SESSION 1

AUTHORISATION DIVISION

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पी एन जी आर बी
PNGRB

CONFLUENCE 2026

AUTHORISATION DIVISION

Authorisation to Infrastructure Development

20th April 2026

Agenda

1 Journey of PNGRB

2 Role of Authorization

3 Natural Gas Pipeline

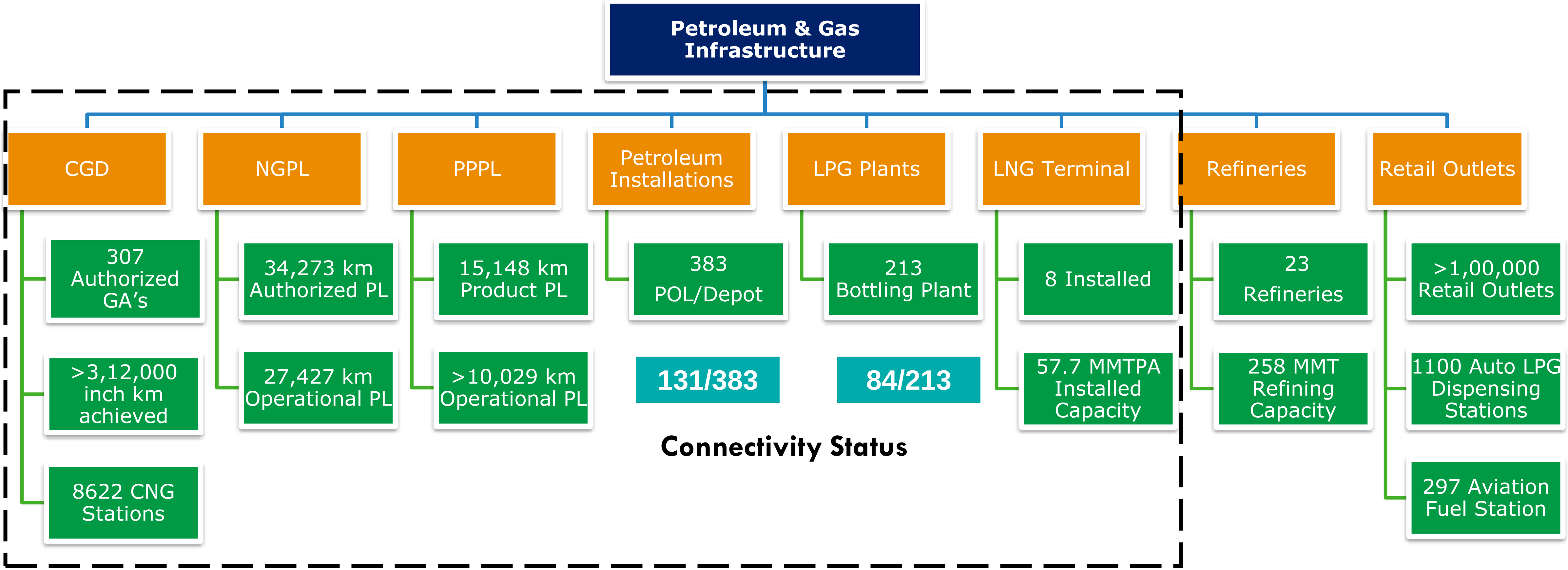
4 CGD

5 Petroleum Product Pipeline

6 LNG Terminal

7 Challenges and Opportunities

Petroleum & Gas downstream Infrastructure



258 MMT
Refining Capacity

>34,000 km
Authorized NGPL

>15,000 km
Authorized PPPL

>1,00,000
Retail Outlets

01

JOURNEY OF PNGRB

Where it began & Where we are?

The Journey of PNGRB: From Central Administration to Independent Sector Regulation

Need for Regulator

1975

Govt controlled – *Pricing (APM)and Infrastructure development*

Formation of OIDB to *fund sector growth.*

1979

OCC under MoP&NG.

Supply, Pricing & Distribution

1991

Economic Liberalization

Entry of private players
FDI

2002

PPAC was created *(OCC was abolished)*

2004

PSC *its Report in 2003, need of strong, independent sector regulator to ensure fair access, competition, and transparency*

2006

Bill was passed in Parliament

Formation of PNGRB

Note: 1. ***OCC***- Oil Coordination Committee; 2. **OIDB**: Oil Industry Development Board; 3. PSC: Parliamentary Standing Committee

The Journey of PNGRB: From Act Notification to Appointed Day

Notification of PNGRB Act

21.12.2005	*Bill Introduced in Rajya Sabha*
02.03.2006	*Bill passed in Rajya Sabha*
21.03.2006	*Bill passed in Lok Sabha*
31.03.2006	*Received assent of the President of India*
03.04.2006	*PNGRB Act published in Gazette of India*

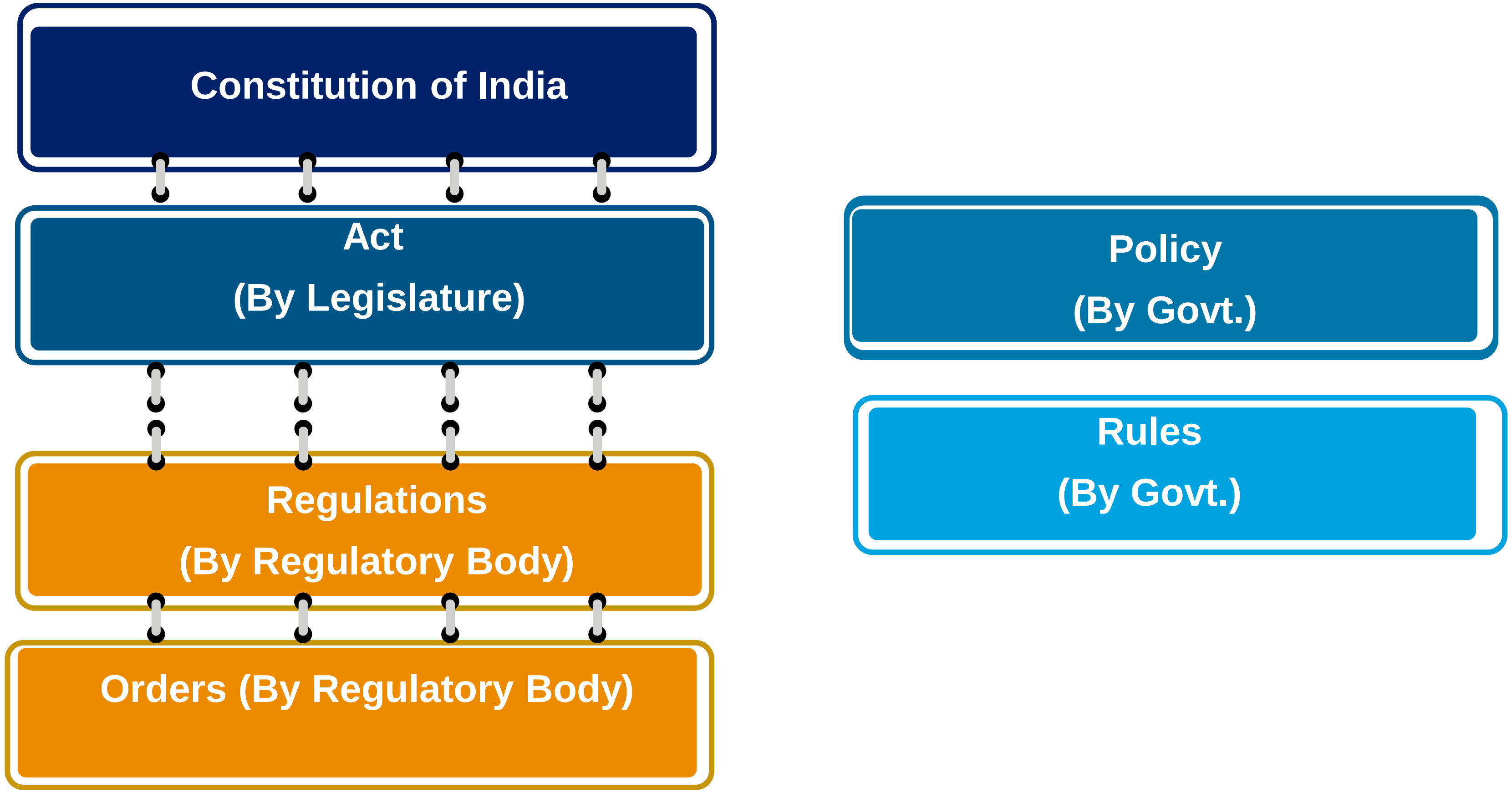
Appointed Day

Board Appointed Day (01.10.2007)

Provisions Appointed Day

01.10.2007	15.07.2010
All Sections except Sec 16	*Section 16*

PNGRB Governance Framework



PNGRB Act-Preamble

To ensure uninterrupted supply, protect the interests of consumers and entities, and promote competition and fairness in the market

