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Setting Course | Episode 9

Oystein Kalleklev, CEO, Flex LNG & Avance Gas

This week on Setting Course, we welcome back into the SmarterMarkets™ studio Oystein Kalleklev, CEO of Flex LNG & Avance Gas. David Greely sits down with Oystein to discuss how the LNG and shipping industry is navigating the post-European energy crisis world and the new crisis in the Red Sea.

Oystein Kalleklev (00s):

While there are a lot of new projects in the US and US will almost double its export capacity based on the projects already being constructed, there is a need for a lot more gas on top of this. It will create jobs, it will grow the economy. It will ensure that allies are getting sufficient energy, and you will need it in order to replace coal. You know, US has been actually quite good at reducing their emissions, and the reason they have been able to reduce their emissions is coal to gas switching.

Announcer (31s):

Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?

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David Greely (01m 10s):

Welcome back to Setting Course on SmarterMarkets. I'm Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Oystein Kalleklev, CEO of Flex LNG and Avance Gas. We'll be discussing how the LNG and shipping industry is navigating the post European energy crisis world and the new crisis in the Red Sea. Hello Stein. Welcome back to Smarter Markets.

Oystein Kalleklev (01m 35s):

Thanks, Dave. Good to be back here for my tour time. I believe

David Greely (01m 39s):

It is and it's always good to have you back with us, though I am beginning to feel like every time we talk, there's a new crisis in the world to which the LNG industry is needing to respond. I believe the last time we talked, you know, it was the European energy crisis following Russia's invasion of Ukraine and the loss of Russian pipeline gas into Europe. This time there's the Red Sea crisis. As the Iran backed Houthis and Yemen have been attacking ships ostensibly in support of amass. So maybe we can start off with where we are following the European energy crisis. While LNG and natural gas prices have moved back to more normal levels, it really has redrawn the map with Europe now dependent on LNG for its energy needs and the United States becoming the leading LNG exporter. So from your perspective, what does the LNG market look like post the European energy crisis, has it been changed on a long-term basis?

Oystein Kalleklev (02m 34s):

Yeah, thank you. It's a, it's a comprehensive question and welcome to the world of shipping. There's always events I think it was a foreign minister in Britain who said in politics driven by events all the time. So, in shipping, it's always something and usually I would say almost for more often than not, these events are good for shipping markets. So people think that when something bad happens somewhere in the world, that's, that's negative. Not necessarily for shipping, because typically events drive inefficiencies and inefficiencies create more demand for shipping, whether that is curtailment of transportation in, whether that's Panama service similar, it creates opportunities and, you know, even I think we saw this the best in shipping in 2020 during COVID, when the economy shutdowns and oil price at one time went negative tank rates were soaring because certainly inventory so of oil filled up and you need to put the oil somewhere, so you put it on tankers.

Oystein Kalleklev (03m 35s):

So, so that's the good thing with, with chipping. I think that it's driven a lot by geopolitical events. The LNG marketers also have been driven by geopolitical events to a great degree. The last couple of years we had, of course, COVID which I think I talked about the first time our sell when prices of LNG went as low as \$1 per million BTU and US prices down to about 1.7. I believe on Henry Hub in the middle of 2020 when, when oil price went negative. And then last time I was there where we talked about the Russian curtailment, where you gas prices went to a hundred. So you had a hundred times increase in the price of LNG in a rather short period of time from summer of 2020 to autumn of 2022 and then these kind of high prices, of course, are affecting consumer behavior.

Oystein Kalleklev (04m 28s):

You know, when you're paying a \$100 per million BTU of LNG, it's about \$600 per barrel of oil. Imagine if price of oil was \$600 per barrel, you would have a huge economic crisis throughout the world. So this time of course, the economic crisis has been more related to European markets. European markets really felt the pinch. Asian buyers haven't had the same issues because the Asian buyers are traditionally buying LNG on oil price linked contracts where the price is linked to oil with a discount and prices in those markets have then not been affected to that extent because most big buyers have sufficient coverage on this oil price index contracts and of course, China also had the curtailment, given the, the zero COVID policies they implemented for some time in 2022. So, so right now things been settling down.

