



27th WORLD GAS
CONFERENCE

WASHINGTON DC

JUNE 25-29 2018



The International Gas Union

2017 Perspectives on the World LNG Industry

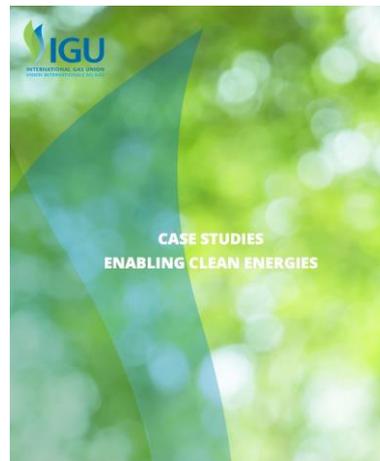
Elias Cortina – Chevron Gas Market Advisor

October 3, 2017

IGU Gas Outreach



Case studies in Improving Urban Air Quality
2015 & 2016 Editions



Case studies Enabling Clean
Energies



Gas for Growth
Improving Economic Prosperity
and Living Standards

IGU LNG Committee

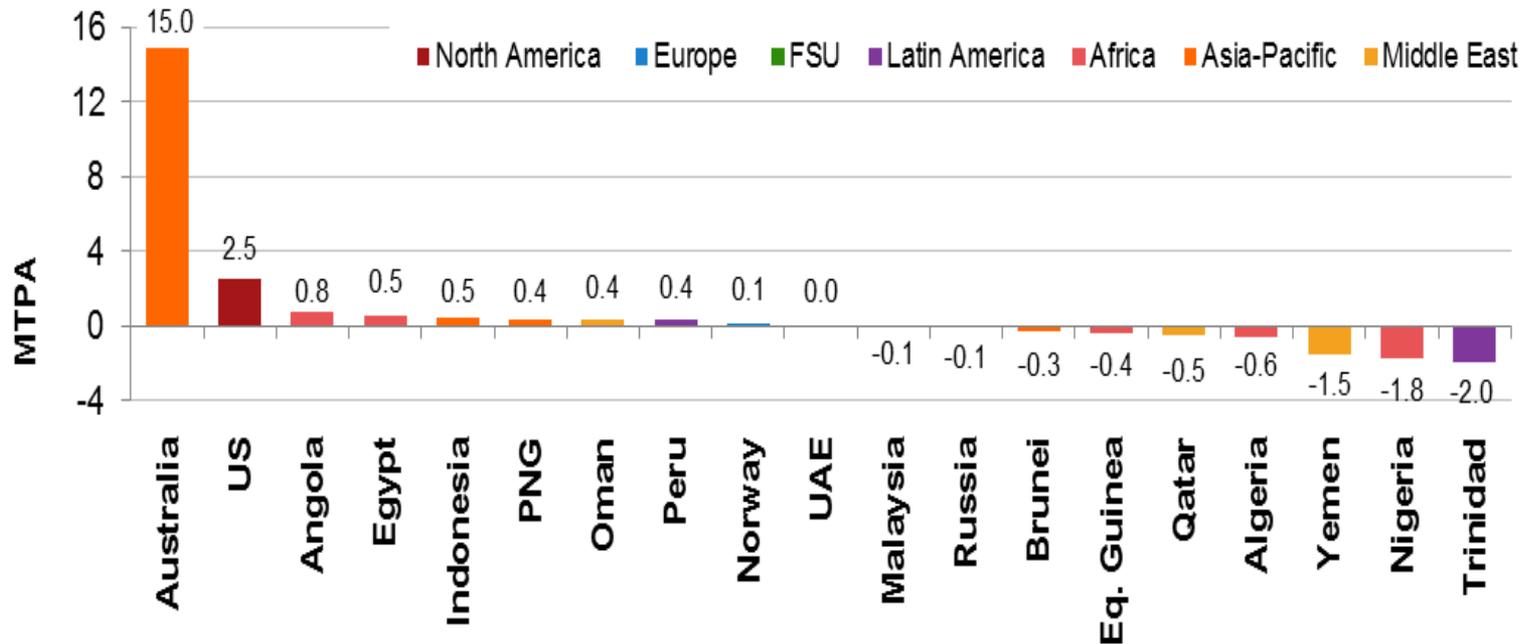
- Working on a Triennial Project Cycle Leading Up to the World Gas Conference
- Current Projects:
 - World LNG Report (Task Force 1)
 - Floating LNG (Study Group 1)
 - LNG Market Liquidity (Study Group 2)
 - Flexible LNG Facilities (Study Group 3)