PNGRB ACT

Petroleum, Petroleum Products & Natural Gas

To Regulate

Refining
Processing
Storage
Transportation
Distribution
Marketing
Sale

To Protect interests of

Consumers

Entities

To Ensure

Uninterrupted and Adequate Supply in all parts of the country

To Promote

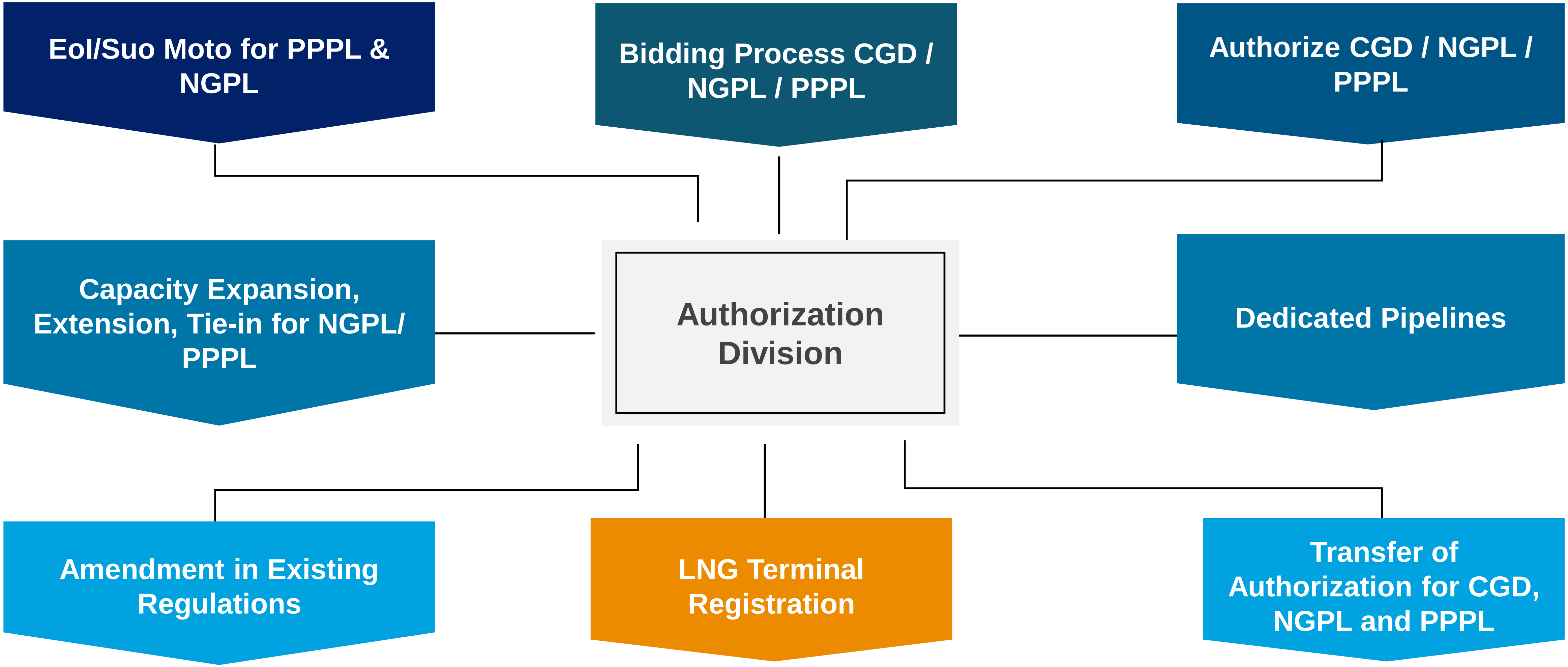
Competitive Markets

02

ROLE OF AUTHORIZATION

From Market Development to Competition

Functions


EoI/Suo Moto for PPPL & NGPL
Bidding Process CGD / NGPL / PPPL
Authorize CGD / NGPL / PPPL
Capacity Expansion, Extension, Tie-in for NGPL/ PPPL
Authorization Division
Dedicated Pipelines
Amendment in Existing Regulations
LNG Terminal Registration
Transfer of Authorization for CGD, NGPL and PPPL

Function of Authorization & Impact Metric

Proposals that meet the defined impact criteria are shortlisted and recommended to the Board

1 Identify the need

- **EOI or Sou-Moto proposal :** Assess geography & supply gaps
- **New Areas from perspective of *"Connectivity, Logistics optimization and Supply security"***

2 Authorize

- **Conduct competitive bidding and award of Authorization**
- **Grant formal obligations** along with work programme commitments

3 Market Competition

- **Create Competition:** Track and advocate for
  - Access Code in NGPL for transparent access
  - open access post-exclusivity in CGD
  - Captive to common carrier

Impact Metric

- *Coverage of identified gap areas (%)*
- *Reduced Road movement(Costs/tCO2)*
- *Increase in per unit consumption per Km/nos*
- *Infrastructure density m/sqkm*

- *% assets with Open Access*
- *Open access utilization rate*
- *increase in shippers / marketer*

Regulations in purview of Authorization (1/2)

Regulations	Details	Applicability
Authorization	• *Approval to develop & operate infrastructure* • *Defines bidder selection & work programme* • *Enables network expansion*	*NGPL, PPPL and CGD*
Access Code	• *Ensures non-discriminatory third-party access on NGPL, PPPL and CGD* • *Standardizes booking, scheduling & usage* • *Enables competitive market*	*NGPL, PPPL and CGD*
CGD Exclusivity	• *Protects initial investment period of 3,5 or 8 years* • *Balances growth & competition* • *Defines transition to open access*	*CGD*

Regulations in purview of Authorization (2/2)

Regulations	Details	Applicability
Affiliate Code of Conduct	• *Prevents cross-subsidization by transparency through account separation or legal separation* • *Ensures fair access to all shippers by arms length operation principle*	*NGPL, PPPL and CGD*
Guiding Principle for common carrier declaration	• *Provides procedure for declaration of network as common carrier* • *Clarity on transition to third party access*	*PPPL and CGD*
LNG Terminals	• *Registration framework for LNG terminals*	*LNG*

Regulatory Provision for Authorization:
NGPL Authorization Regulation

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NGPL Authorization Regulations	Regulation no.	PNGRB Act section no.
EOI / suo-motu proposal / bidding route	4	Sections 17
Selection criteria for EOI route	5	Section 17 and 20
Bidding Criteria	7	Sections 19 and 20
Grant of Authorisation	9	Sections 19, 20(3)
Fixation of Tariff	11	Section 22
Capacity expansion and tariff impact	12	Sections 19, 20 and 22
Transitional authorization for pre-existing pipelines and Pre-appointed-day operating pipelines	17 & 18	Section 16 proviso, section 17, section 20
Dedicated pipeline conversion / Authorisation	19	Section 16 proviso, section 17, section 20
Tie-in Connectivity	21	Section 16 proviso, section 17, section 20

Regulatory Provision for Authorization:
NGPL Access Code Regulation

NGPL Access Code Regulations	Regulation no.	PNGRB Act section no.
Capacity declaration	4	Sections 20(3)(c), 21(1), 22(1)
Gas quality and operating parameters	5	Sections 20(3)(c), 21(1)
SUG / line pack / transmission loss	6	Sections 20(3)(c), 21(1)
Measurement and custody transfer	7	Sections 20(3)(c), 22(1)
Pipeline Capacity Booking	10	Sections 20(3)(c), 22(1)
Interconnection	11	Sections 20(3)(c), 22(1)
Methodology for providing Access	12	Sections 20(3)(c), 22(1)
System Indiscipline Charges	13	Sections 20(3)(c), 22(1)
Planned Maintenance	14	Sections 20(3)(c), 22(1)

Regulatory Provision for Authorization: NGPL Affiliate Code Regulation

NGPL Affiliate Code Regulations	Regulation no.	PNGRB Act section no.
Scope of affiliate code / arm’s-length dealings	4	Section 61
Accounting and financial separation	5	Section 61
Legal separation / separate legal entity	5A	Section 61; Section 21
Confidentiality of consumer information	6	Section 61
Shared corporate services / employee restrictions	7	Section 61
Non-discriminatory access and no preferential treatment	8	Section 61
Compliance measures and annual reporting	9	Section 61
Record keeping and web-hosting requirements	10	Section 61
Default and termination consequences	4	Section 61

Regulatory Provision for Authorization: CGD Authorization Regulation

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CGD Authorization Regulations	Regulation no.	PNGRB Act section no.
EOI / suo-moto bidding route	4	Sections 17
Selection criteria	5	Section 17
Board-initiated bidding process	6	Sections 17 and 20(5)
Bidding Criteria	7	Sections 17 and 20(5)
Fixation of Transportation rate	8	Section 22
Grant of Authorisation	10	Sections 17 and 20
Gas tie-up and financial closure	11	
CGD exclusivity	12	Section 20(4)
Service Obligations	14	Section 52, Section 61(f)
Suspension / termination	16	Section 23
Transitional authorization for pre-existing CGD and Pre-appointed-day operating CGD	17&18	

Regulatory Provision for Authorization: CGD Exclusivity Code Regulation

CGD Exclusivity Regulations	Regulation no.	PNGRB Act section no.
Exclusivity for laying/building/expansion of CGD network	5	Section 20(4); Section 61
Exclusivity from common-carrier / contract-carrier purview	6	Section 20(4); Section 61
Specific performance bond	7	Section 20(4); Section 61
Service obligations during exclusivity	8	Section 20(4); Section 61
Post-exclusivity obligations / third-party access	9	Section 20(4); Section 61
Cancellation / termination of exclusivity	10	Section 20(4); Section 61
Miscellaneous / interpretation	11	Section 20(4); Section 61

Regulatory Provision for Authorization: CGD Access Code Regulation

CGD Access Code Regulations	Regulation no.	PNGRB Act section no.
Capacity declaration	4	Sections 20(3)(c), 21(1), 22(1)
Capacity booking	5	Sections 20(3)(c), 21(1), 22(1)
Network expansion / access coverage	6	Sections 20(3)(c), 21(1)
Repeal / savings	25	—

Regulatory Provision for Authorization: PPPL Authorization Regulation

PPPL Authorization Regulations	Regulation no.	PNGRB Act section no.
EOI / suo-moto bidding route	4	Sections 17, 20(3)(b), 20(5)
Selection criteria	5	Section 20(5), section 17
Bidding Criteria	7	Sections 20(3)(b), 20(5)
Grant of authorization	9	Sections 17(3), 20(3)(b)
Capacity expansion	12	Sections 20(3)(b), 20(5)
Default/ Suspension / termination	16	Section 23
Pre-PNGRB Pipelines	17 & 18	Sections 17
Access / interconnection	20	Sections 20(3)(c), 21, 22

