



Capital Link Shipping — *Webinar Series* —



LPG Sector Webinar July 2, 2019

Moderator:



Mats Bye, Equity Research Analyst, DNB Markets

Panelists:



John Lycouris, CEO, Dorian LPG (USA) LLC



Charles Maltby, CEO, Epic Gas



Peder Carl Gram Simonsen, CFO and Interim CEO, Avance Gas



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Operator:

Thank you for standing by ladies and gentlemen and welcome to today's webinar.

We have with us Mr. Nicolas Bornozis, President of Capital Link, organizer of the event. I must advise you that this webinar is being recorded today.

We now pass the floor to Mr. Bornozis. Please go ahead, sir.

Nicolas Bornozis:

Good morning to everyone and thank you, operator.

Welcome to Capital Link's webinar series. I am Nicolas Bornozis, President of Capital Link. Today's webinar will be a roundtable discussion on the LPG sector.

We're delighted to have with us our future panelists, John Lycouris, CEO of Dorian LPG USA, Charles Maltby, CEO of Epic Gas and Peder Carl Gram Simonsen, CFO and interim CEO of Avance Gas. The moderator for today will be Mats Bye, Equity Research Analyst at DNB Markets. This event is accessible through a live audio webcast, and then also as an audio archive through www.capitallinkwebinars.com.

After the discussion that will be moderated by Mats, there will be a live Q&A session. Webinar participants can submit questions through the sidebar on the presentation page titled, "Submit A Question," or you can e-mail your questions to us at questions@capitallink.com.

Please note, you can submit a question at any time during the event and your question will be answered during the Q&A session. Please note, the discussions and opinions expressed by the panelists are not intended as legal or investment advice or advice of any kind as a matter of fact not provided for informational and it's just purpose only in Capital Link (inaudible) before them. And furthermore, the panel discussion as outlined in the disclaimer may contain forward-looking statements concerning future events.

In closing, I'd like to mention that Capital Link has made a strategic commitment to shipping in the maritime sector. In addition to our annual conferences and weekly shipping newsletters, we hold industry webinars on a regular basis like the one we have today.



Capital Link Shipping — Webinar Series —



To access our webinar library for past and upcoming webinars, please visit webinars.capitallink.com. And by the way, please save the date for our next upcoming shipping webinar featuring the dry bulk sector with Safe Bulkers, Star Bulk and Good Bulk and that will be on July 9th, 2019, again on 11:00 am like today.

Thank you all for participating. Thank you from John, Charles and Peder and Mats, the floor is yours. And thank you from me.

Mats Bye:

Thank you, Nicolas, and good morning or afternoon to all of you who reside in Europe or elsewhere. Special thanks to Capital Link for hosting this event.

I will try to structure the discussion. We will first touch upon the longevity of the recent market upturn which has seen skyrocketing since February and then turn to a more structural view on the LPG trade in the coming years.

And then finally towards the end if we have some time, we'll try to get the more uncharted territory by looking how the industry needs to respond to increasing external pressure with regards to environmental and governance standards.

John, I want to start with you. Can you sort of give us an idea how much your vessels are earning at the moment?

John Lycouris:

Well, -- thank you, Mats. The market is strong and as we have seen, the Baltic has been going up.

As you realize, you do not have all the ships available at the same time. The current market is about high 60s- \$60,000- as some of them had been fixed at a variable rate a week ago or three weeks ago, and it will be there for a mixture of rates staying on the high side and this is a result of a shortage of shipping. I guess that is what is causing the rates to go up, right now.

Mats Bye:



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Yes. Because on the (face of it), you see as you say that there is a shortage of vessels but it also looks to coincide well with the U.S.-Asia propane arbitrage which has grown to three digits and well above this as was last seen in 2015.

John Lycouris:

Correct.

Mats Bye:

Is this also driving the market strength as you see it or is it more than ...

John Lycouris:

Absolutely.

Mats Bye:

... (an absolute change in...)

John Lycouris:

Absolutely, it is a result of arbitrage and of macro events in the markets. This has been highlighted because of the tariffs, the sanctions in Iran and I think also due to the cutback of production in the Middle East in OPEC countries. All these macro factors have caused the effect of pricing in the Middle East being high and abundance of product in the U.S.

I forgotten to mention another factor which is the U.S. demand for product that has been slacked. And as a result, inventories have increased in the United States which means that product has been cheaper and therefore, it needs to move so we have a great arbitrage opportunity here between the United States and the Far East.

Mats Bye:

Yes. Peder, I guess you are also involved in the U.S. trade and onto an increasing extent. You can see that the arbitrage looks to be correlated somehow with the amount available of export capacity in the U.S. Low capacity and limited shipping supply kind of draw earnings to about \$100,000 a day on average for both '14 and '15. Do you believe that we can see something like this happening once again?



