



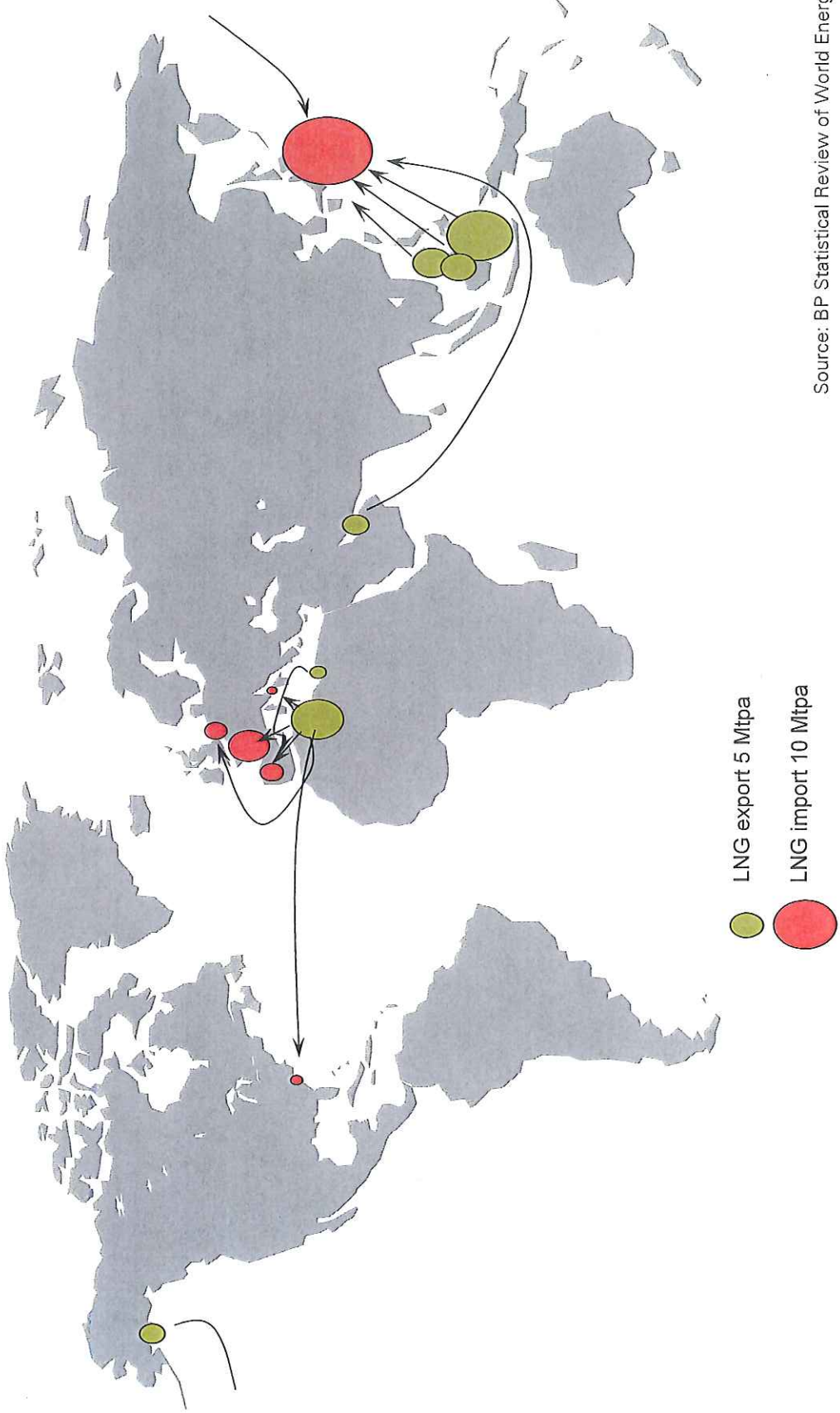
# Global LNG Markets: Implications for Alaska

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# Alaska was a pioneer of the modern LNG industry: LNG trade flows in 1970

