

# “What next?”

Timera webinar

---

June 2023

*A framework for analysing LNG  
market evolution & portfolio value  
drivers in a post-crisis world*



Timera Energy  
Level 12  
30 Crown Place  
London EC2A 4ES

[timera-energy.com](https://www.timera-energy.com)  
+44 (0) 207 965 4541



# “What next” webinar scope

## Agenda

1. **Market state of play**
  - i. European pivot to LNG
  - ii. Intro to market regimes
2. **LNG market evolution view**
  - i. Evolution of flexible supply & demand
  - ii. Price & volatility outlook
3. **Portfolio & asset value implication**
  - i. LNG asset value case study
  - ii. Regime impact on extrinsic value
4. **Q&A (via GoTo messaging)**

## Speakers

- David Stokes (Managing Director)



- Olly Spinks (Managing Director)



- David Duncan (Director LNG & Gas)



- Luke Cottell (Senior Analyst)



# About Timera Energy

## Specialist energy consultancy

*Focus on LNG, gas & power markets*

## Extensive industry expertise

*Practical knowledge from senior industry roles*

## Pragmatic commercial focus

*Covering investment, value monetisation & market analysis*

## Strong client base

*Leading energy companies (e.g. producers, utilities, traders, funds)*

## Leading industry blog

*30,000+ regular readers, publications, conferences*

Timera clients include

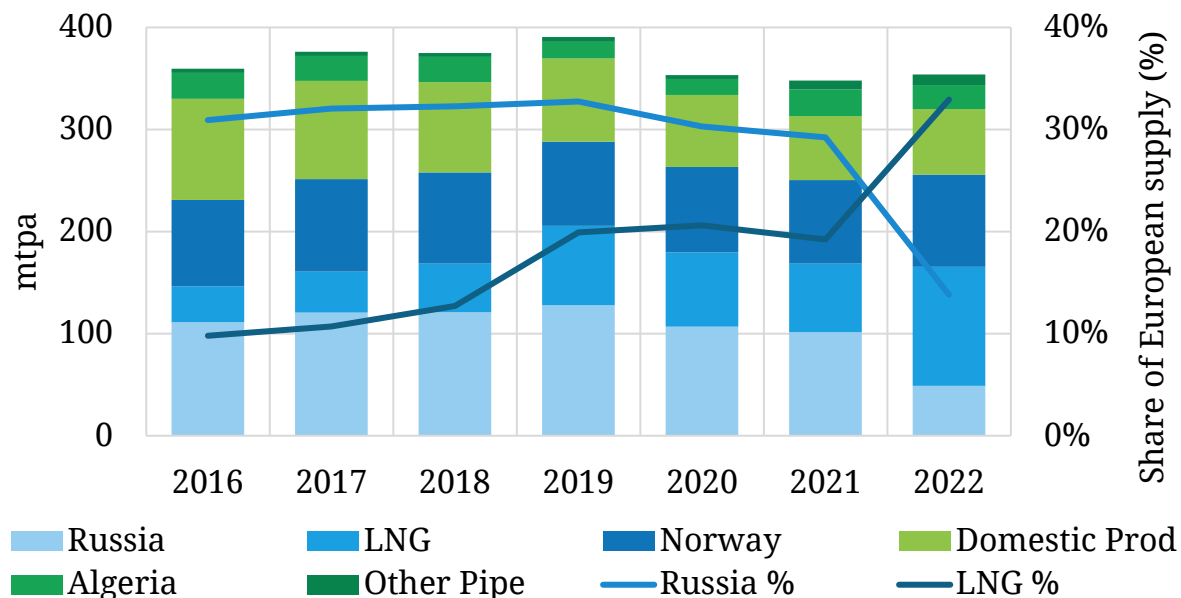


# Key takeaways

Takeaway	Evidence
1. More market regime shifts are coming	<ul style="list-style-type: none"> <li>• Market regime = set of price dynamics driven by market balance (tight, balanced, oversupplied)</li> <li>• Our modelling shows at least two shifts in dominant market regime this decade</li> </ul>
2. Supply & demand flex act to clear the market	<ul style="list-style-type: none"> <li>• Marginal sources of S&amp;D flex drive pricing dynamics (e.g. levels, spreads, volatility, correlations)</li> <li>• Supply relatively inelastic; demand flex transitioning from EU power switching to Asian response</li> </ul>
3. 3 dominant regimes to drive market pricing	<ul style="list-style-type: none"> <li>• <b>2023-25: “Supply constrained”</b> Inelastic supply &amp; demand on margin, elevated prices &amp; high volatility</li> <li>• <b>2026-30: “Next wave”</b> US variable cost anchors prices, limiting downside; High global gas correlations</li> <li>• <b>2030-33: “Rebalancing”</b> Less responsive Asian demand setting marginal prices, increasing volatility</li> </ul>
4. Pricing dynamics drive asset value & risk	<ul style="list-style-type: none"> <li>• LNG portfolio &amp; asset value e.g. EU regas, US supply, global SPAs depends on future pricing dynamics</li> <li>• Robust pricing dynamic analysis drives effective portfolio origination, investment &amp; strategy decisions</li> </ul>
5. US toll case study shows value shift with regimes	<ul style="list-style-type: none"> <li>• US toll value shifts substantially with regimes e.g. from 21 \$/mmbtu in 2022 to 2 \$/mmbtu in oversupply</li> <li>• Regimes also drive flex value e.g. downside protection from cancellation flex, extrinsic upside from diversion flex</li> </ul>