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Peder Carl Gram Simonsen:

Yes, it could happen, and I think the market will still be very volatile going forward. However, looking at the history where we had excessive supply and demand growth, it is a bit more balanced now so I don't think you will see the massive rates that we had back then.

But I think, it is interesting to see how the value pricing here has come down. It also driven by the fact that the share of LPG production going to export has increased significantly so whereas this previously was just (pretty) priced by the domestic market in the U.S., it is now increasingly priced by the volumes going to export. So, yes, I do think it is looking very strong at the moment.

Mats Bye:

And then looking at the capacity to export on the steps to be increased with enterprise building out the export capacity which eventually will add, I would say, 10 to 15 percent of current export capacity. Do you think that this could, in a sense, reconnect U.S. propane prices more to the global prices and then contribute in closing the arbitrage?

Peder Carl Gram Simonsen:

Well, I think in general that increased export capacity is positive because it brings more tons available for exports and I think in general, that is a very positive thing for shipping. We see that the Japanese and the Koreans are taking a very large share of the U.S. volumes and they have set off their part of their price into the offtake agreements, so they are not price sensitive as such to arbitrage. And I think on margin, the arbitrage is important because it will be profitable for traders to take out the marginal tons, but I think over time, more capacity brings more volumes and that is good for shipping.

Mats Bye:

It is interesting what you are saying about the Japanese and Korean buyers because if you look at LNG and the grid space, you see at least more numbers on average (sailing distance) has come down as an effect of U.S.- China trade war with less of the U.S. volumes ending up in Northeast Asia but in LPG, the pattern is not as clear-cut as it seems. In Japan and Korea there is a growing pattern and able to take the volumes that China used to date and China sourcing from somewhere else. Is this something you see in your trades?



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— Webinar Series —



Peder Carl Gram Simonsen:

Yes, for sure. I think if you look at China imports from the U.S., they have imported one cargo as far as we can see since this started in the mid-2018. So, to a large extent we are not protected by the trade war situation where they are sourcing their LPG from Middle East, West Africa from elsewhere and Korea and Japan have taken over these volumes in the U.S.

Also, you now see India is starting to take U.S. volumes and that brings a lot of ton miles. I think it is China, Japan and Korea on average and more or less the same sailing distance. I think that is what we see, and this is also interesting because of that Japan and Korea are less price sensitive than China historically has been.

Mats Bye:

And Charles, (turning in -- over to you), you work with smaller and pressurized segments, how do you see the effect on the increased propane arbitrage on your trades? Is it a fundamental driver for volumes or would you say that there would be volumes to transport, anyhow, despite of the arbitrage?

Charles Maltby:

Yes, thanks, Peder. As Peder said, sorry Mats, he sort of alluded to the fact that more LPG on the water is good for shipping and really what we are seeing is obviously more propane and butane moving out to North America due to the increased supply and the increased export capacity and that's flowing through into increased last mile delivery of LPG into developing economies around the world. We're also not particularly impacted by China, certainly not in a negative way. All sanctions between U.S. and China because are primarily trading into other developing economies, for instance countries like Bangladesh where we have seen an increase in imports year on year from 500,000 tons to 850,000 tons and other countries in the so-called 7 percent (cut).

Mats Bye:

And if you look more specifically, we have the smaller vessels which is ... dollar per day basis seems to have fallen off somehow in the latest couple of months. As such -- is it like a threshold you can point to where you see real cascading effects from when the VLGC earnings are good? Also, the say for instance 10,000 cubic or 15,000 cubic is increasing as well or is it higher than most of those, the vessels in the Epic fleet?



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Charles Maltby:

Yes. The pressurized vessels range in size from three and a half typically up to 11,000 cubic meter and the easing off on rates on the three and halves and fives is down to three different things really. Firstly, it is partly related to the new build cycle around those particular vessels and that there was a heavy oversupply of new vessels in 2014 and '15 which was absorbed quicker than the slightly larger pressurized vessels. So, the rate recovery in those three and a halves to fives has been quite substantial with rates that moved up from sort of \$4 to \$5,000 a day up to \$8 to \$10,000 a day by the middle of last year so doubling in rates.

And those rates have just eased off very slightly as we have gone through the new year and it is partly seasonal. It is partly because this year, there are a few new builds coming into that size in Asia. The order book is about 1 percent year on year on year for the next few years for the pressurized vessels. Also, the one-year rates, which is what's often measured and showing as easing off, had moved to a point where they were significantly higher than the longer-term rate for three to five years for the market to move from contango to backwardation in effect and ...

Mats Bye:

OK.

Charles Maltby:

... that means that some charges have been looking longer term rather than the shorter term.

