

Natural Gas Market Outlook

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Natural gas in perspective

Global



- Global gas demand ~3 300 bcm
- Natural gas covers ~22% of global energy demand
- Largest demand segment – power ~40% and industry ~25%
- Expected annual growth in demand ~1,6 % towards 2040

Europe



- Europe imports ~70 % of its gas from Russia, Norway, North-Africa and LNG
- Largest demand segment – residential ~30% and power ~30%
- Expected growth in demand ~20 % by 2030

Norway

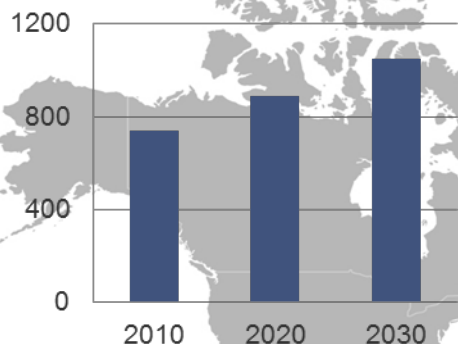


- Export volume of 107,6 bcm in 2012, Statoil markets ~80%
- Total Norwegian export value from natural gas ~250 billion NOK in 2012

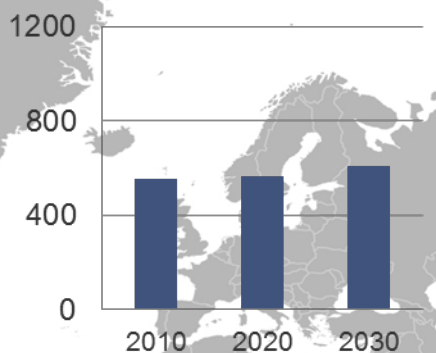
Source: Statoil, IEA, BP Statistical Review, Statistics Norway

Megatrends drive global gas market dynamics

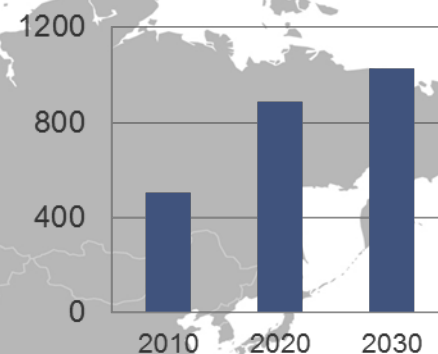
North American gas demand (bcm)



European gas demand (bcm)