# Europe's pivot to LNG

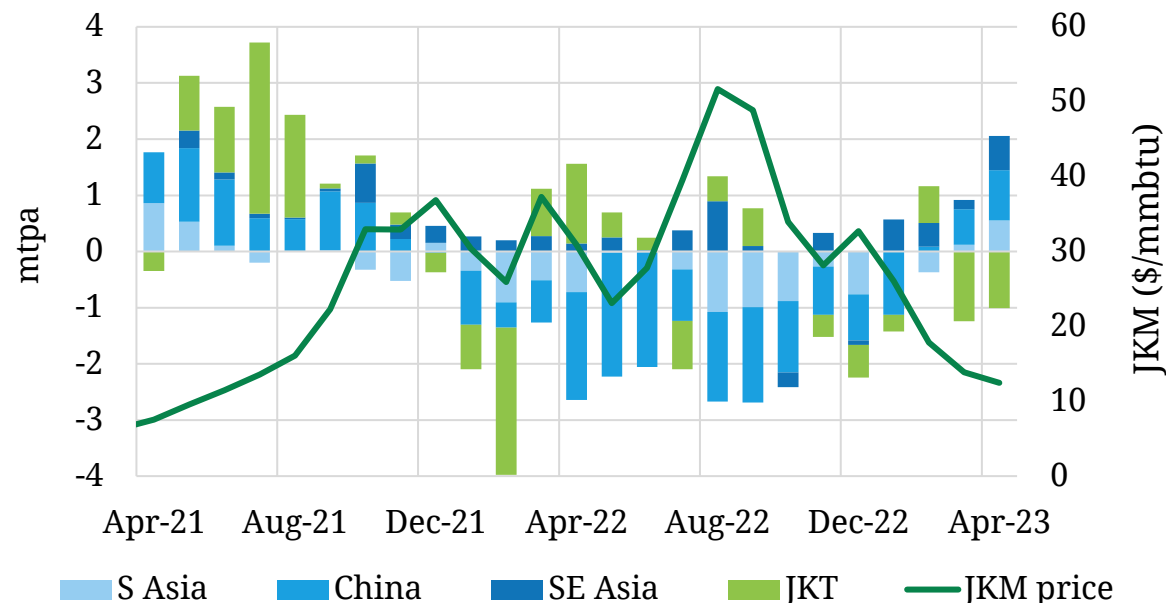
## Europe has replaced Russian gas with LNG (European gas supply splits)



Source: Timera, IEA; Europe defined as EU 27 + UK + Switzerland

- Russian gas set to fall from 30% of the European gas supply to less than 5% in 2023
- Step change in European LNG demand driving direct competition with Asia

## Europe now competing dynamically with Asia for LNG (Asian y-o-y demand changes vs JKM)



Source: Timera, LNG Unlimited, CME

- New supply constrained by lead times... inelastic demand response in Europe & Asia setting prices
- Traditional European gas market flex (switching, storage, pipeline flex) inhibited ... magnifying volatility

# Market regimes link fundamentals to price dynamics

## What is a market regime?

- A set of prevailing price dynamics (e.g. price levels, spreads, volatility), driven by underlying market balance
- Market can rapidly transition between regimes... shifting pricing dynamics... with major impacts on portfolio & asset value

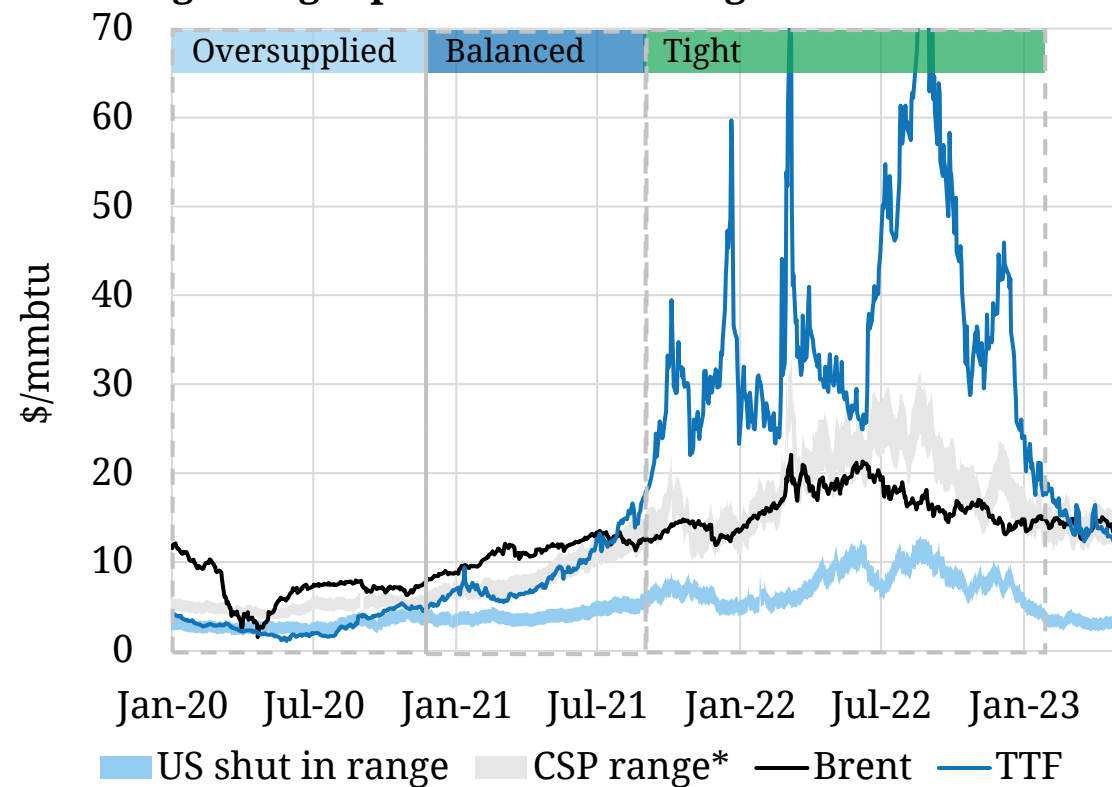
## Regime pricing characteristics

Regime	Illustrative characteristics**
1. Over-supplied	<ul style="list-style-type: none"> <li>• Supply response at the margin</li> <li>• Lower price levels &amp; volatility</li> <li>• High correlations between HH, TTF, JKM</li> </ul>
2. Balanced	<ul style="list-style-type: none"> <li>• Deep, liquid S&amp;D channels at margin</li> <li>• Prices set by anchors, low spread volatility</li> <li>• High correlation and convergence between JKM &amp; TTF, lower with HH</li> </ul>
3. Tight	<ul style="list-style-type: none"> <li>• Demand response at the margin</li> <li>• Higher absolute price levels &amp; volatility</li> <li>• Lower correlations and potential divergence of JKM &amp; TTF</li> </ul>

\*Switching channel for 50-52% efficient gas plants vs 38-45% efficient coal plants

