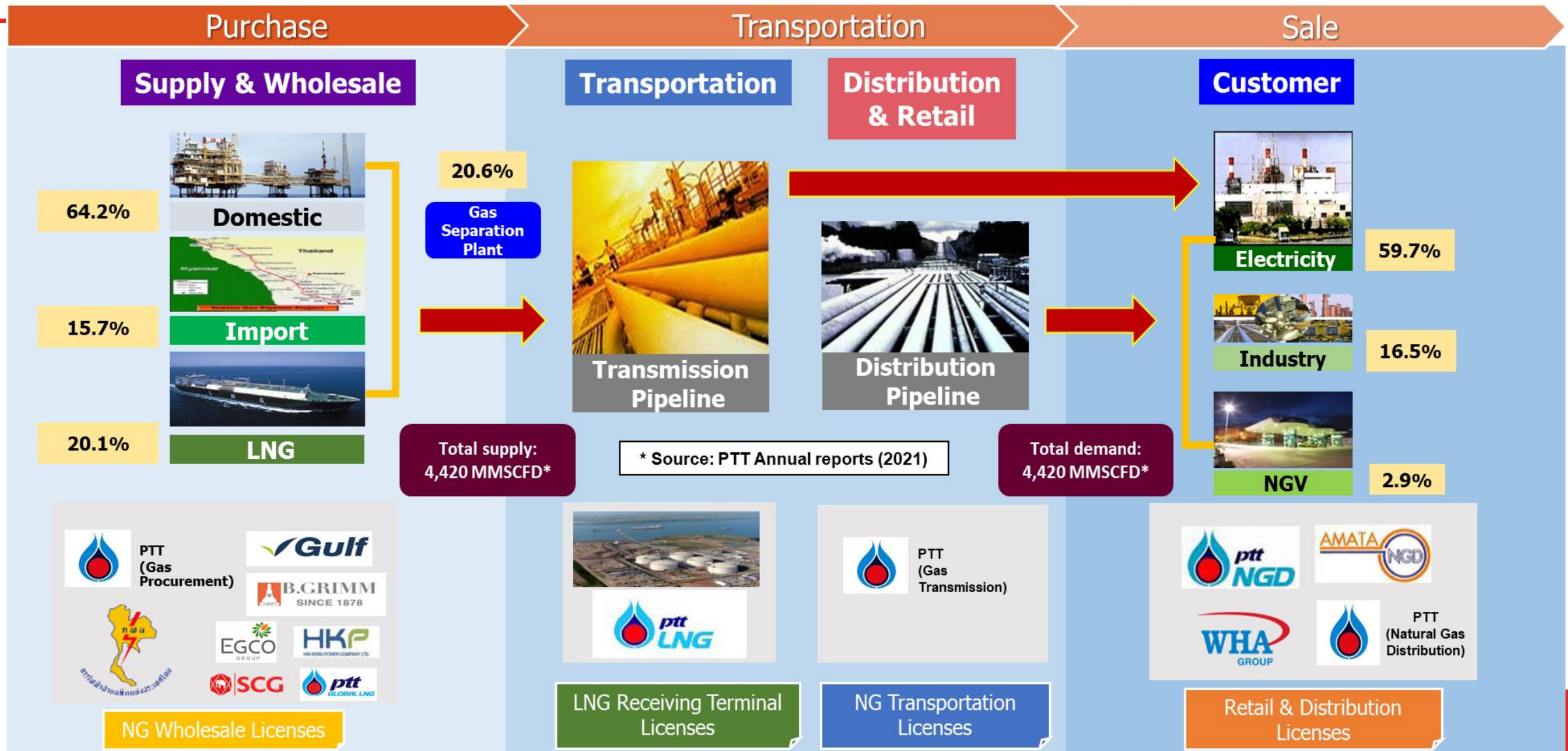


# Third Party Access to the LNG in Thailand

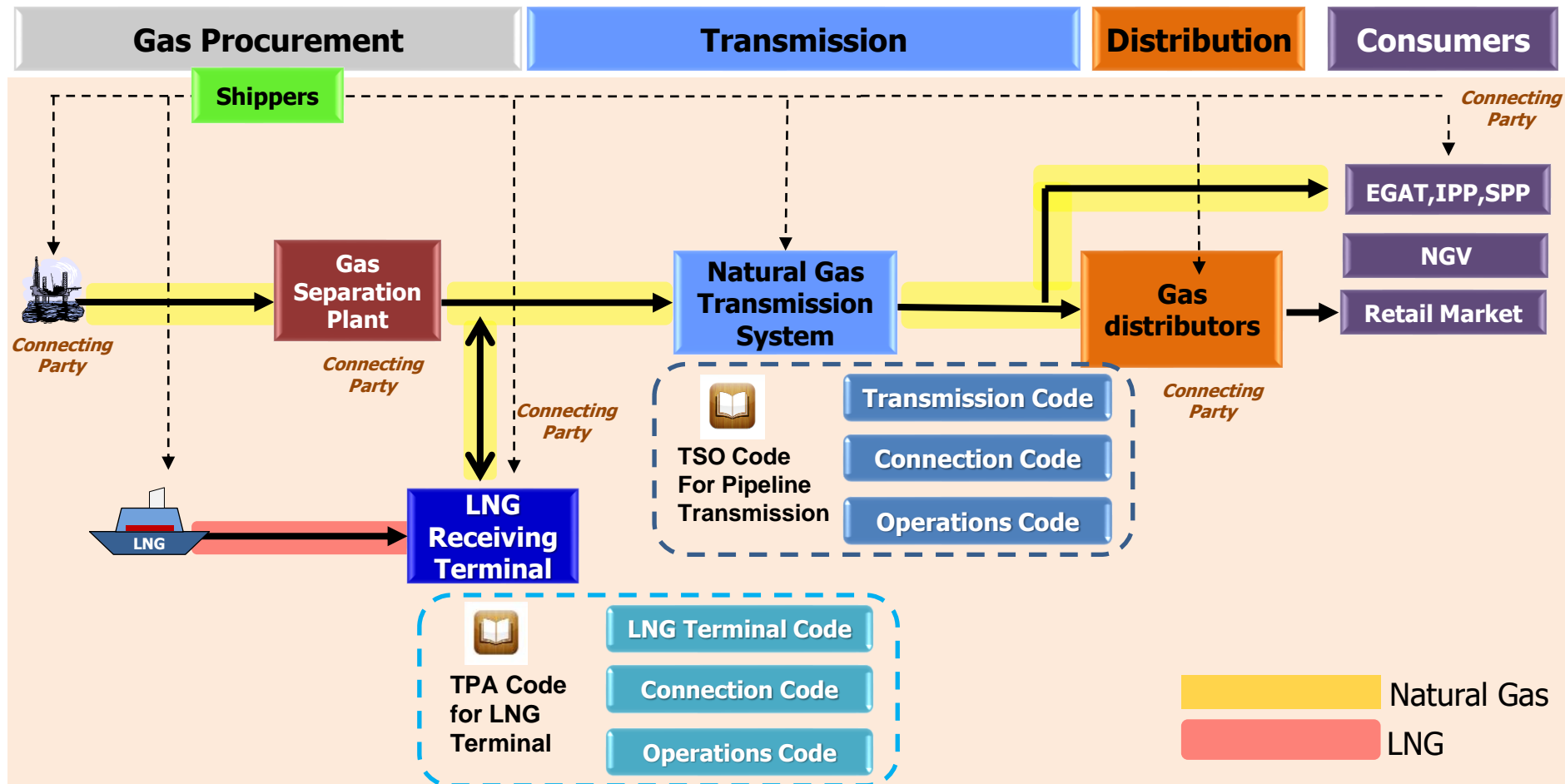
DR. PHUWANART CHOONHAPRAN  
Office of the Energy Regulatory Commission of Thailand (ERC)