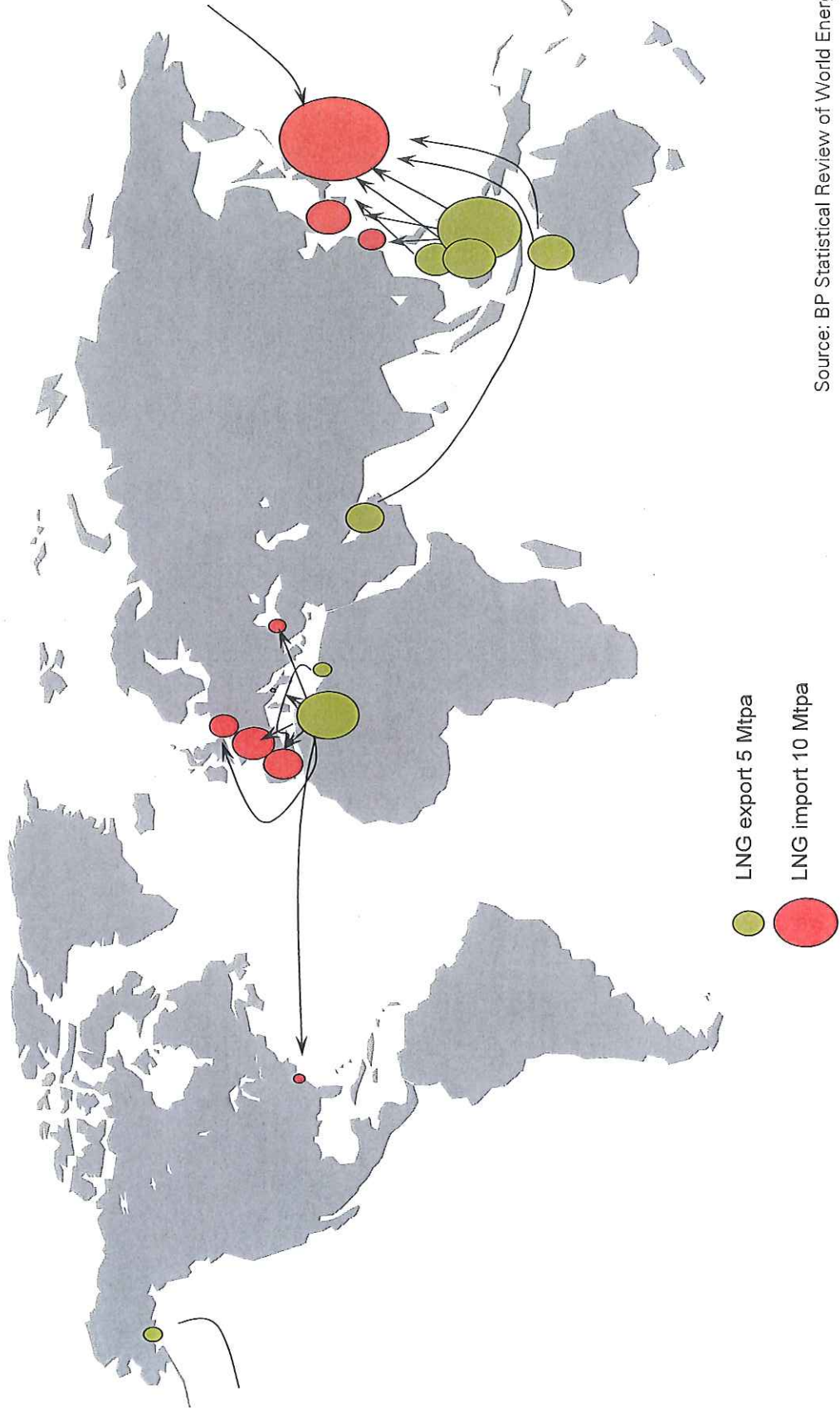


# South East Asia to Japan and Algeria to Europe trades dominating global scene by mid 1980s



Source: BP Statistical Review of World Energy

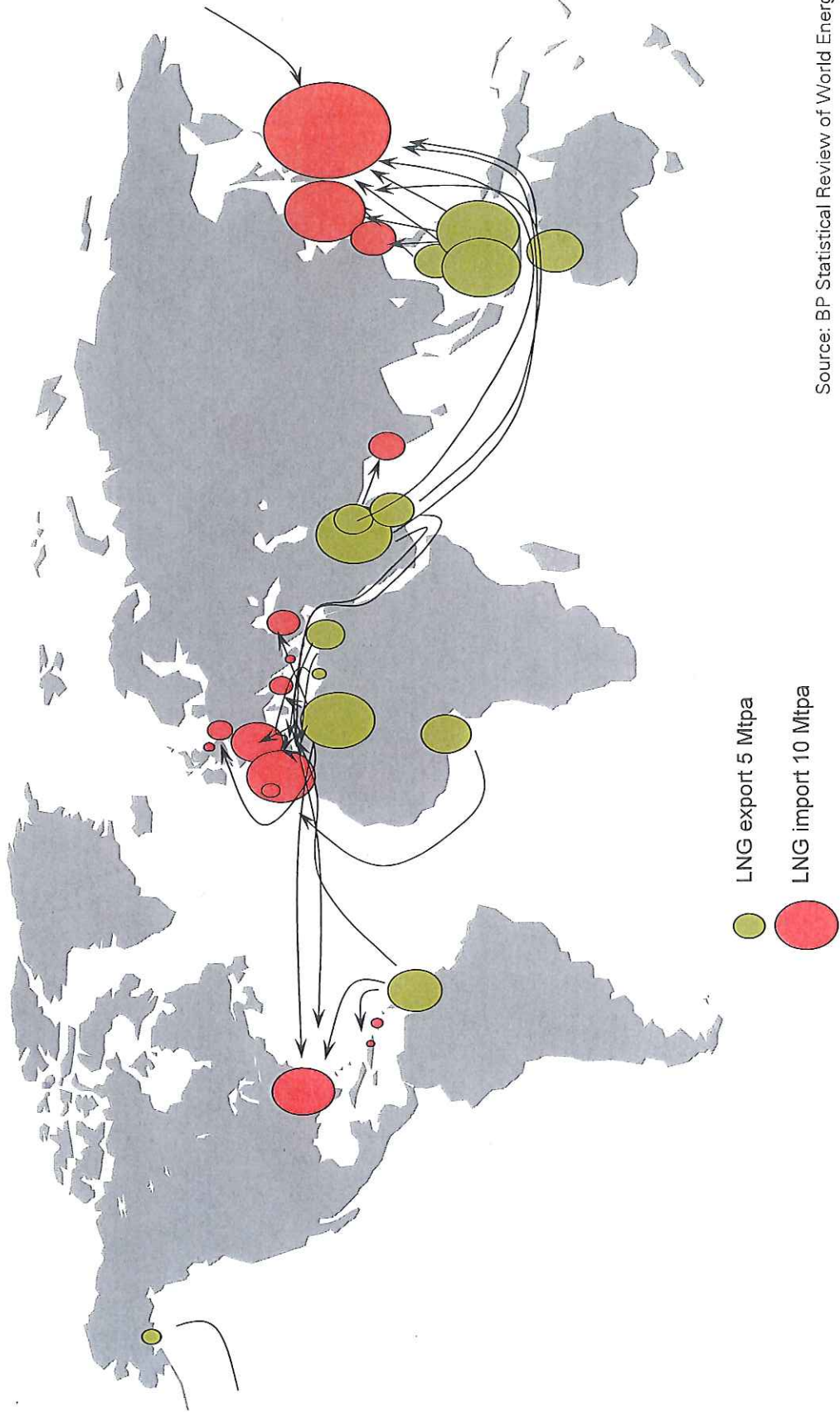
# Little change in the nature of global LNG trade by mid 1990s but still scaling up