Mats Bye:

Yes.

Charles Maltby:

Meanwhile, the rates for the larger pressurized vessels are seven and a half to eleven, they are up sort of 10 percent year-on-year something like that and continuing to show promising signs and ships are being redeployed back into slightly longer (hold) trades as well which had moved out in the last three years.

Mats Bye:



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These seem to follow the sort of bullish structure of the VLGCs, however, not to the same extent. Is this volume effect you see in the market now, you believe?

Charles Maltby:

That's right, yes.

Mats Bye:

Yes. Cool. John, turning back over to you. We likely see from 17 to 18 vessels delivered in total this year compared to only 10 last year. The fleet in total would be around 275 if you only look at the VLGCs. Do you believe that the order book looks overwhelming or could it be troublesome for the supply and demand balance in the short term?

John Lycouris:

I think that the order book is reasonable, keeping people at bay from ordering more ships and we really do not need any more shipping at this stage. I think the market with the addition of these new units that are coming in will be able to cope well and the scrapping of older units due to 2020 problems ballast water treatment, et cetera will keep the market to the levels of about 300 ships.

Ordering more ships which is typical when the market starts going up is not a good thing to experience. We've seen it before in 2015-'16 with so many ships being built at that time. We hope that this won't happen again and that also the shipyards will not start building many ships with abandon and making big large deals of new VLGCs but we will see.

Mats Bye:

You touched upon scrapping which sort of made way for underlying market improvement into H2 last year. You mentioned scrapping but could we expect to see some vessels taking up given the recent market firmness?

John Lycouris:

Well, I would expect so. I mean there was a report from DNB markets that said that there would be scrapping of about 13 ships in their projection so maybe they know something that I don't know.



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Mats Bye:

Yes. We do believe that after the IMO 2020 regulations (kick in) that you would see scrapping of VLGCs (inaudible) ...

John Lycouris:

I agree with you guys, yes.

Mats Bye:

Yes, 27.5 ...

John Lycouris:

I agree. I can see the same.

Mats Bye:

... (with 13) (inaudible).

John Lycouris:

Yes. That's correct.

Mats Bye:

But it is always interesting to see when owners take (the old). It is hard to know if they will make the decision and carry the vessels to the scrapyards.

John Lycouris:

But the compliant fuel issue, the ballast water treatment issues, the performance issues, vessel speed and consumption, all these will play a huge importance in the coming months and years and I think that will force some of these ships to be scrapped. Let's see.

Mats Bye:

I mean we hold the most modern fleet, but we do have three vessels that are more of age even though they're not completely old of course but how do you see their earnings potential and differential clearly managing a fleet of different vessels?

John Lycouris:



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Well, we had valued various generations of vessels and we saw that the (yako) vessels outperform, the older generation vessels and then the new vessels, the new VLGCs of the 2006, 7, 8, 9, 10s outperform, the vessels of the 2000s and maybe early 2000 so until 2005, 6. So, we see that there is differential of vessels and there are disadvantages to operating vessels, older vessels and that comes out in your EBITDA. Bottom line, it's just a matter of time that economics will catch up.

I mean of course when you have big rates, nobody pays attention to these things but when you come out of a very bad market like we have experienced in the last few years, there is no question in one's mind that these ships need to be sold when the market is good and maybe command a bit better price rather than hold on to them.

Mats Bye:

Yes, it makes sense. Peder, if we rewind some years back, there were many of the portfolio players so that would order their own ships to avoid having to give away the full arbitrage to the vessel owner once again. Do you believe you can see similar orderings free sort of happening once again?

Peder Carl Gram Simonsen:

Well, I'm not sure if the reasoning for them ordering ships was that they saw that we made so much money. I mean they made a lot of money in the same period. They make a lot of money. I think some other reason was that we, as owners, were not willing to give away fixed price shifts which makes for trading attractive enough rates which in turn makes trading environment difficult for these traders. I think it's a big capital investment for them which in the last years when they have not made that much money, have felt that the case is, "Is this the business that we want to be in?"

There is always a risk of new orderings but in general being tight on capital and uncertainties relating to which ship type you should go to the yards or should put on the appetite for new ships. So, I think that also brings another element into this. What will happen when -- what type of propulsion system should you use? Should you go for a Panamax or a normal conventional type? There are a lot of new designs coming in as well.



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Hopefully, we will not see that and as I would agree with John, there are enough ships already in the order book with these added features. I hope that there will be more (discipline) and I don't think, we will see the 100,000 per day levels that we have seen previously and that maybe there will be more willingness from some to do more business and that levels will be more balanced than what we have seen in the market previously.

