	Gujarat Gas Limited
46	Anand area including Kanjari & Vadtal Villages (in Kheda District)	Gujarat	Charotar Gas Sahakari Mandali Limited
47	Surendranagar District (EAAA) & Morbi District	Gujarat	Adani Gas Limited
48	Barwala & Ranpur Talukas	Gujarat	Adani Gas Limited
49	Navsari District (EAAA), Surat District (EAAA), Tapi District (EAAA) & the Dangs District	Gujarat	Adani Gas Limited
50	Junagadh District	Gujarat	Torrent Gas Private Limited
51	Kheda District (EAAA) & Mahisagar District	Gujarat	Adani Gas Limited
52	Narmada (Rajpipla) District	Gujarat	Gujarat Gas Limited
53	Porbandar District	Gujarat	Adani Gas Limited
54	Sonipat	Haryana	GAIL Gas Limited
55	Panipat District	Haryana	IndianOil-Adani Gas Private Limited
56	Yamunanagar District	Haryana	Bharat Petroleum Corporation Limited
57	Rewari District	Haryana	Indraprastha Gas Limited
58	Rohtak District	Haryana	Bharat Petroleum Corporation Limited
59	Karnal District	Haryana	Indraprastha Gas Limited
60	Ambala and Kurukshetra Districts	Haryana	HPOIL Gas Private Limited
61	Bhiwani, Charkhi Dadri & Mahendragarh	Haryana	Adani Gas Limited
62	Sonipat District (Except areas already authorized) & Jind District	Haryana	Hindustan Petroleum Corporation Limited
63	Nuh & Palwal Districts	Haryana	Adani Gas Limited
64	Kaithal District	Haryana	Indraprastha Gas Limited
65	Panchkula District (EAAA), Sirmour, Shimla & Solan (EAAA) Districts	Haryana & Himachal Pradesh	IndianOil-Adani Gas Private Limited
66	Sirsa, Fatehabad and Mansa (Punjab) Districts	Haryana & Punjab	Gujarat Gas Limited
67	Bilaspur, Hamirpur & Una Districts	Himachal Pradesh	Bharat Gas Resources Limited
68	East Singhbhum District	Jharkhand	GAIL (India) Limited
69	Ranchi District	Jharkhand	GAIL (India) Limited
70	Bengaluru Rural and Urban Districts	Karnataka	GAIL Gas Limited
71	Tumkur District	Karnataka	Megha Engineering & Infrastructure Limited
72	Dharwad District	Karnataka	IndianOil-Adani Gas Private Limited
73	Belgaum District	Karnataka	Megha Engineering & Infrastructure Limited
74	Chitradurga & Davanagere Districts	Karnataka	Unison Enviro Private Limited
75	Ballari & Gadag Districts	Karnataka	Bharat Gas Resources Limited
76	Bidar District	Karnataka	Bharat Gas Resources Limited
77	Ramanagara District	Karnataka	Maharashtra Natural Gas Limited
78	Bagalkot, Koppal and Raichur Districts	Karnataka	Consortium of AG&P LNG Marketing Pte Ltd. &
79	Chikkamagaluru, Hassan and Kodagu Districts	Karnataka	Consortium of AG&P LNG Marketing Pte Ltd. &
80	Kalaburagi and Vijayapura Districts	Karnataka	Consortium of AG&P LNG Marketing Pte Ltd. &
81	Mysuru, Mandya and Chamaraajanagar Districts	Karnataka	Consortium of AG&P LNG Marketing Pte Ltd. &
82	Uttara Kannada, Haveri and Shivamogga	Karnataka	Consortium of AG&P LNG Marketing Pte Ltd. &
83	Ernakulam District	Kerala	IndianOil-Adani Gas Private Limited

## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
84	Palakkad & Thrissur Districts	Kerala	IndianOil-Adani Gas Private Limited
85	Alapuzha, Kollam and Thiruvananthapuram	Kerala	Consortium of AG&P LNG Marketing Pte Ltd. &
86	Dewas	Madhya Pradesh	GAIL Gas Limited
87	Dhar District	Madhya Pradesh	Naveriya Gas Private Limited
88	Indore (including Ujjain City)	Madhya Pradesh	Aavantika Gas Limited
89	Gwalior	Madhya Pradesh	Aavantika Gas Limited
90	Bhopal & Rajgarh Districts	Madhya Pradesh	Think Gas Bhopal Private Limited
91	Guna District	Madhya Pradesh	Indian Oil Corporation Limited
92	Rewa District	Madhya Pradesh	Indian Oil Corporation Limited
93	Satna & Shandol Districts	Madhya Pradesh	Bharat Gas Resources Limited
94	Ashoknagar District	Madhya Pradesh	Indian Oil Corporation Limited
95	Gwalior (EAAA) District and Sheopur District	Madhya Pradesh	Rajasthan State Gas Limited
96	Morena District	Madhya Pradesh	Indian Oil Corporation Limited
97	Raisen, Shajapur and Sehore Districts	Madhya Pradesh	GAIL Gas Limited
98	Shivpuri District	Madhya Pradesh	Consortium of Think Gas Distribution Pvt. Ltd. & Think Gas Investment Pte. Ltd.
99	Sidhi and Singrauli Districts	Madhya Pradesh	Bharat Gas Resources Limited
100	Ujjain (EAAA) District, Dewas (EAAA) District and Indore (EAAA) District	Madhya Pradesh	Gujarat Gas Limited
101	Anuppur, Bilaspur and Korba Districts	Madhya Pradesh and Chhattisgarh	Adani Gas Limited
102	Jhabua, Banswara, Ratlam and Dungarpur Districts	Madhya Pradesh and Rajasthan	Gujarat Gas Limited
103	Jhansi (EAAA) District, Bhind, Jalaun, Lalitpur and Datia Districts	Madhya Pradesh and Uttar Pradesh	Adani Gas Limited
104	Palghar District and Thane Rural	Maharashtra	Gujarat Gas Limited
105	Raigarh District (excluding areas already	Maharashtra	Mahanagar Gas Limited
106	Pune District (excluding areas already	Maharashtra	Mahesh Gas Limited
107	Ratnagiri District	Maharashtra	Unison Enviro Private Limited
108	Solapur District	Maharashtra	IMC Limited
109	Kolhapur District	Maharashtra	HPOIL Gas Private Limited
110	Mumbai & Greater Mumbai	Maharashtra	Mahanagar Gas Limited
111	Pune City including Pimpri-Chinchwad & adjoining contiguous areas Hinjewadi, Chakan,	Maharashtra	Maharashtra Natural Gas Limited
112	Thane Urban and adjoining municipalities	Maharashtra	Mahanagar Gas Limited
113	Ahmednagar & Aurangabad Districts	Maharashtra	Bharat Gas Resources Limited
114	Latur & Osmanabad Districts	Maharashtra	Unison Enviro Private Limited
115	Sangli & Satara Districts	Maharashtra	Bharat Gas Resources Limited
116	Sindhudurg District	Maharashtra	Maharashtra Natural Gas Limited
117	Valsad (EAAA), Dhule & Nashik Districts	Maharashtra & Gujarat	Maharashtra Natural Gas Limited
118	Khordha District	Odisha	GAIL (India) Limited
119	Cuttack District	Odisha	GAIL (India) Limited

## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
120	Puducherry District	Puducherry	East Coast Natural Gas Distribution Private Limited
121	Karaikal & Nagapattinam Districts	Puducherry & Tamil Nadu	Torrent Gas Private Limited
122	Jalandhar	Punjab	Jay Madhok Energy Private Limited led
123	Ludhiana	Punjab	Jay Madhok Energy Private Limited led
124	Amritsar District	Punjab	Gujarat Gas Limited
125	Bhatinda District	Punjab	Gujarat Gas Limited
126	Rupnagar District	Punjab	Bharat Petroleum Corporation Limited
127	Fatehgarh Sahib District	Punjab	IRM Energy Private Limited
128	SAS Nagar District (EAAA), Patiala & Sangrur Districts	Punjab	Torrent Gas Private Limited
129	Ludhiana District (Except area already authorized), Barnala & Moga Districts	Punjab	Think Gas Ludhiana Private Limited
130	Jalandhar District (EAAA), Kapurthala & SBS Nagar Districts	Punjab	Think Gas Ludhiana Private Limited
131	Ferozepur, Feroke and Sri Muktsar Sahib	Punjab	Gujarat Gas Limited
132	Hoshiarpur and Gurdaspur Districts	Punjab	Gujarat Gas Limited
133	Kota	Rajasthan	Rajasthan State Gas Limited
134	Bhiwadi (in Alwar District)	Rajasthan	Haryana City Gas Distribution (Bhiwadi) Limited
135	Barmer, Jaisalmer & Jodhpur Districts	Rajasthan	AGP CGD India Private Limited
136	Alwar (Other than Bhiwadi) & Jaipur Districts*	Rajasthan	Torrent Gas Private Limited
137	Kota District (EAAA), Baran & Chittorgarh (Only Rawatbhata Taluka) Districts	Rajasthan	Torrent Gas Private Limited
138	Bhilwara & Buri Districts	Rajasthan	Adani Gas Limited
139	Chittorgarh (Other than Rawatbhata Taluka) & Udaipur Districts*	Rajasthan	Adani Gas Limited
140	Dholpur District	Rajasthan	Dholpur CGD Private Limited
141	Ajmer, Pali and Rajsamand Districts	Rajasthan	Indraprastha Gas Limited
142	Jalore and Sirohi Districts	Rajasthan	Gujarat Gas Limited
143	Chennai & Tiruvallur Districts	Tamil Nadu	Torrent Gas Private Limited
144	Cuddalore, Nagapattinam & Tiruvarur Districts	Tamil Nadu	Adani Gas Limited
145	Ramanathapuram District	Tamil Nadu	AGP CGD India Private Limited
146	Hyderabad	Telangana	Bhagyanagar Gas Limited
147	Bhadradi Kothagudem & Khamman Districts	Telangana	Megha Engineering & Infrastructures Limited
148	Jagtial, Peddapalli, Karimnagar & Rajanna Sircilla	Telangana	Indian Oil Corporation Limited
149	Jangaon, Jayashankar Bhupalpally, Mahabubabad, Warangal Urban & Warangal	Telangana	Megha Engineering & Infrastructures Limited
150	Medak, Siddipet & Sangareddy Districts	Telangana	Torrent Gas Private Limited
151	Medchal-Malkajigiri, Rang Reddy & Vikarabad	Telangana	Megha Engineering & Infrastructures Limited
152	Nalgonda Suryapet & Yadadri Bhuvanagiri	Telangana	Megha Engineering & Infrastructures Limited
153	Agartala	Tripura	Tripura Natural Gas Company Limited
154	Gomati District	Tripura	Tripura Natural Gas Company Limited



## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
155	West Tripura (EAAA) District	Tripura	Tripura Natural Gas Company Limited
156	Mathura	Uttar Pradesh	JV of DSM Infratech Private Limited & Saumya Mining Private Limited
157	Meerut	Uttar Pradesh	GAIL Gas Limited
158	Allahabad	Uttar Pradesh	IndianOil-Adani Gas Private Limited
159	Jhansi	Uttar Pradesh	Central UP Gas Limited
160	Saharanpur District	Uttar Pradesh	Bharat Petroleum Corporation Limited
161	Bulandshahr (part) District	Uttar Pradesh	IndianOil-Adani Gas Private Limited
162	Bagpat District	Uttar Pradesh	Bagpat Green Energy Private Limited
163	Bareilly	Uttar Pradesh	Central UP Gas Limited
164	Kanpur	Uttar Pradesh	Central UP Gas Limited
165	Agra	Uttar Pradesh	Green Gas Limited
166	Lucknow	Uttar Pradesh	Green Gas Limited
167	Ghaziabad & Hapur Districts	Uttar Pradesh	Indraprastha Gas Limited
168	Khurja	Uttar Pradesh	Adani Gas Limited
169	Moradabad	Uttar Pradesh	Torrent Gas Moradabad Limited
170	Varanasi District	Uttar Pradesh	GAIL (India) Limited
171	Bulandshahr District (EAAA), Aligarh & Hathras Districts	Uttar Pradesh	IndianOil-Adani Gas Private Limited
172	Allahabad District (EAAA), Bhadohi & Kaushambi Districts	Uttar Pradesh	IndianOil-Adani Gas Private Limited
173	Amethi, Pratapgarh & Raebareli Districts	Uttar Pradesh	Bharat Gas Resources Limited
174	Auraiya, Kanpur Dehat & Etawah Districts	Uttar Pradesh	Torrent Gas Private Limited
175	Faizabad & Sultanpur Districts	Uttar Pradesh	Green Gas Limited
176	Gorakhpur, Sant Kabir Nagar & Kushinagar Districts	Uttar Pradesh	Torrent Gas Private Limited
177	Meerut District (EAAA), Muzaffarnagar & Shamli Districts	Uttar Pradesh	Indraprastha Gas Limited
178	Moradabad (EAAA) District	Uttar Pradesh	Torrent Gas Private Limited
179	Unnao (EAAA) District	Uttar Pradesh	Green Gas Limited
180	Azamgarh, Mau and Ballia Districts	Uttar Pradesh	Torrent Gas Private Limited
181	Bareilly (EAAA) District, Pilibhit and Rampur Districts	Uttar Pradesh	Hindustan Petroleum Corporation Limited
182	Basti and Ambedkarnagar Districts	Uttar Pradesh	Torrent Gas Private Limited
183	Farrukhabad, Etah and Hardoi Districts	Uttar Pradesh	Hindustan Petroleum Corporation Limited
184	Gonda and Barabanki Districts	Uttar Pradesh	Torrent Gas Private Limited
185	Jaunpur and Ghazipur Districts	Uttar Pradesh	IndianOil-Adani Gas Private Limited
186	Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Uttar Pradesh	Indraprastha Gas Limited
187	Mainpuri and Kannauj Districts	Uttar Pradesh	Hindustan Petroleum Corporation Limited