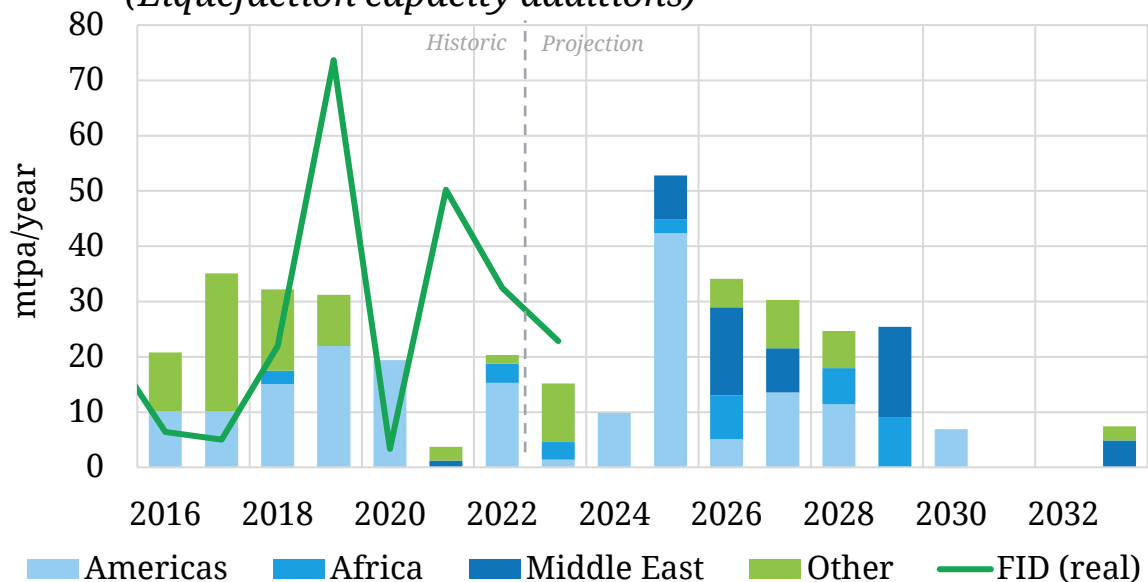
\*\*Guide only ... not all characteristics are observed in every regime

## Historic global gas prices & market regimes



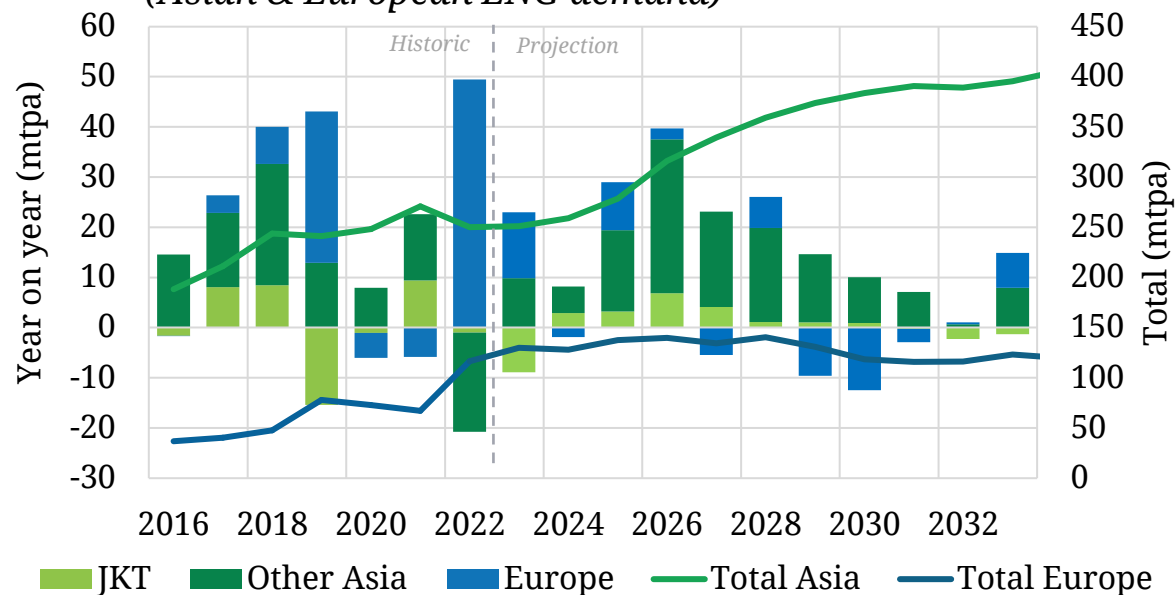
# More regime shifts are coming

**LNG market waiting for next wave of supply**  
(Liquefaction capacity additions)



Source: Timera Global Gas model

**Demand evolution will shape regime transition**  
(Asian & European LNG demand)



Source: Timera Global Gas model, LNG Unlimited

## 2023-2025: 'Supply constrained'

*Dominant regime = Tight*

- Stagnant supply: Russian cuts, limited new LNG
- Price responsive demand at margin ... Europe & Asia complete for scarce LNG

## 2026-2030: 'Next wave'

*Dominant regime = Oversupplied*

- Next supply wave from FIDs 2021-23
- Recovery in price responsive demand ... significant Asian demand upside ... stable demand in Europe