Source: BP Statistical Review of World Energy



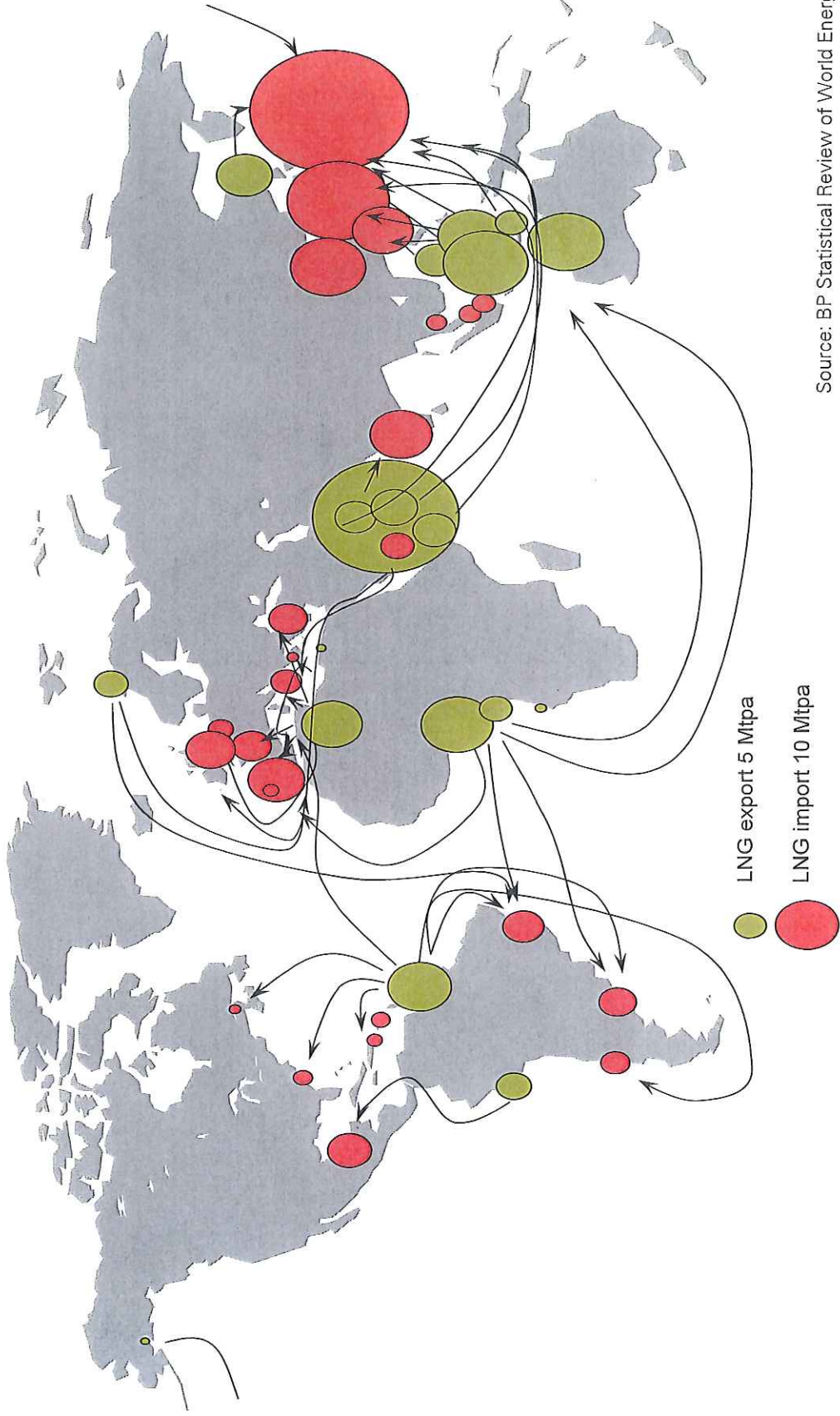
# By 2005, broader Atlantic Basin market evolving and Mid East suppliers beginning to play balancing role