Mats Bye:

Sounds promising. Let's hope you are right. Charles, looking at the smaller fleet there are limited orders, so far in '19, you see only two and the fleet is about a thousand. If you look broadly, do you see this as a positive sign that will improve the market balance or as equal? Do you have a take on its (associated) orders in the 20k sector?

Charles Maltby:

Thanks, Mats. I think we had heavy oversupply through '14 into '17 and that was despite the fact that we had solid demand growth over the same period we are at, so we had 15 year market lows. So, no one has really made much profit in the recent years and the cash levels have been fairly challenging for all businesses in the sector. So, I think all industry participants are cautious about making a significant splash on the new build ordering side and that is why the order book looks quite stable.

It's just over 1 percent per annum before scrapping over the next few years but there are also some issues if that is the right word or challenges may be to ever come on the shipyard site, yes, where the yard designs have got to bear in mind new environmental and safety and technical requirements. As of this point in time, no one has ordered a dual-fuel smaller vessel for instance and that is partly because designs are still evolving. Pricing has also moved up.

New builds aren't the same price today as they were four or five years ago and that is partly because of the challenges over the technical specification, partly of the availability of yard space but also the Japanese yen has changed and that is perhaps also part of the reason that will keep some of our customers and traders sharper. When it comes to whether they jump ships into water or not is because the price isn't what it was two years ago.

So, I think for pressurized ships there is a second or third complication even when is to do with the steel and the manufacturer of the tanks. The ship's hull is built in the shipyard. The



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ship tanks are built by steel fabricators, two separate sites, two separate businesses and you must thread the needle on availability of ship tanks alongside the availability of shipyard space. And so that also just slows things down a bit at the moment.

Mats Bye:

So, you don't see it as being a negative sign for the prospects of the demand side in the small area, segment trade?

Peder Carl Gram Simonsen:

No, I think we should just keep the opportunity that the pressurized sector presents in something that is between all of us on this call.

Mats Bye:

Sounds good. OK. So, we are almost halfway through. We learned that John's vessels, probably- although we never asked -given a strong \$60,000 today in the current market, arbitrage window looks somehow sustainable and earnings for the small pressurized vessel is to pick up going forward with the larger size of the smaller having gained 10 percent since the start of the year. Furthermore, while there have been some orders placed, it is not terrifying and there is the reason to believe that owners could stay out due to several factors.

I will now turn our attention more to the structural drivers in the LPG market and Peder. We have of course to construct in the U.S a massive increase in ethylene production capacity and then ethane as input. However, there has only been some plants that use propane to produce propylene and PDH plants. But you see some new coming that is not away Formosa Plastics and we always send into pipeline with plants coming online in 2020 and 2021. Should we potentially be concerned that there will be chemical expansions in the U.S. that could lead to slow in the export case?

Peder Carl Gram Simonsen:

In general, the U.S. have a huge ethane problem so to speak with no established overseas trade whereas the propane trade is established. I think we have seen that the new PDH plants that have come in the U.S. are replacing older less efficient steam crackers and we don't expect a lot of growth coming from the chemical side in the U.S. or growth in domestic consumption



Capital Link Shipping

—Webinar Series—



overall. I think that from the petrochemical industry, it will be ethane that will be used as a feedstock to large extent.

Mats Bye:

And, I guess you can also say how the production increase is going. Is it still a cap that you could take out quite a bit and an increasing demand still have some (4H) growth?

Peder Carl Gram Simonsen:

Sorry, can you repeat that?

Mats Bye:

In terms of fast production growing in the U.S., you have seen some remarkable double-digit figures even from higher levels. So in that sense, I guess there's no reason to be concerned even though you would see some small hiccups in the domestic demand even if they decide to build more PDH plants.

Peder Carl Gram Simonsen:

Yes. But I think from our viewpoint, if you look at the history, domestic demand in the U.S. is very much driven by temperature and weather. Basically, you see colder winter spikes in the domestic demand and some crop drying if they have wet harvest seasons but apart from that, we are not concerned about any significant increase in domestic consumption and demand for LPG. This is a product that we'll need to find home overseas.

Mats Bye:

Yes.

Male:

Sorry to interrupt. I also think that some of the demand growth for pet chem will be offset by a demand reduction for energy just due to replacement with LNG natural gas I think that will help to offset as well in the domestic situation.

Mats Bye:

Good point. And then Charles, you are seeing the Chinese build PDH plants and second wave sort of as it's called coming upstream in the current year and next year. I guess propylene is



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one of the many commodities that you carry, do you see increase to the trade in the Asia Pacific region due to a growth in this trade?

Charles Maltby:

Yes. It is about 25 percent of the volume we carry in pet chems. Actually, we are mildly surprised at how China has continued to import the volume of pet chems that it has, and we have actually seen ongoing, if not record high levels that pet chems going into China over the last two or three years. And we expect that trade to maintain. I think this is partly driven by the fact that these competitive plants are coming online or increasing in the expanding China / Japan by carrier.