Oystein Kalleklev (05m 25s):

Demand for natural gas in Europe has fallen a lot, both in 2022 and 2023 and that together with nuclear startup up in Japan, somewhat lower economic growth in China following scrapping of the zero COVID policies have resulted in the supply situation getting a bit more under control and we are down not the more natural prices of LNG where prices are eight to \$10, where actually you do have spot LNG at a pretty big discount to oil. Also more in line with contract price of LNG, which is the, the main price for Asian importers and then we have had some events lately with the cold snap in us really driving up domestic prices but the cold snap was not long lasting, and we are down to four year low on Henry hub prices in us now. So, so the, the market are more benign, but and we do see that these lower prices are starting to stimulate demand again, natural gas demand in Europe has been picking up and some of the more emerging Asian markets, Thailand, India, Bangladesh, Pakistan, they're returning to the market because now finally they can afford LNG, which has been a luxury item for the last two years or so.

David Greely (06m 45s):

Yeah. And I wanted to ask you about some of these events and the inefficiencies that they're creating. So following the European energy crisis, we had much more US LNG going to Europe, you know, Europe going from being the sink for the LNG market to kind of the demand pull. So a change in dynamic there. But now just as the US becomes a leading exporter, you've had these problems in the Panama Canal, which is typically been the root used to export LNG from the US Gulf Coast to Asia. It's becoming less reliable with drought conditions affecting water levels in the canal, creating delays and restrictions. I was curious for your perspective on how big a deal has this been and how has the industry responding to the issues around the Panama Canal?

Oystein Kalleklev (07m 28s):

Yeah, just firstly, you know, Europe has, as you said traditionally been the think of the LNG market where you are a buyer of last resort and this was a fantastic position for Europe to be in during COVID 2020 could buy a lot of cheap LNG because of the rather big storage capacity in Europe and then it turned from bio of last resort to bio first and last resort during kind of the situation after Russia's invasion of Ukraine and curtailment of flows when talking about flows through Panama it's a bit different situation Panama Canal you know, was expanded with new locks from 2016. So you have three type of locks and of course the expansion resulted in you could have bigger ships, you could have ships from 32 and a half meter and beam up to about 50 meters.

Oystein Kalleklev (08m 24s):

So these are the big container ships and the canal was of course intended to be expanded for increased container traffic after China became member of VTO, I believe it was 11th December 2001, if I am not mistaken. So that kind of China getting into VTO resulted in a boom of more container traffic and with the new locks, you could build bigger ships with a much bigger parcel or size in terms of, of number of containers they could have. So, you know, this been traffic has been increasing and, and at that time when they decided to expand the canal in our US was a importer of gas and certainly America became the biggest LNG exporter in the world, and by far the biggest LPG on the world, and they never kind of thought about this when they expanded the canal.

Oystein Kalleklev (09m 18s):

So it's become very tight and then on top of that, we have had a El Neu situation where actually the canal, they had very high water levels heading into the El Neu season and then the drought has resulted in the water levels going down to historical loss, which means that they had to curtail a number of passings through the canal every day. Usually the name plate capacity is 36 ships a day for the various three type of logs or sizes of ships and, but you know, on good days, they have been able to turn 40 ships through the canal, and then they announced reduction down to 18 but situation have become a bit better. So we are today on a number of transit that are on 24. So, capacity be taken down and this created a big problem in the autumn when kind of auction prices in order to skip the queue went as far as almost \$4 million.

Oystein Kalleklev (10m 18s):

And then you need to pay the regular fees on top of it. So easily put you back four and a half million dollars to go to Panama Canal one way. And this kind of forced a lot of ships out of the canal. And where they had, typically, if you are exporting out of us, you would go us via service to Asia in order to save a bit time in terms of going to Cape of Good Hope and then the situation with the Houthis and Yemen escalated with them attacking ships. So SUEZ is dead in terms of transit for LNG. There are still some LPG trade in the canal because of the Yanbu Terminal in Saudi Arabia on the Red Sea side. So that is kind of forcing ships for longer routes however, Panama situation has improved. So you can now use also the Panama Canal, which was basically very limited capacity there before New Year. So let's see, the water levels in Panama are still very low. The rainy season will not start before May, June. So we will have a situation with very low water levels and where water levels are decreasing and then we will have to wait and see whether the next rain season will be better and we are able to get up the water levels or whether you could have a second El Nino. And then we really are into trouble when it comes to Panama.