Source: BP Statistical Review of World Energy

# LNG has now evolved into a global business

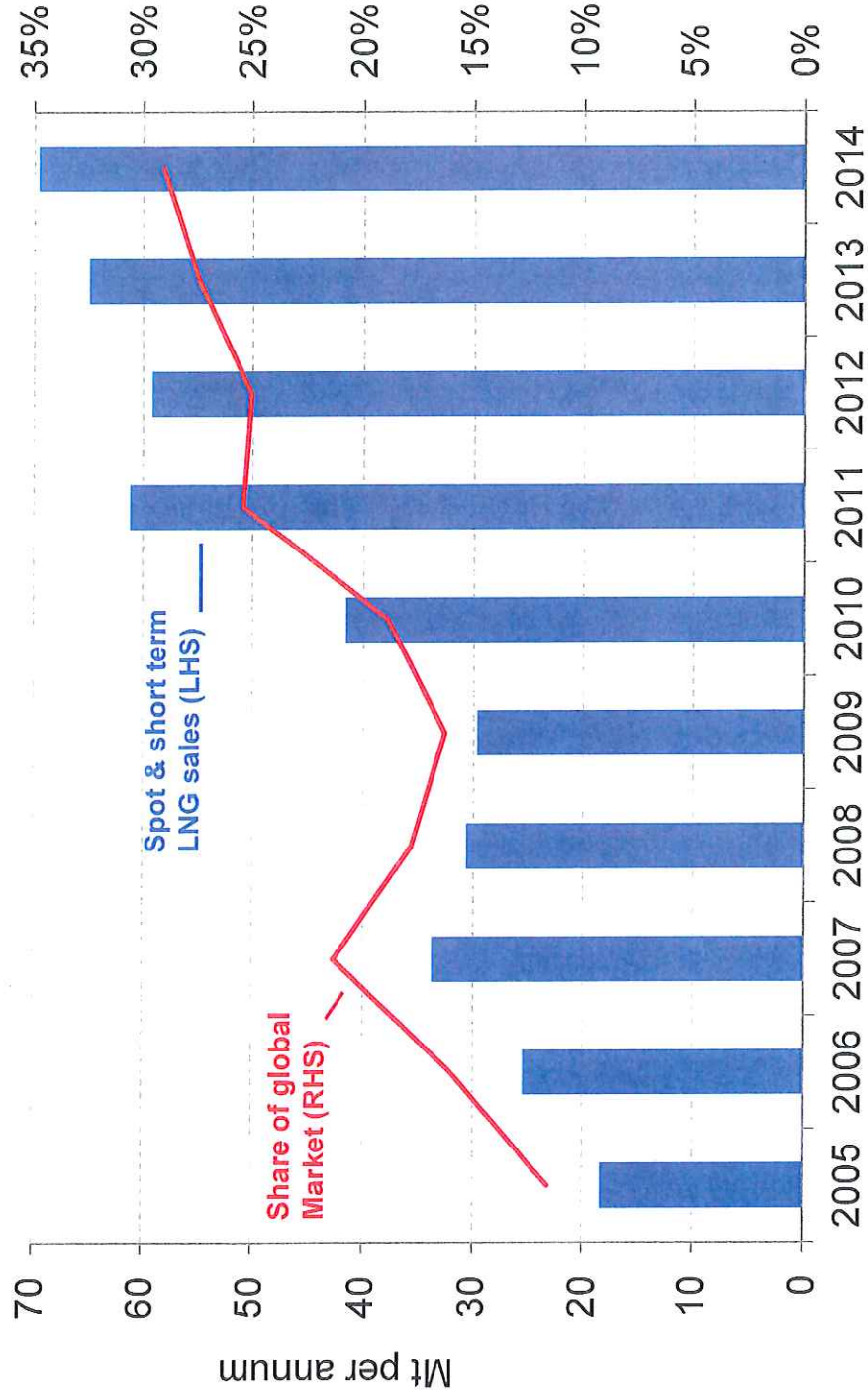
## LNG trade flows in 2014



Source: BP Statistical Review of World Energy



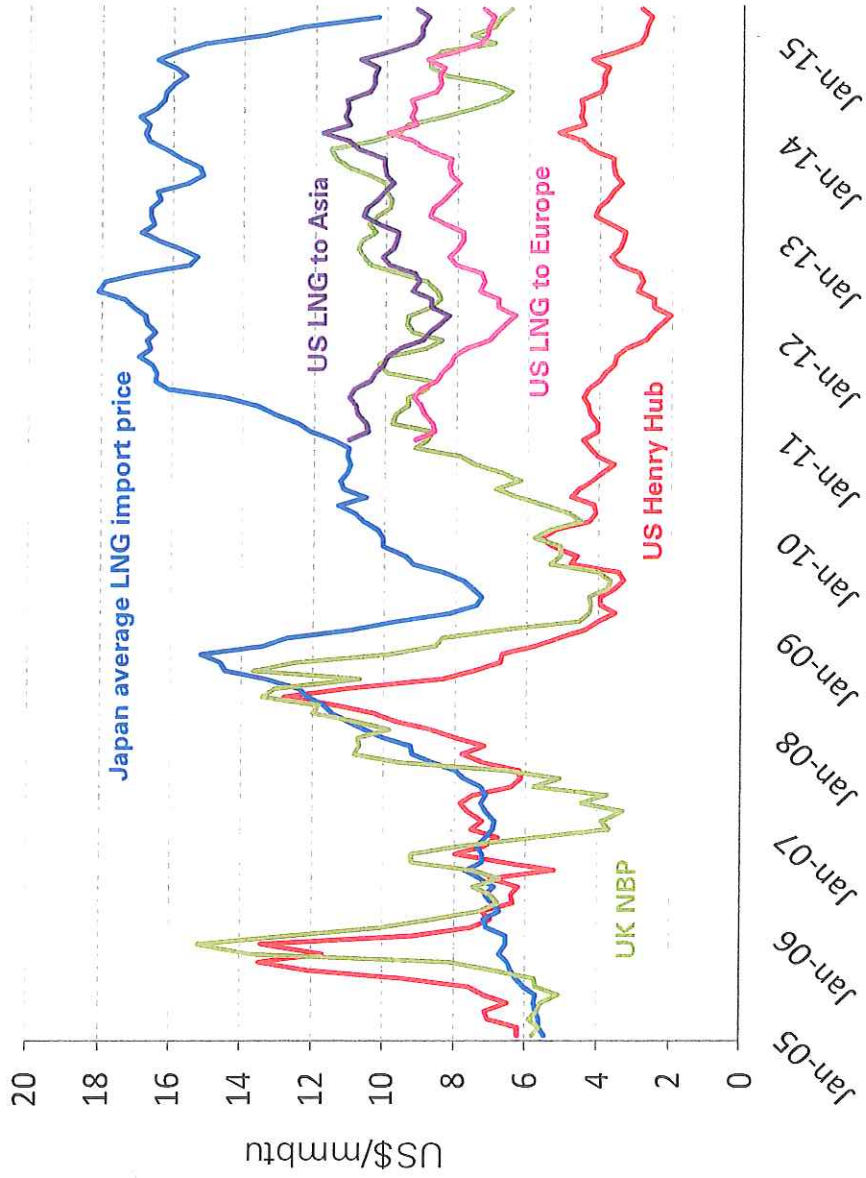
# Spot & short term LNG sales\* now account for almost 30% of the market