Mats Bye:

Yes. And John, as we understand the chemical industry will clearly be a major driver for LPG demand going forward particularly with those PDH plants in China. But if you look beyond those, maybe in two years and a bit more into the future, do you expect that industry or residential demand will be key for sourcing the future LPG production where we would find (in some)?

John Lycouris:

It's a very interesting question and, of course, nobody knows exactly what is going to happen. We have seen industrial growth demand for LPG. Industrial growth has increased dramatically. Also, the petrochemical industry has picked up on LPG significantly because we had seen before very little LPG taken into the petrochemical plants. Now, we see a significant amount going there. And at the same time, we have seen growth in India which was a society that did not use LPG. Now within five, six years into the programs that have been going on in India, we have seen millions of households picking up LPG as a source of home cooking and potentially heating in the northern parts of India.

There are arguments on both sides of the industrial and the domestic front. In places like Indonesia, LPG is still a big growing market for domestic use. I believe that there is depth in both markets, industrial and domestic. With the abundance of LPG that we now have from not only the Middle East as it used to be but now the United States doubling the quantity into 90 million tons of shipborne LPG.



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We are really looking at cheaper source of energy and it is a cleaner fuel. Therefore, it has a lot of attractiveness in the world market and it is potentially a win-win situation here.

Mats Bye:

It is certainly interesting that you mention India as cooking and heating fuel for the northern part of the country where it certainly is a positive where you change a burning wood and coal and other stuff which is polluting and creating a lot of health ...

John Lycouris:

Exactly.

Mats Bye:

... issues with LPG.

John Lycouris:

Exactly.

Mats Bye:

In that sense the LPG is sort of an ESG winner but you are also seeing in the chemical industry that the propane is used to produce plastics. At least in some parts of the world, there is a growing opinion looking upon plastics as something bad. If you go maybe, I don't know how long but two to five, seven years down the road, do you feel this could destroy the demand case somehow for LPG?

John Lycouris:

Plastics will probably stay. They will become more durable, more significant in our lives as part of products. We will see less and less abundance of cheap plastic, plastic that pollutes and it will be used probably more constructively and into products that are necessary to be built by a more robust kind of material. So, I believe that plastic is an excellent material, but we do have polypropylenes which is a heavier kind of plastic rather than pet and other products which are very light and usually disposed in dumps or in the sea or on land. We must see that part of the plastic chain slowly reduced while at the same time, we will probably see plastics being used more imparts of more serious products- the white goods for example industry will probably benefit from plastics rather than using metal.



Capital Link Shipping — Webinar Series —



Mats Bye:

Yes. That's a good point. Other than that-- as you might sense, we are gradually entering the third and final section of this webinar mainly to try to look at some external factors and how they are affecting the LPG shipping space. There are no easy topics but this year's at least most talked about is the IMO 2020. In the last quarter results report, you said the opposite for two scrubbers and still have some options open. Do you believe that it is going to be the favorite solution for IMO compliance in the LPG space especially as ...

Peder Carl Gram Simonsen:

Well ...

Mats Bye:

Sorry, go ahead.

Peder Carl Gram Simonsen:

Yes and no. First of all, this is for the variability space, most of ships will go on compliant fuel. I think we have about 65 ships that are now going to be fitted with scrubbers and/or dual fuel proportion. So most of the fleet will go on compliant fuel but if you look at the calculations and compare scrubber cases and dual fuel as a retrofit, I think due to the price and the payback time of over dual fuel retrofit, scrubbers obviously make a good argument.

And we have ordered two. We are considering installing more and I think it does look interesting as an investment when you are looking at what the experts are expecting for the fuel price spread going into 2020. When it comes to new buildings and new ships, I think that the future maybe in this market as you have seen in LNG is most likely a dual fuel engine with LPG use propulsion. I don't think you are seeing new designs and new technology development which is going to bring probably the next generation of LGCs using LPG as propulsion.

Mats Bye:

Interesting. John, let me give the word back to you because Peder already touched upon this earlier. If you look at the danger of over contracting, did you see that there is a chance this time that could be different? You also touched upon it because in today's technology, it could



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—Webinar Series—



be a very old technology in just a matter of 5 to 10 years. Do you see this as a strong factor limiting your orders being placed in the coming commission years?

John Lycouris:

Technology, is that what you are asking?

Mats Bye:

Yes, the technology development and if there is the choice of propulsion system to choose when you order a new vessel now?