## Details of authorized CGD Networks - Existing Natural Gas Pipelines

S. No.	Geographical Area (GA)	State/Union Territories	Authorized CGD Entity
188	Mirzapur, Chandauli and Sonbhadra Districts	Uttar Pradesh	GAIL Gas Limited
189	Shahjahanpur and Budaun Districts	Uttar Pradesh	Hindustan Petroleum Corporation Limited
190	Firozabad (Taj-Trapezium Zone)	Uttar Pradesh & Rajasthan	GAIL Gas Limited
191	Bijnor and Nainital Districts	Uttar Pradesh and Uttarakhand	Hindustan Petroleum Corporation Limited
192	Udham Singh Nagar District	Uttarakhand	IndianOil-Adani Gas Private Limited
193	Haridwar District	Uttarakhand	Haridwar Natural Gas Private Limited

\*Sub-judice | Note : EAAA stands for Excluding/Except Area Already Authorized

## Details of CGD Networks in the Country

Details of CGD Networks in the Country										
S.No	Unique GA ID	Geographical Area/ CGD Network	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
1	1.01	Karnataka	Bhavanagar Gas Limited	Andhra Pradesh	12-Jun-08	3,156	11,817	20,575	44,783	56,242
2	5.02	East Godavari District (EEAA)	Godavari Gas Private Limited	Andhra Pradesh	14-Aug-15	0	0	11,045	26,200	44,547
3	5.04	West Godavari District	Godavari Gas Private Limited	Andhra Pradesh	14-Aug-15	0	301	15,117	26,321	43,021
4	5.06	Krishna District (EEAA)	Madhavi Engineering & Infrastructure Limited	Andhra Pradesh	14-Sep-15	0	40	2,882	7,297	10,003
5	5.01	Srikakulam	Indian Oil Corporation Limited	Andhra Pradesh	01-Nov-19	NA	NA	0	0	0
6	5.05	Vizianagaram District	Bhavanagar Gas Limited	Andhra Pradesh	28-Jul-08	752	2,118	5,958	23,117	40,531
7	10.01	Anantapur and VSR (Kadapa) Districts	AGP City Gas Private Limited	Andhra Pradesh	24-Apr-19	NA	NA	NA	0	0
8	10.02	Sri Potti Srimululu Nellore	AGP City Gas Private Limited	Andhra Pradesh	24-Apr-19	NA	NA	NA	0	0
9	10.03	Chittoor, Kolar and Vellore Districts	AGP City Gas Private Limited	Andhra Pradesh, Karnataka & Tamil Nadu	24-Apr-19	NA	NA	NA	0	0
10	9.02	Cochin, Haribhand & Kottayam Districts	Purba Bharati Gas Private Limited	Assam	20-Sep-18	NA	NA	0	0	216
11	9.03	Kamrup & Kamrup Metropolitan Districts	Purba Bharati Gas Private Limited	Assam	28-Sep-18	NA	NA	0	0	0
12	9.05	Upper Assam	Assam Gas Company Limited	Assam	06-Feb-15	30,023	31,628	32,439	34,970	36,183
13	9.04	Aurangabad, Kaimur & Rohtas Districts	Indian Oil Corporation Limited	Bihar	06-Sep-18	NA	NA	0	0	0
14	9.05	Begusarai District	Think Gas, Begusarai Private Limited	Bihar	20-Sep-18	NA	NA	0	0	0
15	9.06	Gaya & Nalanda Districts	Indian Oil Adani Gas Private Limited	Bihar	20-Sep-18	NA	NA	0	0	0
16	9.07	Patna District	GAU, India Limited	Bihar	07-Mar-18	NA	0	5,007	11,846	27,475
17	10.04	Araria, Purnea, Kaimur and Kishanganj Districts	Indian Oil Corporation Limited	Bihar	29-Mar-19	NA	NA	0	0	0
18	10.05	Arrah, Jehanabad, Bhojpur and Buxar Districts	Indian Oil Corporation Limited	Bihar	29-Mar-19	NA	NA	0	0	0
19	10.06	Khagana, Saran and Madhepura Districts	Indian Oil Corporation Limited	Bihar	29-Mar-19	NA	NA	0	0	0
20	10.07	Lakhisarai, Munger and Bhagalpur Districts	Indian Oil Corporation Limited	Bihar	29-Mar-19	NA	NA	0	0	0
21	10.08	Muzaffarpur, Varanasi, Saran and Samastipur Districts	Indian Oil Corporation Limited	Bihar	28-Mar-18	NA	NA	0	0	0
22	10.09	Nawada and Koderma Districts	Indian Oil Corporation Limited	Bihar & Jharkhand	28-Mar-19	NA	NA	0	0	0
23	10.10	Sheikhpura, Jamui and Deogarh Districts	Indian Oil Corporation Limited	Bihar & Jharkhand	29-Mar-18	NA	NA	0	0	0
24	7.01	Chandigarh	Indian Oil Adani Gas Private Limited	Chandigarh (UT), Haryana, Punjab & Jharkhand Pradesh	08-May-13	2,330	11,792	1,06,766	1,10,412	1,11,820
25	1.05	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	Dadra & Nagar Haveli (UT)	01-Apr-15	54	465	2,670	4,227	6,478
26	4.05	UT of Daman	Indian Oil Adani Gas Private Limited	Daman & Diu (UT)	01-Apr-15	0	2,140	2,944	3,323	4,794
27	4.07	Diu & Car Nicobar Districts	IPRI Energy Private Limited	Daman and Diu & Goa	26-Sep-18	NA	NA	0	0	0
28	4.07	North Goa District	Goa Natural Gas Private Limited	Goa	24-Jun-16	0	25	2,170	3,172	5,226
29	8.01	South Goa District	Indian Oil Adani Gas Private Limited	Goa	07-Feb-18	NA	0	0	0	0
30	3.05	Bhavnagar	Gujarat Gas Limited	Gujarat	05-Mar-15	4,887	11,150	23,267	26,033	35,941

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Details of CGD Networks in the Country