Regulatory Provision for Authorization: PPPL Access Code Regulation

PPPL Access Code Regulations	Regulation no.	PNGRB Act section no.
Applicability of access code	3	Sections 20(3)(c), 21
Capacity declaration	4	Sections 20(3)(c), 21
Product quality parameters	5	Sections 20(3)(c), 21
Interface Handling	7	Sections 20(3)(c), 21
Capacity Booking	13	Sections 20(3)(c), 21
Interconnection	14	Sections 20(3)(c), 21
Methodology for Providing Access	15	Sections 20(3)(c), 21
Planned Maintenance	16	Sections 20(3)(c), 21

PROGRESS FROM THE EYES OF AUTHORIZATION

NATURAL GAS PIPELINES (NGPL)

~3.7x

>34,000 kms

Natural Gas Pipeline Length

- **82 pipelines authorized**

~3.8x

2.2 → 8.3 m/Sqkm

Natural Gas Pipeline Density

- **27k pipelines constructed**

CITY GAS DISTRIBUTION (CGD)

~9x

307 Nos

Authorized City Gas

~3.6x

0.04 → 0.13
mmscmd per GA

Consumption per GA

3.12 → ~8-10 m/Sqkm
lakh inch-Km

PETROLEUM PRODUCT PIPELINES (PPPL)

~1.5x

15,000 kms

PPPL

5 Nos

ATF Authorized

03

NATURAL GAS PIPELINE

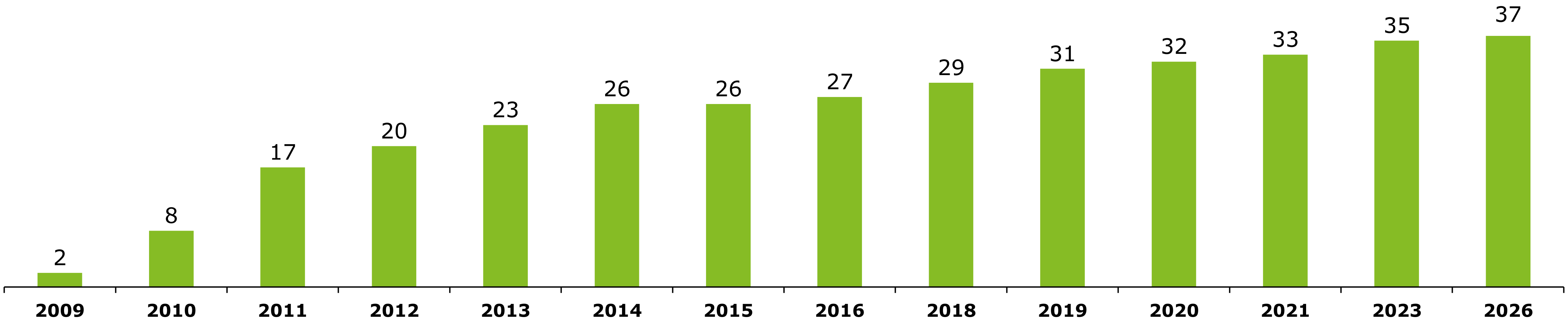
Completing the Grid and Going Deep into India

Current Status of NGPL Infrastructure

More than 80 pipelines have been authorized

Pipelines Authorized under Regulation 5,17,18,42

Regulation	Authorization	No. of Valid Pipeline Authorizations
5	Bid out	13
17 &18	Pre-PNGRB	23
42	Govt. Mandate	2* (JHBDPL under Reg 17 read with Sec 42)
19	Dedicated	21
21	Tie-in	22



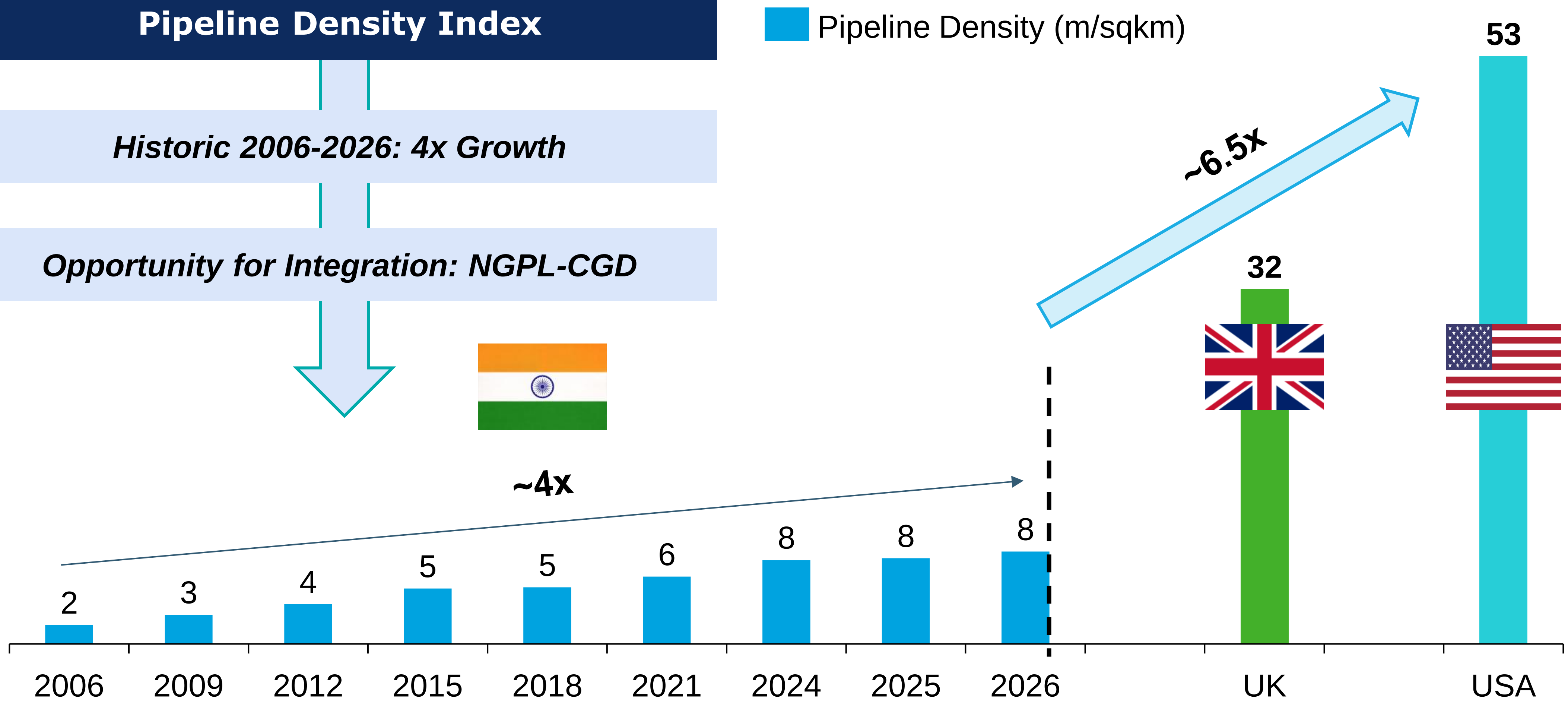
NGPL Infrastructure: Current Status and Future (1/3)

For India, Pipeline density Index has witnessed an increase over the period of 20 years. However, the targey is to further scale up the infrastructure by integration of NGPL to CGD

