

Remaining Questions from the “Role of the Transmission System Operator in Gas in India – Learnings from a Global Perspective” webinar

Question	Answer & Name of Responder
<p>Can the TSO be different from the incumbent transporter (i.e GAIL)? Creating this TSO ex-nihilo will complexify and possibly delay a painful process. Are there other examples in the world?</p>	<p>Responder - Ashu Shinghal , GAIL (India) Ltd</p> <p>Answer - Yes. The TSO will be different from the incumbent transporter i.e. GAIL. Indian TSO is proposed to be an independent separate Central Public Sector Enterprise (CPSE) with minimum 51% Government shareholding and rest by other oil sector PSUs to act as Transport System Operator (TSO) for common carrier capacity in natural gas grid in the country.</p> <p>Each country has adopted and fine-tuned different models for restructuring based on respective needs and market/infrastructure maturity. Under the third EU Energy Directive 2009, Member States were given the freedom to choose among three TSO models and there was an option that members may have multiple TSOs also. In Europe, many countries like France and Spain have adopted the wholly owned subsidiary (WoS) model, which also acts as a TSO while a few opted for a separate entity for TSO activity. The subsidiary model has also been adopted in Brazil and Indonesia to act as transmission system operator. Multiple TSOs exist in the US natural gas market in form of respective pipeline companies, which build, operate and transmit gas through their respective pipelines and as TSO, these unbundled stand-alone pipeline entities only have to file their Annual Transmission Activities with the FERC.</p> <p>Indian gas sector is still a developing market and reforms in Indian gas sector need to ensure the twin objectives of infrastructure creation, along with third-party open access for market development. Creating a TSO is a step in the right direction towards achieving this.</p>

	<p>With the establishment of TSO it shall benefit the end consumer who is connected to multiple pipelines. All common carrier capacity booking shall be available on a uniform basis on a single platform. It shall lead to increased deliverability and reliability, while enabling single payment facility. Transparent, uniform and independent access to pipelines from entry to exit point through facilitation of non-discriminatory open access to common carrier capacity of natural gas pipelines. Further, it shall lead to elimination of information asymmetry through Gas Access Bulletin Board - a common platform for disclosing information on available common carrier capacity for all the gas pipelines in the country.</p>
After GBB comes and standardized GTA comes, does the board-approved GTA override the existing GTAs?	<p>Responder - SC Gupta</p> <p>Answer - The draft regulations are under preparation and would be webhosted soon for public consultation.</p>
Is that decrease of NG in France due to transmission change or else due to the promotion of cleaner energy?	<p>Responder - Jean-Marc Brimont & Nicolas Peugniez</p> <p>Answer - Europe is going through a strong energy transition. The efforts made by regulators and TSOs in implementing a single market zone resulted in an alignment of the French hub price with the EU reference prix (TTF). In this respect the limited increase of transmission costs due to investment was more than compensated by the increased competition. Gas prices in Europe (measured at TTF) are influenced by the world economy, Europe being the “balancing market” for several producers.</p> <p>In France, which has a strong nuclear base (45% production capacity), electrification of the consumption mix is important (38% Final Energy Consumption is electricity, gas is 29%).</p> <p>Regarding electricity production, coal-based electricity (2% of production capacity) is being stopped (last coal plant to close by 2022). Gas CCGT are used in peak conditions or to support the network.</p>

	<p>In the long term, GRTgaz analyses and forecasts, take into consideration policies aiming at sustained efficiency gains and development of renewable gas (biomethane, hydrogen), as well as an increased electrification of the economy. Natural gas mobility does not compensate this decrease in demand in the other sectors.</p>
How does the panel envisage the trading of pipeline capacities and its utilization to grow?	<p>Responder - Akhil Mehrotra</p> <p>Answer – Utilization of pipelines which are having large unused capacities will increase only with increase in demand of gas and availability of gas at affordable price for the anchor customers. However, trading of pipeline capacity will help in development of markets for gas by allowing shippers to use unused capacity.</p> <p>This can be allowed through regulations, but the trading helps when there is shortage of capacity in pipelines, whereas today we have large unused capacity which can be booked directly from the transportation companies. More than trading of capacity as a first step unbundling of capacity and commodity is required.</p>
The concept of TSO, though being globally accepted, is new in India. What are the teething problems envisaged by global experts in its implementation in a large demography like India?	<p>Responder - Akhil Mehrotra</p> <p>Answer – India has a large geographical area with multiple pipeline owners and operators.</p> <p>An independent transmission system operator is required for India which will have the following issues</p> <ol style="list-style-type: none"> 1) Integration of pipeline data from multiple operators – Each pipeline owner, independently operate their pipeline, the hardware and software for which will be different. Integrating the same into a single control room would require capex, planning and processes. 2) Access code – current access code is broad and may not have the minor details required for handing over gas from one pipeline to another. This needs a fresh look to make it robust so that no ambiguity arises in providing fair and transparent access

