Survey on LNG Trades (Chapter 4 Ensuring of fair competition in LNG trades)

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- 1. Market Environment of LNG trades
 - 1 Product range

Natural gas is classified into two categories; PNG (Piped natural gas) which is transported through the pipelines and LNG (Liquefied natural gas) which is transported by the LNG ships. Because Japan, Korea and Taiwan have not constructed any international basic pipelines, they procure almost all of the natural gas by international LNG trades.

Furthermore, in general, natural gas can be classified into three categories; rich gas, lean gas and super-lean gas and the main uses of those categories are same; power generation use, industrial use and residential-commercial use.

Users need to use or sell the natural gas the heating value of which conforms to the quality standard of the gas turbines or combustion equipment, which are in widespread use in their countries. Therefore, users usually design the facilities in unloading terminals, taking into account heating values. For example, since Asian users have historically used or sold rich gas, they limit unloading quantities and frequencies of lean and super-lean LNG, despite some differences among users. Especially, super-lean LNG is highly limited in the capacity. To receive excess lean or super-lean LNG over the acceptable limitation of quantity or frequency, costs for heating values adjustment need to be incurred.

However, most Japanese users would be more willing to purchase lean LNG depending on the trade conditions such as the prices and destination flexibility¹. Some Japanese users stated that they had already modified or was planning to modify their facilities to accept American LNG (lean LNG), which has high destination flexibility. Therefore, there seems to be some substitutability among rich LNG, lean LNG and super-lean LNG, even though there is a difference in acceptability among users.

Furthermore, LNG contracts can be classified into two categories; fixed-term contracts defining the certain contract periods and spot contracts traded by cargo unit. While Japanese users basically conclude fixed-term contracts to fulfill most of their LNG demand steadily, they may conclude spot contracts by cargo unit to deal with fluctuations in demand and supply or unexpected increases in demand. Therefore, it is considered that there is basically no substitutability between the fixed-term contract and the spot contract.

Given these environments, relevant products can be classified into two categories; products under fixed-term contracts (hereinafter, "fixed-term contract market") and products under spot contracts (hereinafter, "spot contract market").

 $^{^{1}}$ Destination flexibility means the extent to which users can designate destination ports or divert to alternative destinations.

2 Geographic range

LNG trades can be conducted without a large initial investment, if the trades are conducted between a supplying country with a loading terminal and consuming country with an unloading terminal. However, the larger the transport distance is, the higher the uncertainty of shipping days and the variable costs such as fuel costs and labor costs become. Therefore, in general, users procure LNG from relatively neighboring supplying countries under fixed-term contracts.

Therefore, Asian users procure LNG mainly from the Middle East, Southeast Asia, Australia, etc. under fixed-term contracts. On the other hand, European users procure LNG mainly from Europe, Africa, the Middle East, etc. under the fixed-term contracts².

There is a large difference between the price formulas and price levels of Europe and those of Asia. Despite a difference in conditions such as domestic LNG consumption and production of each country, Asian countries mainly adopt the oil indexation (JCC price) as the common price formula of each country. In addition, for example, there is no significant difference between the price level of Japan and that of South Korea.

On the other hand, as for a spot contract, because spot trades by cargo unit are conducted when arbitrage trades are expected to be profitable or in order to respond to sudden demand, LNG spot trades are conducted between suppliers and users all over the world, despite that the transport distance is an important factor. An LNG price under a spot contract is defined through arm's length negotiation across the world. Although the price levels of spot trades had been different between Europe and Asia when the crude oil price was surging until 2014, the level has been same across the world when the crude oil price has decreased since 2015.

Given these facts, the geographical range under the fixed-term contracts can be defined as an LNG sales market in which suppliers are in the Middle East, Southeast Asia, Australia, etc. and users are in Asia including Japan (hereinafter, "Asian market")³.

The geographical range under the spot contract market can be defined as an LNG sales market in which suppliers and users are from all over the world (hereinafter, "World market")⁴.

 $^{^2}$ Asian users and European users are forecast to procure LNG from North America and other countries as well in future.

³ Sales of LNG from suppliers in North America to users in Asia including Japan are expected to increase with certainty in future. Although it may be appropriate to consider such sales as competitive pressure in the Asian market in near future, few trades of such sales have started so far. Therefore, such sales are not included in the geographical range.

⁴ Although users hope for an increase in the number of spot contracts, the number of such users is limited so far. Besides that, a spot contract does not seem to be functioning sufficiently as competitive pressure in the fixed-term contract market.

3 Summary

In this report, based on the above-mentioned, we mainly discuss the influence of destination restrictions⁵ provided by fixed-term contracts to Japan in the fixed-term contract market on competition (i) in the fixed-term contract market (Asian market) and (ii) in the spot contract market (World market).