Pipeline Density Index

Historic 2006-2026: 4x Growth

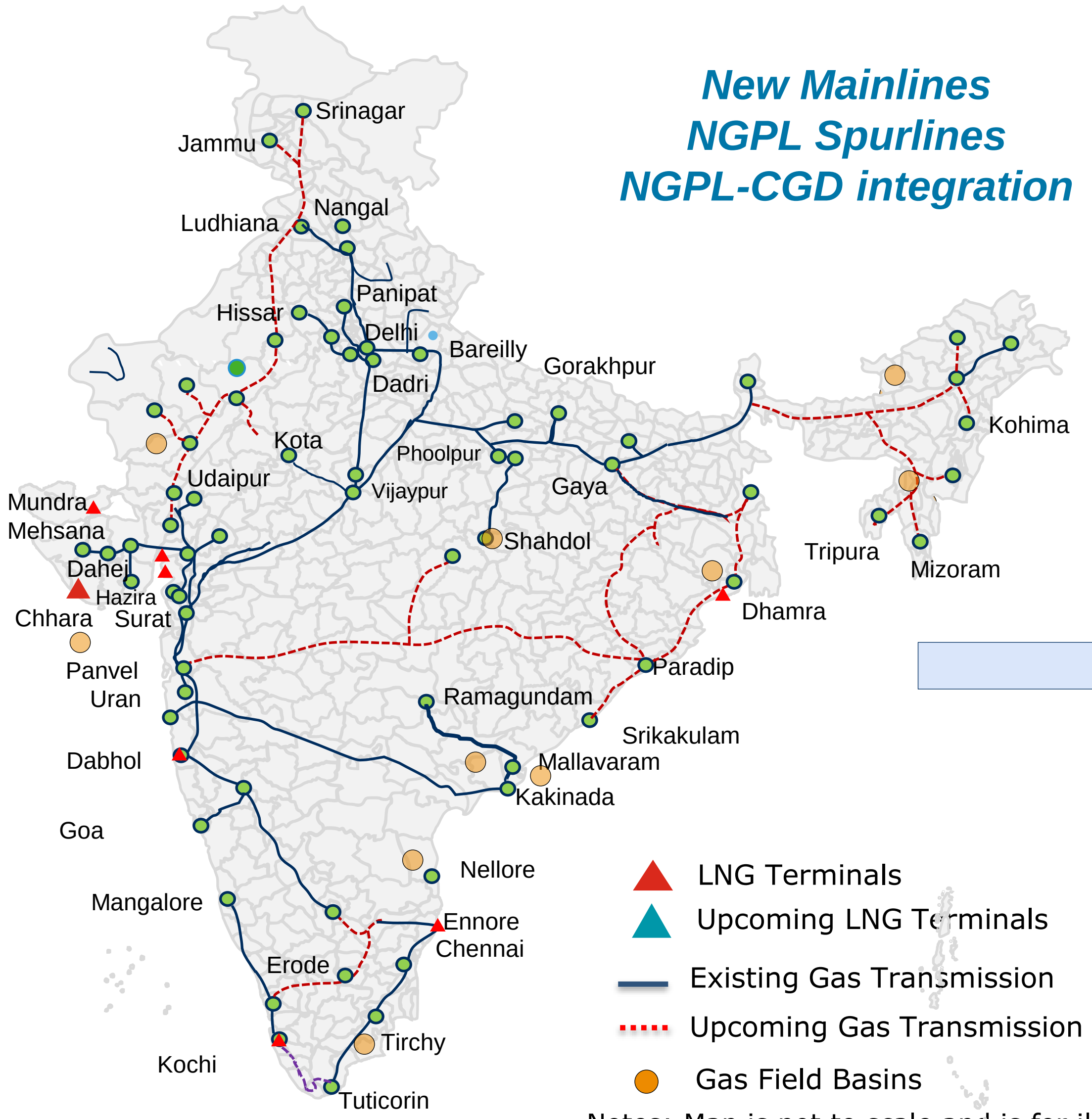
Opportunity for Integration: NGPL-CGD



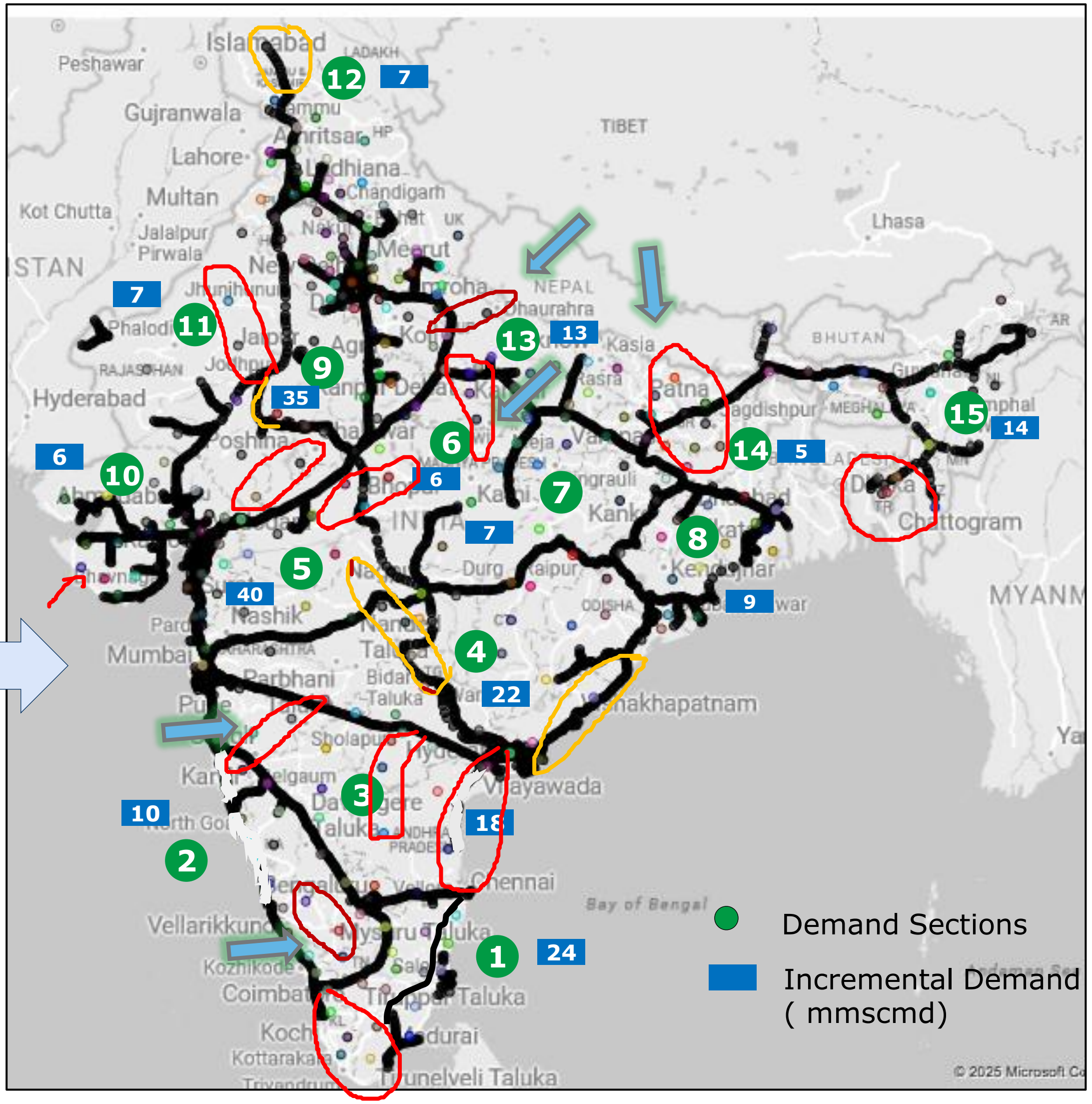
NGPL Infrastructure: Current Status and Future (3/3)

Future pipeline infrastructure development is focused on regional expansion of network

New Mainlines
NGPL Spurlines
NGPL-CGD integration



Demand Centre and Connectivity Gap



Notes: Map is not to scale and is for illustrative purpose

NGPL Infrastructure: Current Status and Future (3/3)

Pipeline Proposal under evaluation

PIPELINES	GA/DC CONNECTED	DISTANCE (KM)
Ennore-Nellore-Kondapalli	4	450
Hyderabad-Wanaparthy-Raichur-Kurnool	3	180
Srikakulam-Vizag-Kondapalli	4	430
Indore-Barwani-Khargone-Shirpur-Jalgaon	4	220
MBBPL-Spurline Ajmer-Bikaner or Jodhpur-Gajner	3	160
Rajgarh-Amrvati	4	360
Wardha-Adilabad-Nizamabad-Hyderabad	4	380
Jamnagar to Ranpar	1	50

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04

CGD

From Coverage to Penetration — The Consumer Gas Revolution

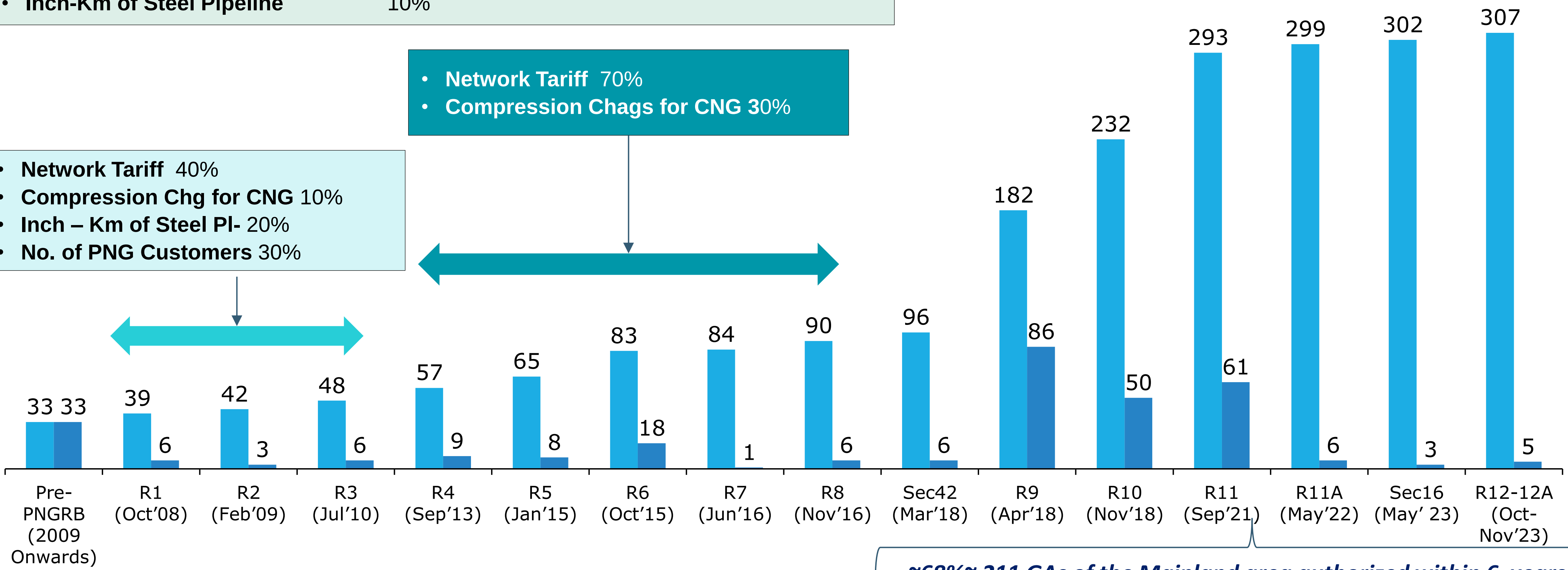
Current Status of CGD Infrastructure

The active efforts of Authorization team of PNGRB has resulted in scale up supply infrastructure in the mainland region of India

- **Transportation rate for CGD in Rs./MMBTU-** 10%
- **Transportation rate for CNG in (Rs. / kg)** 10%
- **No of CNG stations to be installed within 8 contract years** ~20%
- **No. of DPNG connections to be achieved within 8 contract years** -50%
- **Inch-Km of Steel Pipeline** 10%

- **Network Tariff** 70%
- **Compression Chags for CNG 30%**

- **Network Tariff** 40%
- **Compression Chg for CNG** 10%
- **Inch – Km of Steel Pl-** 20%
- **No. of PNG Customers** 30%