2017 World LNG Report

- LNG Trade
- Liquefaction Plants
- LNG Ships
- LNG Receiving Terminals
- Look Ahead



Supply Reaches 258 MT



- Growth led by Australian new projects – Gorgon; AP LNG; QC LNG; Gladstone LNG
- US ramp-up has begun with Sabine Pass T1/T2
- Supply restrictions at Trinidad and disruptions in Yemen and Nigeria

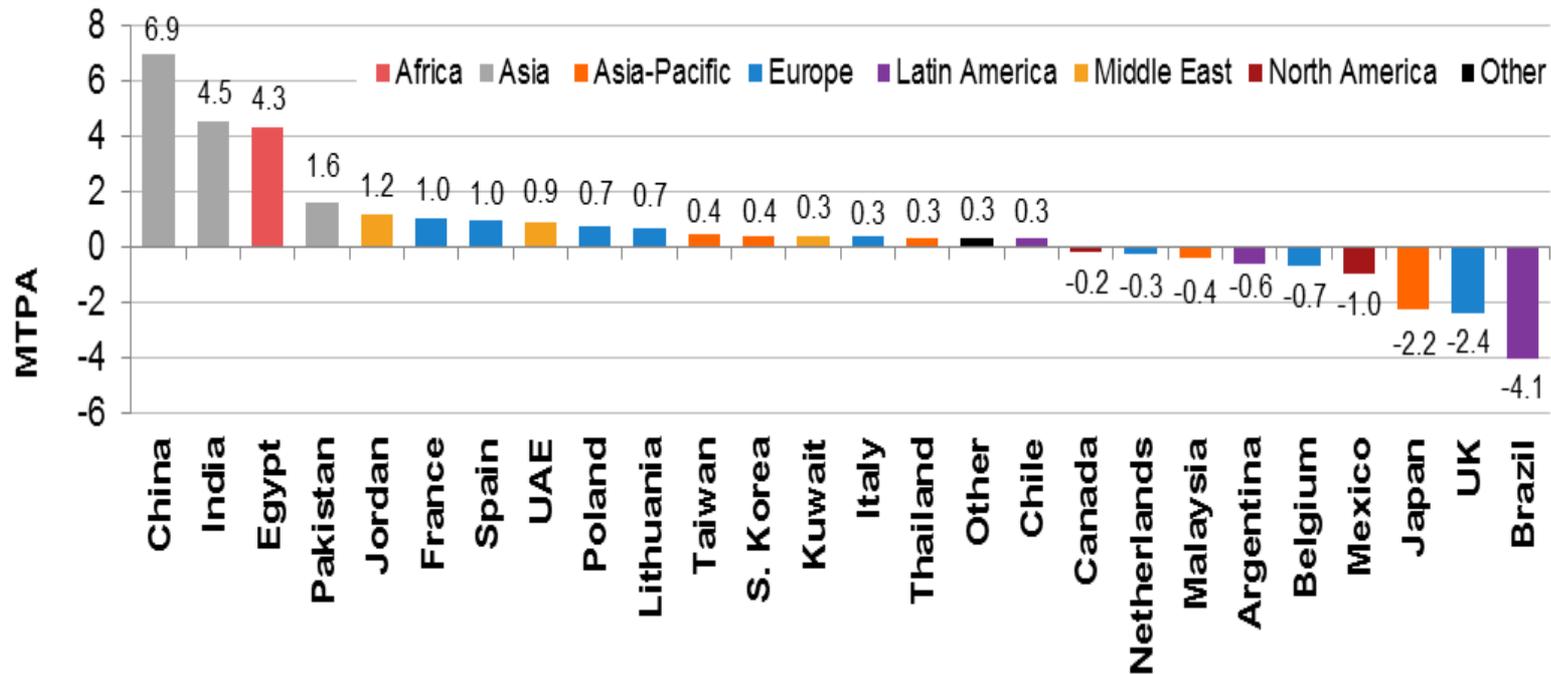
Source: IHS, IGU

Gorgon LNG