# Thai Natural Gas Business



# TPA Regime Under Energy Industry Act 2007



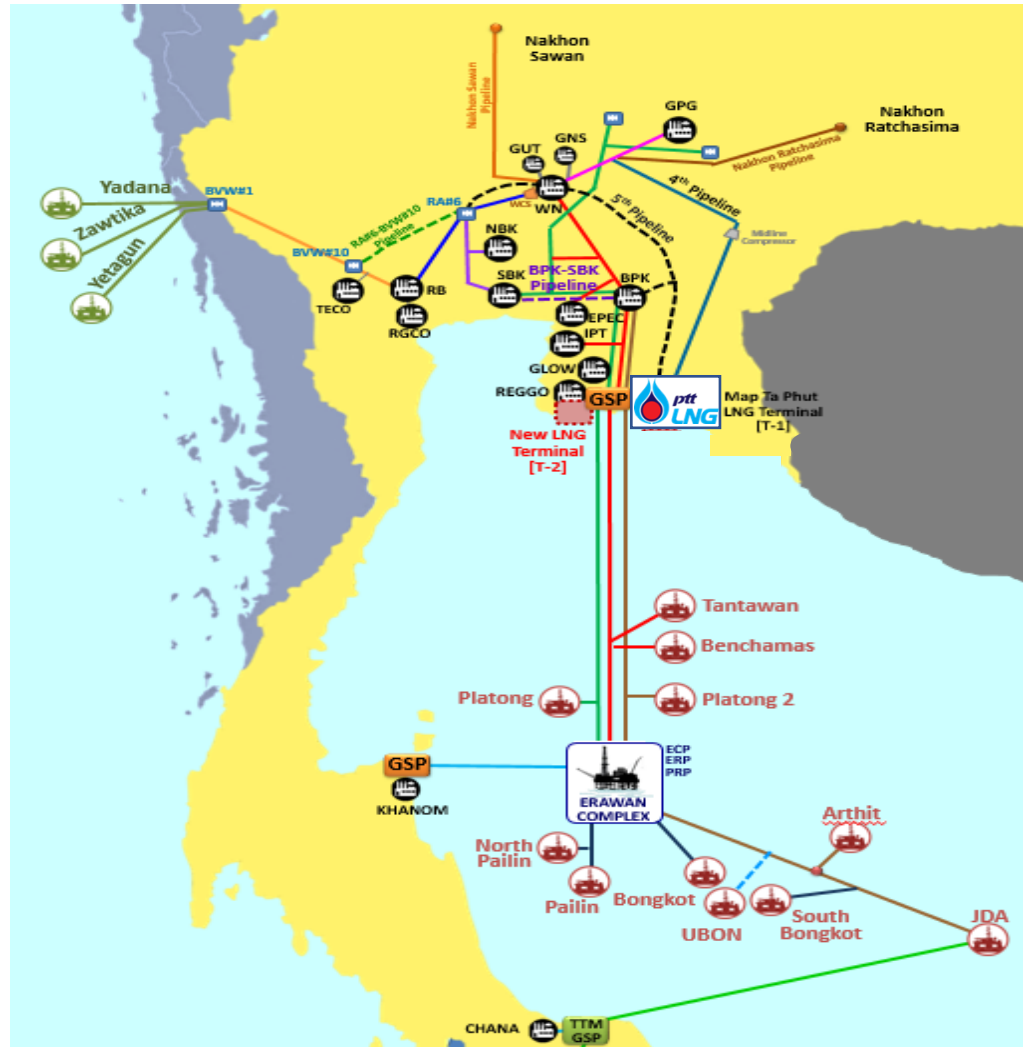
## S. 7 : The Objectives of this Act are to:

- Protect energy consumers' benefits in terms of both tariffs and service quality
- Promote competition in energy industry
- Promote fair and transparent service
- Promote efficient in energy industry operation

