

Export Infrastructure

LNG Update: Cargo Shut-In At Sempra's Cameron LNG

Checkers: How A Freight Fiasco & Narrow Arb Killed A Cargo...

Chess: Cheniere May Start Making Real Money On Their Freight Book...

First USG Cargo (Technically) Shut-In, After Pavilion Fails To Lift. We believe one of the first LNG cargos from **Sempra's Cameron LNG T-1** was technically shut-in, after **Pavilion Energy** (via **Mitsui**) effectively chose to eat the liquefaction fee while failing to lift the cargo. We believe this marks the **first USG LNG cargo to fail in this manner** – with a **mismanaged freight book** and **narrower arbitrage** being the primary drivers. We run through the details below (Page 2), but here **are our primary takeaways:**

- 1) While this fits a broader "tight/closed arbs will lead to USG LNG shut-ins" narrative, this has as much to do with **freight mismanagement** (at the customer level) as softer LNG prices.
- 2) It highlights the amplified importance of *freight* within the LNG value chain. As we stand today, freight costs equate to **~40%** of LNG cargo value.
- 3) To be clear – we believe **Sempra LNG (SRE)** got paid – we're not viewing this as an indictment of the exporter model or the start of a hyper-bearish trend – but we do think it's a warning shot that shows how delicate the economic balance can be for some merchant and committed volumes alike.

Meanwhile Cheniere Is Playing Chess, Not Checkers. At roughly the same time as hyper-expensive LNG Carrier rates (Page 3) helped drive the first LNG cargo failure *elsewhere* in the USG, we think **Cheniere** could actually start *turning a profit* on its freight book.

Cheniere (LNG) currently controls ~25 vessels (intuitively getting long freight into peak season, rather than getting cute) – and according to our industry contacts started actively looking to **charter-out** 6 of those vessels this week – i.e. taking excess swing capacity they secured at/near mid-cycle levels and sub-letting them to other players at rates potentially 80% higher. While there are *several* assumptions and mitigating factors that could come into play here, for scale: that spread (\$135k vs \$75k) on 6 vessels could (theoretically) be worth **~\$32MM/quarter** for **Cheniere**. For context, there's a \$300MM spread between the high and low-ends of **Cheniere's** 2020 EBITDA guidance (\$4.2B-\$3.9B), so while it wouldn't be a game changer, *finding an extra +10% of that spread per quarter from astutely trading its freight book* could create a meaningful cushion. While we'd stop short of modeling that in (it would likely get blended into CMI margins that are already relatively firm) – it's yet another data point confirming **Cheniere's** best-of-breed status.

November 6, 2019

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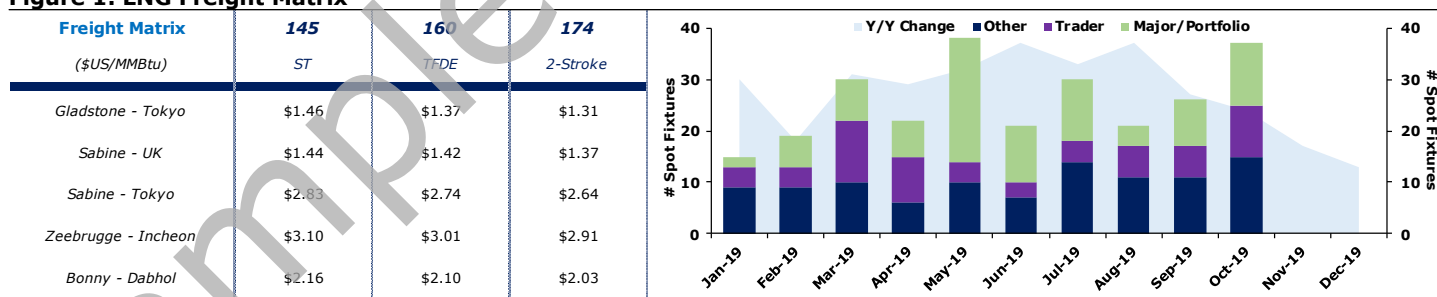
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Background On Failed Cameron Cargo: Our understanding is the mid-November Cameron T-1 cargo was controlled by **Pavilion Energy**, who acquired it from original off-taker, Mitsui (who also owns 16.6% of Cameron), and we'd assume there were back-to-back take-or-pay clauses (or some other netting feature). In that scenario **Pavilion** books the loss, and **Sempra LNG** gets paid by way of **Mitsui**. Effectively, it looks like Pavilion tried to get cute with their freight book – turning down 3-4 vessels looking for a better deal when the market was at ~\$75k/day (~\$1.50/MMBtu), and got caught offside as the LNG freight market has quickly tightened by ~80%, moving to ~\$135k/day (+\$2.50/MMBtu). Given that tepid LNG prices (JKM: \$6.22/MMBtu) were already squeezing the USG export arb, the ramp in freight costs (**~40% of the cargo value – Figure 2**) made the math impossible.