Because most of all LNG trades are currently made under fixed-term contracts, the procurable quantity of LNG for users in the spot contract market is limited. In addition, because a seller's obligation to supply and a buyer's obligation to receive are imposed under fixed-term contracts, the quantity of LNG newly procurable for users is limited to (i) the rest⁶ of what can be supplied after deduction of quantity promised to be traded under fixed-term contracts⁷, and (ii) the quantity that is resold from users who have concluded fixed-term contracts with the suppliers. It is necessary to take into account such facts, when we discuss the influence of the actual trades to Japan (especially, the situation in respect of resale) on competition in the fixed-term contract market (Asian market) and in the spot contract market (World market).



(Reference) Market structure of LNG trades

⁵ Destination restrictions means a certain extent of restrictions on buyers in free designation and diversion of destination.

 $^{^6\,}$ This includes natural gas from the United States and other countries, which producers of natural gas in the United States or in other countries, can produce.

⁷ This is limited to a part of the quantity possible to produce by the LNG projects across the world.

- 2. Understanding from the perspective of competition policy
 - 1 Destination restrictions
 - (1) Basic understanding
 - A. Current circumstances regarding destination restrictions

Japanese users procure LNG mainly from domestic and foreign suppliers who are sellers under fixed-term contracts. Among such fixed-term contracts, all of the DES⁸ contracts and most of the FOB⁹ contracts provide destination clauses¹⁰.

In some cases, buyers under fixed-term LNG contracts may request diversions ¹¹ of each cargo, because of operational reasons such as demand reduction or insufficient storage capacity at the unloading terminal and commercial reasons such as arbitrage trades to make a profit, regardless of whether such diversion is before or after setting up Annual Delivery Program. Among fixed-term contracts under which Japanese users purchase LNG, however, some contracts do not provide a diversion clause¹².

Users point out that they consider they cannot get the seller's consent on a diversion even if they request, under contracts without a diversion clause, even though there are no clauses that explicitly prohibit diversions. Even under contracts with a diversion clause, some contracts only provide requirements and procedures specifying that (i) "seller's consent" is required, and, specific conditions where the buyer can obtain the seller's consent are unclear.

Although there are some contracts with diversion clauses providing (ii) "compatibility and safety of a receiving terminal at the destination (ship-shore compatibility) is confirmed", (iii) "buyers bear all additional costs arisen out of diversion (transportation costs, boil off gas equivalent fees, charter fees, various port charges, insurance fee, etc.)", and (iv) "a buyer can correspond to Annual Delivery Program (does not disturb Annual Delivery Program)" as requirements of fairly necessity and reasonableness in the diversion clauses, there may be differences in the interpretation of the requirements between sellers and buyers in

⁸ DES (Delivered Ex Ship) term means the term of delivery that designates the destination port in an importing country as the delivery point. Sellers must transport the goods to the destination port. Also, sellers must bear all expenses and risks of the transportation to the destination port. Under an international LNG sales and purchase contract, an unloading terminal in an importing country is usually the destination port.

⁹ FOB (Free On Board) term means the term of delivery that designates the shipment port in an exporting country as the delivery point. Buyers must transport the goods from the shipment port. Also, buyers must bear all expenses and risks of the transportation from the shipment port. Under an international LNG sales and purchase contract, a loading terminal in an exporting country is usually the shipment port.

¹⁰ Destination clauses mean clauses that designate a list of unloading terminals as destination ports of LNG ships.

¹¹ Diversion means operational redirect to an alternative unloading terminal not in the list designated by the destination clauses in a contract (usually, to an unloading terminal owned or managed by a third party who is a customer of buyer's LNG resale).

¹² Diversion clauses mean clauses providing the requirements and the procedure of such diversions.

some cases. For example, while a buyer considers that such requirements are met, a seller may not consider so. Furthermore, there are some contracts with diversion clauses providing (v) "diversion shall be due to only buyer's operational reasons (demand reduction or insufficient storage capacity at the unloading terminal, etc.)", (vi) "diversion shall not be due to buyer's commercial reasons (arbitrage trades to make a profit, etc.)", (vii) "diversion is not for resale to seller's other customers", and (viii) "diversion shall be due to only seller's direct sales to a third party, who owns or manages an unloading terminal (the destination after diversion)" as competition-restraining requirements in the diversion clauses.

Users point out that there were some cases where they hesitated to make a diversion request after considering the burden of negotiation to acquire the seller's consent and that there were many cases where diversions were not allowed due to the lack of the seller's consent, and, in some cases, sellers refused to divert without any explanation, and only indicated that requesting a diversion was in violation of the contract.

As such, Japanese users face a certain extent of restrictions on buyers in free designation and diversion of LNG ship's destination (destination restrictions), transporting LNG purchased under fixed-term contracts.

B. Competition-restraining effect of destination restrictions

It is considered that destination restrictions prevent Japanese users from reselling LNG to the ones such as other users in fixed-term contracts or in spot contracts practically.