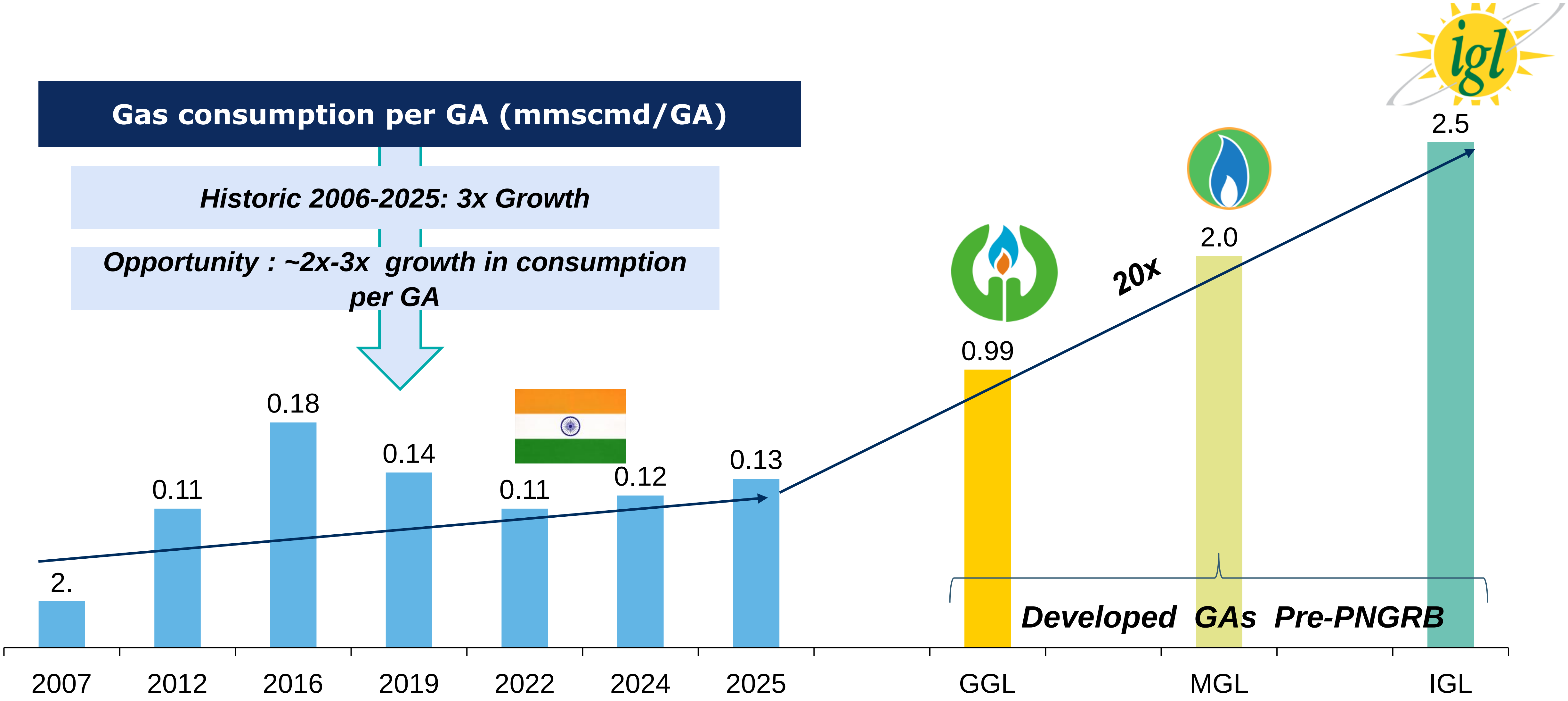
~68%~ 211 GAs of the Mainland area authorized within 6 years

Evolution of PNGRB's CGD Bidding Regime

12 Rounds of Transparent, Competitive & Rule-Bound Reforms

Round	Parameters
1 to 2	Network tariff (40%) + CNG compression charge (10%) + Inch-km pipeline (20%) + PNG connections (30%)
3	Higher technical experience (3 years), introduction of feasibility report stage, post-exclusivity tariff consideration
4 to 5	70% weight to network tariff and 30% to CNG compression charge + Minimum Work Programme (MWP). In the event of a tie, highest Additional Bid Bond (ABB) was declared the successful bidder
6 to 8	Additional Bid Bond (ABB) quote is now submitted along with the financial bid
9 to 12	80% weightage is assigned to physical infrastructure (connections (PNG domestic connections + 50%, CNG stations –20%, and steel pipeline inch-km – 10%), while only 20% weightage is given to tariff. Floor tariff rates (₹30/MMBTU for CGD and ₹2/kg for CNG) were introduced to discourage unrealistically low tariff bids

CGD : Current Status and Future



05

PETROLEUM PRODUCT PIPELINE

Open Access, Logistics Optimization and Connectivity

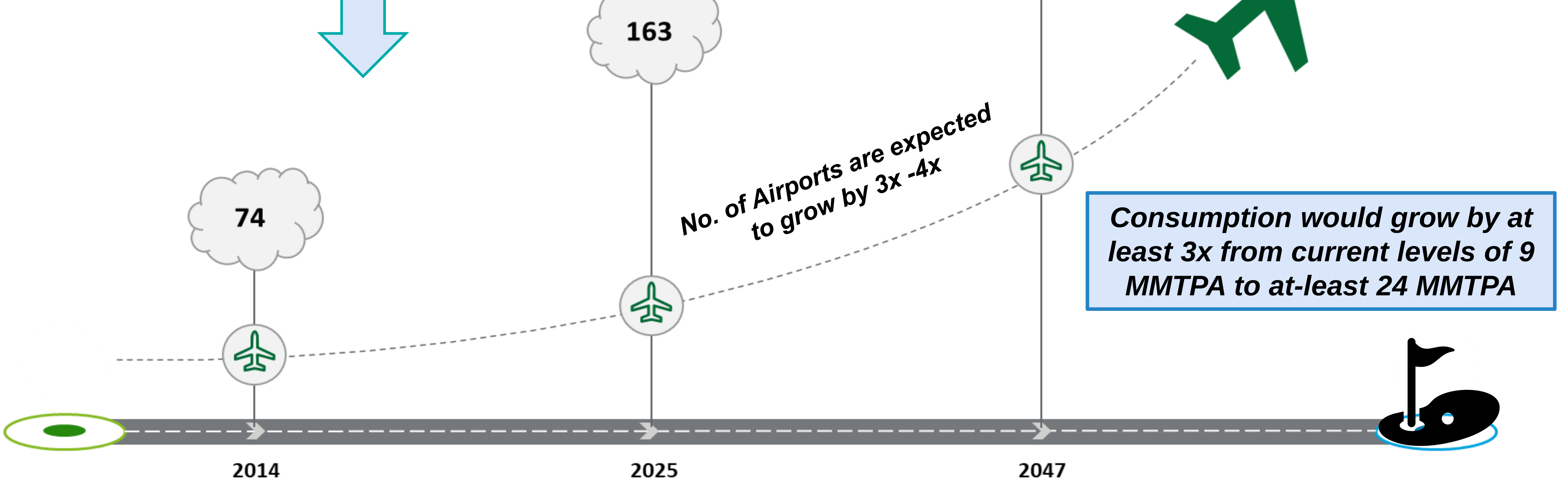
ATF Pipeline Infrastructure: Current Status and Future

As PNGRB is aiming to connect 31 major airports, the vision encompass to connect maximum airports via pipeline

Pipeline Connectivity to Airports

8 Airports connected by Pipeline and 3 pipelines are under construction

Opportunity for connectivity of over 30 airports



LPG Pipeline Infrastructure: Current Status and Future (1/2)

With the proposed LPG pipelines, the aim is to connect at least 65% of LPG bottling plants