\* Spot sales and sales under contracts < 4 years in length

Source: GIIGNL

# Wide Pacific-Atlantic price differential has driven growth in shorter term arrangements

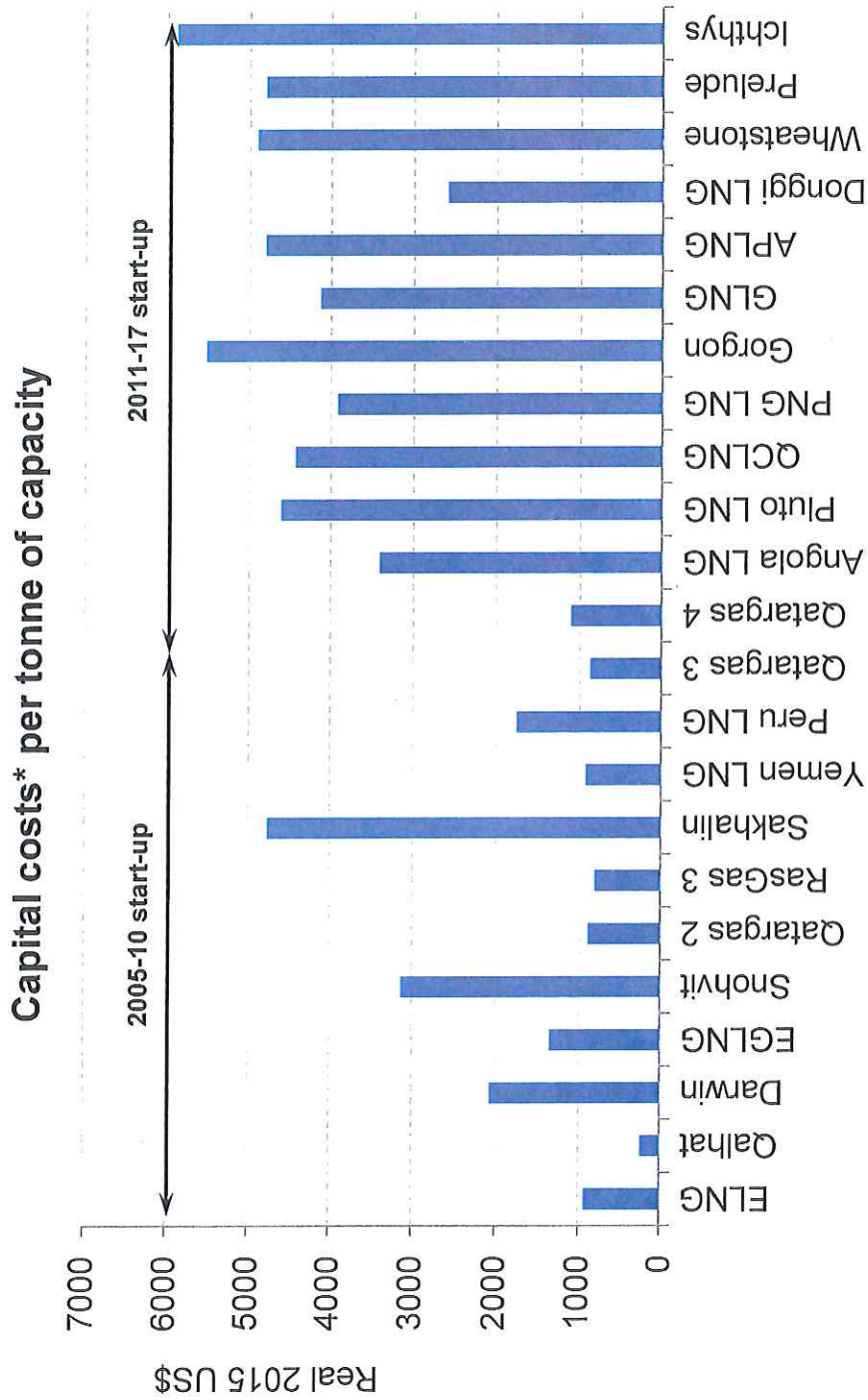


Source: ICE, NYMEX, BP analysis





# Cost inflation has had an adverse impact on economics for the latest wave of projects



Full chain capex (2035 cut-off) converted to real 2015\$ and discounted to year of start up at 10% discount rate