Gorgon LNG – Courtesy Chevron

Demand Reaches 258 MT



- Growth led by China, India, Egypt
- Brazil had largest decrease due to good hydro year
- UK shed volumes to higher priced Asian markets, although Japan also declined

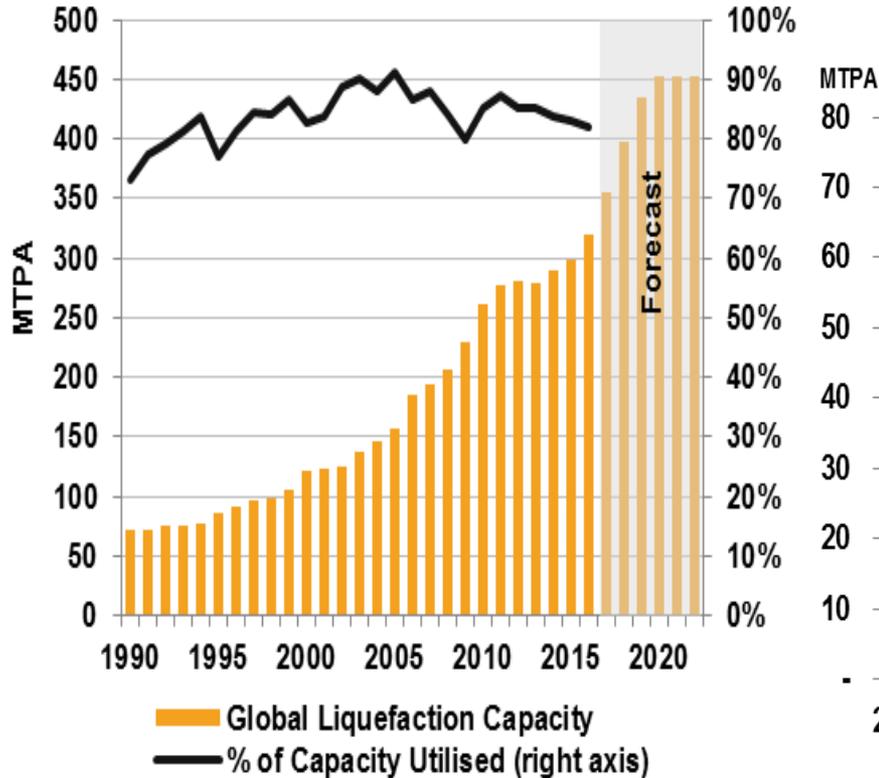
Source: IHS, IGU

Largest New Terminal in 2016



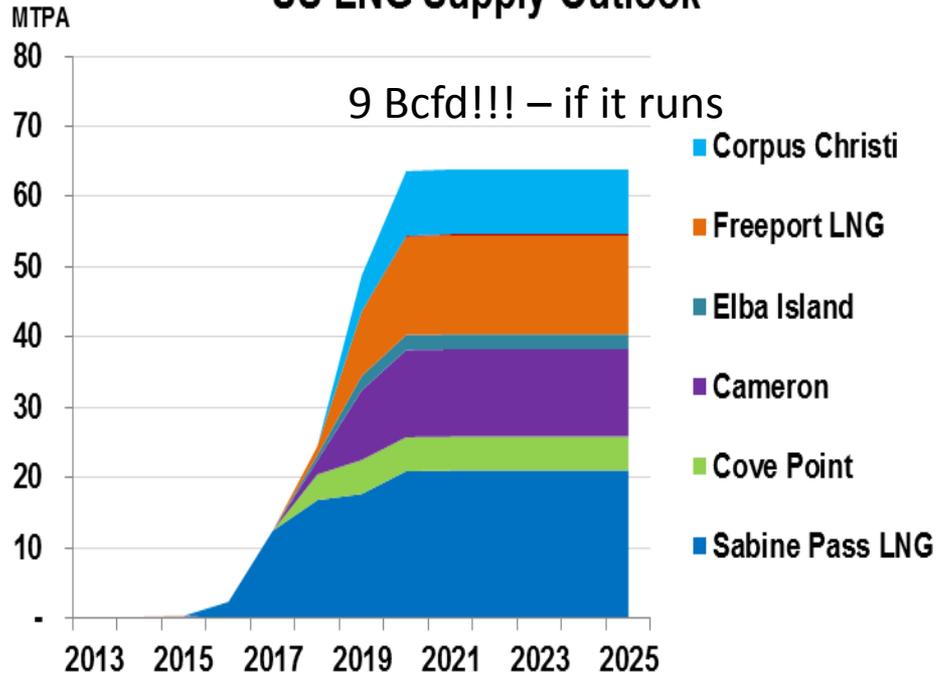
Dunkirk LNG Terminal First Delivery – Courtesy TOTAL