David Greely (11m 41s):

And I wanted to ask you some more about the situation with Suez. You said no LNG going through the Suez Canal and the Red Sea at this point, some LPG. So how is the tanker traffic being rerouted or, you know, how is the LNG industry dealing with that?

Oystein Kalleklev (11m 57s):

Yeah, LNG it's, it's not that important. Of course, those who have benefited the most, I would say is container traffic, because a lot of container traffic is going from Asia to Europe and of course it's a big shortcut going via service to Europe rather than going all the way through Cape of Good Hope. So in terms of LNG, it's a different market. All the LNG being produced in in Asia is staying in Asia. So the swing factor is Atlantic cargo, whether they are going to Asia, which was the situation prior to Russia's invasion of Ukraine, or whether they are staying in, in Europe. So while Europe was importing less than 20% of US cargo some 2021, certainly now they are taking close to 70% of US cargo. So, so the pool of US cargoes to Asia, it has some effect, but the effect is not that big if you're going from, from us via capable of good hope.

Oystein Kalleklev (13m 01s):

Also us, it doesn't have a big impact as couple of days longer. Panama is a bit more important. So because you can shave off quite a lot of days if you're going from US Gulf Coast via Panama to let's say Japan, north China South Korea. So Suez is not that important for LNG. It's a bit similar applies to, to real GC US is of course the biggest LNG exporter, but there are much bigger relative size on the LPG side, it's almost half the export market, while US is about 20% of the market on LNG. So there it's all, it's more Panamas more important than Suez.

David Greely (13m 42s):

And I wanted to ask you about the, the LPG market, because you're also, you know, in addition to being CEO of Flex LNG or CEO of Avance Gas where you move a lot of LPG for people who aren't familiar with that market, where are the big producers and consumers that you're moving LPG between?

Oystein Kalleklev (13m 58s):

Yeah. No, it's, it's, it's been market that's been growing enormously driven by the shale revolution in US where certainly US have become, you know a marginal player to basically half of the export market today is us. A lot of the shale wells in us are gases and becoming more gases, meaning that the gas to oil ratio in those oils are going up and today US is producing about 13 million barrels of oil per day. But what people might underestimate is for every barrel of oil being produced, they are producing half a barrel of natural gas liquids and natural gas liquids is, you know, ET and LPG. So LPG being propane, butane, isobutane. So these products, so the LPGs,

which we are focused on are to our very great degree being exported a much greater degree than LNG. So LNG exports us, let's say around 15% of natural gas production in US is being exported as LNG on LPG is a much bigger export share.

Oystein Kalleklev (15m 08s):

And the buyers Europe is not similar in size as, as in LNG Asia is really the big buyer, and especially China. China is growing rapidly on imports. And, and this is all about, you could basically call it refining LPG, it's a bit similar. If you have oil, you're refining it to various products on the LPG, you are doing the same, you're tracking the hydrocarbon and you're making polypropylene where you can make that to various plastics and China is ramping up a lot of production of PDH plants where they are utilizing imports of rather cheap us LPG to produce plastics. So that's a growing market and where us is very dominant and all the big players, of course, middle East, so let's say us is half the market, Middle East is like 35%, and then you have various other markets. So it's a interesting market.

David Greely (16m 04s):

Right and in addition to the, the big poll for China for LPG propane, butane ethane for plastics, is there also a poll from emerging market countries for use for fuel?