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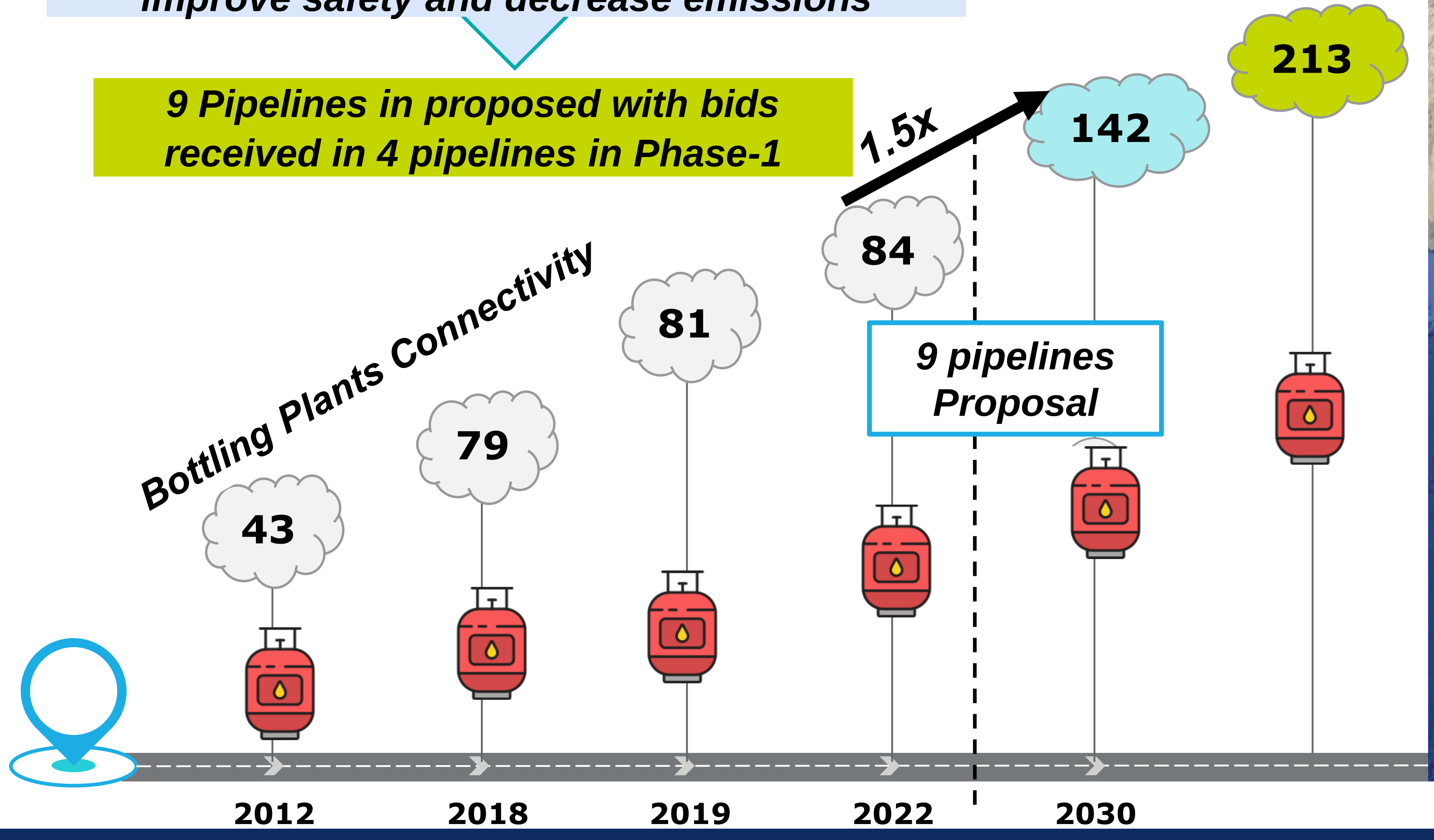
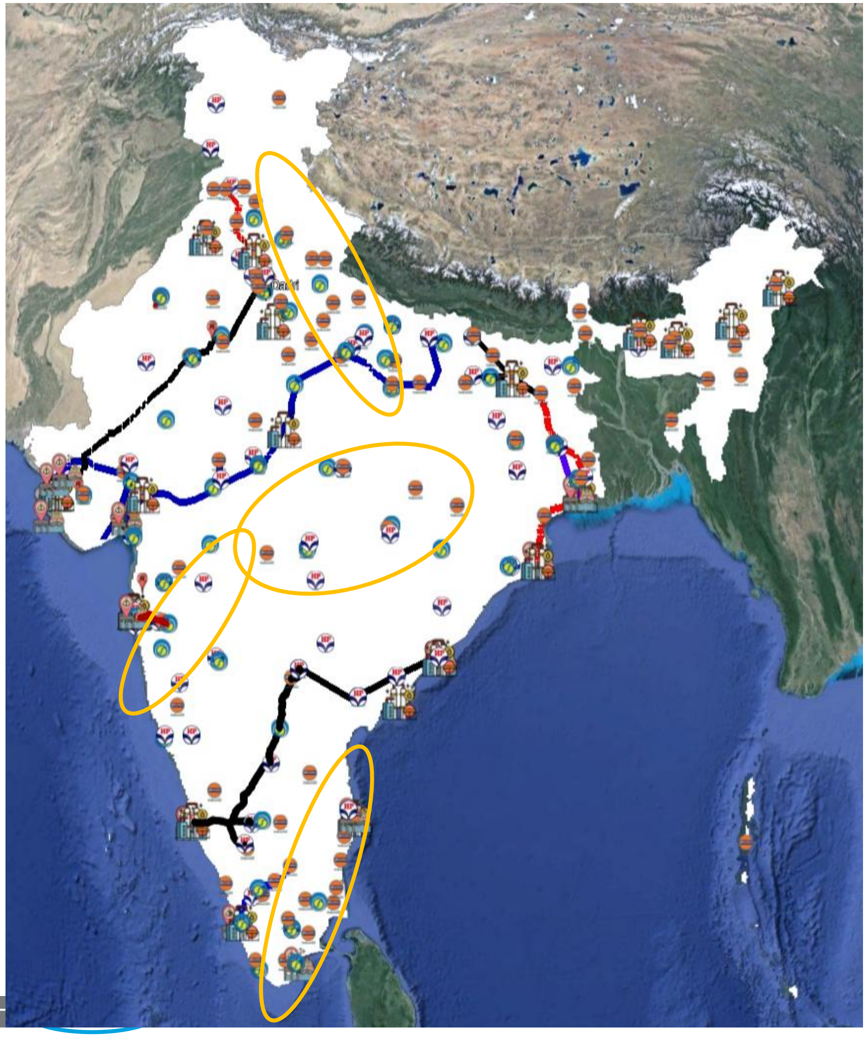
LPG Pipeline Logistics Optimization

Proposal to connect ~58 bottling plants

Opportunity for reducing road movement and improve safety and decrease emissions

9 Pipelines in proposed with bids received in 4 pipelines in Phase-1



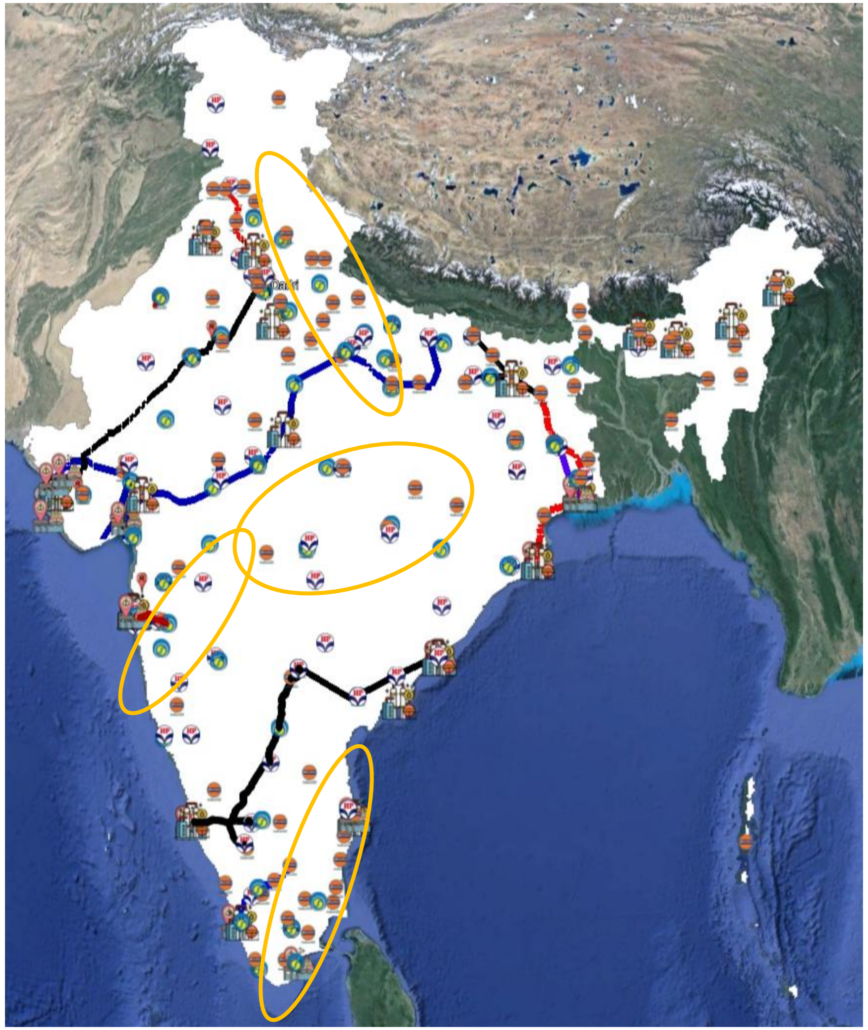


LPG Pipeline Infrastructure: Current Status and Future (2/2)

Bids received for 4 pipelines

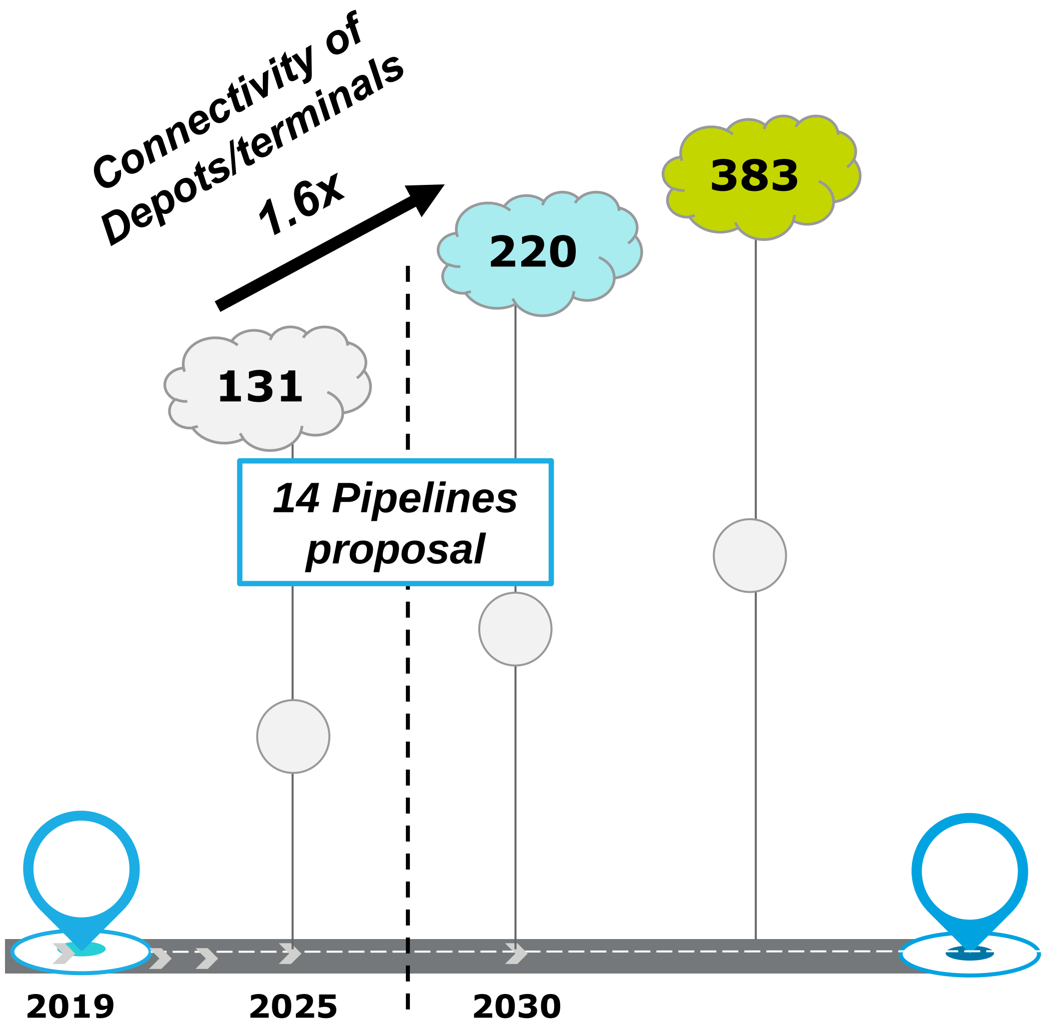
S.NO.	Regulation
1	Cherlapally – Nagpur Pipeline (CNPL)
2	Shikrapur – Hubli – Goa Pipeline (SHGPL
3	Paradip – Raipur Pipeline (PRPL)
4	Jhansi – Sitarganj Pipeline (JSPL)