S.No	Unique GA ID	Geographical Area/ CGD Networks	Authorized CGD Entity	Stabilization Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
31	3.03	Jamshedpur	Gujarat Gas Limited	Gujarat	17-Jun-14	4,102	7,300	11,723	16,391	22,360
32	3.04	Kutch (West)	Gujarat Gas Private Limited	Gujarat	19-Dec-14	200	479	907	1,004	1,675
33	3.05	Kutch (East)	Jay Madhon Energy Private Limited (Cooperative)	Gujarat	12-Mar-15	0	0	0	0	0
34	6.03	Anand District	Gujarat Gas Limited	Gujarat	27-Mar-16	0	208	1,544	3,314	5,095
35	6.04	Palan District	Subhman Gas Limited	Gujarat	27-Mar-16	0	1,200	3,629	7,658	12,756
36	6.05	Dahlg Vadra Taluka	Gujarat Gas Limited	Gujarat	06-Jun-16	0	62	396	545	1,102
37	6.06	Dahlg District	Gujarat Gas Limited	Gujarat	27-Jun-16	0	0	659	2,282	7,468
38	6.09	Banswari District	Rel Energy Private Limited	Gujarat	01-Jul-16	0	2,000	9,230	17,131	25,180
39	6.10	Anand District (EAAA)	Gujarat Gas Limited	Gujarat	04-Jul-16	30,143	31,859	34,533	36,331	37,522
40	6.11	Panchmahal District	Gujarat Gas Limited	Gujarat	01-Jul-16	9,239	9,814	10,569	14,093	16,193
41	6.12	Amrehabad District (EAAA)	Gujarat Gas Limited	Gujarat	22-Jun-16	0	0	0	0	0
42	9.08	Surat District (EAAA) & Morbi District (EAAA)	Adani Gas Limited	Gujarat	17-Oct-16	NA	NA	0	0	0
43	9.09	Baruch & Ranpur Talukas	Adani Gas Limited	Gujarat	26-Sep-18	NA	NA	0	0	0
44	9.10	Surat District (EAAA), Topi District (EAAA) & bho	Adani Gas Limited	Gujarat	26-Sep-18	NA	NA	0	0	0
45	9.11	Dange District	Torrent Gas Private Limited	Gujarat	13-Sep-18	NA	NA	0	0	0
46	9.12	Kheda District (EAAA) & Mahisagar District	Adani Gas Limited	Gujarat	28-Sep-18	NA	NA	0	0	0
47	9.13	Narmada (Rajpi) District	Gujarat Gas Limited	Gujarat	06-Sep-18	NA	NA	0	0	0
48	9.14	Patan District	Adani Gas Limited	Gujarat	26-Sep-18	NA	NA	0	0	0
49	9.15	Surat District	Gujarat Gas Limited	Gujarat	08-Nov-17	5,51,103	5,87,476	6,27,026	6,59,186	6,84,780
50	9.16	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
51	9.17	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
52	9.18	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
53	9.19	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
54	9.20	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
55	9.21	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
56	9.22	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
57	9.23	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
58	9.24	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
59	9.25	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
60	9.26	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
61	9.27	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
62	9.28	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
63	9.29	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
64	9.30	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
65	9.31	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
66	9.32	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
67	9.33	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
68	9.34	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
69	9.35	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
70	9.36	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
71	9.37	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
72	9.38	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
73	9.39	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
74	9.40	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
75	9.41	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
76	9.42	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
77	9.43	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
78	9.44	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
79	9.45	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
80	9.46	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
81	9.47	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
82	9.48	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
83	9.49	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
84	9.50	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
85	9.51	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
86	9.52	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
87	9.53	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
88	9.54	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
89	9.55	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
90	9.56	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
91	9.57	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
92	9.58	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
93	9.59	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
94	9.60	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
95	9.61	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
96	9.62	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
97	9.63	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
98	9.64	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
99	9.65	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501
100	9.66	Amrehabad District	Gujarat Gas Limited	Gujarat	01-Oct-13	58,228	57,071	59,849	62,113	64,501

**Details of CGD Networks in the Country**

S.No	Unique GA ID	Geographical Area/ CGD Network	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
60	9.10	Sonapat District (EAAA) & Jind District	Hindustan Petroleum Corporation Limited	Haryana	26-Sep-18	NA	NA	0	0	0
70	9.20	Nuh and Palwal Districts	Adani Gas Limited	Haryana	13-Sep-18	NA	NA	0	1,474	1,476
71	10.11	Kaithal District	Indira Gas Limited	Haryana	28-Mar-19	NA	NA	0	877	5,596
72	9.15	Peroorka District (EAAA), Srinagar, Samba & Solan (EAAA) Districts	Indian Oil Adani Gas Private Limited	Haryana & Himachal Pradesh	13-Sep-18	NA	NA	0	0	0
73	10.12	Sree, Fatehabad and Mansa (Punjab) Districts	Gujarat Gas Limited	Haryana & Punjab	29-Mar-19	NA	NA	0	0	0
74	9.21	Bilaspur, Hamirpur & Una Districts	Bharat Gas Resources Limited	Himachal Pradesh	06-Sep-18	NA	NA	0	0	1,000
75	9.02	East Singhbhum District	GAIL (India) Limited	Jharkhand	07-Mar-18	NA	0	1,242	5,875	12,655
76	9.03	Ranchi District	GAIL (India) Limited	Jharkhand	07-Mar-18	NA	0	1,882	6,337	15,937
77	9.22	Bokaro, Hazaribagh & Ranchi Districts	Indian Oil Corporation Limited	Jharkhand	06-Sep-18	NA	NA	0	0	0
78	9.23	Gondia & Dhule Districts	GAIL Gas Limited	Jharkhand	06-Sep-18	NA	NA	0	908	4,909
79	10.13	Chitra and Palamu Districts	Bharat Gas Resources Limited	Jharkhand	29-Mar-19	NA	NA	0	0	0
80	10.14	Seraikela-Kharsawan District	GAIL Gas Limited	Jharkhand	28-Mar-19	NA	NA	0	0	1,320
81	10.15	West Singhbhum District	GAIL Gas Limited	Jharkhand	29-Mar-19	NA	NA	0	0	0
82	4.01	Bengaluru Rural and Urban Districts	GAIL Gas Limited	Karnataka	18-Feb-15	20,595	50,548	97,299	1,51,708	1,87,328
83	5.05	Tumkur District	Magma Engineering & Infrastructure Limited	Karnataka	14-Aug-15	0	0	3,876	10,634	15,430
84	5.07	Dharwad District	Indian Oil Adani Gas Private Limited	Karnataka	14-Sep-15	0	0	3,115	7,892	11,681
85	5.08	Belgaum District	Magma Engineering & Infrastructure Limited	Karnataka	14-Sep-15	0	0	2,108	6,328	12,568
86	9.24	Chitradurga & Davangere Districts	Union Envis Private Limited	Karnataka	25-Sep-18	NA	NA	0	0	0
87	9.25	Udupi District	Adani Gas Limited	Karnataka	13-Sep-18	NA	NA	0	0	0
88	9.26	Bellari & Gadag Districts	Bharat Gas Resources Limited	Karnataka	24-Sep-18	NA	NA	0	0	0
89	9.27	Bidar District	Bharat Gas Resources Limited	Karnataka	10-Aug-18	NA	NA	0	0	0
90	9.28	Dakshina Kannada District	GAIL Gas Limited	Karnataka	28-Aug-18	NA	NA	0	1,297	3,180
91	9.29	Ramanagara District	Maharashtra Natural Gas Limited	Karnataka	28-Sep-18	NA	NA	0	0	217
92	10.16	Bagalpet, Koppal and Raichur Districts	AGP City Gas Private Limited	Karnataka	24-Apr-19	NA	NA	NA	0	0
93	10.17	Chikmagalur, Hassan, and Kodagu Districts	AGP City Gas Private Limited	Karnataka	24-Apr-19	NA	NA	NA	0	0
94	10.18	Kolaburg and Vijayapura Districts	AGP City Gas Private Limited	Karnataka	24-Apr-19	NA	NA	NA	0	0
95	10.19	Mysuru, Mandya and Channarayana Districts	AGP City Gas Private Limited	Karnataka	24-Apr-19	NA	NA	NA	0	0
96	10.20	Uttara Kannada, Haveri and Shivamogga Districts	AGP City Gas Private Limited	Karnataka	24-Apr-19	NA	NA	NA	0	0
97	4.09	Ernakulam District	Indian Oil Adani Gas Private Limited	Kerala	14-Oct-15	NA	NA	NA	0	0
98	9.30	Kozhikode & Wayanad Districts	Indian Oil Adani Gas Private Limited	Kerala	14-Sep-18	NA	NA	0	0	0
99	9.31	Malappuram District	Indian Oil Adani Gas Private Limited	Kerala	27-Sep-18	NA	NA	0	0	0
100	9.33	Palakkad & Thrissur Districts	Indian Oil Adani Gas Private Limited	Kerala	29-Sep-18	NA	NA	0	0	0