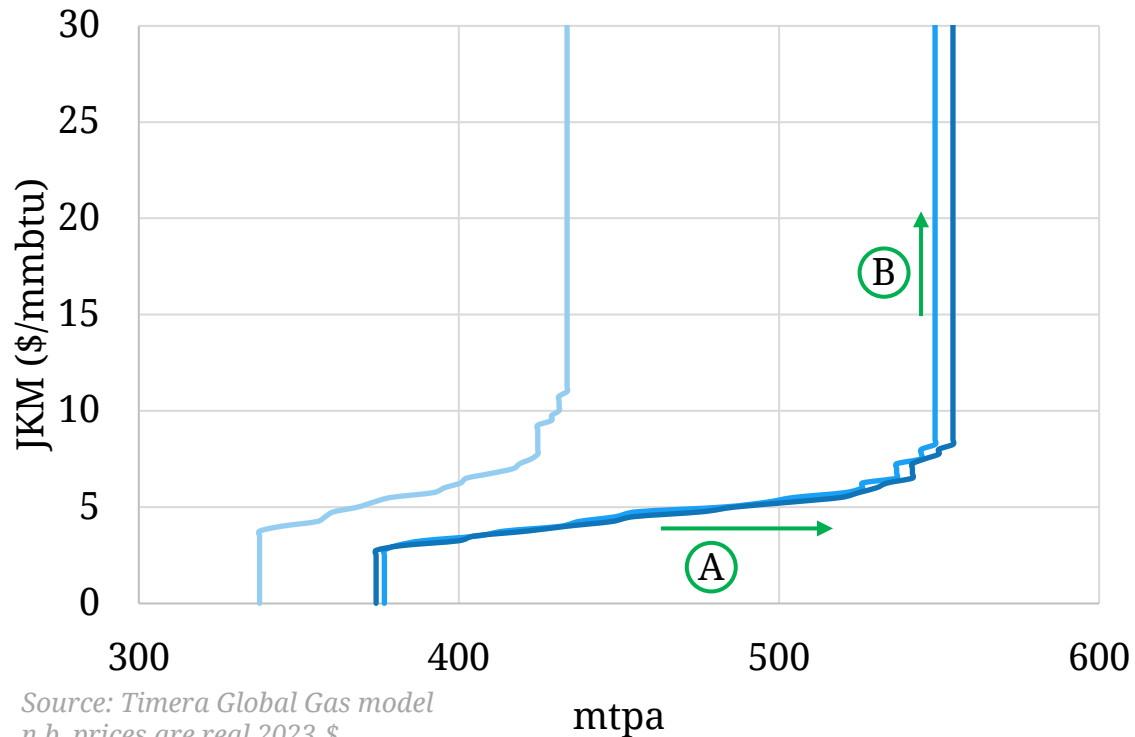
## 2030-33: 'Rebalancing'

*Dominant regime = Balanced*

- Strong Asian demand growth absorbs oversupply... limited new liq capacity
- Decarbonisation policy starts to bite ... first in Europe then gradually in Asia

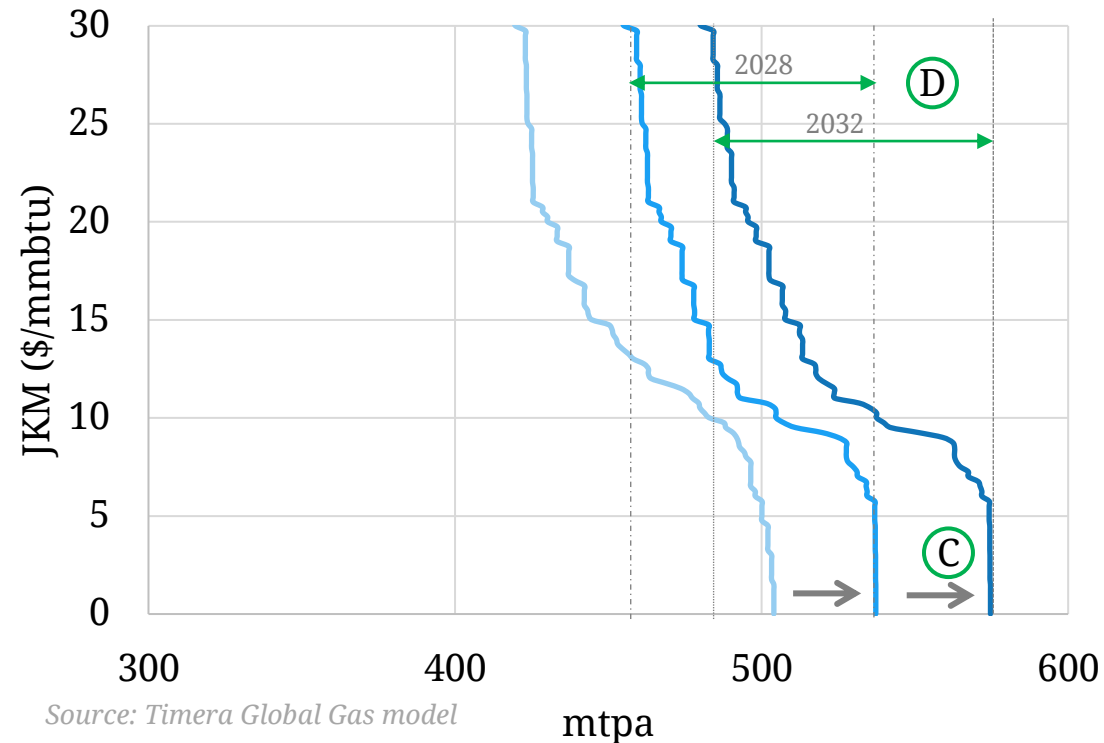
# Supply & demand flex drive pricing dynamics

Global LNG supply curves



- A** US LNG cancellation flex provides price floor ... capacity widens as more Nth American supply comes online
- B** Short run supply inelastic > ~\$10/mmbtu (existing supply 100% utilised)

Global LNG demand curves

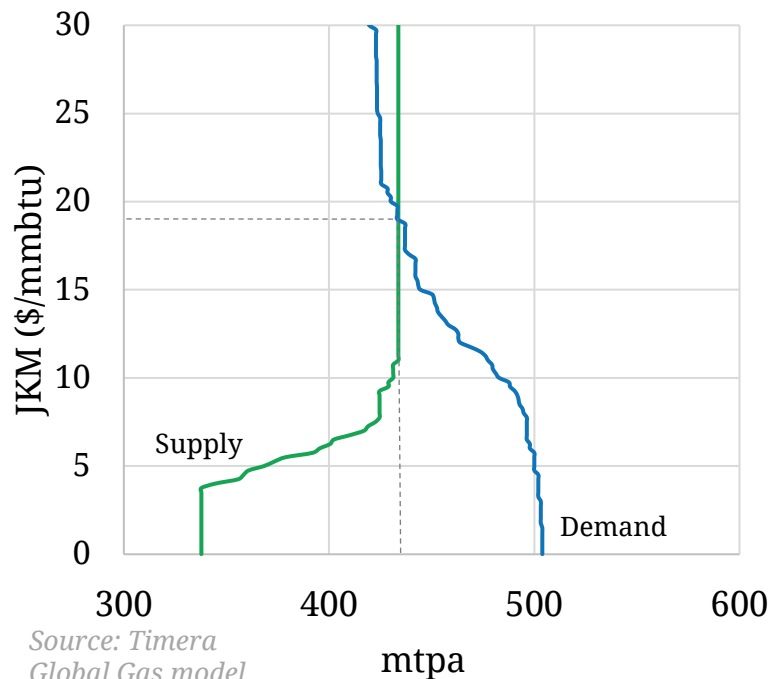


- C** Declining gas demand in Europe offset by piped supply losses into 2030s ... structural demand growth in Asia
- D** Growing elasticity in Asian demand offsets Europe flex declines ... but not 'like for like' (lower price & "sticky")



