



25th world gas conference
"Gas: Sustaining Future Global Growth"

Opportunities and Challenges of LNG Market in Asia

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Patron



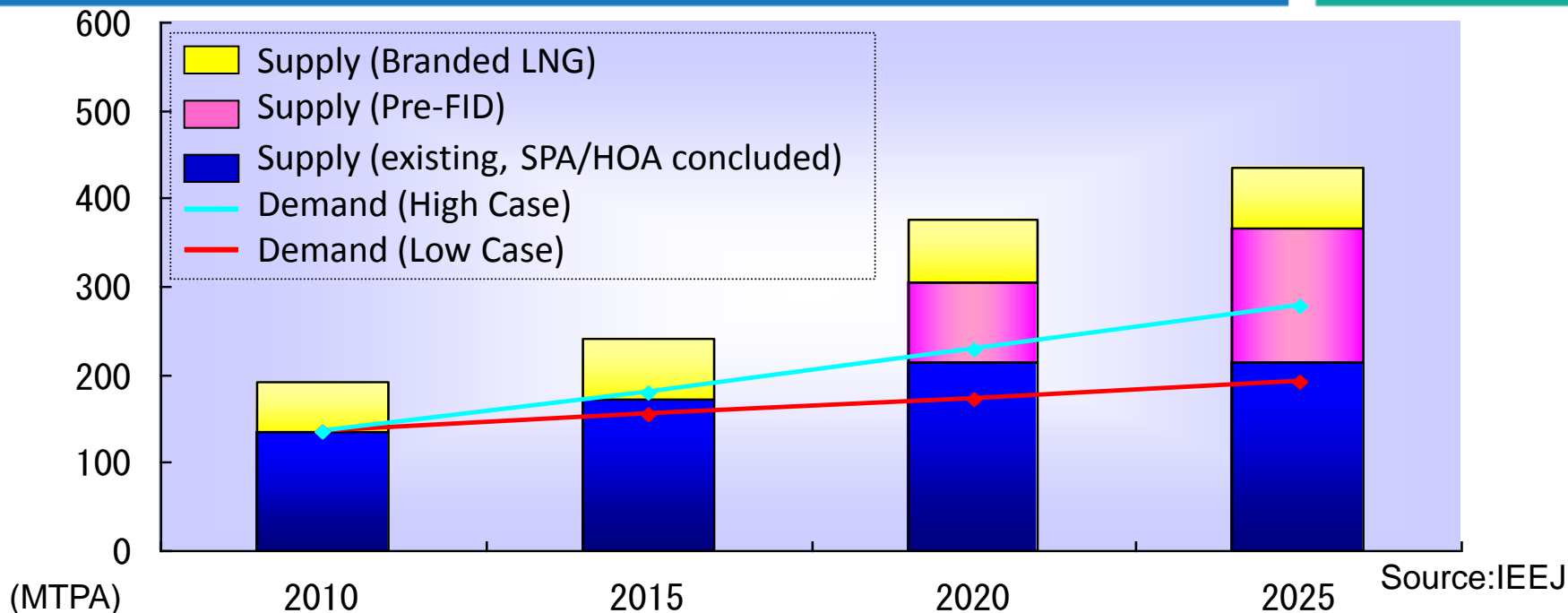
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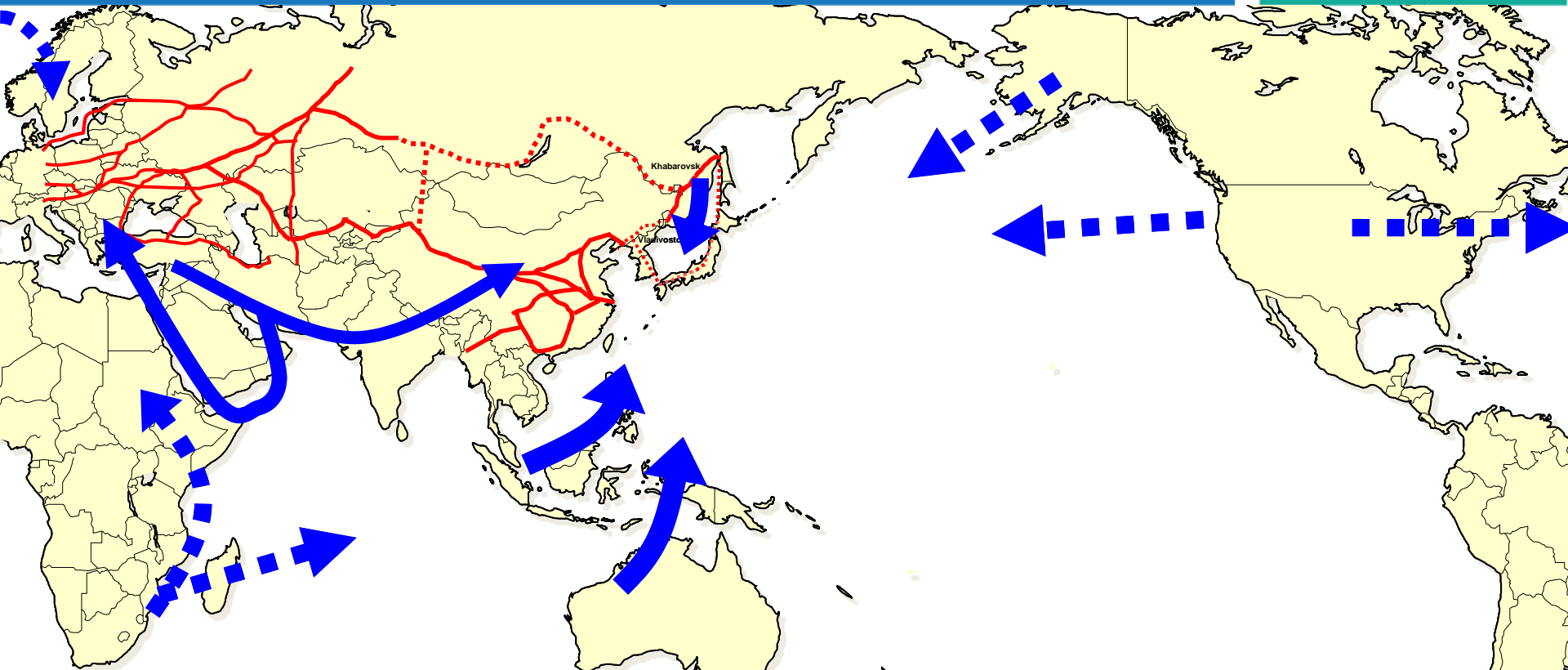