Oystein Kalleklev (16m 16s):

Yeah. That's the good thing with LPG, it's super versatile. You can utilize it for a lot of different things, whether it's for refineries, whether it's for fertilizer, whether it's for heating and cooking and of course, clean cooking is a big challenge. You know in Africa it's about 600 million people without access to electricity. And you have similar issues in, in India where people are burning biomass, dying, woods and of course, when they're utilizing this for cooking, it's has a lot of emissions and it's a huge health problem with, you know, a harvester there. I think it's around 8 million people are dying prematurely every year because of air, poor air quality and a lot of this is in India and China still, so of course LNG it's very nice in terms of exporting that to more developed countries where they have gas grids, pipelines, and you can move big volumes of gas for countries which are less developed like India and Africa, you don't have that kind of infrastructure.

Oystein Kalleklev (17m 27s):

And then it's much easier, you can just put the LPG on a canister and a lot of people who are barbecuing know this very well. You put it on a canister and you can roll it out and distribute it. It's it keeps, well, you don't need to have like this minus 260 Fahrenheit you need for LNG or minus 162 degrees centigrade. So, it's a bit more like the poor man's LNG, it's more easy to, to distribute and, and has a lot of different uses. And even, even auto gas to name one.

David Greely (17m 58s):

It's always about logistics right?

Oystein Kalleklev (18m 05s):

Yeah.

David Greely (17m 08s):

Commodities, how hard is it to move and where's the infrastructure and I wanted to ask you, because it's kind of an interesting development, right with the US becoming such a big exporter both of LPG and LNG Europe, you know, strong demand there. I guess what I'm trying to get to is how balanced are, is the Atlantic Basin market on its own. How balanced is the Asian market on its own? With the US you could say, well, you've got the US supplying Europe in the Asian markets, you have the Middle East and Australia supplying China and Japan and the other countries. How much do we need to be moving LNG and LPGs between the Atlantic and Pacific like, how vulnerable are we and how reliant on that swing that, you know, either goes through Suez or Panama or around the Cape?

Oystein Kalleklev (18m 50s):

Yeah, no, of, of course, like Winston Churchill said, you know, energy security is about diversification of, of sources and I think Germany have learned that the hard way with having 50% reliability on, on Russia, and they were planning to increase it to close to 70%. So I think the good thing with LNG is it's, you put it on a ship and you can move it wherever in the world. A pipeline only goes to one place. So LNG in that sense can give a country a lot more energy independence. I think the best example is Lithuania, which invested in one FSRU called the independence for natural reasons and certainly there are country which was totally reliant on Russia for pipeline gas,

had another source of import capacity and could source LNG and were able to renegotiate the contracts for Russian gas prices at much better levels.

Oystein Kalleklev (19m 44s):

So in terms of energy security, Europe has of course replaced a lot of the Russian pipeline gas with LNG. But still, you know, consumption of natural gas has fallen a lot in Europe because of, you know, it takes a lot of time to bring new LNG supply to the market. So, you have had a growth in basically the opposite of what the EU politicians want coal. So coal has been growing steadily in Europe, despite the fact that you have a pretty well functioning market for CO₂, where you have also a high price of CO₂, where still, you know, coal is growing. So we've been able to, to kind of replace some of the Russian flows with LNG, but not all of it, not even close. But at one time here, we Europe will also have to replace all the coal, and you're not able to kind of replace all this base load power with renewables, wind, solar, you need to have something with more stability.

Oystein Kalleklev (20m 43s):

Nuclear is not very popular in, in, in Europe. So the natural choice then is LNG, because there's not any kind of appetite either for shell gas in Europe either and of course it's much more densely populated in US, so it's a bit more challenging to, to do shell gas in Europe, even though you have some natural resources of it. So that means that the gap has to be filled with something. Of course, renewable will grow, but you need more LNG. So I was asking my assistant today to make a calculation, if you want to replace all coal in Europe, which I think should be the ambition by 23, how much LNG do you need and he was studying for maybe an hour or so before. I didn't get any good answers, so I asked my friend chat GPT4.0.