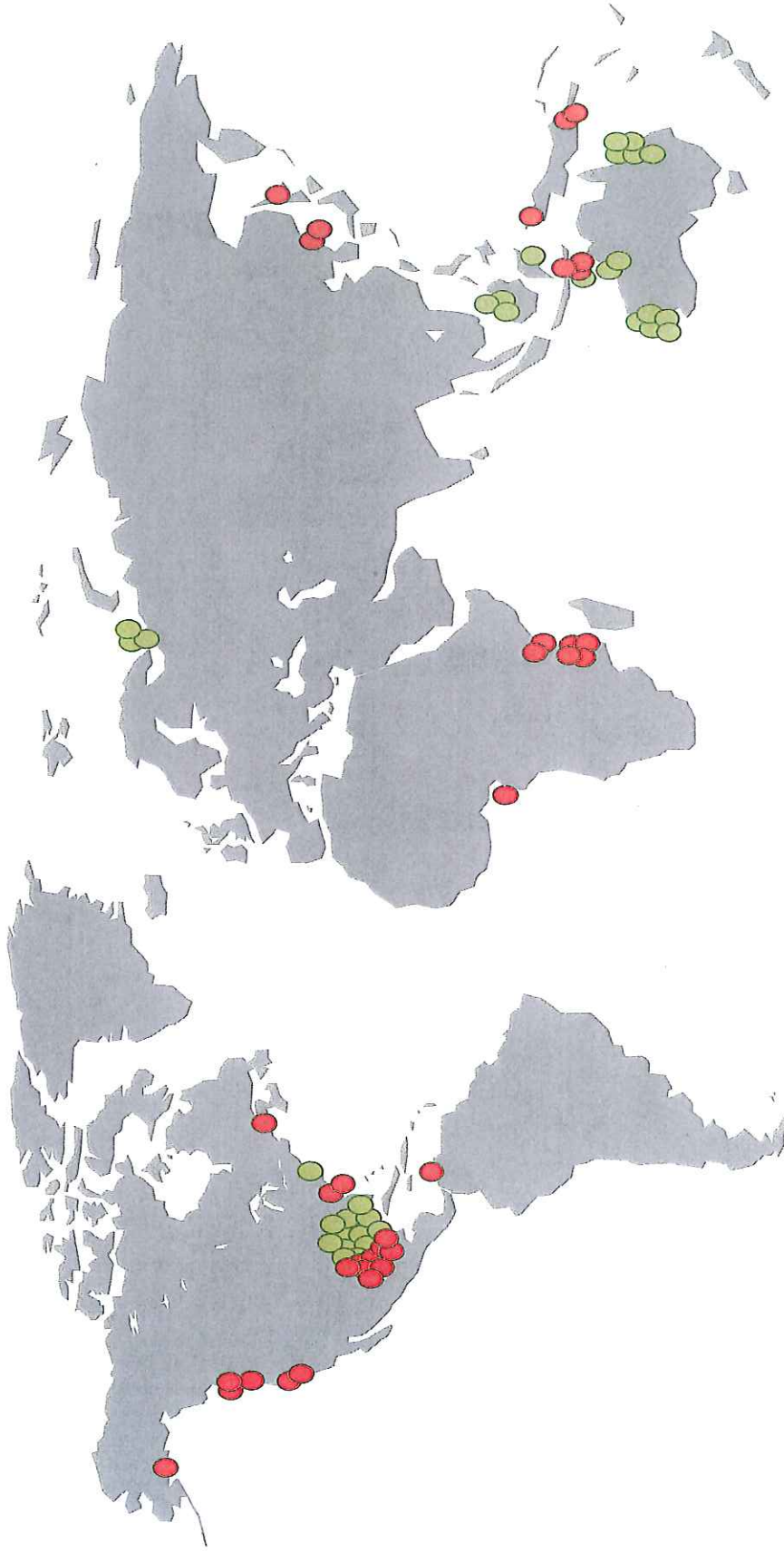
Source: Wood Mackenzie, BP analysis

33 LNG trains under construction will add 143 Mtpa capacity by the end of 2018, increasing global production by ~50%