**S. 80:** A licensee who owns an energy network system shall carry out energy industry operation fairly without unjust discrimination

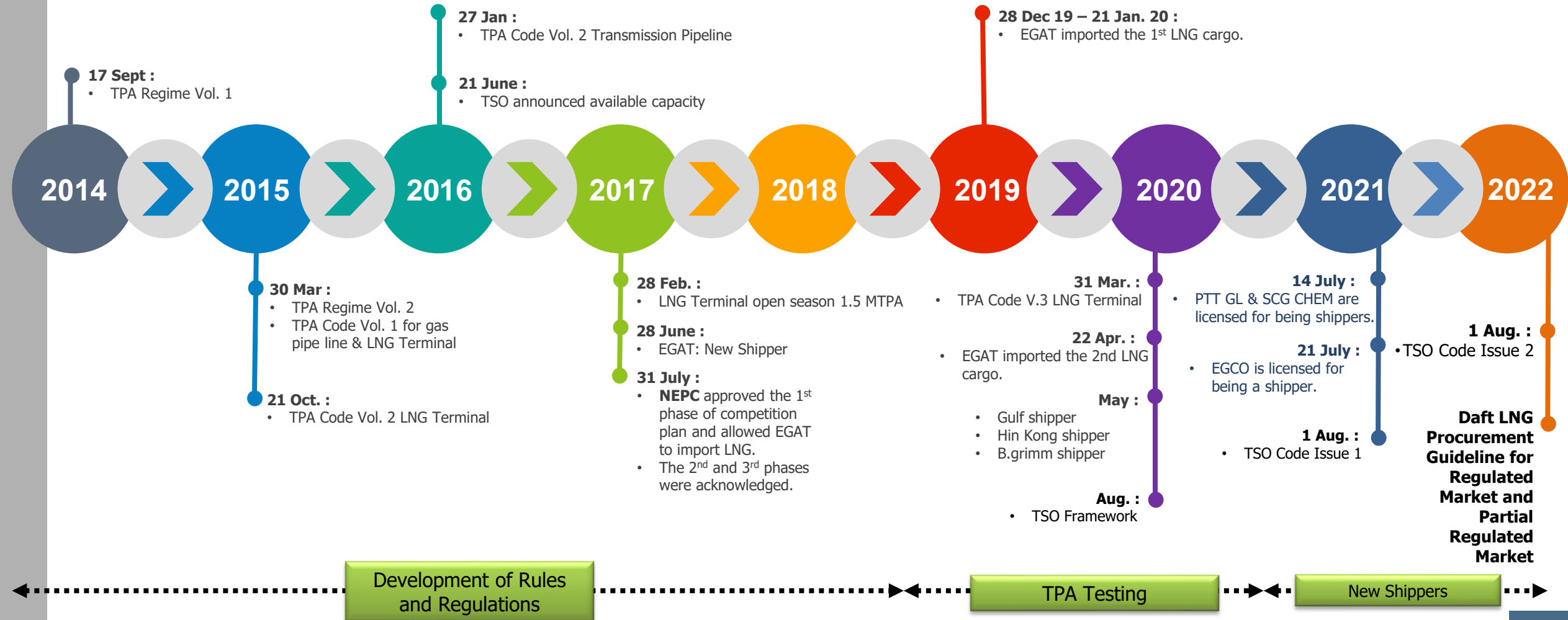
**S. 81:** A licensee who owns an energy network system must allow other licensees or energy industry operators to utilize or connect to his system in accordance with terms stipulated and announce by the licensee who owns the energy network system

# NG Infrastructure Network Integration in Thailand



Thailand's natural gas transmission infrastructure integrating the Gulf gas fields, LNG terminal, and transmission pipelines from the Yadana, Yetagun, and Zawtika fields of Myanmar at the border to several gas separation plants, power plants, and hundreds of industrial users throughout the country.