When a supplier (a seller under a fixed-term contract) prevents a user (a buyer) from reselling LNG by means of imposing destination restrictions which tend to cause a situation where new entrants are excluded in the fixed-term contract market (Asian market) or in the spot contract market (World market) and/or their trading opportunities are lessened in these markets, such conduct is deemed to have "foreclosure effects", and is, in principle, in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

It cannot be said that the shares of each supplier (an LNG seller under fixedterm contracts) in the fixed-term contract market (Asian market) and in the spot contract market (World market) are clearly high. However, in the situation where two or more suppliers impose destination restrictions respectively and parallelly, destination restrictions are more likely to have foreclosure effects in the fixed-term contract market (Asian market) and in the spot contract market (World market) as a whole than in the case where a single supplier imposes destination restrictions.

In addition, in the situation where most of the LNG trades are currently under

fixed-term contracts, it is difficult for most users to find alternative suppliers to procure sufficient quantity under fixed-term contracts even when their existing fixed-term contracts expire and are to be renewed. In other words, because a seller's obligation to supply and a buyer's obligation to receive are imposed under fixedterm contracts, newly procurable LNG quantity for users in the fixed-term contract market is limited to the rest that supplier can supply after deduction of quantity promised to be traded under fixed-term contracts. Moreover, because the amount of the LNG trades in the spot contract market is currently small, users cannot fulfill the sufficient quantity procured under existing fixed-term contracts with the quantity procured only in the spot contract market. In addition, it is difficult for buyers to procure LNG purchased by other users under their existing fixed-term, from those users in the fixed-term contract market or in the spot contract market, because suppliers often impose destination restrictions on those users. Even if the contract does not provide destination restrictions, the procurable quantity is limited to the resalable quantity which those users can resell. Therefore, since newly procurable quantity of LNG for users is limited; even if a supplier imposes destination restrictions, the restrictions is highly likely to have foreclosure effects on the fixed-term contract market (Asian market) and on the spot contract market (World market) as a whole.

When destination restrictions have the foreclosure effect, such destination restrictions themselves are, in principle, in violation of the Antimonopoly Act. In addition, such restrictions have an effect to maintain the sales price of the suppliers who are sellers under fixed-term contracts with destination restriction in the fixed-term contract market (Asian market) or in the spot contract market (World market), because such restrictions prevent a buyer from reselling at lower price than the market price in the destination of resale¹³.

C. Reloading method is insufficient as an alternative method of resale

There are two types of methods for users to resale LNG as sellers: by using diversion and by using reload facilities (hereinafter, "reloading method"). Users point out that the reloading method is expensive with respect to transportation costs and requires construction or expansion costs of reload facilities, reserve tanks and jetties in some receiving terminals. Users also point out that resale opportunities will be lessened, because it is difficult to resell LNG to control demand fluctuations with such buyer's costs, and it is unprofitable to resell LNG to make

¹³ It is considered that the price decrease on the spot contract market (World market) has some influence as a competitive pressure leading to the price decrease in the fixed-term contract market (Asian market).

profit to Asian countries due to the small price difference among Asian countries. So far, there are few Japanese loading terminals having reload facilities. In addition, Users having experienced of resale by the reload method use the method only in the case where there are some price difference between the market price of resale destinations and the purchase price due to the reloading cost. Since price difference among markets is decreasing, Japanese users face more difficultly in reselling LNG by the reloading method.

As such, resale by reloading method cannot fully be an alternative method to resale by diversion. Therefore, it is considered that the effect of destination restrictions to prevent Japanese users from reselling LNG is significant.

(2) Necessity and reasonableness of destination restrictions under FOB term

A. Premise

Under an FOB contract, destination clauses are not necessary in the sense that they do not specify the delivery point, because the delivery point is the loading terminal (the shipping port) and the buyer is liable for the transportation after loading LNG in the shipping port¹⁴.

Under an FOB contract, properties and risks in each cargo are transferred from sellers to buyers at the delivery point (the shipping port). Destination restrictions prevent buyers from reselling LNG freely and properly, even after properties and risks of LNG are transferred to buyers. Therefore, under an FOB contract, the restrictions on diversion as well as the provision of destination clauses are not generally considered as reasonable.

B. Necessity and reasonableness of destination restrictions ((i) from a viewpoint of feasibility of Annual Delivery Program)

Suppliers with fixed-term FOB contracts point out that the restrictions on diversion as well as the provision of destination clauses are reasonable even under fixed-term FOB contracts because sellers can improve the feasibility of Annual Delivery Program by understanding specific destinations and buyers' shipping routes.

Under an FOB contract, however, a seller only needs to ensure punctual arrival to a loading terminal of the LNG ships operated by a buyer. In addition, because the buyer is liable for transportation after loading LNG in shipping ports, it cannot be said that such restrictions on diversion as well as the provision of destination clauses themselves are necessary.