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## Details of CGD Networks in the Country

S.No	Unique GAIID	Geographical Area/ CGD Networks	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
101	10.21	Adapalala, Kotham and Thiruvananthapuram Districts,	AGP City Gas Private Limited	Kerala	29-Mar-19	NA	NA	0	0	0
102	5.52	Kannur, Kasaragod & Malabar Districts	Indian Oil Adani Gas Private Limited	Kerala & Puducherry	14-Sep-18	NA	NA	0	0	0
103	1.01	Daman	GAIL Gas Limited	Madhya Pradesh	01-Jun-08	1,865	5,375	7,990	11,540	13,012
104	6.16	Dhar District	Naxos Gas Private Limited	Madhya Pradesh	07-Nov-16	0	0	0	302	568
105	8.24	Bhopal & Raigarh Districts	Thane Gas Bhopal Private Limited	Madhya Pradesh	24-Sep-18	NA	NA	0	0	0
106	8.35	Guna District	Indian Oil Corporation Limited	Madhya Pradesh	06-Sep-18	NA	NA	0	0	565
107	9.36	Rewa District	Indian Oil Corporation Limited	Madhya Pradesh	06-Sep-18	NA	NA	0	0	810
108	9.27	Sausa & Shandol Districts	Bharat Gas Resources Limited	Madhya Pradesh	06-Sep-18	NA	NA	0	0	1,530
109	99.08	Indore (including Ujjain City)	Adventra Gas Limited	Madhya Pradesh	31-Aug-09	10,532	18,585	37,967	54,369	62,678
110	99.12	Gwalior	Adventra Gas Limited	Madhya Pradesh	01-Jun-10	2,126	6,356	13,236	19,598	24,277
111	10.22	Ashtomer District	Indian Oil Corporation Limited	Madhya Pradesh	28-Mar-19	NA	NA	0	0	0
112	10.23	Gwalior (EAAA) District and Sheosar District	Kapashan State Gas Limited	Madhya Pradesh	28-Mar-19	NA	NA	0	0	0
113	10.24	Morena District	Indian Oil Corporation Limited	Madhya Pradesh	29-Mar-19	NA	NA	0	0	0
114	10.25	Raisen, Shajapur and Sehore Districts	GAIL Gas Limited	Madhya Pradesh	29-Mar-19	NA	NA	0	0	0
115	10.26	Shajapur District	Thane Gas Bhopal Private Limited	Madhya Pradesh	29-Mar-19	NA	NA	0	0	0
116	10.27	Sichu and Singrauli Districts	Bharat Gas Resources Limited	Madhya Pradesh	29-Mar-19	NA	NA	0	0	0
117	10.28	Dewas (EAAA) District and Indore (EAAA) District	Gujarat Gas Limited	Madhya Pradesh	29-Mar-19	NA	NA	0	0	0
118	10.29	Anuppur, Bilaspur and Korba Districts	Adani Gas Limited	Madhya Pradesh and Chhattisgarh	29-Mar-19	NA	NA	0	0	0
119	10.30	Jhabua, Barwani, Ratoni and Durgam Districts	Gujarat Gas Limited	Madhya Pradesh and Rajasthan	29-Mar-19	NA	NA	0	0	0
120	10.31	Blundi, Jabua, Lalpur and Daha Districts	Adani Gas Limited	Madhya Pradesh and Uttar Pradesh	29-Mar-19	NA	NA	0	0	0
121	4.03	Palghat District & Thano Rural	Gujrat Gas Limited	Maharashtra	01-Apr-15	122	140	188	262	339
122	4.04	Bilaspur District (EAAA)	Maharashtra Gas Limited	Maharashtra	01-Apr-15	45	492	8,898	26,430	39,037
123	4.06	Pune District (EAAA)	Tarapur Gas Private Limited	Maharashtra	18-Mar-15	0	0	0	402	1,147
124	6.14	Ratnagiri District	Union Energy Private Limited	Maharashtra	09-Aug-16	0	0	22	1,898	1,126
125	7.01	Solapur District	Shreegas Private Limited	Maharashtra	06-Mar-17	0	0	0	0	0
126	8.04	Kolhapur District	ILCOIL Gas Private Limited	Maharashtra	06-Mar-18	0	0	0	0	1,851
127	9.38	Ahmednagar & Aurangabad Districts	Bharat Gas Resources Limited	Maharashtra	28-Sep-18	NA	NA	0	0	0
128	9.39	Yashwantrao Chavan & Nashik Districts	Maharashtra Natural Gas Limited	Maharashtra & Gujarat	28-Sep-18	NA	NA	0	0	20,438
129	9.40	Latur & Osmanabad Districts	Union Energy Private Limited	Maharashtra	28-Sep-18	NA	NA	0	0	0
130	9.41	Sangli & Satara Districts	Bharat Gas Resources Limited	Maharashtra	28-Sep-18	NA	NA	0	0	344
131	9.42	Sindhudurg District	Maharashtra Natural Gas Limited	Maharashtra	08-Sep-19	NA	NA	0	0	1,267
132	99.02	Mumbai & Greater Mumbai	Mahanagar Gas Limited	Maharashtra	21-Jan-09	6,44,461	7,21,479	8,05,514	8,50,571	9,28,518