John Lycouris:

Absolutely. We have always said that we were going to do some scrubbers as we are doing and that we also once wanted to go to LPG as a fuel because that was our belief from the beginning that LPG as fuel is reasonable and likely choice for the LPG fleet in the future. Also, it has improved emissions in carbon, no sulfur dioxides, lower nitrogen emissions, not oxide emissions in that matter. There is a benefit to going with LPG as a fuel and we think that the ships that are to be built in the future should be dual fuel with LPG. It is a much easier fuel. It's easier than LNG to store and also to find or to source in various places readily and you can have vessels like the ones that my colleague here from Epic is having and he may even have smaller ships that could do business like that.

Mats Bye:

Yes. The ship-to-ship transfer-sure but did you see the engine? That is sort of a chicken-egg problem. If it's hard to choose on the final propulsion system, there will be a chicken or the egg sort of a problem where yards need to lower the prices for existing technology and at some point, you could get maybe more substantial orders just because the noodle prices come down?

John Lycouris:

There is always the situation like that whether it is going to be tier 2 or tier 3. Eventually the technological advantages of LPG as fuel and the pricing in the future is of having a cheaper LPG versus the very low sulfur fuel oil and the compliant fuel of the future. We already see that there is a good margin between the regular fuel oil but also between the LPG and compliant fuel. We may see that they can become more significant and therefore, you will be able to



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make a decision much easier than just considering two equal options. I think it will happen whether you like it or not that the shipyard will see less and less orders from single fuel engines and into probably dual fuel engines.

Mats Bye:

It makes sense. Charles, in terms of access to financing, the BW Group recently bought a large submitter to share in Epic Gas and that normally comes with some benefits in terms of access to finance and bank relationships. I guess to some at least, however, you have been out there for some years now feeling the changing winds of the bank, how do you see if it is going to be increasingly challenging for smaller owners to attract financing or have you somehow reached the peak point now with financing getting more readily available for smaller owners?

Charles Maltby:

Interesting question. In a way if you are a big company, you tend to think that you have different issues than small companies. I think ship owners have always had varying access to finance depending on their size, their profitability their sector and so on. And obviously the primary lever that is used over any shipping company is the margin that they have to pay over libel. At current state, for instance, Poseidon principles will be another lever and another sort of nudge technique if you like towards ship owners towards improving their environmental outlook on what they order but certainly the stronger your balance sheet and the stronger your investment community around you then the better access you have to finance and that's certainly going to be one of the themes over the next few years.

I think that ship owners will need to find a way of improving their balance sheets and improving their financial performance in order to have a competitive access to debt financing and in order to be able to make the investment decisions they need to make for the long term.

Ship owners and – we are all used to making long-term decisions. We think in terms of 20 to 30 years, coming back to your last question around changing IMO 2020. I mean in a way, IMO 2020 is just a little blip, a little tiny step for us as ship owners. It's an operational one in a way. It is compared to where we are heading for 2050. So yes, being part of that ...

Mats Bye:

Yes.



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Charles Maltby:

... or having shares owned by a bigger group certainly helps you make longer term decisions at a competitive cost.

Mats Bye:

It will be interesting to see how it all changes, going forward. My thorough section for the panelist is done. We have a few questions coming in. The first one is straightforward which can go to all of you and that is from (Kristin Chang), CEO of Cosmos Bridge Capital. Can the panel comment about the pricing trends of LPG shipping across different regions of the world and for VLGCs? Is it easiest to focus on U.S. to Asia and Middle East to China? Peder, do you want to start?

Peder Carl Gram Simonsen:

Yes. I think as you've seen for a long time that the U.S. has been a premium market and has gradually taken over a lot of the spot volumes and this coincides with China taking a lot of volumes from the Middle East and lowering their U.S. trading. And what you have seen recently is that it is the Baltic that has been trading at premium to the U.S. volumes because of the tightness but also due to a shortage of ships, the Iran situation and the tension in that area. Thus, it has been priced as a little bit of a premium, but I think in general, these over time will balance each other out and will be priced in parity to each other.

Mats Bye:

Yes. So, in terms of calculating the Baltic on regular per ton basis you end up in the mid 60's at the current rates, you would say that actually right now, the U.S. is somehow discounted to know Baltic level.

Peder Carl Gram Simonsen:

Yes. If you run the math, that is what you have seen but it is more of -- if you look at what the quotes from the brokers are -they are quoting kind of U.S. at just above \$120 per ton (use in GIBA) while the Baltic is quoted at -- was today slightly up at seventy eight and a half approximately.

Mats Bye:



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Yes.

Peder Carl Gram Simonsen:

And this gives it a little bit of a premium in the Middle East.

Mats Bye:

Interesting. OK and I guess John, you commented that at the start of the webinar, I mean you see the same picture, I guess?

John Lycouris:

Correct? I think ...