Liquefaction



Source: IHS, Company Announcements

US LNG Supply Outlook



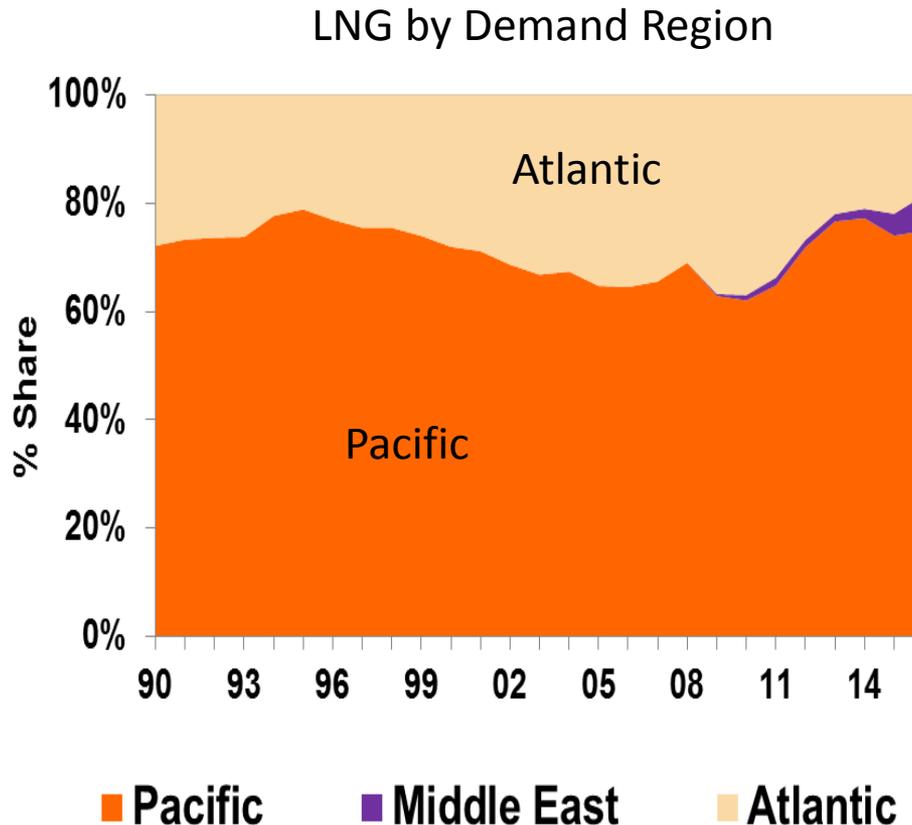
Source: Company announcements

Sabine Pass LNG



Sabine Pass LNG – Courtesy Cheniere Energy

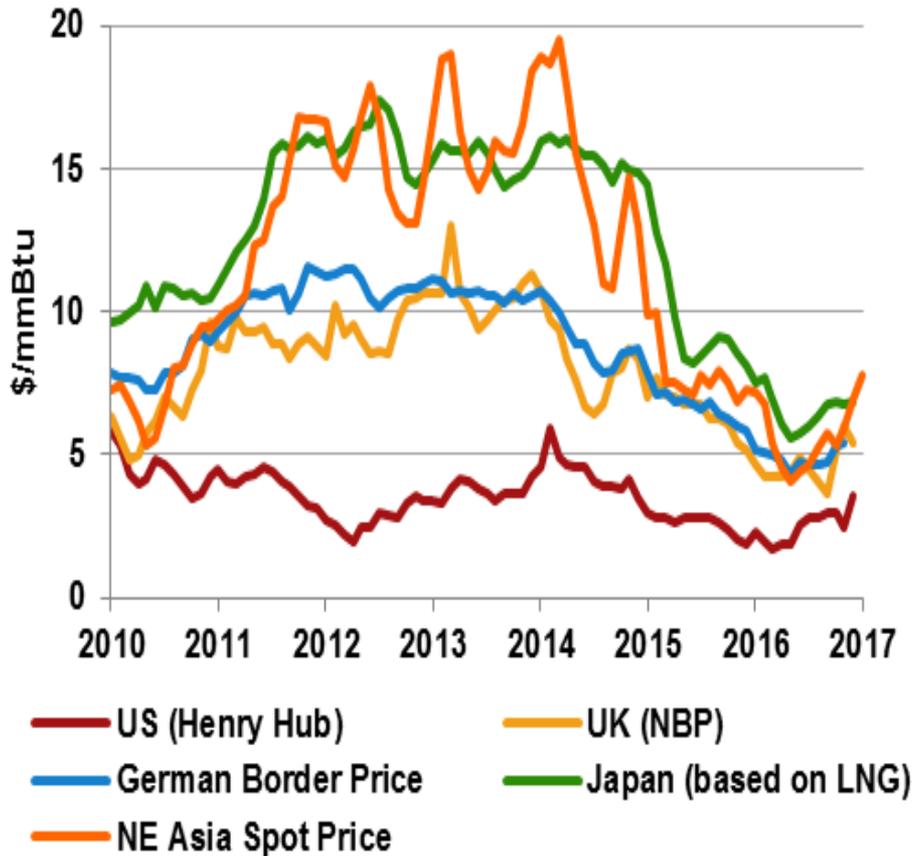
Where does the LNG go?



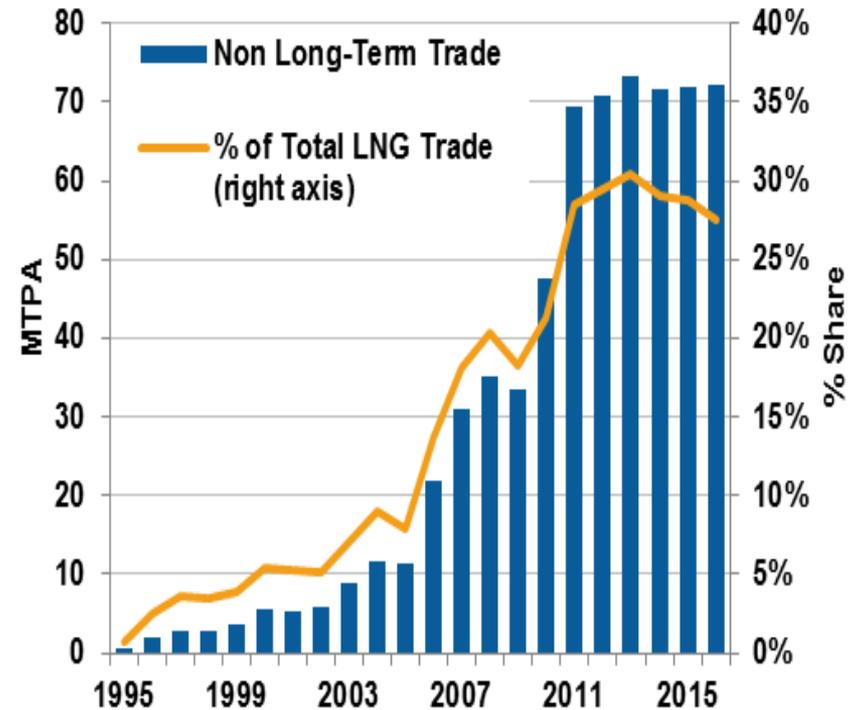
Source: IHS, IGU

- Trade continues with preference for basin of production
 - Low arbitrage between basins
 - Reduces shipping costs
- Pacific basin share increase this decade
 - Strong demand
 - New projects
 - U.S. gas from shale (reducing Americas LNG demand)
- Middle East growing as a market

