



→ **Role of Transmission System Operator in Gas in India**  
*Setting the context*



Ankit Gupta  
Managing Consultant, Oil & Gas  
ICF

18/03/2021

# ICF: Strategic consulting for a digital world

**7,000+**

employees across the globe

**70**

offices worldwide

**\$1.48B**

in annual revenue (2019)

**Net zero**

carbon status since 2006

**50**

years helping clients make big things possible



## Who we are

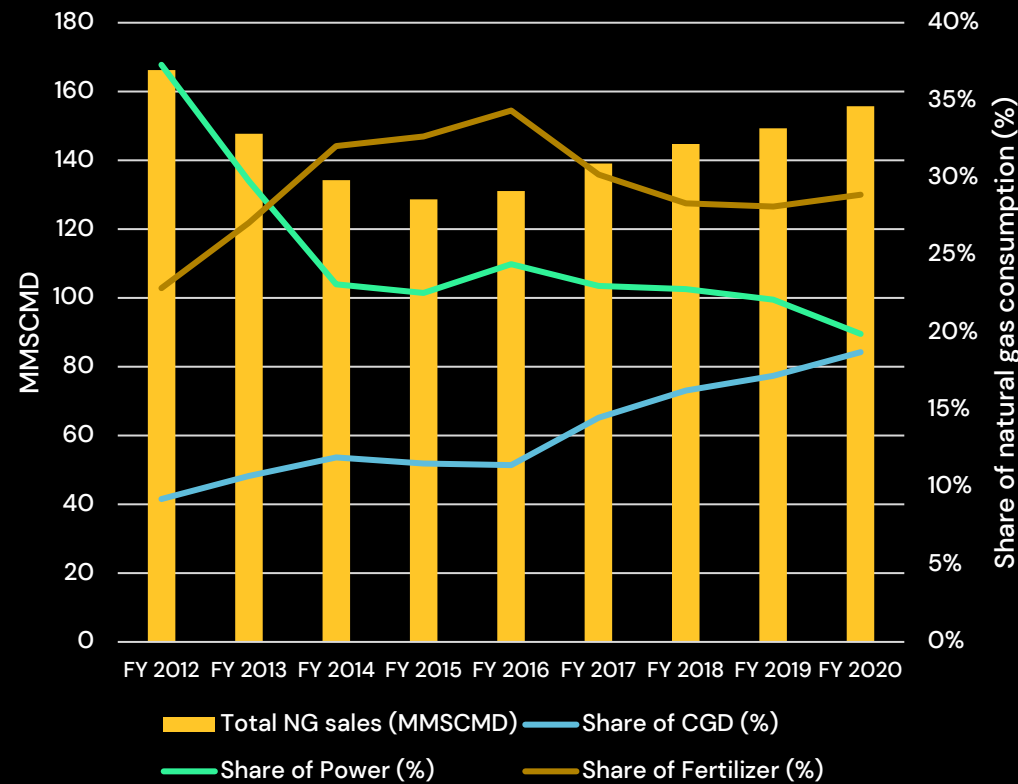
ICF is a global consulting services company with over 7,000 full- and part time employees, but we are not your typical consultants. At ICF, business analysts and policy specialists work together with digital strategists, data scientists and creatives. We combine unmatched industry expertise with cutting-edge engagement capabilities to help organizations solve their most complex challenges. Since 1969, public and private sector clients have worked with ICF to navigate change and shape the future.

## What we do—and how we do it differently

We combine traditional consulting expertise with cutting-edge digital agency services to support our clients in a highly interdisciplinary way. We draw our distinct value from the full-scale of services in our arsenal.



Share of key sectors in natural gas consumption mix



**15%**

The vision is to make India a "Gas Based Economy" with an ambitious target of natural gas to have 15% gas share in primary energy basket by 2030

**Exchange**

To enable market price discovery of natural gas, gas exchange regulations were finalized, and Indian Gas Exchange was launched

**400+** districts

Total authorized districts to enable access of natural gas in covering close to 70% of population and covering close to 53% of Indian geography