 $^{^{\}rm 14}\,$ In fact, there are some FOB contracts without destination clauses.

Suppliers also point out that because the diversion to an unloading terminal where distance and required time to the alternative transportation increase compared with those of the original transportation might disturb seller's operations, and that such diversion cannot be accepted in principle regardless of the terms of delivery (DES term or FOB term). On the other hand, users point out that such situations are not anticipated, because the charter market of LNG ships is expanding, and a buyer can charter an alternative ship easily.

When a buyer cannot charter an alternative ship and, the arrival of the LNG ship operated by the buyer to a loading terminal is behind schedule, loading schedules or delivery schedule related to other buyers might be affected. Furthermore, due to these problems, reserve tanks at the loading terminal might become full and it might be impossible to reserve further LNG depending on the circumstances. However, an adjustment of the Annual Delivery Program is conducted periodically, and it is considered that an adjustment, which might cause an unacceptable schedule delay for a seller, would not be agreed.

Some suppliers point out the risk of suspension of natural gas production for a long term. However, the possibility of the risk is much smaller. Besides, because a buyer is liable for seller's direct damages out of the delay of schedule, it cannot be said that there is a high possibility that the seller would suffer irreparable damages.

C. Necessity and reasonableness of destination restrictions (ii) (from a viewpoint of improvement of proper price setting)

Suppliers with FOB contracts point out that destination clauses in the FOB contracts are necessary to set a proper price, because a seller sets a competitive price based on the difference of price level between North America, Europe and Asia, taking into consideration various costs (transport costs, losses out of boil off gas, etc.) and risks in the transportation to the specific destination. It is therefore reasonable to restrict on diversion as well as to provide destination clauses.

The opinion of suppliers seems to have some reasonableness to the extent that it is not fair to abolish destination clauses or relax requirements on diversion while maintaining a trade price based on the premise of specific destinations. However, such an argument will not hold when new contracts are concluded or when expired contracts are renewed. In addition, an empirical analysis showed that there was no significant correlation between destination flexibility (presence/absence of destination clauses, scope of destination in a destination clause, presence/absence of diversion clauses, requirements on diversion) and trade prices.

Users point out that the provision of destination clauses has no reasonableness, because a buyer is liable for transportation after loading LNG at a shipping port under an FOB contract, and properties of LNG are generally transferred to a buyer at a delivery point (a loading terminal). Suppliers, most of whom do not have fixedterm FOB contracts, also point out that the buyer can deliver LNG freely to any destinations, because a seller no longer is liable and a buyer has its own discretion over disposition of LNG after loading LNG at a loading terminal under an FOB contract.

D. Summary

Given the above, it cannot be said that providing destination clauses itself under a fixed-term FOB contract is necessary and reasonable, and such a provision is likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

The restrictions on diversion as well as providing destination clauses are highly likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms), because its necessity and reasonableness under an FOB contract is less likely to exist than that under a DES contract.

(3) Necessity and reasonableness of destination restrictions under DES term

A. Premise

Under a DES contract, destination clauses are necessary in the sense that they need to specify the delivery point because the delivery point is the unloading terminal (the destination port) and the seller is liable for the transportation before unloading LNG in the destination port. Buyers sometimes request diversion of each cargo on an operational basis due to operational or commercial reasons. In such cases, buyers can redirect each cargo to an alternative terminal if they can obtain the sellers' consent.

B. Contracts without a diversion clause

There are some fixed-term DES contracts without a diversion clause. Even if contracts do not provide the requirements and procedures for a diversion, such contracts are not in violation of the Antimonopoly Act, if a seller accepts any reasonable diversions on an operational basis.

However, users consider that they cannot obtain sellers' consent on diversion for which they request under a contract which does not provide a diversion clause but does not prohibit diversion explicitly either.

It is therefore desirable for sellers to improve the predictability for buyers by clarifying the requirements and procedures for diversion.

C. Requirements defined in diversion clauses (i) (Seller's consent)

Among contracts with a diversion clause, some contracts only specify a requirement of "seller's consent" and do not provide any specific requirements to obtain the seller's consent.

Among long-term DES contracts, most of them with a diversion clause provide the requirement of "seller's consent" for diversion. Although many of them provide that "sellers' consent shall not be unreasonably withheld", few of them provide necessary and sufficient requirements to obtain the seller's consent.

Suppliers point out that they have to make sure whether they can bear responsibility for diversion before they grant their consent, because sellers are liable for transportation under DES term, and "Seller's consent" to diversion will be regarded as a natural procedure in a sense that the seller need to confirm whether a buyer's request meets requirements of necessity and reasonableness.

On the other hand, users point out that withholding seller's consent cannot be regarded as unreasonable except the cases when sellers suffer from operational problems and that there are some cases when a seller refuses to explain the reason a seller withholds the consent to diversion. It is regarded that reasonable diversion is not accepted on an operational basis, if a seller does not give the consent even when a buyer's request on diversion meets requirements of fairly necessity and reasonableness.