	<p>3) Cybersecurity – when multiple systems talk to each other, cyber threat increase which need to be addressed by having robust firewalls to protect against any attack to manipulate the system (the same happened in electricity grid in India recently) Both long term and short term capacity booking would continue. Focus would be on booking of these capacities in a transparent and non-discriminatory manner. The draft regulations are under preparation and would be webhosted soon for public consultation and finalization thereafter.</p> <p>4) Settlement mechanism for commodity and transfer of excess revenues from one entity to another needs to be worked out as per the new unified tariff regulations.</p>
Although the TSO shall structure a mechanism to ease out capacity booking services, how likely shall long-term capacity planning be replaced with short term CTs?	<p>Responder - SC Gupta</p> <p>Answer - Both long term and short term capacity booking would continue. Focus would be on booking of these capacities in a transparent and non-discriminatory manner. The draft regulations are under preparation and would be webhosted soon for public consultation and finalization thereafter.</p>
What are some indicators that a market is regulated efficiently and transparently?	<p>Responder - Jean-Marc Brimont</p> <p>Answer - Indicators of market health (competition/concentration, bid/ask spread, ...) are detailed in the ACER Market Monitoring Report 2019. They typically cover concentration issues (HHI), volume measurement (traded volume, churn rate) and market liquidity measures (bid/ask spread). In Europe, deviation between different hubs is also monitored, regarding fluidity of the EU integrated market.</p>
What will be the implications of formation of TSO on tariff collection for pipeline operators? How will the revenue be determined for pipeline operators as they will not have control over flow volume?	<p>Responder - SC Gupta</p> <p>Answer - Formation of TSO will not have any tariff implications. However, whether unified tariff will be collected by TSO or pipeline entity, would be decided while finalizing 'Settlement Mechanism' as per Unified Tariff Regulations notified in November, 2020.</p>
Is the ISO fee regulated?	Responder - SC Gupta

	Answer - The ISO structure and fees is yet to be finalized.
While there are many options, which ownership models will be relevant to streamline gas transport operations in India and what are the considerations to go for a particular model?	India model is more or less finalized now with an Independent entity to act as a TSO.
How are you taking the market coupling of electrical and gas networks?	Responder - SC Gupta Answer - The PNGRB gas exchange regulations have the enabling provisions for such market coupling which would facilitate simultaneous buying of natural gas and selling of power in the respective exchanges.
As mentioned, ISO will be on lines of POSOCO, will Gas Day will be changed to 00:00 Hrs from current 6 AM to 6 AM?	Responder - SC Gupta Answer - Presently Gas day starts at 6.00 hrs. The change if any would be decided after public consultation of draft regulations proposed to be webhosted soon.
In the ISO/ITO model, is the customer is subjected to only one set of entry/exit tariff or is the regional network tariff applicable too? What are the global experiences?	Responder - Jean-Marc Brimont & Nicolas Peugniez Answer - The market model in the EU is based on Entry/Exit and Virtual Trading point. The tariff calculations vary and also depend to some extent on the definition of border between transmission ("core of the network") and distribution (dispatching the gas across regions). Tariff calculation for the core of the network is usually promoting competition of sources, hence rather based on a combination of capacity-weighted distance calculation with secondary adjustment (perequation between entries, or between exits). Some countries even moved to a post-stamp tariff on their main network (e.g. Germany). On regional networks / distribution the tariff may be more distance-influenced. For the French tariff model, see here . The distance related part of the tariff might be influenced by various factors: setup of sources and demand (evenly spread across the country or very unbalanced), infrastructure policies (spatial development in the country), role of transit vs dispatch for the network.

Is there any European data on shippers; between buyers and sellers? How does it play out?

Responder - Jean-Marc Brimont

Answer - Not sure to understand the question.
Data on market monitoring is issued by each NRA and by the ACER Market Monitoring Report 2019. Transparency on traded volume on the Virtual Trading Point is given by TSOs (e.g. GRTgaz) and exchanges (e.g. EEX/Powernext).