Mats Bye:

Yes, yes.

John Lycouris:

... Peder summed it pretty well.

Mats Bye:

And Charles, for you, it is probably more fragmented market. Are there large intra-regional variances and how much your vessels are cashing in the market?

Charles Maltby:

Yes. Typically, the West is 10 percent higher market than the East and that is coming partly because of the distance from where the ships are built but also the higher operational costs in the West market for the smaller pressurized vessels. They tend to move into a region and stay there. There is some cross trade between the Atlantic and the Pacific but it's not every ship every month and the average voyage duration or time at sea is only about six days which is I guess about a third or a quarter of the time at the sea compared to a VLGC.

So, we tend to be during the last mile delivery around a coast within a region rather than the travel distance long-haul between the regions and, yes, ships in the West tend to get about 10 percent more than ships in East and that fluctuates a bit but over the long term, that's about where it is in. It is certainly, there at the moment.



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Mats Bye:

Yes. You say that OPEC's requirements are higher for the West and as result of this, do you put more modern tonnage in the west or not?

Charles Maltby:

No, it's ...

Male:

(Will it be...?)

Charles Maltby:

It is not that. It has more to do with the cost of putting a crew on board and the cost of repairs and maintenance and spare parts and dry docking. Dry docks tend to cost a bit more in the West.

Mats Bye:

Another question from (Jeff Scott) of Scott Asset Management. I would say it is a relatively broad question. What U.S. infrastructure projects are due to start off in the next two years and will this have the greatest impact on worldwide LPG trade? You have mentioned the PDH plants, but you also have of course the terminal expansions from enterprise which we'll see more LPG export capacity and I guess you also need the fractionators coming on stream. Enterprises have announced a few more additions and you can also drag the line to crude pipelines which we could eventually see an increased pressure on production and LPG volumes coming to markets. I don't know John, if it is possible to pinpoint one or a few infrastructure developments in the U.S... Which is likely to affect the LPG market?

John Lycouris:

Well, the LPG markets are going to benefit from the expansions of the terminals and it's not only enterprise. There is also Targa and Phillips 66 expanding and then there is additional terminals. These people do their due diligence and see the benefit to having additional capacity. They are building a potential for additional experts to increase. I think that I agree with them and I can see how over the last six or seven years the capacity increased. This year, we are probably going to be reaching close to 40 million tons in access in the Middle East.



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Therefore, these are significant projects which show that there is significant supply of product and that product has to move out of the United States. Yes, there are projects that also make supply available and there is the fractionation that is being put in place and has caused some issues with getting product to the terminals and limiting exports.

In general, this is great news again on the capacity being built up and it continues to be built up in the next year. So, I think we are going to see, as one of my colleagues on this call said, significant exports continuing from the United States.

Mats Bye:

That sounds very possible and I guess the owners of LPG wouldn't produce the terminals if they wouldn't have fractionation capacity coming readily available or coming upstream pretty fast after the terminal was built.

There is one final question from Greg Chellgren. He is an analyst at Paragon Associates. Peder, I know you could potentially take this. Do you expect ship owner consolidation to further play out and in what segments of the market?

Peder Carl Gram Simonsen:

Well, I think this market will benefit and should benefit from consolidation. It has been tried and has not been successful so far. Whether or not this will play out now, it remains to be seen talking now about the VLGC sector and -- but I think that the consolidation of the fleet can happen regardless of the big three players joining forces or other of the big players joining forces. And I think there are a lot of ships that are on the hands of people who really shouldn't have them and I think we will see probably transactions being made that will consolidate the global fleet and which will make sort of rates more sustainable as a long-term and less competition in the spot market.

Mats Bye:

Yes. And Charles, in the smaller segment, is there a room for consolidation as you see there or as you previously stated do you want to grow your fleet in further values so is it a clear need to consolidate in the industry more?

Charles Maltby:



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Well, I think whether it is our feet or anybody else's, you can see that there is a considerable pressure on the industry to improve its returns and to make some money. And over the last few years, a lot of value has been lost. Consolidation helps you to improve your cost basis and to spread your costs over a wider platform. For instance, we have added four vessels in the last few weeks and that increases our earnings capacity by somewhere between 10 to 15 percent and that reduces our costs by 3 or 4 percent on a cost per day basis. So, it adds up. And then when you look at the challenges that we faced, we have touched on most of them already whether that is ESG, the environment and the investments. We have to make up on the technical side, corporate governance, sustainability or on digitalization which is now racing through our sector with significant investments required in VSAT and on-board ship technology. You need to have that sort of scale to make it work.

Mats Bye:

OK. So, we are about to wrap up our discussion. I want to thank all three you, John Lycouris, Charles Maltby and Peder Simonsen very much for joining the panel. It's been a pleasure having you. Nicholas, should I turn it over to you?