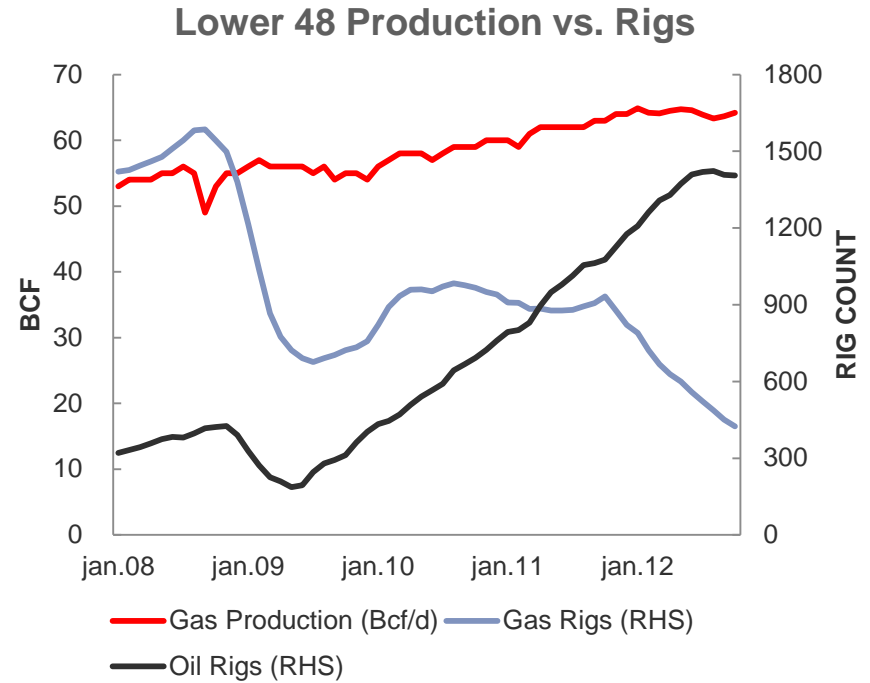
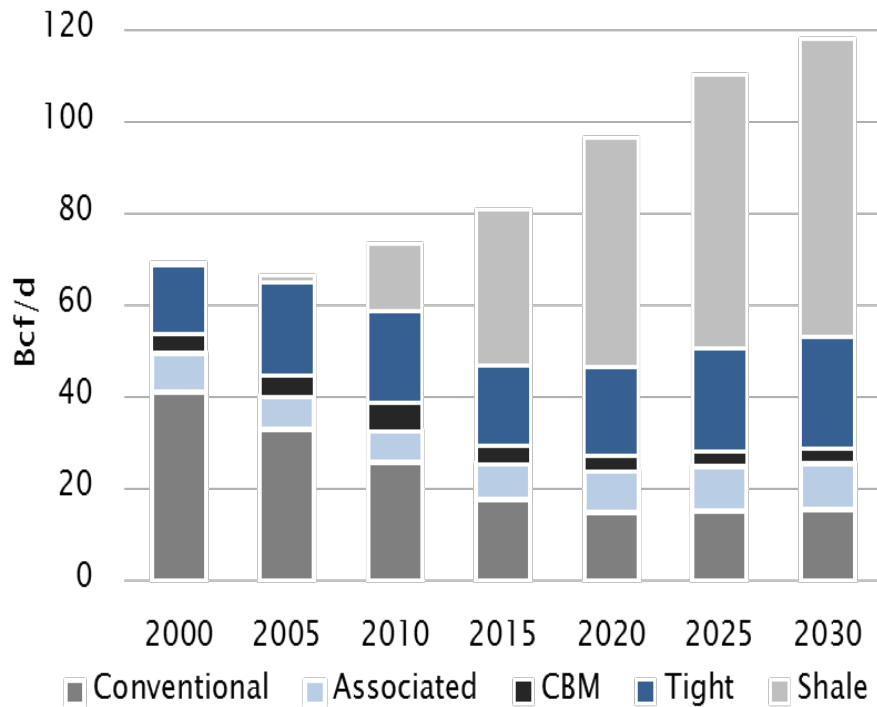
Asian gas demand (bcm)



- Unconventional resources have global impact
- Energy policies in the shaping
- Asian growth impacting global energy demand
- Climate impact from growing coal