D. Requirements defined in diversion clauses (ii) \sim (iv) (requirements of fairly necessity and reasonableness)

There are some contracts providing requirements of fairly necessity and reasonableness¹⁵ on diversion. In some cases, however, there are differences in the interpretation of the requirements between sellers and buyers. For example, it might happen that a user interprets a request on diversion meets the requirements of fairly necessity and reasonableness, while a supplier does not.

Many of long-term DES contracts with a diversion clause specify one or more of requirements of fairly necessity and reasonableness for diversion, and about half of them provide all of such requirements for diversion.

(ii) As for "compatibility and safety", suppliers point out that diversion to unloading terminals in countries at war or subject to economic sanctions or other unloading terminals that have security problems might result in a schedule delay

¹⁵ Requirements of fairly necessity and reasonableness mean the following requirements: (ii) "compatibility and safety of a receiving terminal at the destination (ship-shore compatibility) is confirmed", (iii) "buyers bear all additional costs out of diversion (transportation costs, boil off gas equivalent fees, charter fees, various port charges, insurance fee, etc.)", and (iv) "a seller can correspond to Annual Delivery Program (does not disturb Annual Delivery Program)".

and disturbance of sellers' operations, which such sellers' opinion seems to be reasonable for. Suppliers point out that a seller needs to confirm ship-shore compatibility in cases when an LNG cargo requested to divert for a buyer has not been to the destination port (unloading terminal) yet. Suppliers also point out that sellers' operations might be disturbed in cases when a seller cannot confirm the compatibility, which such seller's opinion seems to be reasonable.

(iii) As for "buyer's payment of additional cost", if a seller practically incurs additional costs due to the diversion requested by a buyer, it seems to be reasonable to request such additional payment from the buyer to the extent of actual additional costs.

(iv) As for "limitation of assignment of ships", suppliers point out that the diversion to an unloading terminal where distance and necessary time of the alternative transportation increases compared with those of the original transportation might disturb sellers' operations, which such seller's opinion seems to be reasonable for. However, it is considered that the time span (specific number of days or hours) of buyer's arrival delay leading to a future schedule is different depending on loading terminals and specific schedules of assignment of LNG ships at that point. When an alternative measure which would not disturb seller's operations (such as operating other ships prepared by a buyer) can be taken at the buyer's expense, sellers' refusals of such diversion cannot be considered as reasonable.

Suppliers point out they are sometimes forced to change the sizes of LNG ships due to rescheduling of Annual Delivery Program for LNG to be sold to other buyers, or that they may need extra LNG to maintain tanks in an LNG ship at low temperature or need extra time to re-cool tanks in an LNG ship. In such situations, when an alternative measure which does not disturb seller's operations cannot be taken, such refusal of diversion is considered as reasonable. However, it is difficult to find it reasonable when an alternative measure offered by a buyer is not considered simply because there is a possibility that such situations mentioned above happens.

Furthermore, suppliers point out that the negotiation between sellers and buyers is necessary even in a case of diversion to an unloading terminal which is nearer than the original destination, or which has roughly the same distance as that of the original destination. The negotiation between both parties is considered as reasonable, in the sense that a seller confirms special situations that might disturb sellers' operation. However, suppliers also point out that rescheduling of particular assignment of LNG ships is relatively easy. Therefore, it is difficult to find it reasonable if a seller rejects the buyer's request for diversion only out of ambiguous concerns. In a case of portfolio contracts, when an LNG ship transports from two or more loading terminal to destination points, the transportation time might become longer due to longer return pass, even if the outward transport distance to the alternative destination becomes shorter than that to the original destination. In such a case, diversion can be analyzed in the same way as diversion to an unloading terminal which lengthens the transport distance compared with that to an original destination. On the other hand, even in a case of such diversion, transport time might be shortened. In such a case, diversion can be analyzed in the same way as the diversion to an unloading terminal which shortens the transport distance compared with that to an original destination. In addition, there seems to be some reasonableness in supplier's opinion that they cannot accept diversion which requires them to change the heating values of LNG supplied to other buyers in a case of portfolio contracts.

E. Requirements defined in a diversion clause (v)~(viii) (Competition-restraining requirements)

There are also some contracts providing competition-restraining requirements¹⁶ on diversion.

Many of the long-term DES contracts with a diversion clause provide some competition-restraining requirements as the requirements for diversion.