Source: project announcements

# A similar volume of prospective capacity is attempting to move Final Investment Decision



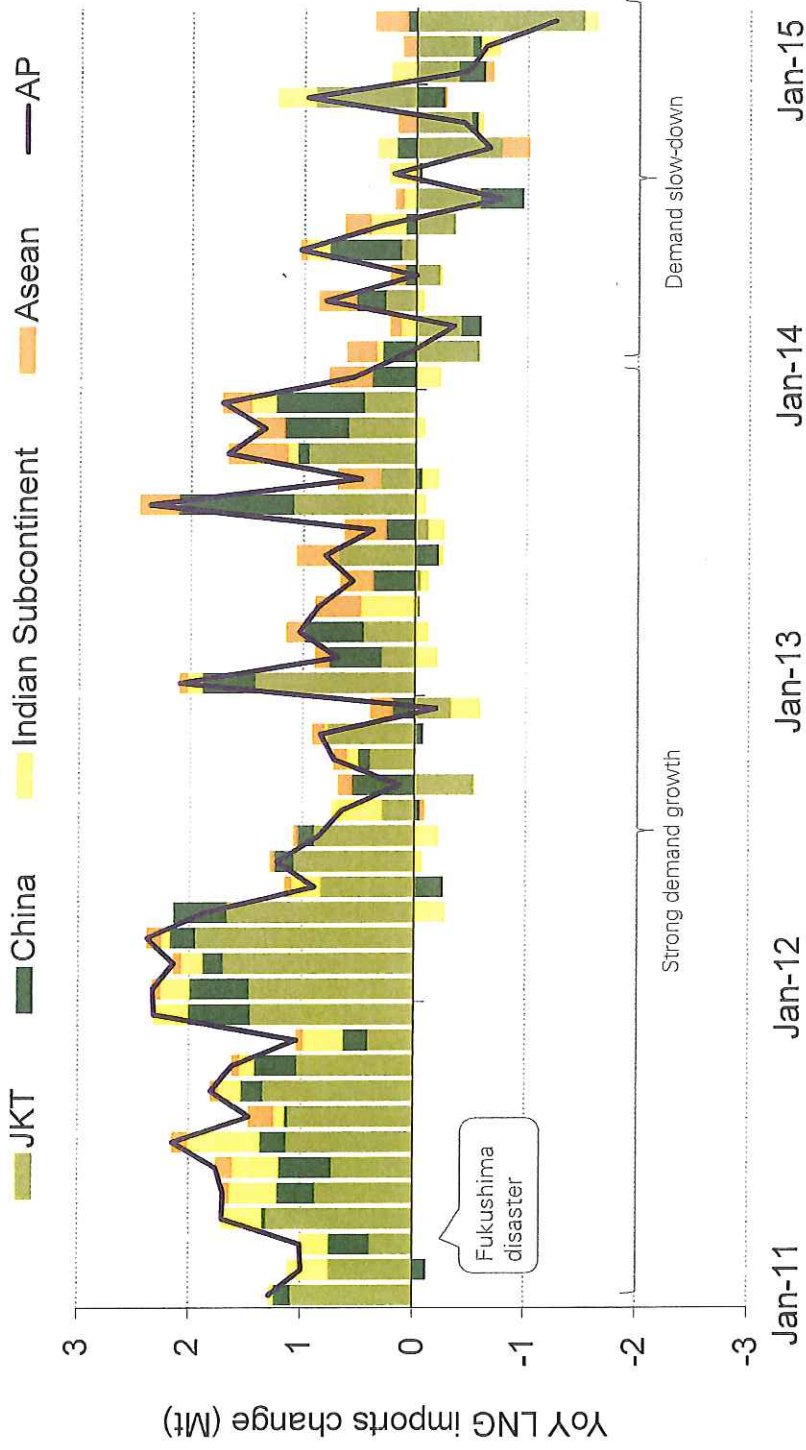
● Under construction

● Prospective (not exhaustive)