Source: Statoil

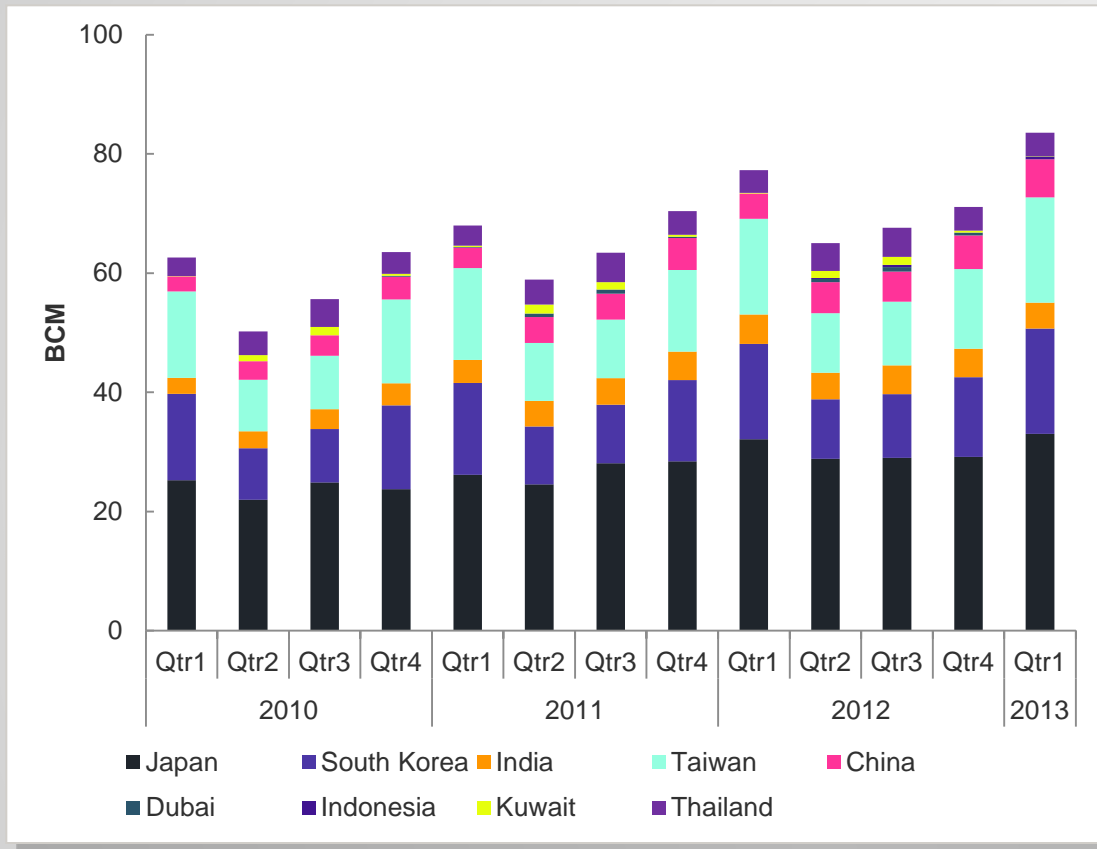
US gas markets saturated



- IMPLICATION: Structural changes to US gas/energy markets

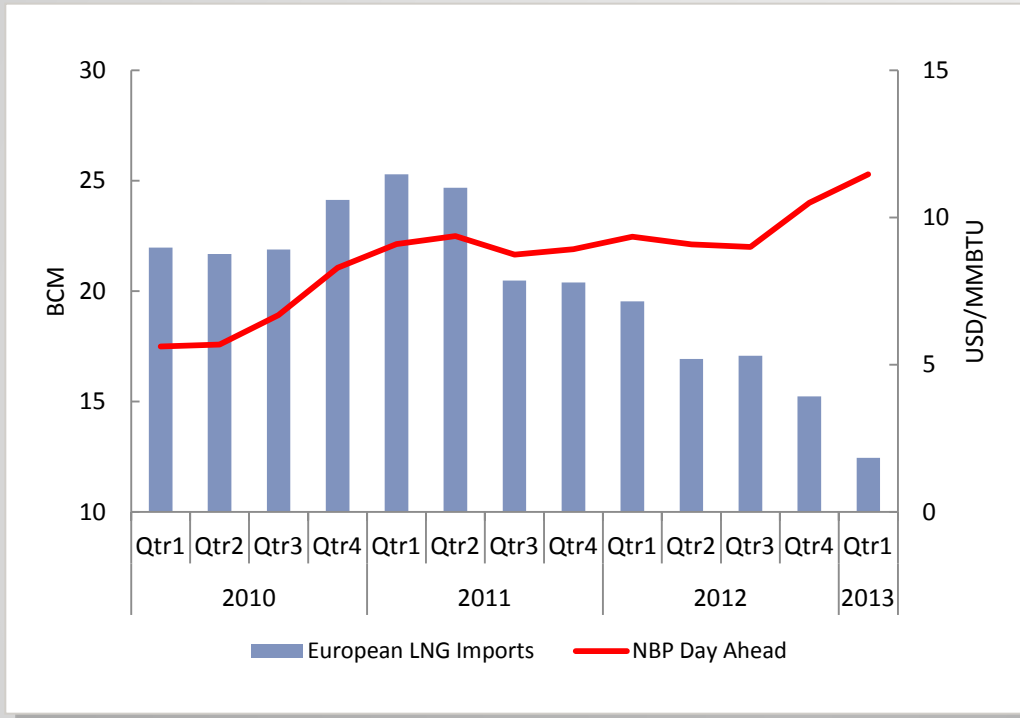
Increasing reliance on gas imports

- Flexible LNG supply is drawn to Asia



- Short term demand increase due to shutdown of Japanese nuclear plants
- Long term demand increase driven by economic growth
- IMPLICATION: Asia takes most of flexible LNG cargoes, including supply from Atlantic Basin