Nicolas Bornozis:

Yes, thank you very much. All I have to say is thank you to all of you and thank you Mats, as well as for moderating so expertly. I think it has been a very insightful discussion and just to remind everybody that it will be available also as an audio archive for replay in about a couple of hours from now.

And thank you to everybody and I look forward to having our participants join us again next Tuesday, July 9 at 11 a.m. Eastern Time when we have our Dry Bulk webinar and again, thank you, Mats, thank you, John, Charles and Peder and we can all disconnect.

END

PANELIST AND MODERATOR BIOS

MATS BYE – EQUITY RESEARCH ANALYST, DNB MARKETS

Joined DNB Markets in 2017, equity research, special attention to the LNG and LPG segments
2 years prior experience from Nordea Shipping, Offshore & Oil Services. MSc. in Economics and Business Administration from NHH

CHARLES MALTBY – CEO, EPIG GAS

Charles has over 25 years of shipping industry experience. He graduated from the University of Plymouth, UK in 1992 with a BSc in Maritime Business (International Shipping & Maritime Law). He began his shipping career with Mobil Shipping in 1992 with day to day responsibility for LPG and petrochemical chartering & operations. From 1996 to 2005 he held various positions with BHP Billiton's dry bulk and tanker freight business in London and Melbourne, culminating in establishing the handysize/handymax chartering and trading desk in the Hague in 2001. In 2005 he joined Pacific Basin as Managing Director (UK), Global Head of the Handymax Business and Head of the Groups Atlantic business. He joined Epic Gas as Executive Chairman in September 2014, and has been appointed Chairman & Chief Executive Officer end March 2015. He attended INSEAD (AMP) in 2008, and is a member of the Institute of Chartered Shipbrokers.

JOHN C. LYCOURIS – CEO, DORIAN LPG (USA) LLC

John C. Lycouris has served as Chief Executive Officer of Dorian LPG (USA) LLC and a director of Dorian LPG Ltd. since its inception in July 2013. Since joining Eagle Ocean in 1993, Mr. Lycouris attended to a multitude of sale and purchase contracts and pre and post-delivery financing of newbuilding and second hand vessels in the tanker, LPG, and dry bulk sectors. Mr. Lycouris' responsibilities include investment strategy for a number of portfolios on behalf of domestic and foreign principals represented by Eagle Ocean. Before joining Eagle Ocean, Mr. Lycouris served as Director of Peninsular Maritime Ltd. a ship brokerage firm, which he joined in 1974, and managed the Finance and Accounts departments. Mr. Lycouris graduated from Cornell University, where he earned an MBA, and from Ithaca College with a Bachelor of Science.



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PEDER CARL SIMONSEN – CFO & INTERIM CEO, AVANCE GAS

Peder Carl Gram Simonsen (born 1974) joined Avance Gas in January 2014 as Chief Financial Officer. Mr. Simonsen holds a B.A. (Hons) in Business Administration from the University of Stirling. Peder came from the position as First Vice President of Nordea Bank Norge ASA, where he worked as senior client executive for large shipping and offshore companies. Prior to this he worked as an investment advisor in the Norwegian private equity firm Reiten & Co.

COMPANY PROFILES

ABOUT DORIAN LPG Ltd.

Dorian LPG is a liquefied petroleum gas shipping company and a leading owner and operator of modern VLGCs. Dorian LPG currently owns and operates twenty-two modern VLGCs. Dorian LPG has offices in Stamford, Connecticut, USA, London, United Kingdom and Athens, Greece. For further information, visit the company's website www.dorianlpg.com

ABOUT EPIC GAS

Epic Gas owns and operates a fleet of fully pressurised gas carriers providing seaborne services for the transportation of liquefied petroleum gas and petrochemicals. The company controls a fleet of 40 vessels which serve the international supply chains of leading oil majors and commodity traders throughout Asia, Europe, Africa and the Americas. The Company's shares are traded over the Oslo Stock Exchange under the ticker "EPIC-ME".

For further information, visit the company's website www.epic-gas.com

ABOUT AVANCE GAS HOLDING LTD

Avance Gas is one of the world's leading VLGC ship-owners and operators. We operate a fleet of 14 modern VLGCs transporting LPG globally. Avance Gas transports LPG from either Middle East Gulf or US Gulf to destinations in Europe, South America, India and Asia. Avance Gas chartering strategy is to offer our customers a combination of spot voyages and Contract of Affreightments. Avance Gas commercial operation is based in Oslo, Norway. The Company's shares are traded over the Oslo Stock Exchange under the ticker "AVANCE".

For more information about Avance Gas, please visit: www.avancegas.com.



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