



# **REGULATIONS TO ACCELERATE NATURAL GAS INFRASTRUCTURE**

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## **ORGANIZER**



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# **Pipeline Infrastructure Limited**

Pipeline Infrastructure Limited (PIL), a Brookfield company, owns & operates a 1375 km x 48-inch cross country natural gas pipeline from Kakinada (Andhra Pradesh) to Bharuch (Gujarat)

## **Imbalance Curing**

India's first pipeline operator to provide flexibility to cure imbalances with Parking & lending services



## **Well Connected**

Connects key sources in East/West of India to markets in West/North of India.



# **HSSE Excellence**

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Awarded various safety awards at global level

- 5 Star OH&S Award
- Sword of Honor by British Safety Council.

### **Bi-direction flow**

India's first pipeline to facilitate bi-directional flow of natural gas.



### **No Affiliates**

India's first Pure gas transmission company - No marketing interest by any affiliate

## **Customer Centric**

PGTS System to ease capacity booking process for its customers & shippers





PIL has been recognized as one of the Best Brands of 2022 by Economic Times















# **Brookfield - A leading Global Asset Manager**

### SIGNIFICANT GLOBAL OPERATING EXPERIENCE

- ASSETS UNDER MANAGEMENT ~ \$800B
- OPERATING EMPLOYEES ~ 180,000
- INVESTMENT PROFESSIONALS ~ 1,000



Infrastructure \$143B



**Real Estate** \$263B



**Private Equity** \$133B



**Renewable Power & Transition** \$72B



**Credit & Insurance Solutions** \$166B

### **BROOKFIELD IN INDIA**

### \$21B ASSETS UNDER MANAGEMENT



\$10.7 B **INFRASTRUCTURE** 

- 1,375 km gas pipeline
- 175,000 Telecom Towers
- 516 km road assets
- 102 MW of Data Center



\$7.2 B **REAL ESTATE** 

- India's only institutionally managed REIT; \$1.3B+ M-cap
- 47 MSF in office properties
- 1,200+ owned luxury keys 2,200+ managed / licensed keys



\$0.6 B **RENEWABLES** 

Solar: 247 MW capacity

Wind: 312 MW capacity



\$2.1B M PRIVATE EQUITY

- Financial services NBFC
- Technology services platform
- · 25 real estate projects financed with saleable area of 23 MSF

















# **Recent Amendments**

## **Tariff Determination** Regulations

- Provisions towards computation of Natural Gas Pipeline levelized tariff
  - ✓ System Use Gas (SUG)
  - ✓ Transmission Losses
  - ✓ Authorized capacity as volume divisor
  - ✓ Volume Built-up.. Etc.

## **Unified Tariff** Regulations

- Provisions relating to National Grid and its zonal Gas apportionment
- Provision for implementation of Unified Tariff Regime on Pan India basis from April 01, 2023.

# **Capacity Determination Authorization Regulations**

Provisions are amended, introduced and notified in line with the amendments notified in tariff determination Regulations

- Creates balance between the investors and customers
- Rewards efficiency of pipeline operations
- Ensures availability of additional gas source to customers

- Provides for better delivered prices to customers
- Prospects for new infrastructure & increased utilization of existing
- Opens Indian gas market to larger shipper base







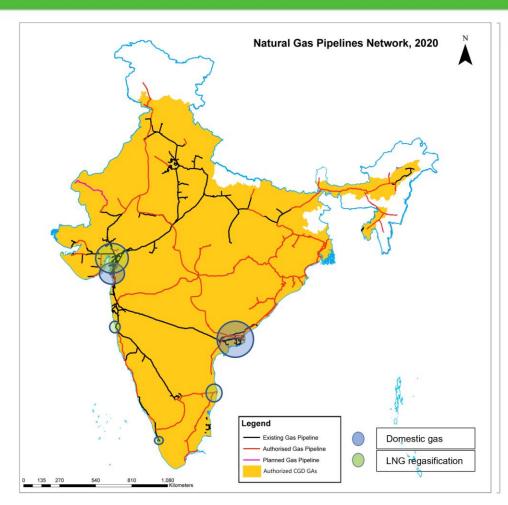




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# Why Unified Tariff?



Need to transit from existing Additive Tariff Regime to Unified Tariff Regime













# **Existing Vs Unified Tariff Regime**

## **Existing Tariff Regime**

- Tariff applicable to customers today is based on
  - Distance between Entry / Exit of each pipeline
  - Applicable Zonal tariff (of each pipeline)
- 300 km of each pipeline is a zone
- Customer who uses
  - 250 kms of one pipeline; and
  - 50 kms of the other pipeline

Still needs to pay Zone 1 charges of both the entities

## Unified Tariff(UT) Regime

All interconnected pipelines and regional networks together form a Unified Network termed "National Gas **Grid System" (NGGS)** 