Among the players we've spoken with in the physical market, the episode has been framed as "sloppy freight cover" and "getting too cute while the market is ripping" – and most are clear they don't expect a rash of shut-in capacity (yet – which is a caveat most included). Rather, it seems like a one-off, but also a **warning shot for the market**, that with narrow arbitrage (and in a lower-for-longer scenario), freight management matters, especially given a lack of seasonally available tonnage.

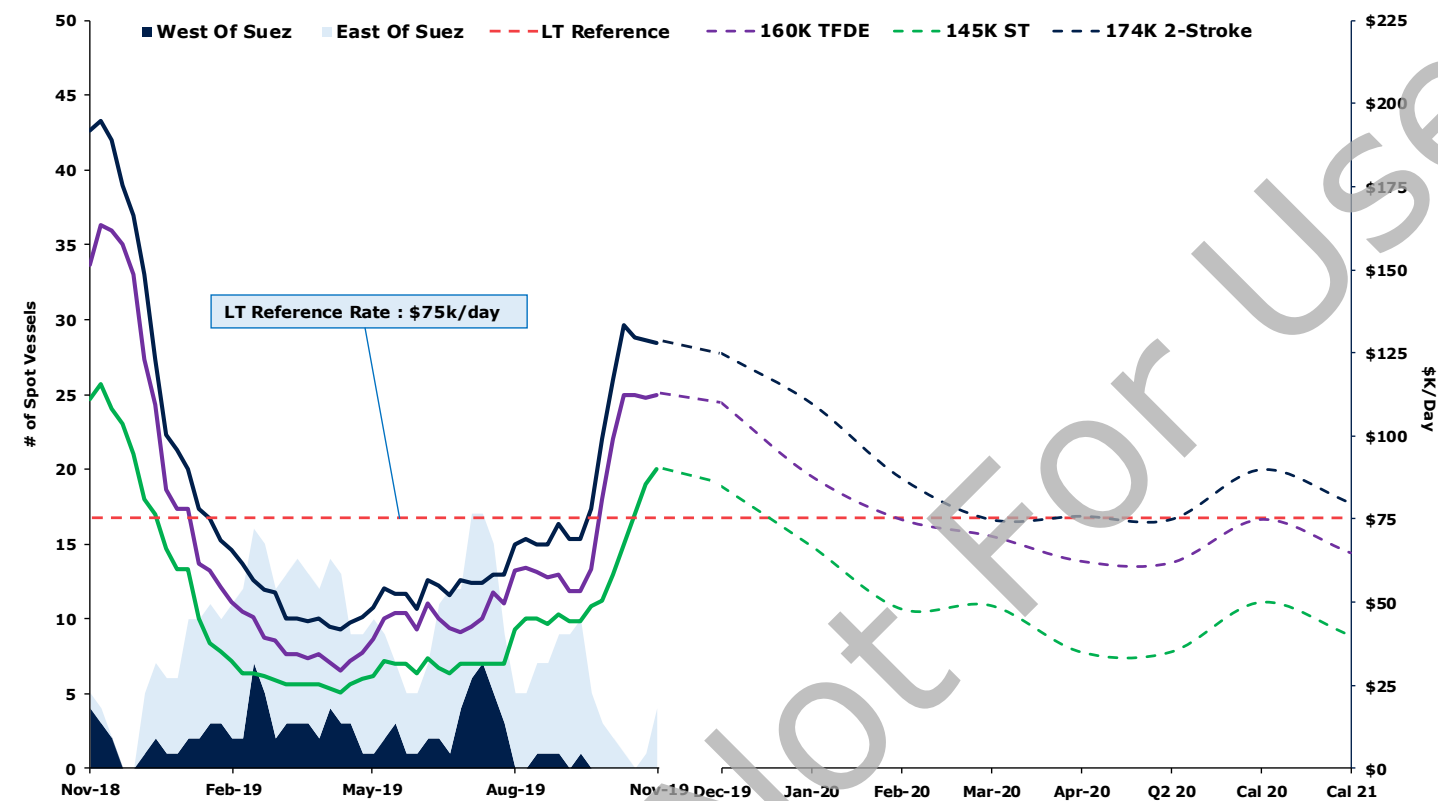
Do We think This Is The Tip Of A Shut-In Iceberg? *Probably* not – but with spot freight rates sitting at ~\$130k/day (~\$2.50/mmbtu), and a lack of available tonnage given elevated floating inventories in both the Atlantic basin and Asia (at least ~17 vessels – Figure 3), it's not unreasonable to think we couldn't see it happen again. While the idea of *lower-for-longer* LNG prices and revenue compression are typically the focal points of caution around the global build-out of LNG capacity, this highlights the impact that a lack of *available* and *economically viable* LNG Carrier capacity could accelerate margin compression for merchant LNG volumes, and impact contracted volumes/production as well.