Price and Non Long-term Trade

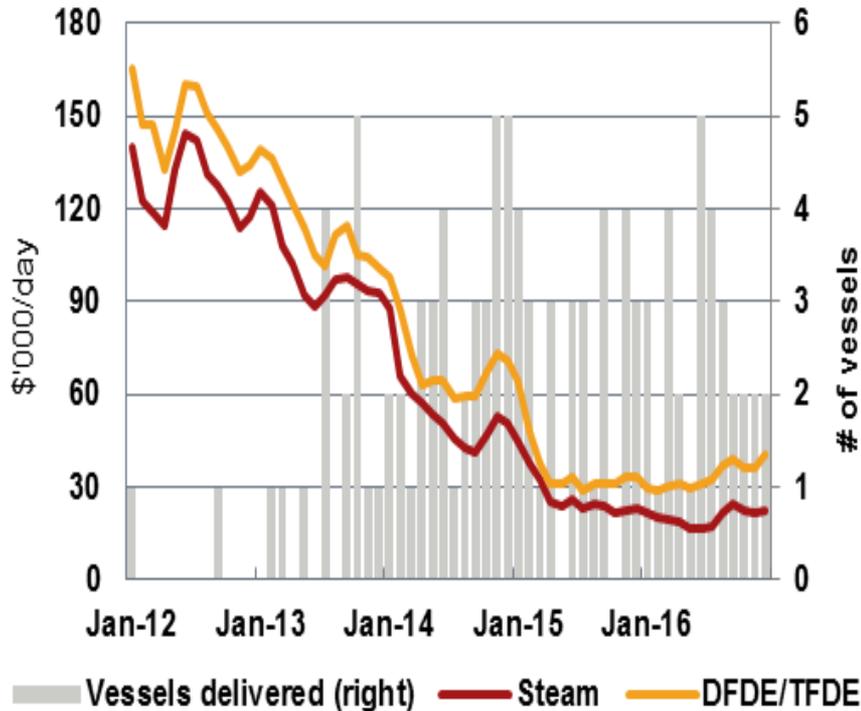


Source: IHS, Cedigaz, US DOE



Source: IHS, IGU

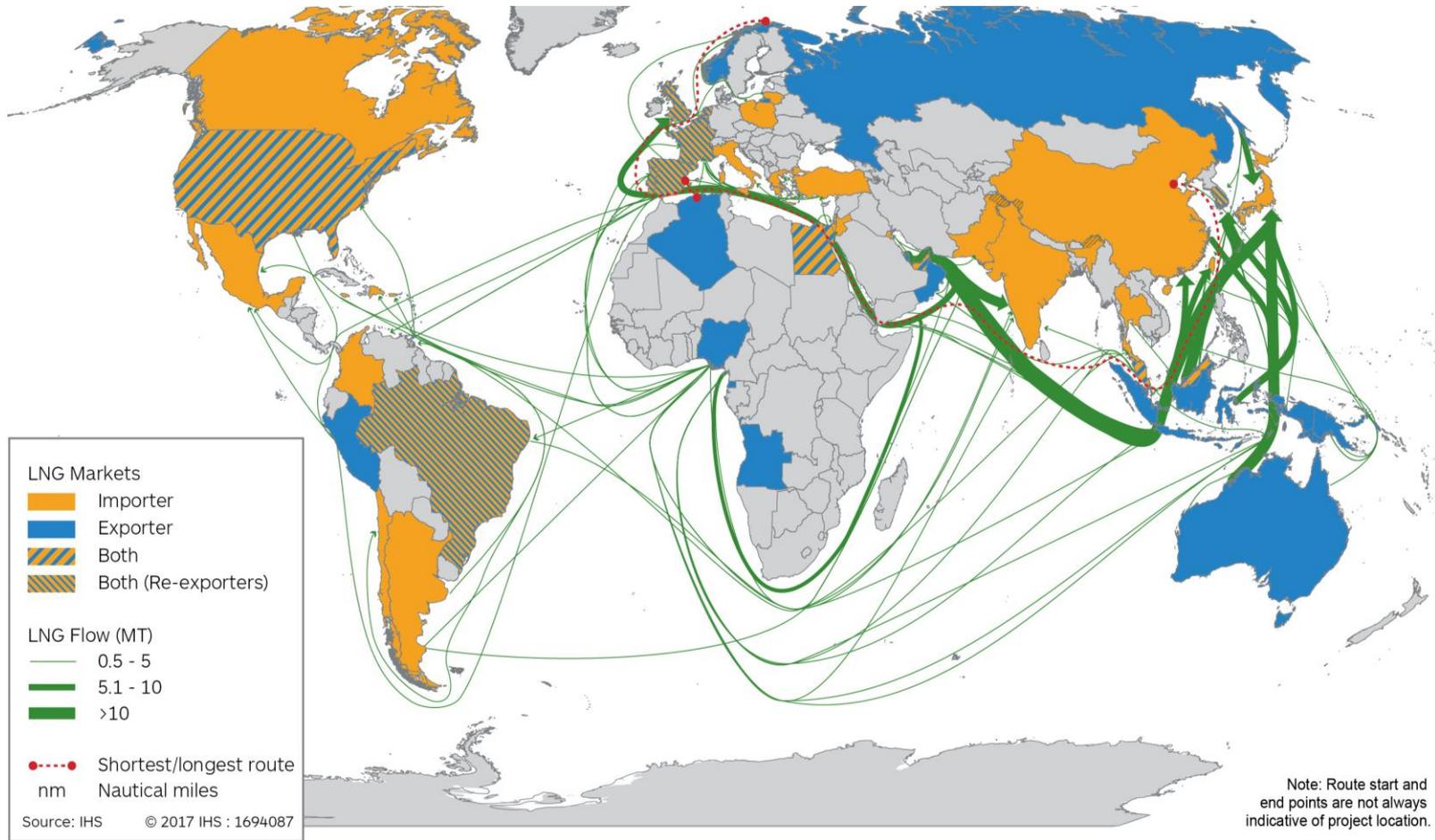
Shipping



Source: IHS Markit

- Fleet size is 439, with 29 new-build additions last year
- 55 new tankers expected in 2017
- Order book grew by 6, to reach 121 new tankers by 2022
- Charter rates averaged of \$34k/day, a 10% increase
- 2 FSRU's added to fleet of 23
- First voyage via Panama Canal

Shipping Routes



Source: IGU, IHS Markit

Note: Route start and end points are not always indicative of project location.

LNG – Panama Canal Crossing



Kita LNG Carrier - Courtesy of Cardiff TMS

First Icebreaker Tanker



YAMAL LNG CARRIER "Christophe de Margerie" - Courtesy SCF-GROUP



First LNG Bunkering Vessel



ENGIE/NYK/MC “ENGIE ZEEBRUGGE” - Courtesy of ENGIE, Mitsubishi Corporation and NYK

World LNG Report Task Force

- Chevron, USA – Lead Sponsor
- American Gas Association (AGA), USA – co-Lead
- Enagas, Spain – Printing Sponsor
- TOTAL, France
- Osaka Gas, Japan
- Toho Gas, Japan
- Anadarko, USA
- Bureau Veritas, France
- GIIGNL, France
- Consultant – IHS Markit



Asla Excellence. Photo courtesy Chevron.

Join us at WGC 2018!



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2018



500

SPEAKERS



12,000+

ATTENDEES



600

ORGANIZATIONS



100

COUNTRIES



40,000m²

EXHIBITION

HOST ASSOCIATION



PROUDLY SUPPORTED BY



HOST PARTNERS



ExxonMobil