# Market phase pricing evolution

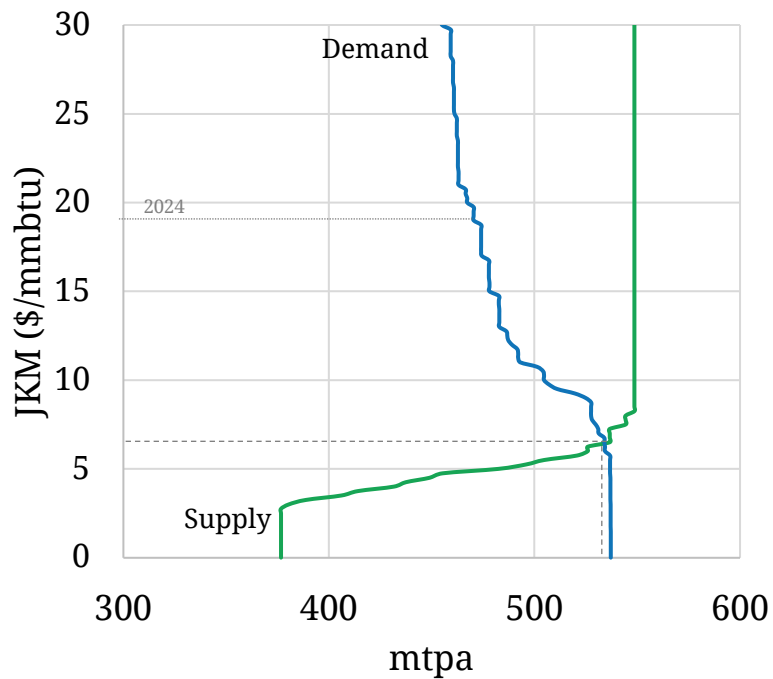
### 2024 Global LNG S&D curve



#### 2023-2025: 'Supply constrained'

- Inelastic supply & demand at margin
- Elevated global LNG prices
- High volatility & risk of price spikes

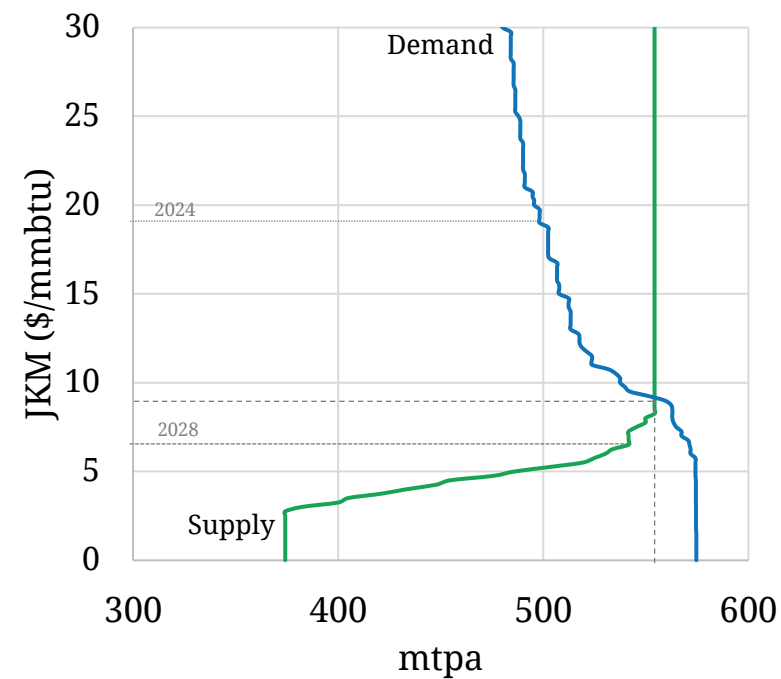
### 2028 Global LNG S&D curve



#### 2026-2030: 'Next wave'

- US SRMC anchors prices & provides floor (JKM / TTF coupled with HH)
- Elasticity at margin dampens volatility

### 2032 Global LNG S&D curve



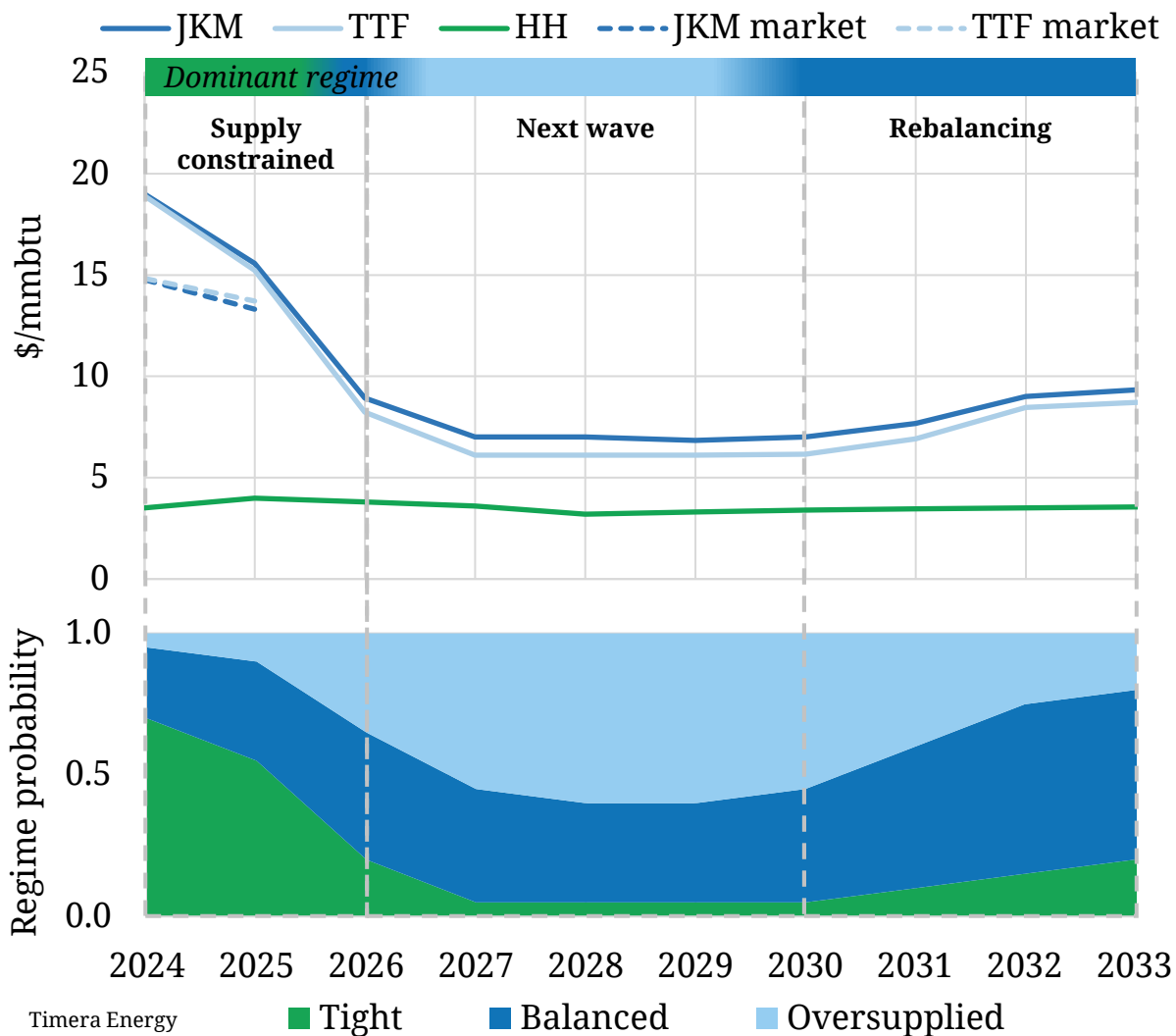
#### 2030-33: 'Rebalancing'