# Timeline of Promoting Competition in Natural Gas Industry



# TPA Regulation



คณะกรรมการกำกับกิจการพลังงาน  
Energy Regulatory Commission



## Under ERC Regulation

### TSO Regulatory Framework

TSO Code

Code of Conduct  
TO / SO



### TPA Regime

LNG Terminal

Gas Transportation Licensee  
SPP / IPP

Tariff/ Penalty

Market Review

Ring fence

Dispatch Gas

Information  
Disclosure

Mixing Gas

# TPA and TSO Content

## TSO Codes for Transmission Systems

### Transmission Code

- a) Boundary of the TPA Code
- b) Transporter and Shipper roles
- c) Applications for Transmission Service  
(Minimum criteria/Procedures for application/ Approval of applications/ etc.)
- d) Allocation of capacity  
(Defining entry & exit points /Determining cap./ Allocating cap. /announcing cap./Trading cap. /UIOLI/etc.)
- e) Technical requirements  
(Technical requirements and standards / Gas Spec.)
- f) Capacity expansion  
(Procedures/time frame/Determining the need /etc.)

### Connection Code

- a) Transporter and Connecting Party roles
- b) Application for connection  
(Minimum criteria/Procedures for application/Approval of applications/etc.)
- c) Financial arrangements  
(Financing/Ownership/Cost recovery /Charges /etc.)
- d) Technical requirements and standards

### Operations Code

- a) Operations  
(Maintenance planning /Nomination/**Linepack**/ Difficulties/**Shrinkage gas** /etc.)
- b) Balancing  
(Responsibilities/Imbalances/Liability/Charges/etc.)
- c) Measurement, invoicing and settlement

## TPA Codes for LNG Terminals

### LNG Terminal Code

- a) Boundary of the TPA Code
- b) Terminal Operator and Shipper roles
- c) Applications for Terminal Service  
(Minimum criteria/Procedures for application/ Approval of applications/ etc.)
- a) Allocation of capacity  
(Defining entry & exit points /Determining cap./ Allocating cap. /announcing cap./Trading cap. /UIOLI/etc.)
- b) Technical requirements  
(Technical requirements and standards / Gas Spec.)
- c) Capacity expansion  
(Procedures/time frame/Determining the need /etc.)