Suppliers point out that a seller sets a competitive price based on the difference of price levels between North America, Europe and Asia, taking into consideration various costs (transport costs, losses out of boil off gas, etc.) and risks in the transportation to the specific destination, and that, it is not fair that buyers resell LNG to third parties by diverting for their own profit despite the fact that such price is set on the premise of transportation to a specific destination. In this regard, there seems to be some reasonableness in the suppliers' opinion, in the sense that it is not fair for sellers to abolish destination clauses or relax requirements on diversion, while maintaining the trade price based on the premise of specific destinations. However, such an argument cannot hold when new contracts are concluded or when expiring contracts are revised. In addition, an empirical analysis shows that there was no significant correlation between destination flexibility (presence/absence of destination clause, requirements on diversion) and trade prices.

¹⁶ Competition-restraining requirements means the following requirements; (v) "diversion shall be due to only buyer's operational reasons (demand reduction, insufficient storage capacity at the unloading terminal, etc.)", (vi) "diversion shall not be due to buyer's commercial reasons (arbitrage trades to make a profit, etc.)", (vii) "diversion is not for resale to seller's other customers", and (viii) "diversion shall be due to only seller's direct sales to a third party, who owns or manages an unloading terminal (the destination after diversion)".

On the other hand, (v) "Only buyer's operational reasons" and (vi) "Prohibition of buyer's commercial resale" are for the prohibition of diversion for resale to make a profit, and (vii) "Prohibition of buyer's resale to seller's client" is for the prohibition of diversion for resale to sellers' customers, and (viii) "Prohibition of buyer's resale" is for the prohibition of any resale. It is considered that each requirement clearly has competitive-restraining purpose by object.

F. Summary

Given the above, providing destination clauses in a fixed-term DES contract in order to define a delivery point is not in itself problematic under the Antimonopoly Act.

In addition, under a fixed-term DES contract, the provision to require "seller's consent" to diversion or the provision of the requirements of fairly necessity and reasonableness to diversion are not in itself problematic under the Antimonopoly Act. However, in the operation of such requirements, even if a buyer's request meets any requirements of necessity and reasonableness from a seller, when the seller refuses its consent to diversion, such refusals are likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms)¹⁷.

When a seller, on an operational or contractual basis, requests competitionrestraining requirements for diversion, such requirements are highly likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

¹⁷ Especially, as for (iv) (Limitation of assignment of ships), even in a case of destination diversion to an unloading terminal which increases distance and hours of transportation compared with an original destination, when the possibility of alternative measures offered by buyers (assignment of other vessels by buyers or other measures) is not considered, it is difficult to find reasonability in such diversion. As for diversion to an unloading terminal which shorten the distance of transportation (or has approximately the same distance) compared with the original destination, it is difficult to find reasonability in the unacceptance of diversion only because of ambiguous concerns, even though it is necessary to confirm the special situations which cause disturbance to sellers' operations.

2 Profit share clauses

(1)Basic understanding

A. Current situation of profit share clauses

Profit share clauses¹⁸ are applied only to the resale conducted by diversion. Because diversions are usually not anticipated under long-term contract without diversion clauses, profit share clauses are not provided in such contracts. On the other hand, some long-term contracts with diversion clauses provide profit share clauses.

There are two methods to calculate "profit" which is shared with a seller. One uses a gross profit and the other uses a net profit. Approximately half of long-term contracts with profit share clauses do not define a calculation method to share the profit. Even when a calculation method to share the profit is defined, the calculation methods of many DES contracts use a gross profit, and not so many contracts use a net profit.

More than half of the long-term contracts with profit share clauses do not define resale cost factors to be considered when the contracts use a net profit as a resale profit¹⁹.

As for the allocation percentage of profit, most long-term contracts with profit share clauses specify the percentage of the profit to sellers as 50%. However, some contracts specify the percentage as more than 50%. Among long-term contracts whose trades have been in practice, none of them specifies the percentage as less than 50%, but, some of long-term contracts whose trades have been started specifying the percentage as less than 50% yet.

Regarding profit share clauses, users point out that (i) as a result of sharing the resale profit, the resale might be unprofitable for a buyer and trading business might be disturbed, that (ii) when a calculation method of resale profit is not clear and the negotiation between a buyer and a seller is necessary, resale opportunities might be lost, and that (iii) resale incentive might be lost, because a buyer does not prefers to disclose the information (resale customers, resale costs, etc.) which is competitively confidential, which a seller requests due to the necessity for calculation of resale profit.

B. Competition-restraining effect of profit share clauses

It is considered that profit share clauses under a fixed-term LNG contract

¹⁸ Profit share clauses mean those that impose an obligation on buyers to share a part of resale profit with sellers when a buyer resells LNG to third parties by means of diversion.

¹⁹ For example, even under FOB contracts, over half of long-term contracts with profit share clauses do not define buyer's transportation costs as a resale cost factor.

prevent Japanese users from reselling LNG to other users practically and indirectly, because profit share clauses have some effects of decreasing the resale profit for the buyer and of depriving users of opportunities of the buyer's resale, depending on calculation methods and distribution ratios of resale profit.