- Demand response setting prices
- Proximity to inelastic supply creates asymmetric upside & volatility risk

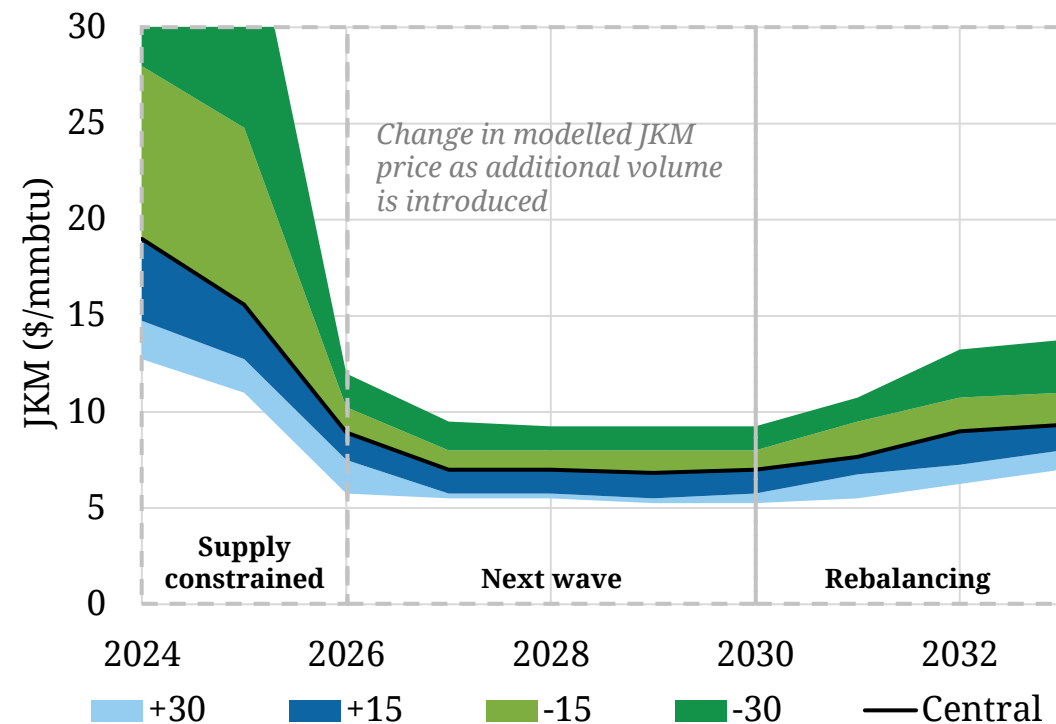
# Price projections & uncertainty

Source: Timera Global Gas model  
Market prices as of 09/06/2023

Timera central case price projection & regime probability



JKM price sensitivity to market balance (mtpa delta)



## Confronting market uncertainty

- Probabilistic analysis of dominant regime
- Recognise regime uncertainty and focus on price sensitivity of key drivers e.g. S&D volumes

# Mapping pricing dynamics onto commercial landscape

LNG value chain: **Upstream**

**Supply contracts**

**Shipping**

**Regas**

**Downstream**

## ① European regas

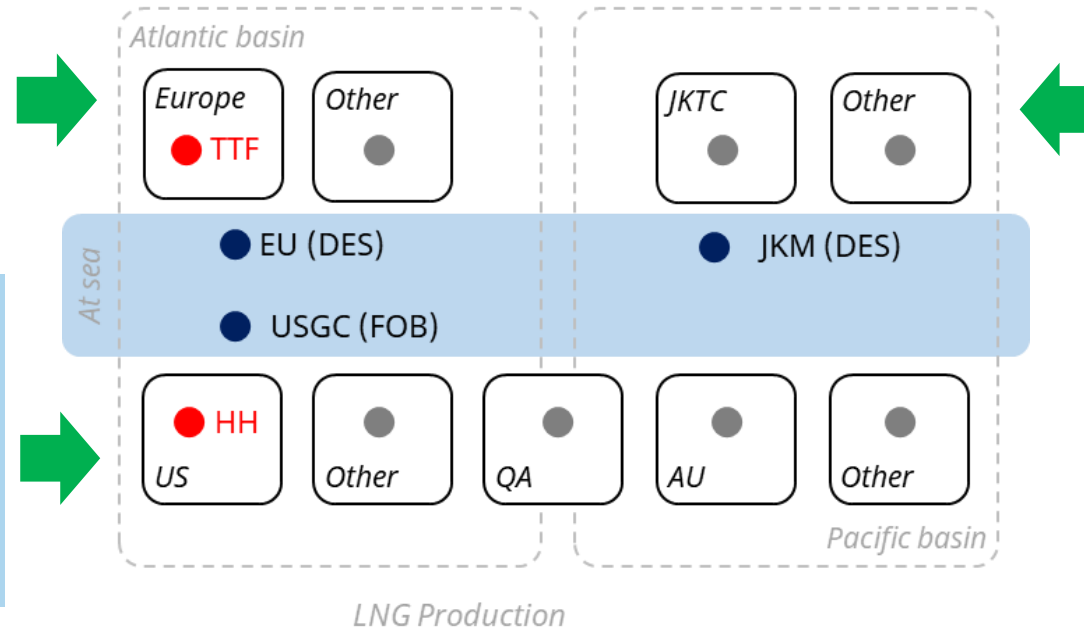
- Contracting ... capacity vs molecules ... terminal competition
- Merchant regas value OTM ... buyer focus on portfolio value