Oystein Kalleklev (21m 34s):

It took him less than a minute to give me the answer. Answer is about 200 million tons of LNG is required to replace coal in Europe. Europe have increased their import of LNG following the curtailment of Russian gas from about 80, 85 million tons to 125 million tons and still with that 125 million tons, you are at a much lower level of natural gas consumption than you were prior to this and then if you want to replace coal, so let's say you are replacing half the coal with the renewables, that still leaves a 100 million tons and Europe is a rather small consumer of, of coal. Imagine how much LNG you need in order to replace coal in China, India. So I think I think you know, it's unfortunate that Biden have started with election politics already in January, February with this moratorium of new projects because those projects are needed. So while there are a lot of new projects in us and US will almost double its export capacity based on the projects already being constructed, there is a need for a lot more gas on top of this. It'll create jobs, grow the economy, it'll ensure that allies are getting sufficient energy and you will need it in order to replace coal. You know, US has been actually quite good at reducing the emissions, and the reason I have been able to reduce the emission is coal to gas switching.

David Greely (23m 09s):

And in the long term, we're gonna need much more gas, much more LNG, more capacity, more liquefaction facilities, more re-gas facilities, more ships. I'm curious in the near term with kind of the longer different routes being requiring, I would imagine more shipping capacity and more the right type of capacity in the right places. I wanted to ask you do we have the right LNG shipping capacity to match the new routes and the right liquefaction and regasification capacity or are there like important bottlenecks you're seeing in the system right now?

Oystein Kalleklev (23:45):

Yeah, I think we had a pretty big technological development on the LNG ships. The last 15 years or so. We have gone from smaller ships with steam turbine. They're actually not smaller in terms of size, they're pretty similar size but this, if you have a steam turbine ship, you need to have two huge boilers on the ship and that is taking away cargo capacity and then we've gone from steam to diesel electric engines and a more modern dual fuel diesel engine, which is much more efficient. You have a terminal efficiency of 50 to 52% wireless team turbine 30, 35% and if you have like the most efficient gas combined cycle gas plant onshore today, they are typically in the low sixties. So you're getting up to a high level of efficiency but you know, there will be small improvements there, whether that's energy saving devices, air lubrication, where you can make pebbles under the hull to reduce the drag.

Oystein Kalleklev (24m 47s):

So there will, there will be incremental improvements. I think one thing that is important is to have a ship that can trade via Panama. So that puts a natural kind of limitation on the beam of the ship of at around 50 meters. Most big LNG ships today are between 44 to 46 meters in beam. So it doesn't leave a lot of room for further expansion of the ship. Real lake is getting more important. So you have a reeling system because LNG ship is ISO thermals. You put, put the LNG on the ship, it's minus 260 Fahrenheit 162 SIUs. So that means

it's very hard to keep something at this temperature. So you will have a heating of the cargo while it's on board. And that heating equate pressures because you have LNG going from a liquid state to a gas state and that's creating pressure in the tank.

Oystein Kalleklev (25m 44s):

And the way you deal with this is to take out the gas vapor and stabilize the pressure at one atmospheric, but you're not venting the gas, you are utilizing that gas vapor to run the ship. So you have basically your own fuel as part of the cargo being LNG. So I think, you know, the ships are getting are, are today are, are much more efficient than the one we had 15 years. I think there are limitations on size, but there's for sure a lot of them being built. All the book is around 300 and slightly more than 600 on the water. So we have a fairly big order book to, to cope with all the new LNG coming to the market and we really don't expect a lot of technological revolution in terms of efficiency because the ships are today very efficient.

Oystein Kalleklev (26m 32s):

I think the one thing we are looking for is the carbon emissions. You need to do something with the carbon emissions down the road, there's been rather good progress on maintain emissions and methane emissions are extremely important given the potency of, of methane. We have, I can give you an example. We have nine mega ships in O fleet. Methane emission for them are guaranteed to be below 0.2 grams per kilowatt hour. The generation prior the diesel dual fuel diesel electric, they typically have a meter and emission of four grams per kilowatt hour. So it's a 95% reduction in a meter and emission on those new engines and remember, the methane pledge on COP was a reduction of methane emission by 30% by 2030, which is for sure certainly achievable about half the methane emissions today is profitable to remove because if you are emitting meat, then you could rather make burn it.