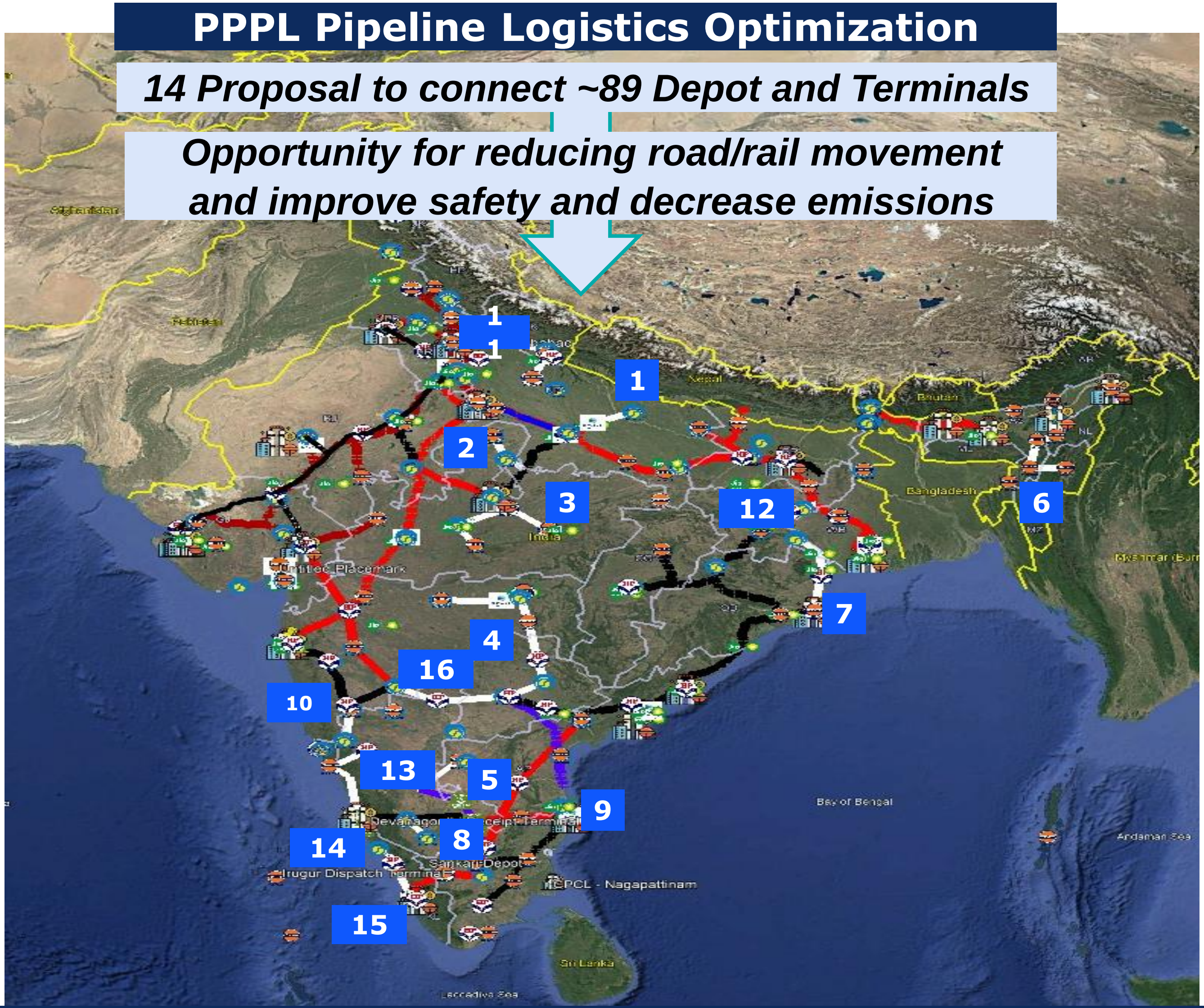
These 4 pipelines would connect ~26 bottling plants



PPPL Infrastructure: Current Status and Future (1/2)

With the proposed PPPL pipelines, the aim is to connect at least 89 additional depot and terminals





PPPL Infrastructure: Current Status and Future (2/2)

3 Pipelines under PCD

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3 Pipelines under PCD

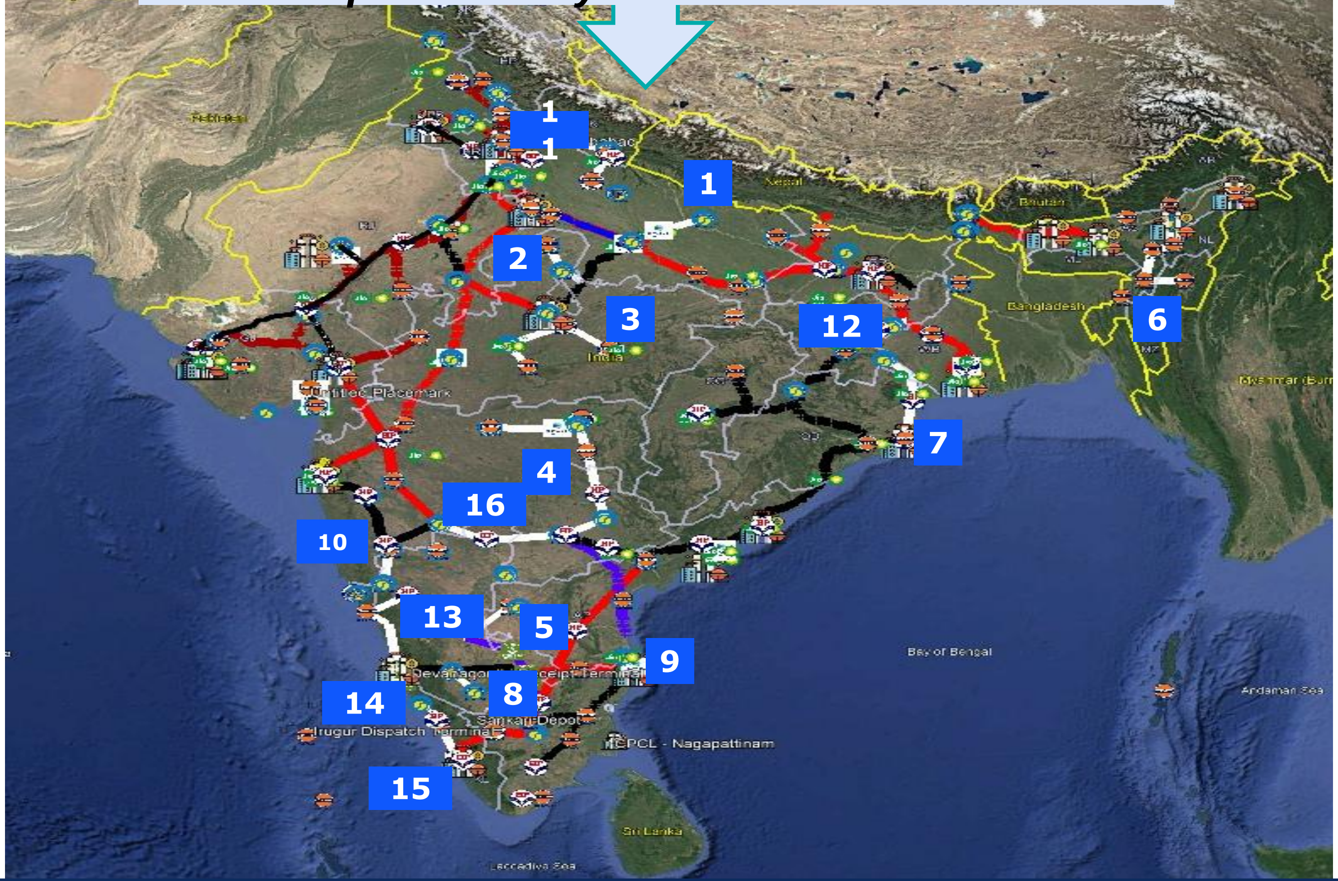
S.NO.	Regulation
1	*MRPL – Hubballi - Goa*
2	*Hyderabad – Nagpur*
3	*Bina – Jabalpur – Itarsi*

These 4 pipelines would connect ~26 Terminals and Depots

PPPL Pipeline Logistics Optimization

14 Proposal to connect ~89 Depot and Terminals

Opportunity for reducing road/rail movement and improve safety and decrease emissions