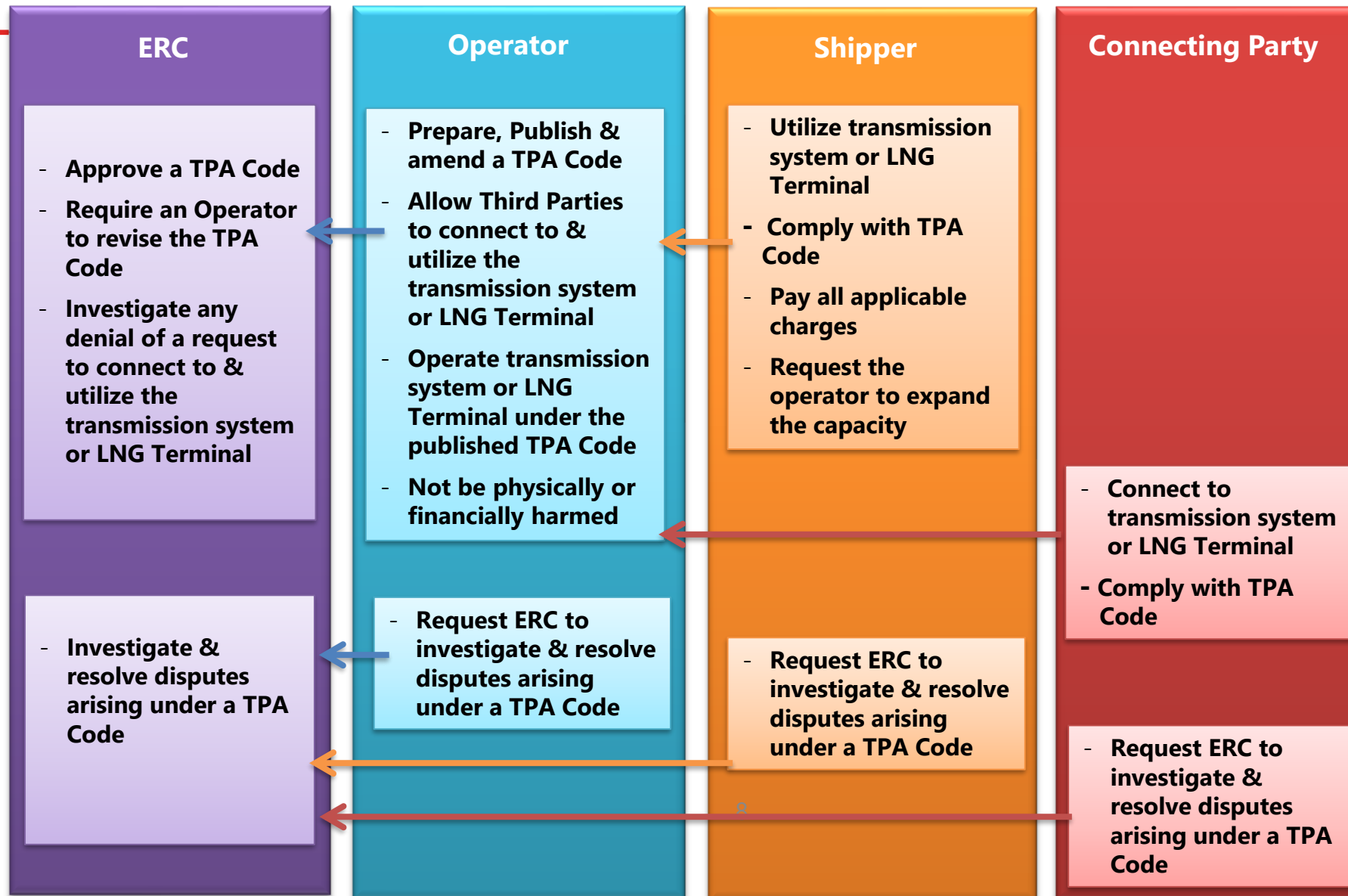
### Connection Code

- a) Transporter and Connecting Party roles
- b) Application for connection  
(Minimum criteria/Procedures for application/Approval of Applications/etc.)
- c) Financial arrangements  
(Financing/Ownership/Cost recovery /Charges /etc.)
- d) Technical requirements and standards

### Operations Code

- a) Operations  
(Maintenance planning /Nomination/Difficulties/**Terminal Loss** /etc.)
- b) Balancing  
(Responsibilities/Imbalances/Liability/Charges/etc.)
- c) Measurement, invoicing and settlement