In addition, when the calculation methods and distribution ratios of resale profit are not clear or when a buyer is required to submit confidential information to a seller, the effect of depriving buyers of the opportunities to resale becomes more significant.

When a seller prevents a user from reselling LNG by means of imposing profit share clauses which generate foreclosure effects, such clauses are, in principle, in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

C. Reload method is not sufficient as an alternative method to resale

Profit share clauses are applied only to resale by diversion, not to the resale (including resale by reloading method) after unloading at the destination. However, resale by reloading method cannot fully be an alternative method to resale by diversion.

(2) Necessity and reasonableness of profit share clauses under FOB term

A. Premise

Under FOB contracts, although properties and risks in each cargo are transferred from the sellers to the buyers at the delivery point (the shipping port), profit share clauses indirectly prevent the buyers from reselling freely and properly. Therefore, in general, such clauses are not considered as reasonable.

B. Necessity and reasonableness of profit share clauses (from a view point of proper price setting)

Suppliers with fixed-term FOB contracts point out that, since difficult price re-calculation is necessary in a diversion, profit share clauses provide immediate and smooth solution by pre-defining a calculation method of sharing profit instead of such re-calculation; a seller sets a competitive price based on the difference of price level between North America, Europe and Asia, taking into consideration various costs (transport costs, losses out of boil off gas, etc.), risks in the transportation to a specific destination.

However, the argument that the price recalculation will be needed in a diversion does not hold when new contracts are concluded or expiring contracts are revised. In addition, empirical analysis shows that there was no significant correlation between the existence of profit share clauses and the trade prices.

C. Summary

Given the above, under a fixed-term FOB contract, in general, as providing profit share clauses is not considered as reasonable, providing profit share clauses is highly likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

(3) Necessity and reasonableness of profit share clauses under DES term

A. Premise

Because properties and risks in each cargo are transferred from the sellers to the buyers at the delivery point (the destination port), sharing resale profit with a seller is regarded as a kind of compensation for changing contractual requirements after seller's consent to resale. Therefore, such clauses have some reasonableness, because a buyer does not have freedom to resell LNG properly, even though they indirectly prevent the buyer from reselling LNG.

B. Necessity and reasonableness of profit share clauses (Compensation for additional risks)

Suppliers point out that it is difficult for sellers to impose all additional costs on buyers due to the difficulties to quantify all such risks when diversion requested by a buyer causes additional risks for a seller under a DES term, and that sharing buyers' resale profit to sellers is therefore necessary as a compensation for such additional risks.

Profit share clauses have some reasonableness because of providing an immediate and smooth solution as to the difficulty in determining the sellers' nonquantifiable risk which a diversion requested by a buyer causes.

C. Summary

Given the above, it cannot be said that it is unreasonable for a seller to require from a buyer compensation in exchange for giving consent on a diversion of contract requirements (destination) according to a request from the buyer and for an agreement to allow them to resale under a DES contract. Providing profit share clauses is not in itself problematic under the Antimonopoly Act. However, when such clauses contribute to unreasonable profit sharing with a seller, by setting a high percentage of the resale profit without properly considering seller's actual contribution to resale or by using a gross profit as a resale profit ((A) below), or (ii) when such clauses have some effects to prevent a buyer from reselling due to a seller's request for the disclosure of the profit or cost structure ((B) below), these are likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

(A) Calculation method and allocation percentage

It is considered that profit share clauses have some effects of decreasing the resale profit of buyers and of depriving users of opportunities to resell by the buyers, depending on the calculation method and distribution ratio of resale profit. When a high percentage of all resale profit to a seller is set, despite the absence of actual contribution by the seller such as looking for resale customers, the effect to deprive users of opportunities to resell will increase. Also when a gross profit (not a net profit) is used as a resale profit, an effect to deprive a buyer of resale opportunities will increase, because buyer's resale costs are not deducted from all resale profit.

In addition, when a calculation method and a percentage of sharing resale profit with a seller are not clear in advance, an effect to deprive a buyer of resale opportunities will increase further, because the buyer cannot grasp the amounts of the buyer's final resale profit in advance, and the buyer need to negotiate with the seller.

When profit share clauses unreasonably sharing the resale profit with a seller, by setting a high percentage of all resale profit without properly considering seller's actual contribution to resale or by using a gross profit as a resale profit, these are likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

Moreover, when a calculation method and a percentage of sharing resale profit with a seller are not clear in advance, it becomes more likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

It is therefore desirable to define a calculation method and a percentage of sharing resale profit with a seller in contracts in advance.

(B) Disclosure of information regarding resale

Some users point out that a seller requests information (resale customers, detail resale costs, etc.) due to the necessity for the calculation of resale profit, but a buyer does not prefer to disclose it because it is competitively confidential. In addition, they also point out that when a net profit is used as a resale profit, users are required to submit the basis for calculation of resale costs.