06

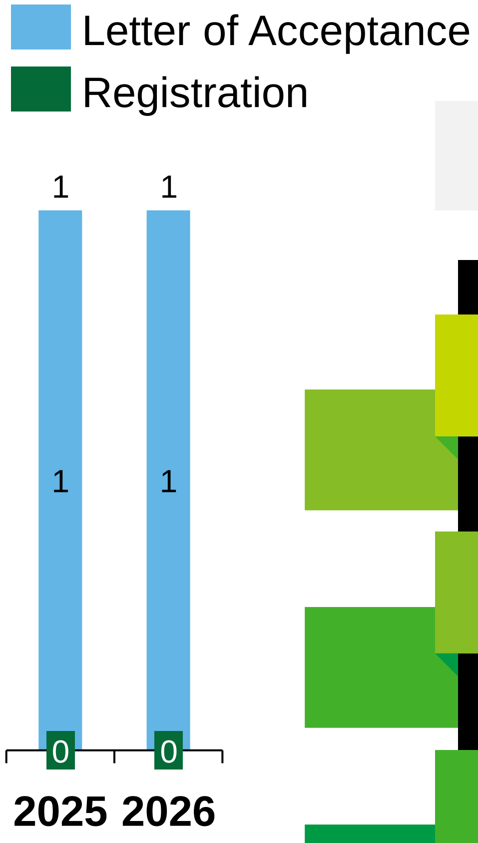
LNG

LNG Terminal storage registration

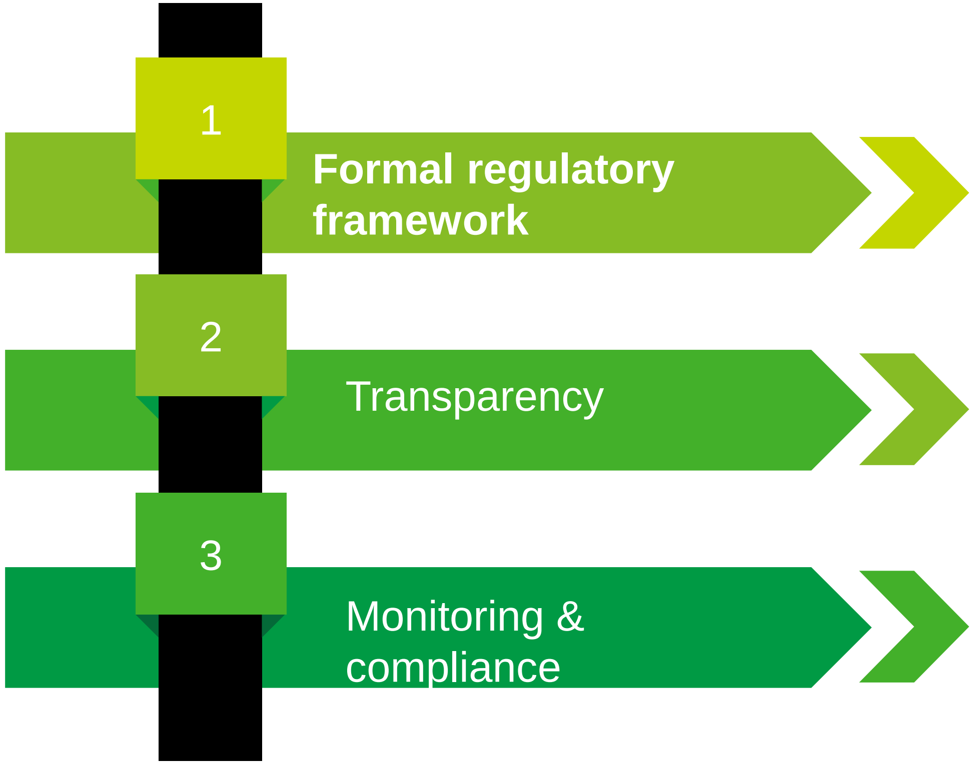
Current Status of LNG Infrastructure

With the notification of the LNG Terminal Registration Regulations, two terminals have been issued Letters Acceptance so far

Terminal	Capacity in MMTPA	Operator	Status
Dahej	22.5	PLL	
Hazira	5.2	Shell	*LOA granted*
Dabhol	5	KLL	*LOA granted*
Kochi	5	PLL	
Ennore	5	IOCL	
Dhamra	5	Adani Total	
Mundra	5	GSPC	



Objective of LNG Terminal Regulation



Status

- ***2 LNG terminals have been granted letter of acceptance.***
- ***Other Terminal operators have been advised to comply with the regulations***

07

Challenges and Opportunities

What are the concerns and opportunities?

HLEC Recommendations: Transmission (1/2)

HLEC committee was formed in 2024 by PNGRB to provide recommendations into issues related to promoting competition and level playing field in gas transmission and distribution business

I

Mandating Legal Separation of Marketing and Transportation to Ensure Fair Competition in India's Natural Gas Sector

II

Establishing an Independent System Operator (ISO) to Ensure Neutral and Equitable Access to Gas Transportation Infrastructure

III

Revamping Bidding Criteria to Promote Transparency, Competition, and Sustainable Infrastructure Development

IV

Other Suggestions included amendment in Access Code, GTA standardization, compliance to Affiliate code etc.

HLEC Recommendations: Distribution (2/2)

HLEC committee was formed by PNGRB to provide recommendations into issues related to promoting competition and level playing field in gas transmission and distribution business

Exclusivity from Purview of common or contract carrier

- Access only for technically & financially qualified entities
- Safeguards to address cherry-picking risks post exclusivity via obligations
- Gradual increase in open access

Infrastructure Exclusivity

- Performance based exclusivity extensions
- Link extension to delivery on connections, infrastructure rollout, and common/carrier access

Monitoring and Enforcement

- Credible third-party agencies for the monitoring
- Imposing penalties, cancellation or rebid of GAs in case of serious non-compliance

Challenges & Opportunities

There have been lack of participation and industry consensus on new pipeline proposals initiated by PNGRB

1

Participation in Bidding process

Reduced participation in bidding of new pipeline proposal

Consortium Led bidding of projects
Pre-Bid Query resolution

2

Lack of consensus on New Pipeline proposals

Industrial interactions on Sou-moto have been observed to have reduced consensus

3

Meeting MWP Targets

Opportunity in CGD

4

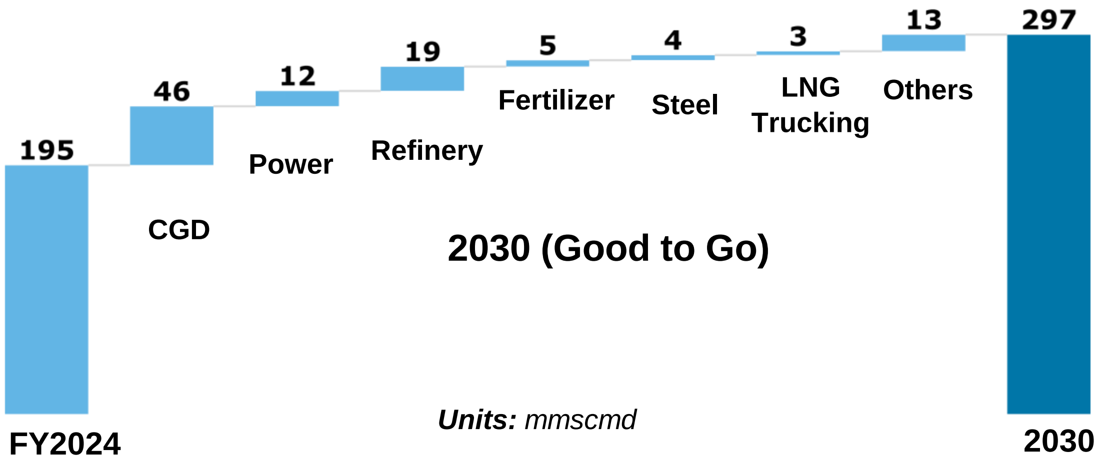
Opportunity in connectivity proposals/modal shift

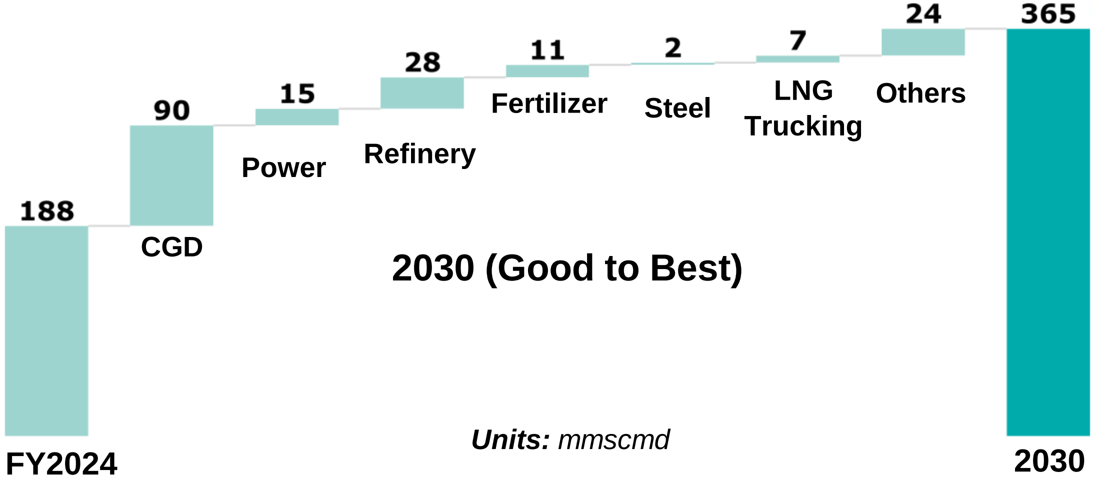
Pipeline Connectivity to Depots/Terminals/Bottling plants

THANK YOU

NGPL Infrastructure : Natural Gas Projections 2030 vs 2040 (2/3)

Future Natural gas projections in the Good to Go and Good to Best scenario





NG Sectoral Consumption (mmscmd)	FY2025	2030 (Good to Go)	2030 (Good to Best)
CGD	41	87	127
Refinery & Petrochemicals	25	44	51
Fertilizers	56	65	69
Power	24	36	40
Steel	4	4	5
LNG Applications	1	4	7
Others (Misc/Mfg/LPG shr.)	44	57	66
Total (mmscmd)	**195**	**297**	**365**

Source: 1. PNGRB