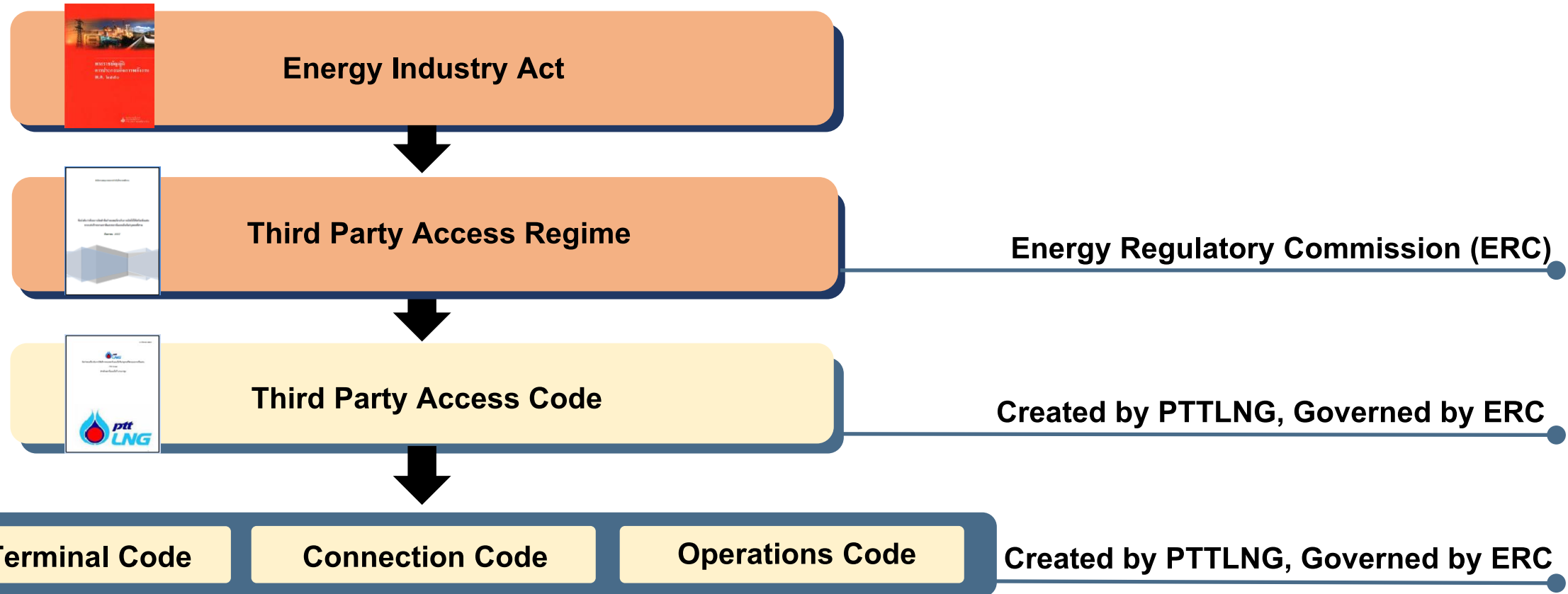
# Rights & Responsibilities





# TPA For LNG Terminal

## ▶ Third Party Access Hierarchy



# 1. Access rules: Primary and Secondary capacity allocation

## 1 Primary Market



Open-Season



Available capacity to those who show intention to utilize capacity on a “first come, first served” basis

## 2 Secondary Market

- Available capacity from Primary Market
- Transfer capacity
- UIOLI, Short-term contract



Transfer capacity right from Primary Market



Use-It-Or-Lose-It (UIOLI)



Third party use who willing to use Short term contract

## 2. Tariffs: Regulated

### Regulated Business

- ✓ Regulated by Energy Regulatory Commission
- ✓ Guarantee Return
- ✓ Fair fee and Equal access to use terminal

# 3. Transparency rules and Regulatory monitoring



## Transparency rules

- ✓ Transparency is the key of TPA code  
(*Open Season, Capacity Allocation, UIOLI*)

## Regulatory monitoring

- ✓ To address complex multi-user capacity allocation and utilization issues

# 3. Transparency rules and Regulatory monitoring



## Regulated by Energy Regulatory Commission

- **Third Party Access Code**
- **Tariff Model : Demand charge and Commodity charge**
- **Inventory Management (Inventory Days and Allowable Inventory for Unloading)**
- **Allocation capacity (Open Season/UIOLI)**



## Report to Energy Regulatory Commission

- **Terminal Variable cost**
- **Unloading cargoes/Storage utilization/Regasification rate**
- **Truck loading service**



Monthly  
Report



Yearly  
Report

# 4. Now and New service development of PTTLNG

## 1 Terminal Services



**Unloading, Storage,  
Regasification**



**Truck loading/ISO Container**



**Reloading**



**Small ship loading**



## 2 Cold Energy Utilization



**LNG Cryogenic Power Generation**



**Cooling Air Inlet**



**Cooling Building (HVAC)**



**Agricultural (Temperate, Tropical)**



**Cooling for Air Separation Plant**



**Cooling for Gas Separation Plant**



**THANK YOU  
FOR YOUR ATTENTION!**

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