## ② US exports (focus for case study)

- Financing FID challenge ... banks unsure of JKM/TTF exposure ... balance sheets required
- Offtake contracts ... timing key for pricing & flex value

### High level LNG market topology

LNG Consumption



## ③ LNG contracting

### Volume

- New supply & recontracting
- Europe competes with Asia?

### Pricing

- Indexation in transition: (1) Oil vs LNG & (2) JKM/TTF vs HH
- Pricing & volume flex ... diversion flexibility focus
- Counterparty impairment ... watch for wave of re-openers

## ④ Eye to the long term ... portfolio strategy & operating model

- Target portfolio exposures / unlocking portfolio flex
- Transition to trading / hub focused operating models

# US toll case study: value evolution

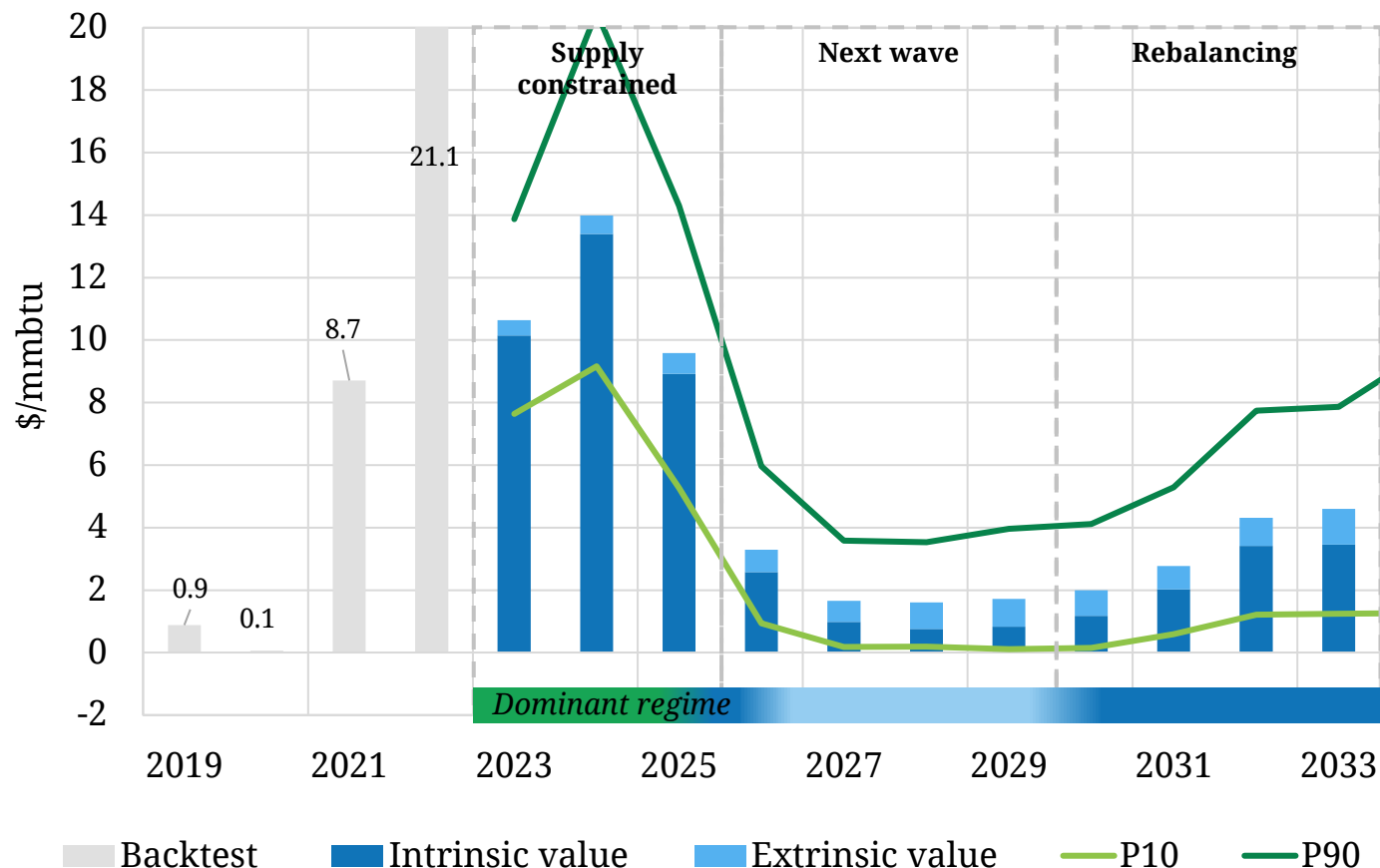
- New US supply investment & offtake contracting is a key industry focus
- Diversion & cancellation flex drives buyer enthusiasm for US LNG contracts & will add significant supply side market flex.
- Value / pricing strongly linked to market phases ... FID & offtake timing becomes key
- Flex & spread exposures has significant market risk:
  - Focus on buyer risk management strategy (sales contracting & indexation, hedging)
  - Challenges for financing ... focus on offtake structure or IOC capital to support FIDs.