Figure 1. LNG Freight Matrix



Sources: Webber Research & Advisory, LLC estimates, Affinity LNG

Figure 2. LNG Carrier Rates & Forward Curve



Note: Assumes a 145 cbm ST, 0.15% boil-off, a 160 cbm TFDE, 0.10% boil-off, and a 2-Stroke, 0.085% boil-off

Sources: Webber Research & Advisory, LLC estimates, Affinity LNG

Figure 3. Current LNG Floating Storage

Vessel	Position	Charterer	Load Port	Load date	Volume (cbm)	Stopped/Slow Since:	Days Idle	Likely Destination	Likely Discharge Date
Al Ghuwairiya	Qatar	Qatargas	Ras Laffan	9/20/2019	216,000	10/24/2019	12	Dalian?	Mid Nov?
BW Everett	Malta	Total	Idku	10/15/2019	138,000	10/19/2019	17	Dunkirk	Dec
BW Pavilion Aranda	Toscana	Gunvor	Bethioua	10/15/2019	174,000	10/21/2019	15	Toscana	Mid Nov?
Catalunya Spirit	Trinidad	Naturgy	Trinidad	10/31/2019	138,000	11/1/2019	4	Dom Rep?	Mid Nov?
Diamond Gas Sakura	South China Sea	DGI	Cameron	9/15/2019	165,000	10/31/2019	5	Yung An	Mid Nov?
Duhail	Qatar	Qatargas	Ras Laffan	10/16/2019	210,100	10/17/2019	19	Dahej	Mid Nov?
Fraiha	Qatar	Qatargas	Ras Laffan	10/6/2019	206,949	10/7/2019	29	Dahej	Mid Nov?
Golar Arctic	Spain	Uniper	Gate	8/29/2019	138,500	8/29/2019	68	Isle of Grain	18-Nov
Hoegh Gallant	Gulf of Oman	Gunvor	Montoir	10/7/2019	170,000	10/29/2019	7	Kuwait?	Mid Nov?
Hoegh Giant	Gibraltar	Naturgy	Sabine Pass	9/17/2019	170,000	9/30/2019	36	Spain?	Mid Nov?
Iberica Knutsen	Caribbean	Naturgy	Sabine Pass	10/14/2019	138,000	10/22/2019	14	Dom Rep	8-Nov
LNG Sakura	Morocco	Kansai	Cove Point	9/11/2019	177,000	9/24/2019	42	Sagunto?	Mid Nov?
Maran Gas Hector	Gibraltar	Shell	Sabine Pass	9/21/2019	171,390	10/9/2019	27	Fos?	Mid Nov?
Marshal Vasilevskiy	NW Europe	OMV	Gate	8/15/2019	154,389	8/18/2019	79	Gate	2H Nov?
Marvel Crane	Bay of Biscay	Mitsui	Sabine Pass	9/26/2019	177,000	10/11/2019	25	Bilbao	Mid Nov?
Nohshu Maru	Gibraltar	JERAGM	Dunkerque	9/30/2019	177,330	10/5/2019	31	NW Europe?	Mid Nov?
Wilforce	Taiwan	Vitol	Bintulu	10/12/2019	155,900	10/22/2019	14	Fujian	11-Nov
Total Vessel Count							17		
Total Capacity (cbm)									2,877,558

Sources: Webber Research & Advisory, LLC estimates, Affinity LNG

Figure 4. Cheniere's Approximate Freight Book (Webber R|A Estimate)

Number	Name	Propulsion	Age (Years)	Capacity (cbm)	Containment
1	FUJI LNG	Steam	16	147,895	Moss
2	CADIZ KNUITSEN	Steam	15	138,000	NO96
3	LNG BORNO	Steam	12	150,053	Mk III
4	MARIB SPIRIT	DFDE	12	165,682	Mk III
5	ARWA SPIRIT	DFDE	11	165,647	Mk III
6	GASLOG SYDNEY	TFDE	7	155,000	Mk III
7	GOLAR CELSIUS	TFDE	6	160,607	Mk III
8	GOLAR SEAL	TFDE	6	160,548	Mk III
9	MARAN GAS APOLLONIA	TFDE	6	161,870	Mk III
10	GOLAR PENGUIN	TFDE	5	160,510	Mk III
11	GOLAR FROST	TFDE	5	160,510	Mk III
12	YARI LNG	TFDE	5	159,983	NO96
13	COOL EXPLORER	TFDE	5	160,534	Mk III
14	MARAN GAS MYSTRAS	TFDE	4	160,102	NO96
15	MARAN GAS ALEXANDRIA	TFDE	4	161,870	Mk III
16	ENERGY ATLANTIC	TFDE	4	159,924	NO96
17	CLEAN VISION	TFDE	4	162,158	Mk III
18	OAK SPIRIT	MEGI	3	169,540	NO96
19	MARIA ENERGY	TFDE	3	174,044	Mk III
20	MARVEL FALCON	XDF	2	175,120	Mk III
21	LNG SCHNEEWEISSCHEN	XDF	1	180,126	NO96
22	MARVEL EAGLE	TFDE	1	156,855	Moss
23	MARVEL HAWK	TFDE	1	174,499	Mk III

Source: Webber Research & Advisory, LLC estimates, Industry contacts

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