Oystein Kalleklev (27m 33s):

And then almost all the remaining methane emissions is technical feasible to, to deal with. And in that sense, it's good that the Biden administration is suggesting our price of methane emissions because if you want to reduce global warming, the easiest, cheapest way to do it is to reduce methane emissions and actually those countries which are putting stringent rules on methane emissions, they are able to meet it. If you look at the ESG report of Equinor where basically the national oil company here in Norway, they have virtually no methane emission because there are such stringent rules on it and then if you also top that up with the price where the Biden administration has suggested a price up to \$1,500 per ton, which I do actually think makes sense, if price of CO2 is \$50 to \$100 dollars then I think price of methane should probably at least be 1,500 because it's 84ish times more potent on a 20 year cycle and 28 times more potent on a hundred year cycle. So I think at least the price of methane emissions should be 10 to 20 times bigger or higher than CO2. So that was a roundabout way of answering your question.

David Greely (28m 52s):

No, it's fascinating and like when I kind of listen to the balance of the conversation so far, it sounds like the industry's been navigating these crises pretty well. You know, maybe that's the nature of shipping, as you said, there's always events occurring, there's always things to adjust to, and many of them are often good in terms of, you know, requiring more ships, requiring more capacity to deal with the events and the disruptions they cause. I was curious, like when you look at the market, has there been much of an impact on shipping rates or the volatility of the rates?

Oystein Kalleklev (29m 24s):

A guy who is often guessed in your program has a very good answer to this. The, the, the medicine for high prices is high prices and that's Jeff Currie. So the high prices and the market have solved the problem. It's a bit sometimes frustrating to see that EU is like crazy on trying to implement a lot of new rules and trying to regulate themselves out of the problems rather than letting market forces fix the problem. So in terms of the market, of course we have had some interference by EU and I think it's mostly been for the bad rather than the goods of course we have seen market move, of course the high prices of product when LNG prices shut up, it made cargoes super valuable. So when you have such a valuable cargo, what you're paying for freight doesn't really matter that much.

Oystein Kalleklev (30m 17s):

So whether you're paying a \$100,000 or \$200,000 per day for freight, if you can make a hundred million dollars on cargo in profit. So that kind of when this happened in the invasion happened in 2022, that was a rush to secure shipping tonnage because you didn't want to lose out on access to tonnage and then lose out on cargo economics. So it drove rates to new heights, even though you could say 2022 didn't look that good in terms of shipping balance, in terms of numbers of ships delivered and volumes coming to the market but as I said, these crisis tend to create inefficiencies in the shipping market, and that was happened. So even though you had super high

rates, you saw ships idling because the traders were not willing to sublet the ships. They had to control tonnage in order to make all these books on cargo economics.

Oystein Kalleklev (31m 15s):

So that was something we saw in 2022 when rates went as high as than half a million dollars per day for freight last year, it was more muted, still a pretty good market. In the winter, you've seen rates at \$200,000 per day, which prior to this you would think that this crazy high rates. So, we have had our, our rush to secure tonnage, which have driven up rates. It's also made in, especially in 22, the term market quite active because if people are paying 200, \$300,000 per day on freight, they might ask, okay instead of me doing this bot voyage, what if I take the ship on 12 months' time charter, or three years or five years? So it's also driven period in the market where people have been willing to pay quite decent sums of money in order to secure a ship for 1, 2, 3, 5 years or so with cargo economics coming down to more normal level.

Oystein Kalleklev (32m 12s):

It's also resulted in a reduction in, in freight rates and typically when cargo economics are getting better, you do see increased efficiency of the fleet because people are not holding and kind of securing tonnage to such a great degree. So, so we're seeing red slump, but which is also natural. We, we are getting out of the heating season now, the winter is almost over. If you're fixing a ship today, let's say, say you're shipping a fix ship, you're probably doing loading in US end of March. So then, and then you're selling it into, let's say, China in in end of April. So then you're already into the, the spring and shoulder months. So, so that is driving down rates. But we have seen crazy high rates driven by these basic cargo prices. And, and this similar, similar applied to LPG market. We, we went from the highest rates on record in let's say November, maybe around \$170,000. And then when this call snap in us happened, we, we went down 90% to maybe around 15,000 and all we are back to maybe around \$30,000.