# Details of CGD Networks in the Country

S.No	Unique GA ID	Geographical Area/ CGD Network	Authorized CGD Entity	State/Union Territory	Date of Authorization	As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
133	99.05	Pune City including Pimpri Chinchwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon	Maharashtra Natural Gas Limited	Maharashtra	01-Jun-09	50,851	1,03,014	1,69,407	2,74,616	3,40,884
134	99.07	Thane urban and adjoining Municipalities	Maharashtra Gas Limited	Maharashtra	06-Aug-09	3,04,396	3,86,834	4,68,872	5,84,247	6,12,119
135	99.01	National Capital Territory of Delhi	Indraprastha Gas Limited	National Capital Territory of Delhi (UT)	09-Jan-09	5,22,747	5,11,293	7,37,653	9,13,199	10,38,701
136	9.43	Angul & Dhakshin Districts	Bharat Gas Resources Limited	Odisha	10-Aug-18	NA	NA	0	0	0
137	9.41	Sundergarh & Jharsuguda Districts	GAIL Gas Limited	Odisha	06-Sep-18	NA	NA	0	0	273
138	9.45	Balsore, Bhadrak & Mayurbhanj Districts	Adani Gas Limited	Odisha	20-Sep-18	NA	NA	0	0	0
139	9.46	Bargarh, Debagarh & Sambalpur Districts	Bharat Gas Resources Limited	Odisha	28-Sep-18	NA	NA	0	0	0
140	9.47	Conjaint Nayagarh & Puri Districts	GAIL Gas Limited	Odisha	06-Sep-18	NA	NA	0	0	315
141	9.48	Jagatsinghpur & Kendrapada Districts	Bharat Gas Resources Limited	Odisha	26-Sep-18	NA	NA	0	0	0
142	9.49	Bijapur & Kandulpar Districts	Bharat Gas Resources Limited	Odisha	26-Sep-18	NA	NA	0	0	0
143	97.04	Khordha District	GAIL India Limited	Odisha	07-Mar-18	NA	0	4,020	5,911	14,924
144	97.05	Cuttack District	GAIL India Limited	Odisha	07-Mar-18	NA	0	1,094	3,283	7,022
145	9.51	Puducherry District	Private Limited	Puducherry	25-Sep-18	NA	NA	0	0	0
146	9.50	Kanyakumari & Nagercoil Districts	Torrent Gas Private Limited	Puducherry & Tamil Nadu	28-Sep-18	NA	NA	0	0	0
147	3.01	Jalandhar	Jay Madhok Energy Private Limited Ltd Consortium	Punjab	06-Sep-13	0	0	0	0	0
148	3.06	Ludhiana	Jay Madhok Energy Private Limited Ltd Consortium	Punjab	25-Jul-15	0	0	0	0	0
149	4.07	Amritsar District	Gujarat Gas Limited	Punjab	05-May-15	0	0	0	794	3,249
150	6.01	Batalinda District	Bharat Petroleum Corporation Limited	Punjab	10-May-16	0	0	0	106	599
151	6.06	Rupnagar District	ISM Energy Private Limited	Punjab	10-Jun-16	0	0	0	4,500	4,950
152	6.12	Fatehgarh Sahib District	ISM Energy Private Limited	Punjab	09-Jul-16	0	0	400	1,251	1,386
153	9.52	SAS Nagar District (E/AA), Patiala & Sangrur Districts	Torrent Gas Private Limited	Punjab	26-Sep-18	NA	NA	0	0	0
154	9.53	Ludhiana District (E/AA), Barnala & Moga Districts	Think Gas Ludhiana Private Limited	Punjab	26-Oct-18	NA	NA	0	0	70
155	9.54	Jalandhar District (E/AA), Kapurthala & SBS Nagar Districts	Think Gas Ludhiana Private Limited	Punjab	26-Oct-18	NA	NA	0	0	0
156	10.32	Ferozepur, Faisalabad and Sri Mukteswar Districts	Guprat Gas Limited	Punjab	29-Mar-19	NA	NA	0	0	0
157	10.33	Hoshiarpur and Gurdaspur Districts	Guprat Gas Limited	Punjab	29-Mar-19	NA	NA	0	0	0
158	1.02	Kota	Rajasthan State Gas Limited	Rajasthan	01-Jun-09	194	191	2,041	10,076	15,674
159	9.55	Barnar, Jasalmer & Jodhpur Districts	AGP CGD India Private Limited	Rajasthan	28-Sep-18	NA	NA	0	0	8
160	9.56	Alwar (Other than Bhawal) & Jaipur Districts	Torrent Gas Private Limited	Rajasthan	27-Aug-18	NA	NA	0	0	0

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## Details of CGD Networks in the Country

S.No	Unique GA ID	Geographical Area/ CGD Networks	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
160	9.57	Kota District (EAAA), Bikaner & Chittorgarh (Only Rawaithala Taluka)	Torrent Gas Private Limited	Rajasthan	12-Sep-18	NA	NA	0	0	0
161	9.58	Bhilwara & Bundi Districts	Adani Gas Limited	Rajasthan	14-Sep-18	NA	NA	0	0	0
162	9.59	Chittorgarh (Other than Rawaithala Taluka) & Udaipur District	Adani Gas Limited	Rajasthan	13-Sep-18	NA	NA	0	0	0
163	9.60	Dholpur District	Chittorgarh CGD Private Limited	Rajasthan	28-Sep-18	NA	NA	0	0	0
164	9.61	Bhilwara (in Alwar District)	Chittorgarh CGD Private Limited	Rajasthan	01-Aug-18	NA	NA	0	0	2,002
165	10.34	Amber, Pol and Rajsamand Districts	Indraprastha Gas Limited	Rajasthan	28-Mar-19	NA	NA	0	0	28,012
166	10.35	Jalore and Sikar Districts	Gujarat Gas Limited	Rajasthan	29-Mar-19	NA	NA	0	0	0
167	9.61	Kancharpur District	AGP CGD India Private Limited	Tamil Nadu	26-Sep-18	NA	NA	0	0	0
168	9.62	Chennai & Tiruvallur Districts	Torrent Gas Chennai Private Limited	Tamil Nadu	07-Sep-18	NA	NA	0	0	0
169	9.63	Coimbatore District	Indan Oil Corporation Limited	Tamil Nadu	12-Sep-18	NA	NA	0	0	0
170	9.64	Cuddalore, Nagapattinam & Tiruvallur Districts	Adani Gas Limited	Tamil Nadu	28-Sep-18	NA	NA	0	0	0
171	9.65	Ramanathapuram District	AGP CGD India Private Limited	Tamil Nadu	26-Sep-18	NA	NA	0	0	0
172	9.66	Salem District	Indan Oil Corporation Limited	Tamil Nadu	12-Sep-18	NA	NA	0	0	0
173	9.67	Tirupur District	Adani Gas Limited	Tamil Nadu	13-Sep-18	NA	NA	0	0	0
174	9.68	Bharadwaj Kottayam & Kannur Districts	Megha Engineering & Infrastructure Limited	Telangana	20-Sep-18	NA	NA	0	0	0
175	9.69	Jagdal, Peddapalle, Kannur & Rajanna Sircilla Districts	Indan Oil Corporation Limited	Telangana	12-Sep-18	NA	NA	0	0	0
176	9.70	Jangaon, Jayashankar Bhupatipally, Mahabubnagar, Warangal Urban & Warangal Rural Districts	Megha Engineering & Infrastructure Limited	Telangana	24-Sep-18	NA	NA	0	0	0
177	9.71	Medak, Siddipet & Sangareddy Districts	Torrent Gas Private Limited	Telangana	12-Sep-18	NA	NA	0	0	0
178	9.72	Nedamangudi, Rangai Reddy & Vikarabad Districts	Megha Engineering & Infrastructure Limited	Telangana	14-Nov-18	NA	NA	0	0	0
179	9.73	Nalgonda Suryapet & Yadadri Bhuvanagiri Districts	Megha Engineering & Infrastructure Limited	Telangana	13-Sep-18	NA	NA	0	0	0
180	9.74	Hyderabad	Bharadwaj Gas Limited	Telangana	08-Oct-18	7,706	7,723	10,579	69,073	1,29,850
181	9.75	Coimbatore District	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
182	9.76	West Tirupur (EAAA)	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
183	9.77	Agumudi District	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
184	10.3	Machilipatnam	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
185	10.3	Machilipatnam	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
186	10.3	Machilipatnam	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
187	10.3	Machilipatnam	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0
188	10.3	Machilipatnam	Indan Oil Corporation Limited	Telangana	28-Sep-18	NA	NA	0	0	0