Under a DES term, because sellers are liable for transportation before

unloading LNG in a destination port, buyers need to notify sellers of an unloading terminal diverted from the original one. However, information such as the name of resale customers is not necessary for sellers to fulfill their liability for transportation and to calculate resale profit.

When buyers share their profit with sellers, they have to notify the sellers of a resale profit²⁰. However, even when a net profit is used as a resale profit, it cannot be said that both a resale price and resale costs (deducted from the resale profit) are the essential information for the calculation of resale profit.

Profit and cost structures are generally treated as secrets because they are important information from the perspective of keeping the bargaining power of business operators. Unilateral disclosure of such information to sellers puts buyers at a disadvantage upon a price negotiation, and has an effect to prevent buyers from reselling.

Some sellers point out they would like to confirm the amounts and the calculation basis of resale prices and resale costs to confirm whether the amount of resale profit submitted by buyers is correct or not when a net profit is used as a resale profit. It cannot be said it is not reasonable to that opinion. However, under a fixed-term DES contract, it is not necessary to adopt profit share clauses, because providing profit share clauses is not only seller's measure to request compensation for their consent to diversion (the change of contract requirement) requested by a buyer. Given that the profit share clauses have reasonableness due to an immediate and smooth solution to calculate the amount of buyer's compensation requested by a seller for giving seller's consent to diversion to the extent necessary for the calculation basis of resale profit.

Given the above, when such clauses have some effects to prevent a buyer from reselling due to a seller's request for the disclosure of the profit or cost structure, such a request is likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Trading on Restrictive Terms).

Therefore, it is desirable that, at least, a seller should not require a breakdown of resale costs in detail and its evidence, and sharing information should be minimized.

²⁰ When a gross resale profit is used as a resale profit, sellers can grasp the resale price, if buyers notify sellers of resale profit.

3 Take or Pay clauses

LNG fixed-term contracts generally provide "Take or Pay clauses" which impose an obligation for buyers to pay for all the contracted volume, excluding the volume buyers exercise the right to reduce the contracted volume (Downward Quantity Tolerance), including the volume buyers do not actually receive²¹.

Guarantee of sustainable and full payment of contract by users is an important element for a final investment decision because an LNG project needs a large initial investment and loans. In this sense, providing Take or Pay clauses in a fixed-term LNG contract has some necessity and reasonableness, and providing such clauses is not in itself problematic under the Antimonopoly Act. Some contracts provide Take or Pay clauses even after a full payment of loans related to an initial investment in an LNG project from lenders. Although some sellers point out that they need an additional investment in development of gas fields and other equipment to maintain source gas even after full return on the initial investment, such additional investment is not as large as the initial investment. On the other hand, because an annual contract quantity is defined in concluding a contract, it could be difficult for a buyer to receive the pre-defined annual contract quantity due to later demand fluctuation and so on.

Therefore, when a seller's bargaining position is superior to that of a buyer and the seller unilaterally imposes Take or Pay clauses and strict minimum purchase obligation without sufficient negotiation with the buyer even after the seller has already got sufficient return for initial investment, strict minimum purchase obligation as well as providing Take or Pay clauses are likely to be in violation of the Antimonopoly Act (Unfair Trade Practices: Abuse of Superior Bargaining Position)²².

²¹ In a fixed-term contract, while the Take or Pay clauses are usually provided, which impose an obligation to pay for all the contracted volume, including the volume buyers do not actually receive, the Deliver or Pay clauses are not necessarily provided, which impose an obligation of a certain level of compensation on sellers when the actual supply quantity from sellers. Even if the Deliver or Pay clauses are provided, while the amount of buyers' payment obligation based on the Take or Pay clause is equivalent to the LNG price of all shortage quantity, the amount of sellers' compensation obligation based on the Deliver or Pay clauses are only to a certain extent of compensation for price differences between in an alternative contract and in an original contract.

²² When buyers try to avoid a situation where they need to pay for the quantity which they do not actually receive because of a Take or Pay clause, they need to resell extra LNG to other users after receiving all the contracted quantity. However, when resale is restricted by destination restrictions and a profit share clause, it is difficult to avoid suffering loss in such a way.

3. Future Course of Action

Based on this report, when LNG sellers conclude a new contract or revise a contract after the expiration, LNG sellers (including sellers who were users) should not provide competition-restraining clauses nor take business practices which lead to the restrictions of resale and so on. Also, as for the existing contracts before the expiration, LNG sellers, at least, should review competition-restraining business practices which lead to restrictions of resale and so on.

When active competition in the fixed-term contract market and the spot contract market leads to reduction of the LNG procurement cost, LNG buyers are expected to properly reflect such reduction on electricity rates or city gas rates and to contribute to the benefit of Japanese consumers.

The Japan Fair Trade Commission will keep monitoring the LNG market and take strict actions against any violations of the Antimonopoly Act.