David Greely (33m 21s):

And I wanted to ask you about, you know, how people are going about managing that type of risk where you can have crazy high prices in LNG and LPG and freight rates. Is this changing like on a longer term basis, the nature of the business, the nature of how people structure their contracts or how they think about having pretty significant risk in these markets?

Oystein Kalleklev (33m 44s):

Yeah, it differs a bit. You know, if you're a trader, you don't mind if you're paying \$200,000 in freight per day as long as you're making arbitrage on the product. So they are more of the view that they want to have spot exposure to freight because if you have, let's say you're long on cargoes and you don't know what price you're gonna sell, you typically want to have spots on the freights because you, otherwise you might end up going wrong because you are basically trading the margin, you're not trading the price, you're trading the margin and, and freight is kind of aligning the margin. But yeah it depends a bit on who is doing the trade. If you have long-term off take agreement and you fixed sold your LNG or not 20 year oil price linked contract, you cannot have this kind of volatility.

Oystein Kalleklev (34m 35s):

You, you need to know whether you're paying \$70,000, a \$100,000 or \$200,000 per day on freight. So those people who are more kind of back to back contracts, they like to fix freight for a longer duration. Those who are trading and trading spot, they rather prefer maybe to have freight also spots. So then depends a bit. LNG is I would say much more into long-term contracts with typically 3, 5, 10 years contracts with fixed higher rates. So in flex we today, 12 out of our 13 ships are on what I would call long-term contracts. We only have one ship coming up in Q2 this year. The rest of the ships are booked, so we are 94% booked for the year. So there you have more predictability and charters are paying more, for the most part are fixed higher on LPG is totally different. LPG is more like commodity shipping, like tankers where traders are a much bigger part of the value chain and where people are buying the product on spot, not on long-term contracts. So they also want to have shipping spots.

David Greely (35m 43s):

Yeah, and that's, I always appreciate talking with you because you know, you're right in the middle of these markets and I was curious, it sounds like there's a difference, I like asking you what, what a typical day's like for you when I hear about all these different, you know, events happening around the world, but it sounds like a typical day at Flex LNG could be very different than a typical day at events gas, given the nature of focusing, I guess on the longer term at flex LNG with the longer term contracts and maybe having to deal with more near term scheduling issues at events. But yeah, so I'm just curious, you know, what, what's a typical day like for you?

Oystein Kalleklev (36m 18s):

It's very different, but there are some similarities because both markets are heavily affected by us Shell production and development in prices in US and US become the biggest exporter in both segments but the industry are totally different. So in, flex it's more a long-term business where we do tend to have more active engagement with our charters on our bilateral and direct way where we are traveling around meeting them, asking them how they are experienced, the service they get from us and what requirements they have and if we have open ships we, we tend to, to market those directly to our customers. On LPG side is totally different. So while we are 94% covered on, flex in terms of days booked for this year, we, we are probably 94% open in Avance Gas. We have very limited out of the, the 16 ships we have, we only have one ship on time charter, the rest is open spot, and the cargoes there are mostly going through the broker system.

Oystein Kalleklev (37m 20s):

So if, if somebody have a spot cargo, they flash it out to some brokers and brokers are calling around and trying to secure the freight. So you have a much more active engagement through via the brokers less direct than in LNG and you are basically every, every week you're fixing a new ship. So, so there you are kind of talking to the guy on chartering and the brokers and at, at any given time, we typically have a ship we are marketing for. So, it's a bit different market. I like the dynamic one business, which is a bit boring, stable, predictable and the other one, which is totally volatile. But you know, if you look, we did this study a year ago because a lot of people was worried about the VLGC market last year. VLGC is a very large gas carrier transporting LPG.