## Details of CGD Networks in the Country

S.No	Unique GA ID	Geographical Area/ CGD Networks	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)				
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021
189	8.05	Bulandshahr (part) District	Indian Oil Adani Gas Private Limited	Uttar Pradesh	06-Mar-18	NA	0	0	0	0
190	8.06	Bagpat District	Bagpat Green Energy Private Limited	Uttar Pradesh	28-Mar-18	NA	0	0	0	0
191	8.76	Bulandshahr District (EAAA), Aligarh & Mathura Districts	Indian Oil Adani Gas Private Limited	Uttar Pradesh	24-Sep-18	NA	NA	0	0	0
192	9.77	Aligarh District (FAAA), Shadoli & Kaushambi Districts	Indian Oil Adani Gas Private Limited	Uttar Pradesh	13-Sep-18	NA	NA	0	0	318
193	9.78	Amethi, Pratapgarh & Rudrauli Districts	Sharda Gas Resources Limited	Uttar Pradesh	10-Aug-18	NA	NA	0	0	1,824
194	9.79	Auraiya, Kanpur Dehat & Etawah Districts	Torrent Gas Private Limited	Uttar Pradesh	13-Sep-18	NA	NA	0	0	115
195	9.80	Faizabad & Sultanpur Districts	Green Gas Limited	Uttar Pradesh	24-Sep-18	NA	NA	0	0	0
196	9.81	Gorakhpur, Sant Kober Nagar & Kushinagar Districts	Torrent Gas Private Limited	Uttar Pradesh	13-Sep-18	NA	NA	0	0	20
197	9.82	Muzaffarnagar & Shamli Districts	Indian Gas Limited	Uttar Pradesh	13-Sep-18	NA	NA	0	968	16,368
198	9.83	Moradabad (EAAA) District	Torrent Gas Private Limited	Uttar Pradesh	13-Sep-18	NA	NA	0	0	623
199	9.84	Unnao (EAAA) District	Green Gas Limited	Uttar Pradesh	24-Sep-18	NA	NA	0	0	0
200	9.85	Varanasi District	GAIL (India) Limited	Uttar Pradesh	07-Mar-18	NA	0	15,200	18,482	33,288
201	9.86	Khajur	Adani Gas Limited	Uttar Pradesh	04-Dec-12	5,753	5,797	11,305	5,537	5,371
202	9.88	Moradabad	Torrent Gas Moradabad Limited	Uttar Pradesh	30-Nov-12	1,495	2,468	4,084	8,805	9,242
203	9.89	Barilly	Central UP Gas Limited	Uttar Pradesh	22-Apr-09	5,748	9,617	17,250	24,314	30,741
204	9.90	Kanpur	Central UP Gas Limited	Uttar Pradesh	29-Mar-09	13,585	21,537	39,316	61,586	78,082
205	9.91	Agra	Green Gas Limited	Uttar Pradesh	12-Nov-09	5,564	20,653	32,442	54,491	76,077
206	9.92	Lucknow	Green Gas Limited	Uttar Pradesh	15-Mar-16	5,635	20,912	34,917	49,494	64,747
207	9.93	Ghaziabad & Hapur Districts	Indraprastha Gas Limited	Uttar Pradesh	06-Sep-19	1,16,528	1,35,366	1,88,529	2,11,749	2,39,891
208	10.36	Azamgarh, Meo and Ballia Districts	Torrent Gas Private Limited	Uttar Pradesh	28-Mar-19	NA	NA	0	0	0
209	10.37	Barilly (EAAA) District, Pilibhit and Rampur Districts	Hindustan Petroleum Corporation Limited	Uttar Pradesh	28-Mar-19	NA	NA	0	0	0
210	10.38	Basti and Ambedkarnagar Districts	Torrent Gas Private Limited	Uttar Pradesh	28-Mar-19	NA	NA	0	0	0
211	10.39	Farrukhabad, Etah and Haridwar Districts	Hindustan Petroleum Corporation Limited	Uttar Pradesh	28-Mar-19	NA	NA	0	0	0
212	10.40	Gonda and Sarabanki Districts	Torrent Gas Private Limited	Uttar Pradesh	28-Mar-19	NA	NA	0	0	0
213	10.41	Jaunpur and Ghazipur Districts	Indian Oil Adani Gas Private Limited	Uttar Pradesh	24-Apr-19	NA	NA	NA	0	0
214	10.42	Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Indraprastha Gas Limited	Uttar Pradesh	29-Mar-19	NA	NA	0	0	12,376
215	10.43	Mainpur and Kaimur Districts	Hindustan Petroleum Corporation Limited	Uttar Pradesh	29-Mar-19	NA	NA	0	0	0
216	10.44	Mirzapur, Chandauli and Sonbhadra Districts	GAIL Gas Limited	Uttar Pradesh	29-Mar-19	NA	NA	0	0	904
217	10.45	Shahjahanpur and Budaun Districts	Hindustan Petroleum Corporation Limited	Uttar Pradesh	29-Mar-19	NA	NA	0	0	0
218	99.13	Faizabad (Top Topozone)	GAIL Gas Limited	Uttar Pradesh & Rajasthan	26-Sep-11	200	867	4,228	14,770	17,648

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Details of CGD Networks in the Country

S.No	Unique CA ID	Geographical Area/ CGD Networks	Authorized CGD Entity	State/Union Territory	Date of Authorization	Achievement of PNG Domestic Connections (Cumulative)						
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021		
210	10.46	Super and Narmad Districts	Hindustan Petroleum Corporation Limited	Uttar Pradesh and Uttarakhand	29-Mar-19	NA	NA	0	0	0		
220	9.85	Darjeeling District	CGIL Gas Limited	Uttarakhand	12-Sep-18	NA	NA	0	1,957	5,190		
221	5.01	Uttam Singh Nagar District	Indian Oil Adani Gas Private Limited	Uttarakhand	28-Jul-15	0	92	4,661	8,784	10,196		
222	5.02	Hemidwar District	Hemidwar Natural Gas Private Limited	Uttarakhand	27-Jul-15	150	150	3,266	5,439	20,814		
223	9.86	Burhanpur District	Indian Oil Adani Gas Private Limited	West Bengal	28-Sep-18	NA	NA	0	0	0		
224	99.14	Kolkata Municipal Corporation and Parts of Adjoining Districts	Bengal Gas Company Limited	West Bengal	02-Feb-13	0	0	0	0	0		
225	10.47	Darjeeling, Jalpaiguri and Ulter Dooars Districts	Hindustan Petroleum Corporation Limited	West Bengal	29-Mar-19	NA	NA	0	0	0		
226	10.48	Howrah (EAAA) District and Hooghly (EAAA) District	Hindustan Petroleum Corporation Limited	West Bengal	29-Mar-19	NA	NA	0	0	0		
227	10.49	Nadia (EAAA) District and North 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	West Bengal	29-Mar-19	NA	NA	0	0	0		
228	10.50	South 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	West Bengal	29-Mar-19	NA	NA	0	0	0		
Total (A) - CGD Networks authorized by PNGRBs						39,47,057	39,97,356	50,22,542	61,23,238	71,27,345		