European gas markets balancing global LNG

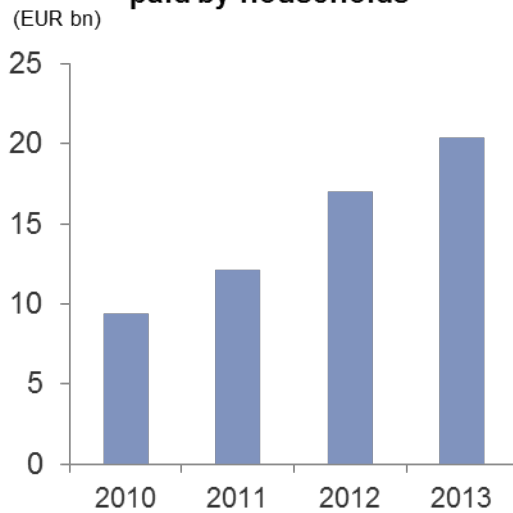


- Demand decrease due to poor economic development and fuel competition in the power sector
- Reduction of flexible LNG import due to Japanese nuclear crisis
- IMPLICATION: Price stays strong due to LNG requirements

German energy realities;

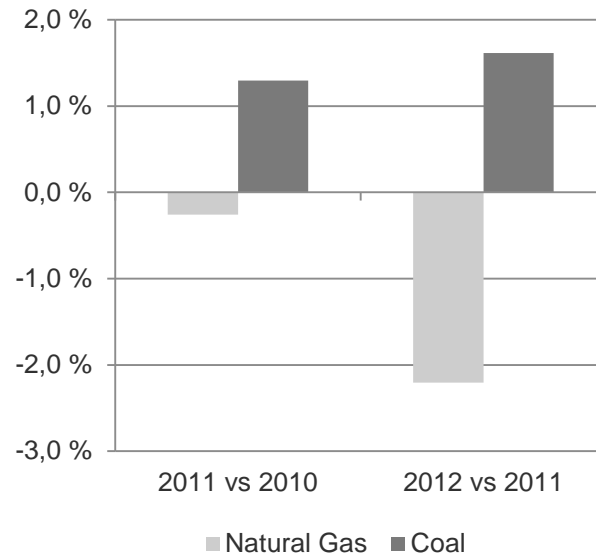
- coal is backing up high cost renewables

Renewable subsidies paid by households



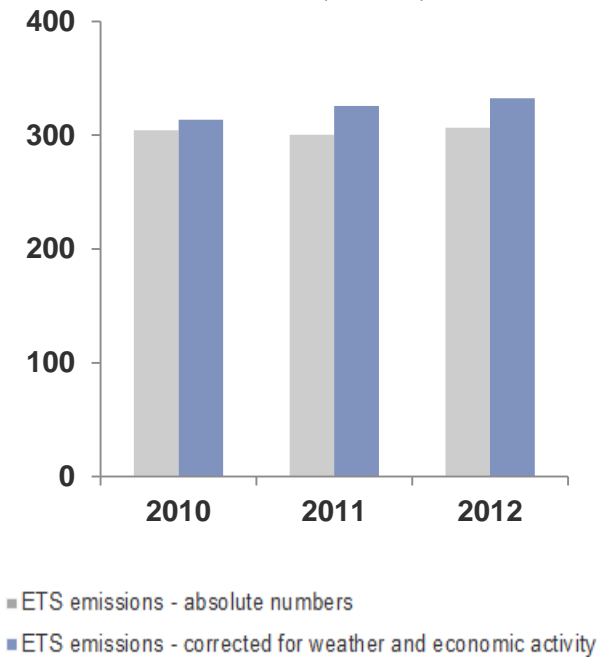
Sources: Monitoring-Bericht Energie der Zukunft, TSOs

Fuel share in power production (y/y)