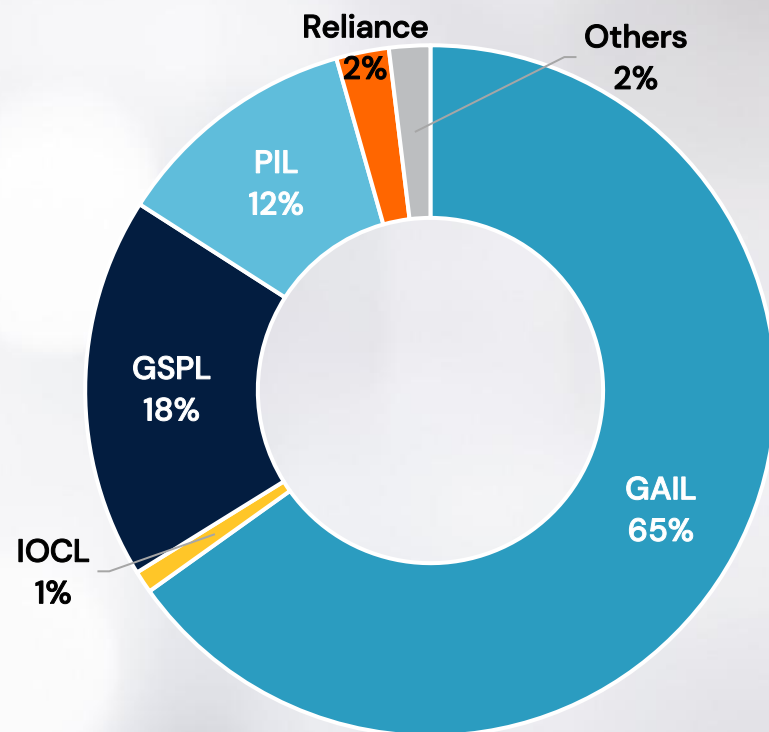
**Unified tariff**

Notified unified tariff regulations to simplify the tariff system in India, limiting cascading of tariff to end consumer

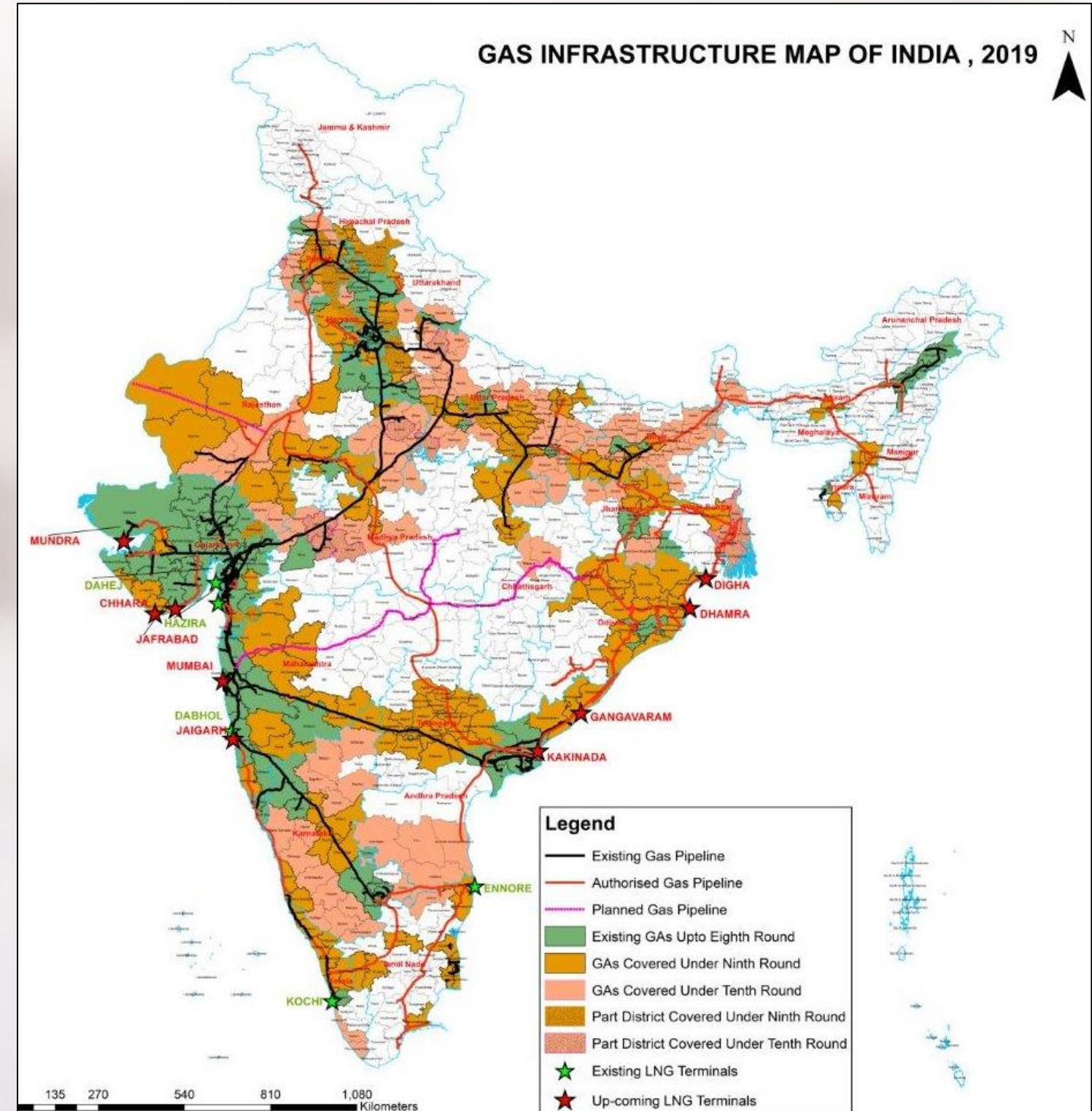
➔ **Recent developments in natural gas sector in India**