Source: project announcements



# Considerable demand uncertainty in key Asian LNG markets



NB: LNG demand is net of reloads

Source: BP analysis



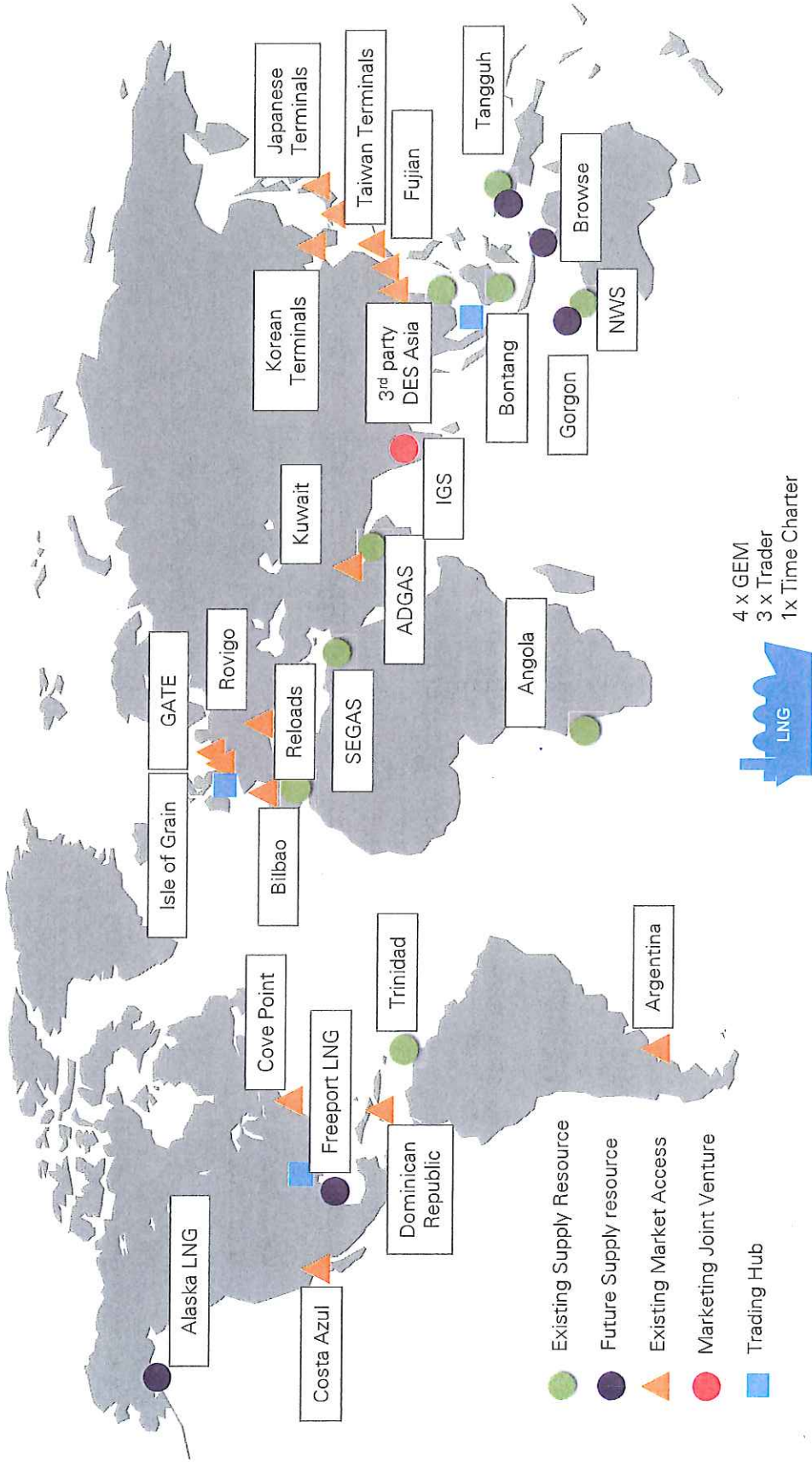
## Likely that market will favor LNG buyers over at least the early portion of Alaska LNG development cycle

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- Spot LNG prices have weakened on lower oil prices and weak Asian demand
  - Short and medium term prices have a disproportionate impact on LT market sentiment
- New supply under construction will take market long through late this decade
- Buyers have multiple options for next generation of new supply
- US export model and emergence of merchant producers offers buyers greater flexibility in terms of price, tenor, destination, shipping, etc.
- However, lower prices and floating re-gas technology are underpinning the emergence of new markets, e.g. Baltics, Egypt, Jordan, Pakistan, Indonesia, Malaysia
  - Asian growth outside of Japan, Korea, Taiwan still expected to be strong
- Industry costs are already falling and this will flow through to LNG
- Successful projects will need to be cost competitive and flexible



# A global LNG portfolio leaves BP well placed to meet buyers' growing demand for flexibility



Source: BP Internal



## The Alaska LNG Story

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- Alaska LNG does have inherent advantages that can make it distinctive in a very competitive market
  - Political & geographic diversity for Buyers plus strong Asia relationships
  - Clear and consistent State of Alaska support
  - Population and GDP to resource equation makes sense (Alaska is not Egypt or Indonesia)
  - Asia markets relatively close
  - Project sponsors very strong and credible
  - Known, producing resource base which should be cost competitive

## Alaska LNG – Keys to Success

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- Address weak market demand fundamentals and customer choice with Project clarity, alignment, cost competitiveness and certainty
- Overcome scale challenges at the physical and market level (Up to 20mtpa)
- Drive Project costs down and operating efficiency up
  - Alaska LNG must be competitive on a cost of supply basis with L48, new Australia, W. Canada, Russia and E. Africa
- Create an environment where Alaska LNG is a relatively clean and simple choice for LNG Buyers
- Consistently demonstrate Project sponsor and fiscal stability



## Alaska LNG – looking forward

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- BP, the State of Alaska and other project sponsors have been introducing Alaska LNG to Buyers for several years – there has been a positive response
- LNG marketing model and project structure needs to be landed soon
- All Parties will continue to engage Buyers
- Sponsors may seek binding agreements for the majority of output prior to sanction
- State of Alaska support for the project, directly and indirectly plays a vital role

clean

erase

disinfect

dry clean