

# How could obligation chain be structured along cross-border gas supply for gas security ? 3-tier legal interactions

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# Research Aims

## Measure

to measure components and linkages of legal obligations undertaken by the actors involving cross-border gas supply chain

## Investigate

to investigate possibility to establish a legal structure for promoting security of gas supply chain

## Examine

to examine consequences of gas supply chain for government and companies

## Examples

Analyze: legal structures (international-domestic-contract law): entitlement vs. state responsibility as requirements for functioning/enforcing obligation chain

# Research Problems

## Forecast

Forecast: natural gas will increase demand at global average of nearly 2% per year by 2035:

- ⇒ convenience in consumption
- ⇒ economical and environmental efficiency
- ⇒ natural gas remains a preferred choice in many applications with high consumption

## Gas Reserve

Gas reserve is highly unevenly distributed:

- ca 0.75% deposited: Middle East & Eurasia;
- 54% of total estimated: Russia, Iran & Qatar

## Examples

Large consumers: in Asia & Europe are insufficient or lack of domestic gas to meet their demand

# Gas Market Situation: Pros & Cons

## Supply-Demand

Cross-border trade plays important role in 'supply-demand' relationships of unevenly distributed resources

## Long-Term Contracts

Long-term contracts remain important for viable investment of a gas value chain

## Supply Security

Cross-border trade doesn't always guarantee the security of supply (adequate volume when and where it is needed at affordable price)

## Uncommitted Volume

Long-term contracts limit the availability of uncommitted volume for market to balance demand-supply

# Problem Statement

## Scheme Drawbacks

however, this scheme has serious drawbacks:

- Current mechanism of O.G.S. has limitations in guaranteeing supply security for importing country.
- Gas market is constrained in delivering adequate volume at affordable price to the right place on time
- Impossibility of the importing government in directly controlling overseas gas supply source due to sovereignty of the producing country
- Ineffective managing/sustaining cross-border gas supply flow

# Hypothesis

## Hypothesis

- ↔ Targets of the test: dynamic dimensions of availability and affordability.
- ↔ The scenarios of excess and shortage of gas supply (volume and infrastructure capacity) are applied for testing rights and obligations of the actors involved.
- ↔ Producing/exporting country covers expensive supply and cheap supply (due to geological conditions and technology requirements).
- ↔ 2 types of consuming/importing countries: 'rich consumer with little supply shortage; and 'poor consumer in high demand for gas' (levels of economic development & social welfare).
- ↔ Measure: gas volume, infrastructure capacity, distance, timing, price & company's flexibility.

# Research Methodology

## Conceptual Analysis

to look into the elements and interactions of legal obligations in **three tiers** of the relationship:

- ↪ government vs government in international law
- ↪ government vs company in domestic law
- ↪ company vs company in contract law



# Research Techniques

## Assuming

Performing the obligations implies aspect of actors' expectations.

## Examining

Examining consequences for the government and the company.

## Clarifying

Clarifying the concepts

## Investigating

Investigating legal structure (international-domestic-contract law): entitlement vs state responsibility as requirements for functioning/enforcing obligation chain

## Exploring

Exploring documentary database

# Demand-Supply Imbalance: Triggers and Consequences

## Rigidity

Rigidity of dedicated and network bound **infrastructures**



Limited **swing capacity**



The market responsiveness becomes **inhibited (less flexible)**

## Examples

Imbalance: demand-supply relationships, e.g. by tight supply:

- ↘ market price are driven upward (when affordability aspect of supply security is ignored)
- ↘ market price cannot still attract demanded gas volume (because of relative concentration of the producers/suppliers)

# Government's Role: Sustainable Gas Supply Flow

## Involvement

Government's role in gas sector for sustainable supply flow. The government's involvement helps to regulate uncertainties and difficulties that go beyond the guarantee of gas market:

- ↔ Requirement of timely supply-demand balancing (e.g. in short notice):
  - distance between production and consumption locations of the infrastructures.
  - infrastructure capacity and constraints
- ↔ Uncertainties related to volume availability
- ↔ Affordable price

# Government's Role in Gas Sector: Domestic Affairs

## Domestic Affairs

- formulating & monitoring domestic framework with clarified objectives and responsibilities of the market players
- licensing scheme & legal framework under law rules
- controlling operations of the companies and local market
- facilitating gas inflow
- influencing company's operations through obligations or restrictions
- stimulating companies to promote company's presence and performance of particular business activities

# Government's Role in Gas Sector: International Affairs

## International Affairs

- aims at general strategies/policies of energy security securing supply of overseas gas
- indirect involvement of the governments: 'many large gas contracts have been closed in the context of bilateral meetings between government leaders'
- creating multilateral agreements mitigating trade barriers,
- supporting cross-border activities among participating countries (e.g. stipulation of free transit principle in GATT/WTO
- mitigating trade barriers,
- agreement or in Energy Charter Treaty)

# Government's Role in Gas Sector: Diplomatic Affairs

## Diplomatic Affairs

- interference in market & cooperation relation with other countries within bilateral & multilateral agreements
- strengthening bilateral relationships
- participating in multilateral agreements
- engaging in diplomatic agreements in cooperative spirit
- obtaining certainties of the supply source
- facilitating operations of the companies

# Possible Disadvantages and Negative Consequences of Governmental Participation

## Dependance

Cooperation agreement depend on diplomatic attitude and goodwill of the governments

## Instabilities

Cooperation agreements have no obligatory effect

## Uncertainties

It may contain uncertainties

## Examples

Unpredictability: It may be waived or failure in achieving expectations or practical yields

# Multilateral Agreements: Advantages & Drawbacks

## Energy Charter Treaty

Multilateral agreements (M.A.), e.g. Energy Charter Treaty, provide general cooperation frameworks with more favorable conditions for participating members.

## Entities or Trade

However, M.A. could not enforce the entities or trade activities and may only be considered as 'facilitation of trade'.

## Examples

Scarcity or Shortage: Overseas gas supplies may be constrained to destine timely to the right location at affordable price with adequate volume, especially in case of scarcity or shortage.



# Government's Participation in Gas Sector: Drawbacks

## Drawbacks

The government's capability of enforcing an independent company to perform any obligations at any time remains questionable:



company's nature of for-profits aim needs for affordable gas supply for economic development and social welfare at macroeconomic level ⇔



practice of freedom of contract in pursuing business

# Current mechanism of Overseas Gas Supply (O.G.S.)

## O.G.S.

Current mechanism of Overseas Gas Supply consists in an operational frame with combination of:

- ⇒ contractual obligations functioning in the market
- ⇒ government's obligations originated from inter-government agreement
- ⇒ obligations imposed on gas undertakings by domestic regulation

# Limitations and Challenges

## Examples

Limitations and Challenges: Managing/sustaining cross-border gas supply flow has difficulties for the importing country. These include:

- ⇒ lack of enforcing power over independent company's operation
- ⇒ Impossibility in directly controlling overseas gas supply source, the explanation of which is attached to sovereignty of the producing country
- ⇒ no direct control of access to infrastructure capacity along gas chain

# Long-Term Goal

## Responsibility

The government is ultimately responsible for gas supply security of the country Therefore, the main question is:



## Examples

### Obligation Chain

- ← satisfying both availability and affordability dimensions in securing overseas gas flow, which is currently not easy for importing government
- ← creating legal obligation chain along cross-border countries that guarantees availability and affordability of gas supply

# Thanks


*Thank you for attention !*

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