# Natural Gas Pipeline

Details	Length
Total length of authorized natural gas pipelines	32,559 km
Total length of operational natural gas pipelines	17,016 km
Total length of under construction natural gas pipelines	15,543 km



**25%**  
of the total pipeline capacity is available under common carrier capacity in India



\*Approximate share based on pipeline lengths

## Current Scenario



- For entities and customers who seek to book a certain capacity (on common carrier basis) in the pipelines operated by an entity, there is a provision to apply for the capacity on its portal.
- The entities provide details like capacity requirement and plant location in the portal based on which capacity allocation process is initiated.

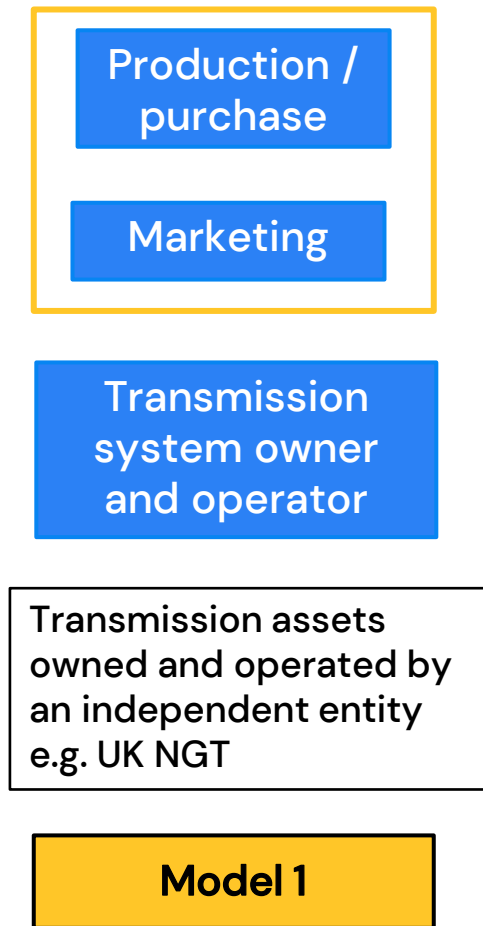
## Proposed changes in the structure



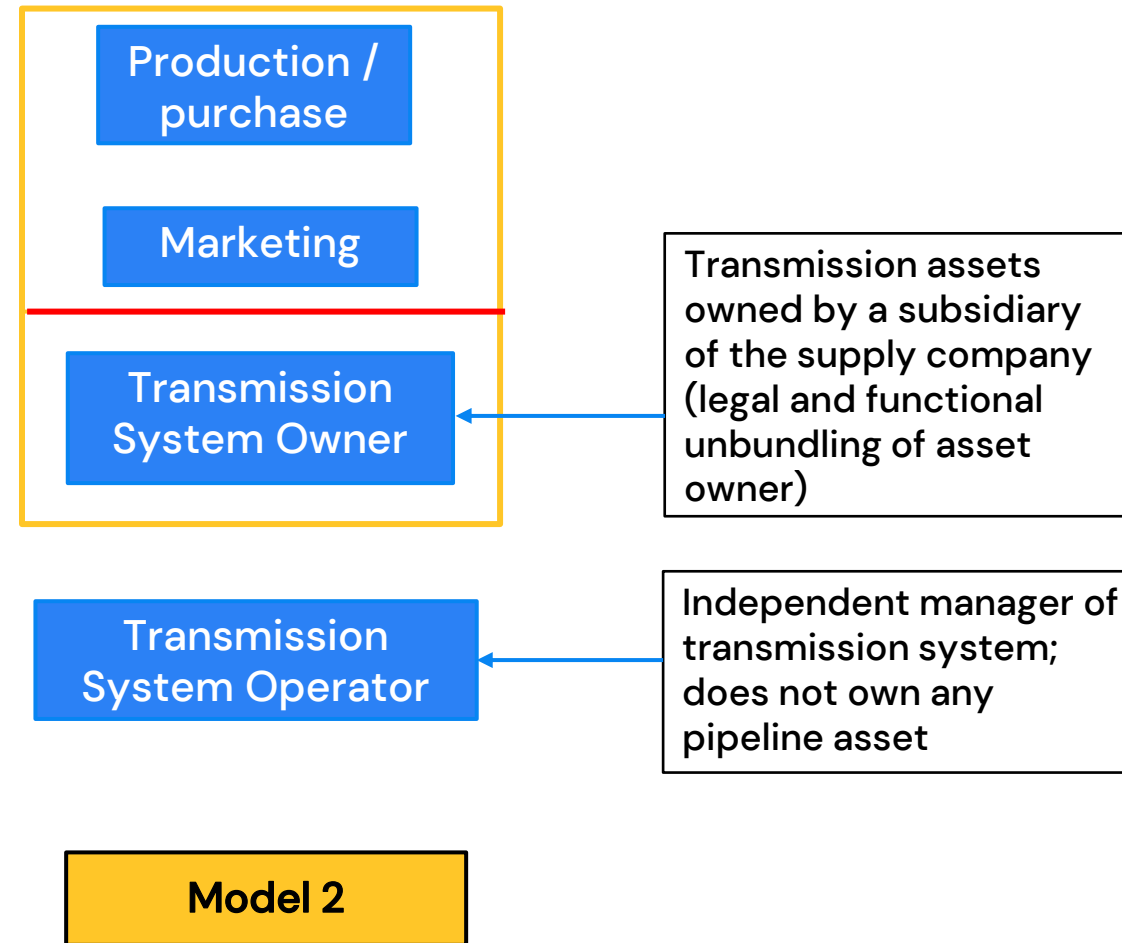
- **Creation of an independent system operator**, which will be an independent operator of common carrier gas pipelines to manage the common carrier part of the entire gas pipeline system in the country

→ **India to have an independent operator – expected to manage the open access capacity**

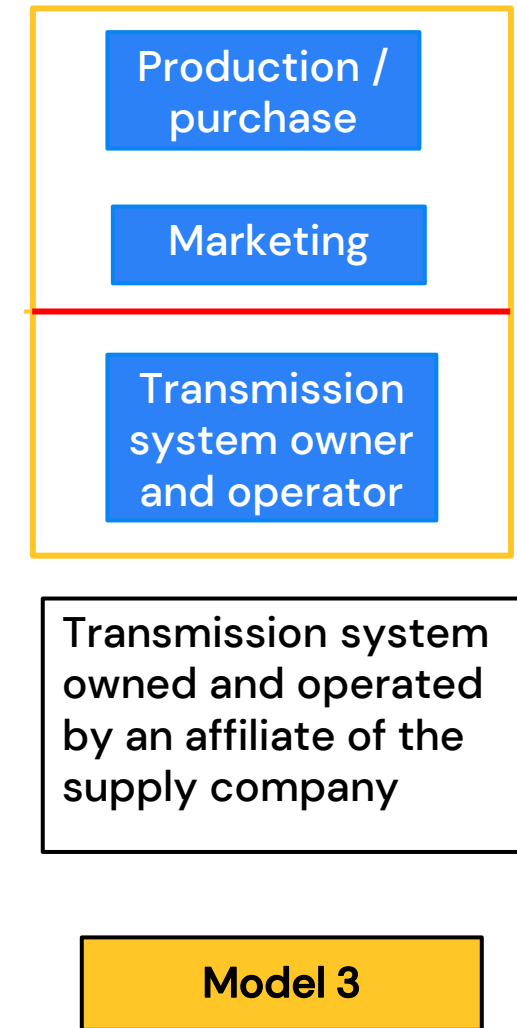
# Full Ownership Unbundling of transmission business from supply