## Methodology

- Analysis uses LNG Bridge portfolio analysis model
- USGC LNG toll contract (12 cargoes per year, 115% HH variable cost, no tolling fee, spot shipping no Panama)
- Backtest uses outturn European & Asian spot prices, projection uses Timera central market scenario

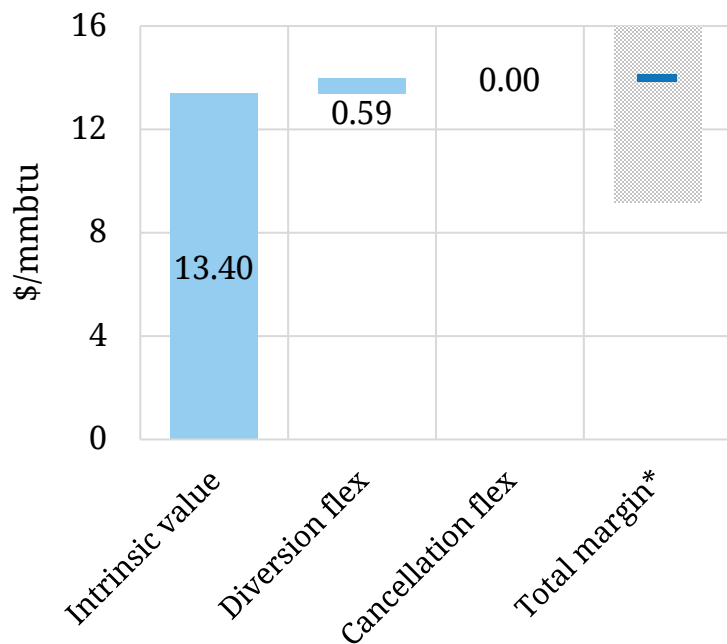
## US toll value backtest and projection (real)\*



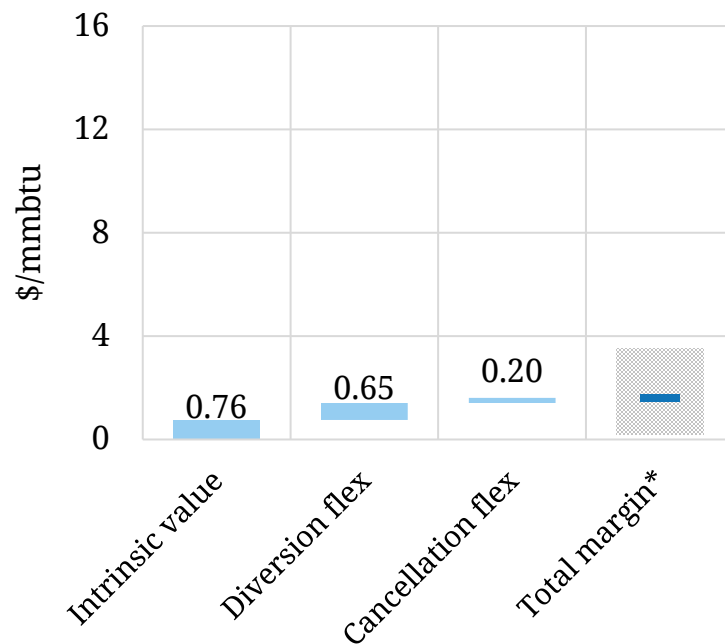
# US toll case study: value breakdown

Source: Timera LNG Bridge model  
\*Range shows P10-P90 total margin distribution and mean return

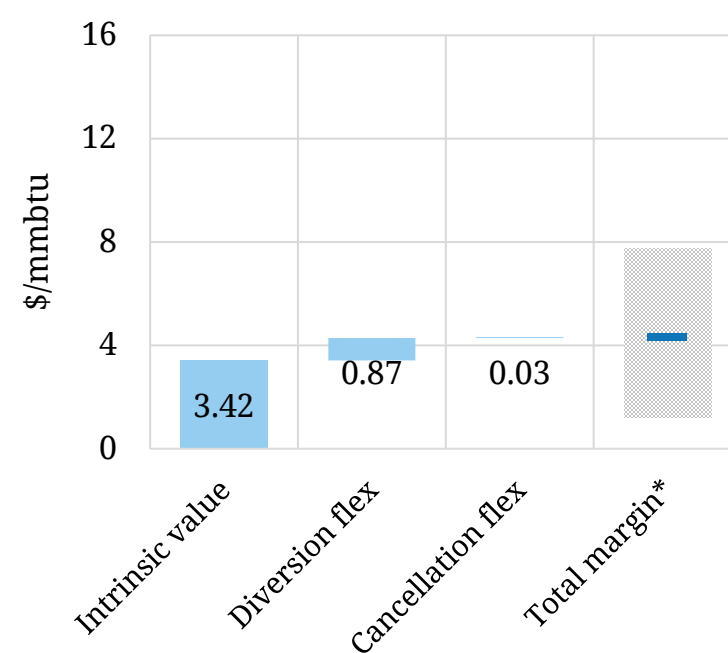
## 2024 US toll mean value breakdown



## 2028 US toll mean value breakdown



## 2032 US toll mean value breakdown



### 2023-2025: 'Supply constrained'

- High intrinsic value (deeply ITM)
- Extrinsic value upside from diversion flex but no cancellation flex value

### 2026-2030: 'Next wave'

- Low intrinsic value (< tolling fee)
- Prospect of US shut-ins ... cancellation flex significant for P10

### 2030-33: 'Rebalancing'

- Intrinsic value recovers ... covers typical tolling fee (2.5-3.0 \$/mmbtu)
- Diversion value upside (low mkt flex)

# Timera services and Q&A

## **SUBSCRIPTION SERVICE LAUNCH**

- Quarterly service
- Detailed analysis, quantifying:
  1. Market evolution
  2. Pricing dynamics
  3. Asset value impact & conclusions
- Comprehensive quarterly projection dataset
- Detailed slide-based report
- Direct access to our experts

## **OUR OTHER SERVICES**

**Consulting advice** – portfolio construction & asset investment analysis, M&A and transaction support, LNG risk management analysis

**Analytical solutions** - LNG Bridge portfolio valuation model solution & support for development of in-house solutions

### ***Please get in touch!***

*Olly Spinks*                      *olly.spinks@timera-energy.com*

*Managing Director*        *+44 (0) 7525 724 461*

*David Duncan*                *david.duncan@timera-energy.com*

*Director of LNG & Gas*    *+44 (0) 7925 929 160*

Timera clients include



GLENCORE

nationalgrid