Oystein Kalleklev (38m 13s):

So last year we had a very high fleet coat was scheduled 45 ships for delivery. This year it's about 20 and people were worried way too many ships being delivered. You had close to 15% fleet coat in a very short period of time. However, what's happened is that US NGL production has been very high. So US was growing their exports by about 12% last year. Then you have had the Panama congestion. So instead of having too many ships, actually there's been too few ships and rates been the best since the Shell General revolution started in US in 1415. So that's the dynamic of that market and then if you look at the VLGC rates the last 10 years, yes, they are super volatile and we have just been through a period where rates have fallen down 90% and now they've doubled even though it's still a fairly low level.

Oystein Kalleklev (39m 09s):

But if you look at historically, it's not only about volatility, but it's also about levels. So what you have to look about is, is a volatility bit, but how often are you at rates which are below your cash back. So while rates are more volatile than driver can tank us, they are much less often below cash back even. So it's by like 8 out of 10 months, you are above cash back even, which is a lot better than what has been the case for, for tribal and tankers in the past. So, so you, you shouldn't only look at volatility, you should also look at levels.

David Greely (39m 46s):

Got it and I really appreciate you taking time out of what sounds like very busy days to, to share your perspectives and insights with us. I wanted to ask you to kind of close us out with your view of how the role of LNG and LPGs in the world is changing and how the industry must evolve following what we've been seeing over the past couple years. Talking with you though, it sounds like from a technology standpoint and fleet building that's going very well. I'm wondering is, is the, is the bigger issue more on the policy side. You commented on the US moratorium on LNG, some of the shipping issues in EU policy. So maybe like, I really want to ask you, how do you see that evolving, but is policy the big issue that's on your mind now more than some of the others?

Oystein Kalleklev (40m 35s):

Yeah, I think the big issue we have you know, remember people switch from coal to natural gas, not because of CO2 emissions. Nobody was worried about CO2 emissions at that time. People switched because of air pollution. That was the reason why us and then eventually Europe switched out coal to natural gas in order to clean up the areas, and air quality. Today we have the big problem being methane emissions as I mentioned, and CO2 emissions. Those are the big challenges that will be need to tackle. We do see a lot of the US export projects now in order to be able to kind of sell the gas to end consumers, especially in Europe, they need to have a plan for carbon capture or electrical drive on the gas instead of gas turbines on the export plants. So that's key.

Oystein Kalleklev (41m 26s):

And then of course, when you're burning the gas, you need to have a, some plan for carbon emission capture, whether it's utilization storage, and you know there is a lot of money flowing into this right now. There's a project in, in US where the called net power was just bought up from a one of the fewest packs surviving the RISE acquisition spec, where they have a new way of burning natural gas rather

than burning it in in air. They're burning it in pure oxy oxygen and where they, at least the idea is, is it's easier to capture the CO2. So dosing will be critical. So if you are able to find a cheap way to capture the CO2, then the regulation problems will not be a big issue anymore. The regulation is of course, in order to push forward more sustainable solutions.

Oystein Kalleklev (42m 21s):

So it would be much better if the industry can solve this instead of politicians. So that is where, where I do see the key on the meat and side, it's mostly upstream, are people venting, are you know, which is a total waste of, of resources. And then of course, in terms of ships, are the ships burning the LNG efficiently or other residue in the, the gas, which is then venting and creating this methane emissions. So, so I think that's the key challenge for the industry. If we're able to solve the methane, which should be very practical and economically feasible to solve, and then able to solve the CO2 issue, then I wouldn't worry too much about the regulations. Regulation is actually a more a problem than for renewables because a gas power plant doesn't take a lot of size. You don't need a lot of permits to, to build it, but building big wind farms or solar farms takes a lot of more space. But, you know, it's, it's not a simple task, but it's not one that needs to be solved and I think businesses is in a much better position to solve it than politicians.

David Greely (43m 32s):

Thanks again to Oystein Kalleklev, CEO of Flex, LNG and Avance Gas. We hope you enjoyed the episode. We'll be back next week with our next episode of Setting Course. We hope you'll join us.

Announcer (44m 00s):

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Announcer (44m 46s):

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