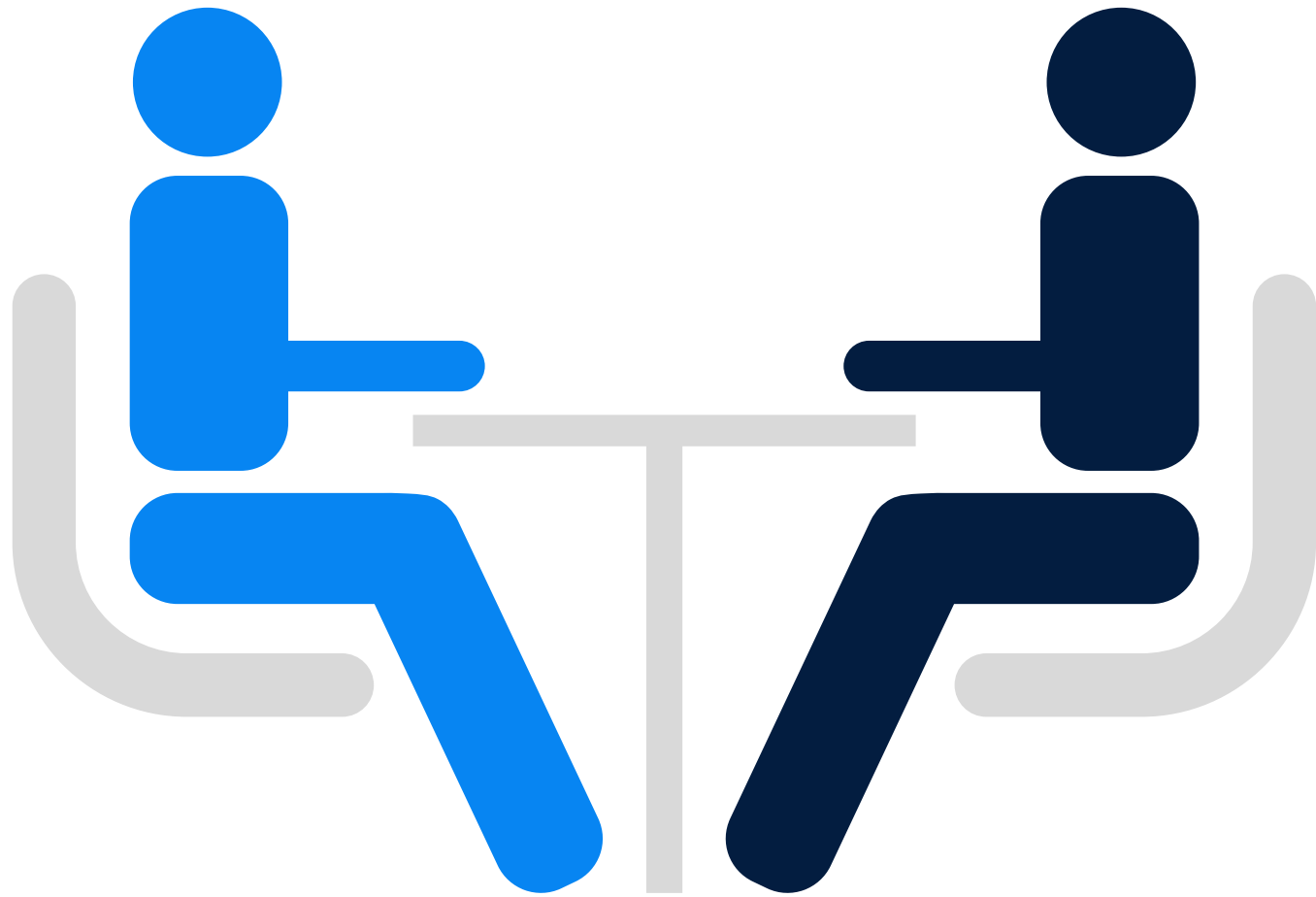
## Independent System Operator



## Independent Transmission Operator



➔ Different TSO models explained in a nutshell



## In today's webinar we will

- a) Listen from an international perspective about Transmission System Operators and how they were developed in the respective country
- b) Keynote address by Shri Tarun Kapoor, Hon'ble Secretary, Ministry of Petroleum & Natural Gas, Government of India
- c) Panel discussion to deliberate and understand roles and responsibilities of a TSO:
  - Which model could be best suited for India
  - What are the factors one must keep in mind to arrive at a conclusion

→ **Discussions ahead...**



Get in touch with us:

**Ankit Gupta**

Managing Consultant (Oil & Gas)

[Ankit.Gupta@icf.com](mailto:Ankit.Gupta@icf.com)

---

**icf.com**

 [linkedin.com/company/icf-international/](https://www.linkedin.com/company/icf-international/)

 [twitter.com/icf](https://twitter.com/icf)

 <https://www.facebook.com/ThisIsICF/>

---

#### About ICF

ICF (NASDAQ:ICFI) is a global consulting and digital services company with over 7,000 full- and part-time employees, but we are not your typical consultants. At ICF, business analysts and policy specialists work together with digital strategists, data scientists and creatives. We combine unmatched industry expertise with cutting-edge engagement capabilities to help organizations solve their most complex challenges. Since 1969, public and private sector clients have worked with ICF to navigate change and shape the future.