Source: AGEB

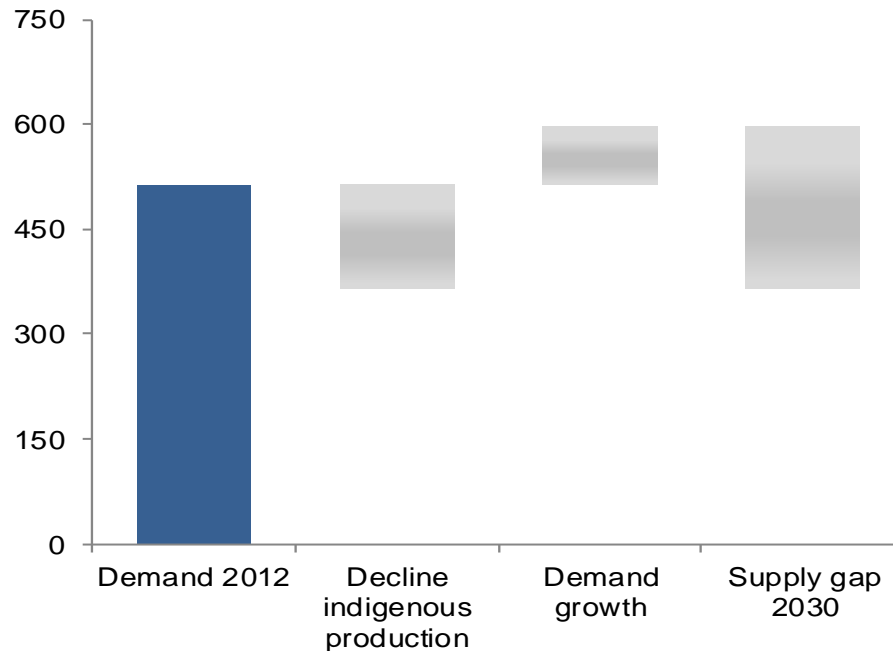
ETS emissions from power and heat sector (Mt CO₂)