LNG Demand and Supply Perspective in Asia



- **High Demand** : Sustainable growth in China and India, New demand in South East Asia
- **Low Demand** : High fuel cost, Economic Stagnation, Competition with pipeline gas, indigenous conventional and unconventional gases
- **Japan 80-90 MTPA** : Shift from Nuclear to Natural Gas, Enhanced Energy Conservations, Promotion of Renewables, and high efficiency in power generation
- **High Supply Potential** with additional supplies from North America and Eastern Africa

Eurasia Natural Gas Market



■ Expansion of Market

- Increasing use in power and industrial markets
- Emergence of Eurasian pipeline networks
- Enhanced competitiveness among fuel mix ; competitive pricing, stable supply, low CO₂, smart use

■ Impact of Shale Gas Revolution

- Arbitrage in LNG trade
- Creation of Eurasia Market and Global Market
- Competition among supply sources

Three Key Factors

-for the Golden Age of Eurasia Natural Gas Market -



■ Enhanced Competitiveness

- Oil linked price ; S-curve, Gentle slope
- Decoupling from oil price ; Henry-hub, NBP, Asian-hub, Eurasian price, etc
Combination of Indexes ⇒ Convergence of global market prices
- Stability of Supply ; Portfolio of long-term contracts and open market,
and LNG and pipeline gas supplies

■ High Supply Potential

- LNG, Pipeline gas and Indigenous gas resources
- Conventional and Unconventional gas resources

■ Smart Use

- Highly efficient power generations ; MACCGT (Most Advanced Combined Cycle Gas Turbine) , CHP (Combined Heat and Power) , Fuel Cells.
- Smart City structured by Smart Energy Network consisting of natural gas, heat and power; Integration of central and distributed energy system, and all clean energy technologies.