List

- Tariff based on distance between "Unified Entry" and "Unified Exit"
- Three zones are applicable
  - 1<sup>st</sup> zone within 300 km
  - 2<sup>nd</sup> zone: 300 1200 km; and
  - 3<sup>rd</sup> zone beyond 1200 km irrespective of the no. of pipelines used



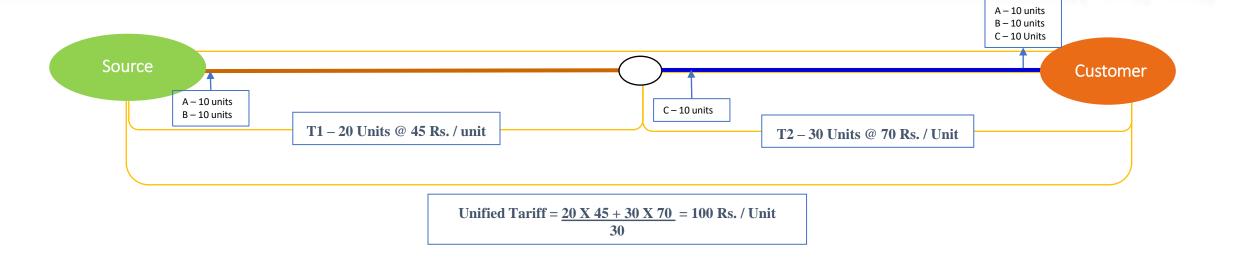






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# **Unified Tariff Regime**



- ✓ Tariff is based on distance between "Unified Entry" and "Unified Exit" in a Unified Network called "National Gas Grid System" (NGGS)
- ✓ Unified Tariff is weighted average of approved zonal tariffs in respect of all the pipelines in NGGS
- ✓ UFT shall be approved annually by PNGRB based on Zonal volumes for constituent pipelines (incl SoP volume) & applicable Zonal Tariffs
- UFT is subject to revisions within Financial Year in case of any significant changes in parameters

Unified Tariff is based on the principles of revenue neutrality for constituent pipelines based on their respective approved tariffs













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# **Perspective & Prospects**

## **Statutory Clearances**

 Support with authorities for clearances/RoU acquisitions



### **Demand Assessment & Incentives**

- Introduce Open Season concept
- Clarity on prior capacity commitment
  - Provide incentives to shippers willing commit to capacity upfront
- Sharing of volume minimum revenue assurance

## **Roadshows**

Create awareness among potential customers





### **Authorization Process**

- Review of bid evaluation criteria
- Flexibility in transfer of assets or partnership
- Flexibility in exit mechanism











# Thank You

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Inter-connected Pipelines	Regional Networks
Hazira-Vijaipur- Jagdishpur GREP Dahej Vijaipur	KG Basin Natural Gas Pipeline
Dahej-Uran-Dabhol-Panvel	Baroda Sub Network of Gujarat Regional
Dahej-Vijaipur (DVPL) Vijaipur- Dadri (GREP) Capacity Augmentation	Mumbai Regional
Jagdishpur-Haldia-Bokaro-Dhamra	a) Uran Thal Usar Sub Network
Dadri-Bawana-Nangal	<b>b)</b> Trombay Sub Network
Chainsa-Jhajjar-Hissar	GSPL's Low Pressure Gas Grid
Dabhol-Bangalore	Uran trombay Natural Gas pipeline System
Dadri Panipat	Hazira Ankleshwar Natural Gas Pipeline System
Kakinada-Bharuch (erstwhile east West pipeline)	Back
GSPL's High Pressure Gujarat Gas Grid	
Shahdol Phulpur	
Mehsana – Bhatinda	
Bhatinda-Jammu-Srinagar	
Mallavaram-Bhopal-Bhilwara-Vijaipur	

# **Unified Tariff: Application (Illustration)**



## Application of Unified Tariff

- Fortnightly invoicing with Quantity based on exit volumes of each pipeline (as per current practice),
- Unified Tariff Rate: As per agreed ratio of applicable unified zonal tariff; fixed annually at the time of UFT determination
- For dedicated volume, UFT ratio will be 100%
- Revenue Entitlement: Actual volume transported X approved zonal tariff for each natural gas pipeline entity
- Invoiced Amount: Revenue collected by the entity based on applicable unified tariff rate
- Invoiced revenue by an entity may be more than its Revenue entitlement (Surplus Entity) or less than the Revenue Entitlement (Deficit Entity)
- Settlement between Surplus and deficit entities would be required to ensure revenue neutrality

Assumption (UFT Ratio):

Transporter	UFT Ratio
T1	50 %
T2	50 %

Transporter	Common Volume (CV)	Dedicated Volume (DV)	Amount of Unified Invoice Raised
T1	20	0	(CV (20) x UFT (100) x UFT Ratio (50%))
Revenue	ue Rs. 900/-		Rs. 1000
T2	20	10	(DV (10) x UFT (100) x 100%) + (CV (20) x UFT (100) x UFT ratio (50%)
Revenue	Rs.	2100/-	Rs. 2000