Source: Point Carbon

Europe needs new gas supply

European gas supply challenge towards 2030

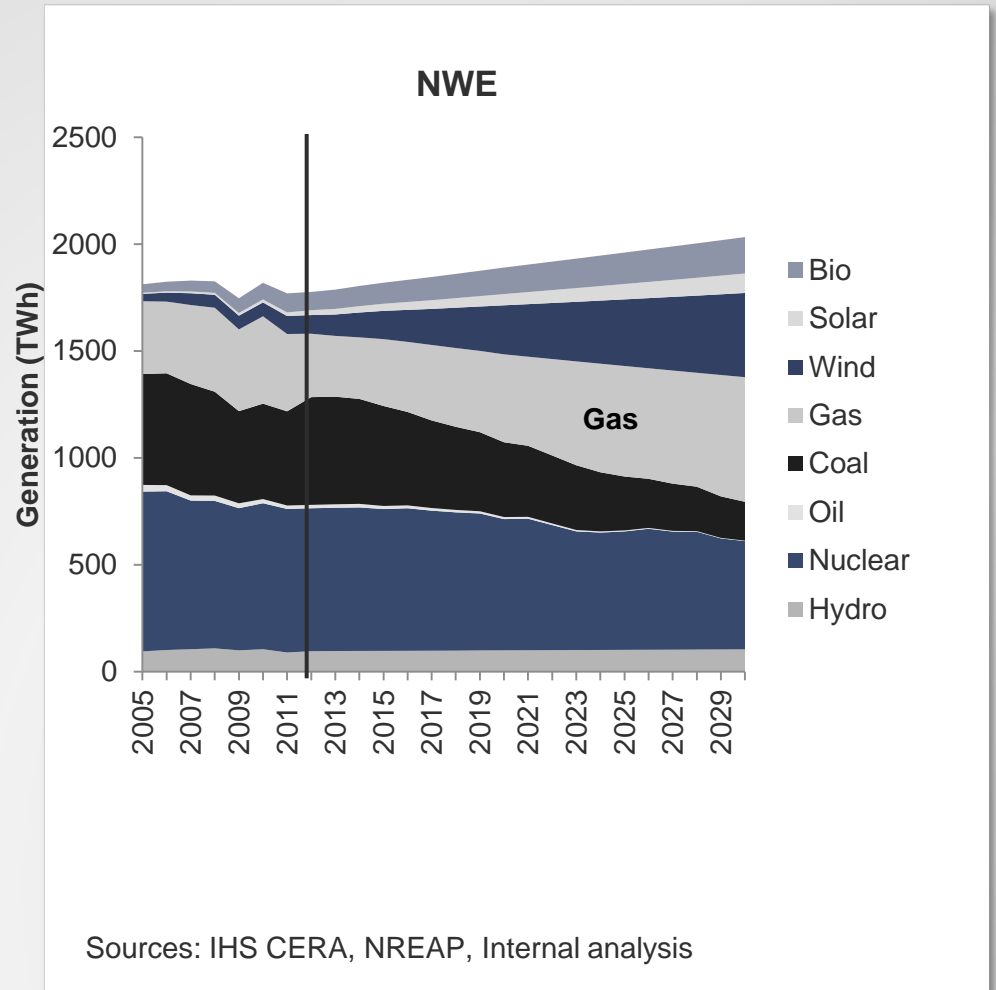


Source: IHS CERA, Statoil analysis

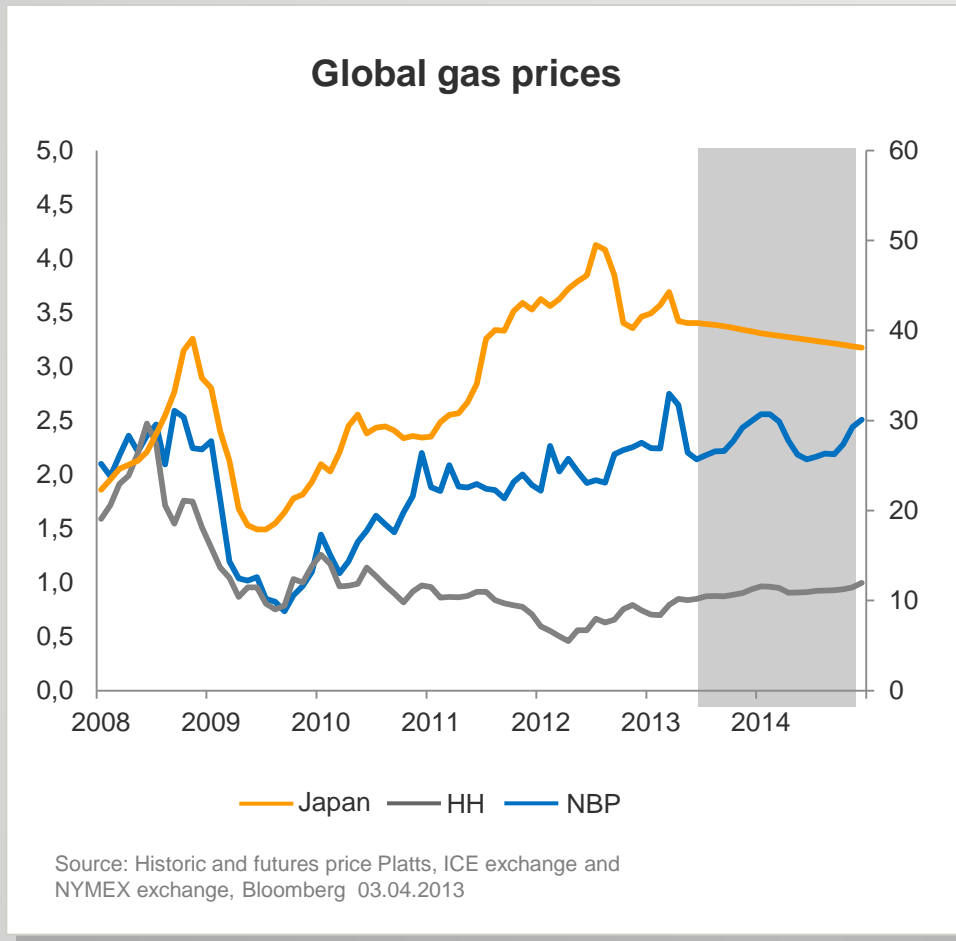
- Falling domestic production and increasing demand creates a need for new supply
- European gas production is expected to fall by ~ 2% per annum over 2010-30
- Europe will have to rely on increasing imports from Russia, Central Asia, North Africa and LNG imports
- Europe will have to compete with higher priced Asian gas markets in order to attract LNG volumes

Power: Gas loses in short term, gains in long term

- **Overall power demand in NWE is expected to increase**
 - Growth taken up by renewables
 - Market for thermal power decreases
 - Fossil market remains constant
- **Coal/gas competition**
 - Before 2015: Gas loses to coal
 - Beyond 2015: Gas grows at expense of coal



Global price outlook and key messages



- Large regional differences expected to persist, with Asia as the premium market
- European price levels continues to be supported by tight LNG fundamentals
- North American prices slowly rise closer to marginal cost levels of domestic production

There's never been a better
time for **good ideas**

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