CGD Networks - Operational based on Court Order/Under Consideration

S.No	Remarks	Geographical Area/ CGD Networks	CGD Networks operated by	State/Union Territory	Remarks	Achievement of PNG Domestic Connections (Cumulative)						
						As on 31.03.2017	As on 31.03.2018	As on 31.03.2019	As on 31.03.2020	As on 28.02.2021		
1	Sub-Judice Under Consideration	Vadodra	Adani Gas Limited	Gujarat	Sub-Judice Under Consideration	Info Not available	Info Not available	Info Not available	616	616		
2		Gandhinagar	Gujarat Gas Limited	Gujarat	Sub-Judice Under Consideration	Info Not available	Info Not available	1,13,708	1,20,194	1,78,807		
3		Gandhinagar	Pargana City Gas Distribution Limited	Haryana	Sub-Judice	17,864	20,336	21,036	20,327	22,595		
4	Sub-Judice	Gurgaon	Indraprastha Gas Limited	Haryana	Sub-Judice	Info Not available	Info Not available	Info Not available	9,561	14,895		
5		Fatehabad	Adani Gas Limited	Haryana	Sub-Judice	43,603	45,553	61,463	57,291	60,826		
6		Gurgaon Bich Nagar District	Indraprastha Gas Limited	Uttar Pradesh	Sub-Judice	1,13,495	1,44,428	1,86,041	2,28,184	2,32,014		
Total (B) - CGD Networks Operational based on Court Orders						1,74,982	2,10,317	3,81,853	4,36,163	4,77,753		
Total (A+B)						35,22,039	42,01,673	54,04,395	65,59,401	76,05,098		

1. All the CGAs where PNG connections have been established is considered as Operational.  
 2. Under normal conditions, Operation of any particular CGA commences within around one year of authorization.  
 3. EAAA stands for End User Agreement and already authorized. 4 stands for Sub-Judice. 5 stands for authorization of CGA cancelled.

### New Domestic Natural Gas Pricing Guidelines, 2014

**No.22013/27/2012-ONG D.V.**—In supersession of this Ministry's Gazette notification no. 22011/3/2012-ONG.D.V dated 10.1.2014, the Government of India hereby notifies the New Domestic Natural Gas Pricing Guidelines, 2014, as hereunder:—

1. The wellhead gas price\* (P), under these guidelines would be determined as per the formula given below:-

$$P = \frac{V_{HH} P_{HH} + V_{AC} P_{AC} + V_{NBP} P_{NBP} + V_R P_R}{V_{HH} + V_{AC} + V_{NBP} + V_R}$$

Where

- (i)  $V_{HH}$  = Total annual volume of natural gas consumed in USA & Mexico.
- (ii)  $V_{AC}$  = Total annual volume of natural gas consumed in Canada.
- (iii)  $V_{NBP}$  = Total annual volume of natural gas consumed in European Union (EU) and Former Soviet Union (FSU) countries, excluding Russia.
- (iv)  $V_R$  = Total annual volume of natural gas consumed in Russia.
- (v)  $P_{HH}$  and  $P_{NBP}$  are the annual average of daily prices at Henry Hub (HH) and National Balancing Point (NBP) respectively, less the transportation and treatment charges as given in para 2.
- (vi)  $P_{AC}$  and  $P_R$  are the annual average of monthly prices at Alberta Hub and Russia (as published by Federal Tariff of the Russian Government or equivalent source) respectively, less the transportation and treatment charges as given in para 2.

(\*Well head price refers to the price of gas receivable by the producer of gas at the contract area/lease area from the buyer of gas. In case of on-land blocks, the price receivable by the contractor (producer) in the contract area will be the well head price. In case of offshore blocks, if the gas is processed and sold in the offshore contract area, the price receivable at the offshore will be the well head price. If the gas is brought to landfall point for processing and is sold at landfall point, the facilities located in the landfall point will be considered part of the contract area and the price receivable at land fall point will be the well head price).

2. The wellhead price for three different hubs and Russia would be determined by deducting US \$ 0.50/MMBTU towards transportation and treatment charges from each of the three Hub prices and Russian price.

3. The gas price, determined, under these guidelines would be applicable to all gas produced from nomination fields given to ONGC and OIL India, New Exploration and Licensing Policy (NELP) blocks, such Pre-NELP blocks where, the Production Sharing Contract, (PSC) provides for Government approval of gas prices and Coal Bed Methane (CBM) blocks except as indicated in para 4 and 5 below.
4. The gas price, so determined under these guidelines shall not be applicable, where prices have been fixed contractually for a certain period of time, till the end of such period. This gas price shall also not be applicable where the PSC concerned provides for a specific formula for natural gas price indexation/fixation and to such Pre-NELP PSCs which do not provide for Government approval of formula/basis for gas prices. Further, the pricing of natural gas from small/isolated fields in the nomination blocks of NOCs will continue to be governed by the extant guidelines in respect of these fields issued on 8th July, 2013.
5. The matter relating to cost recovery on account of shortfall in envisaged production from D1, D3 discoveries of Block KG-DWN-98/3 is under arbitration. The difference between the price, determined under these guidelines converted to NCV basis and the present price (US \$ 4.2 per million BTU) would be credited to the gas pool account maintained by GAIL and whether the amount so collected is payable or not, to the contractors of this Blocks, would be dependent on the outcome of the award of pending arbitration and any attendant legal proceedings.
6. The periodicity of price determination/notification shall be half yearly. The price and volume data used for calculation of price under these guidelines shall be the trailing four quarter data with one quarter lag. The first price on the basis of aforementioned formula in these guidelines would be determined on the basis of price prevailing at Henry Hub, NBP, Alberta Canada and Russia, between 1<sup>st</sup> July, 2013 and 30<sup>th</sup> June, 2014. This price would come into effect from 1<sup>st</sup> November, 2014 and would remain valid till 31<sup>st</sup> March, 2015. Thereafter, it would be revised for the period 1<sup>st</sup> April, 2015 to 30<sup>th</sup> September, 2015 on the basis of said prices prevalent between 1<sup>st</sup> January, 2014 and 31<sup>st</sup> December, 2014, i.e., with the lag of a quarter and so on. The

price determined under these guidelines would be announced in advance of the half year, for which it is applicable.

7. The price determined under these guidelines would be applied prospectively with effect from 1<sup>st</sup> November, 2014.

8. Director General of Petroleum Planning and Analysis Cell (DG PPAC) under the Ministry of Petroleum and Natural Gas shall notify the periodic revision of prices under these guidelines.

9. For all discoveries after the issuance of these guidelines, in Ultra Deep Water Areas, Deep Water Areas and High Pressure High Temperature (well head shut-in pressure > 690 bars, bottom hole temperature > 150 degree centigrade) areas, a premium would be given on the gas price determined as per the formula given in para 1. The premium under this para shall be determined as per prescribed procedure.

10. Price determined under these guidelines would be on GCV basis.

11. The price, determined under these guidelines would be in US \$ per MMBTU.

12. In the North Eastern Region (NER), the 40% subsidy would continue to be available for gas supplied by ONGC/OIL. However, as private operators are also likely to start production of gas in NER, and would be operating in the same market, this subsidy would also be available to them to incentivize exploration and production.

13. The price determined under these guidelines shall be applicable to all sectors uniformly.

