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Shell Gas & Power

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Shell
Gas & Power



The energy challenge

1. Rising demand



Population growth

Economic growth

More affluent society

2. Security of supply



End of "easy oil"

Resource nationalism

More unconventional

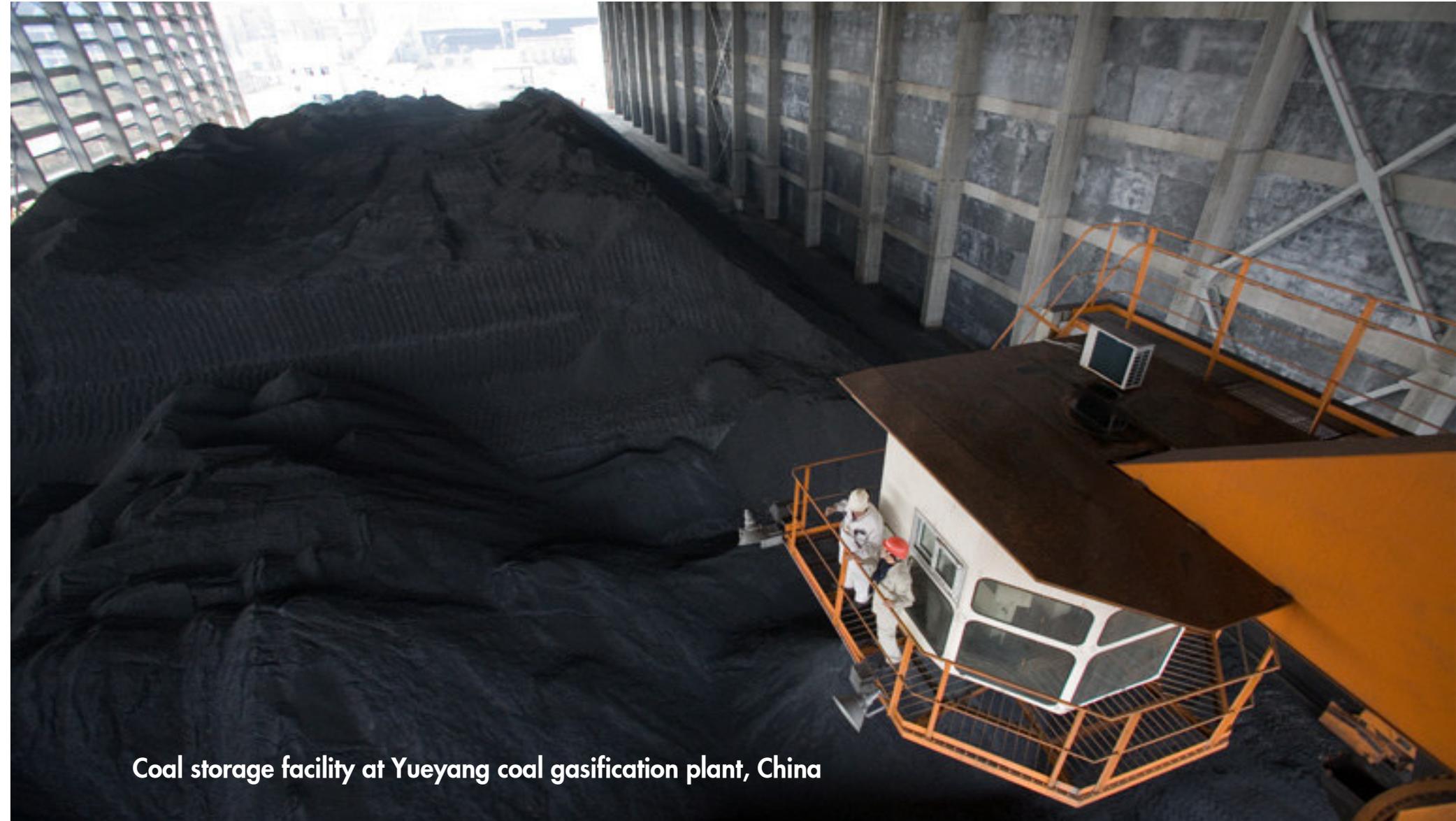
3. Environment and society



Hydrocarbons remain dominant

CO₂ consequences

Coal: Affordable, available... acceptable?



Coal storage facility at Yueyang coal gasification plant, China

Buggenum



Project description

- Nuon-owned, uses Shell coal gasification technology
- Integrated gasification combined cycle: 10–15% reduction in CO₂ production
- CO₂ capture easier and more cost-effective
- Enables use of alternative feedstocks such as biomass
- Results in low CO₂ base-load electricity

Shell clean coal portfolio

24 licences worldwide

18 licenses in China – 11 on stream



Yueyang (50% Shell)

Licenses in:



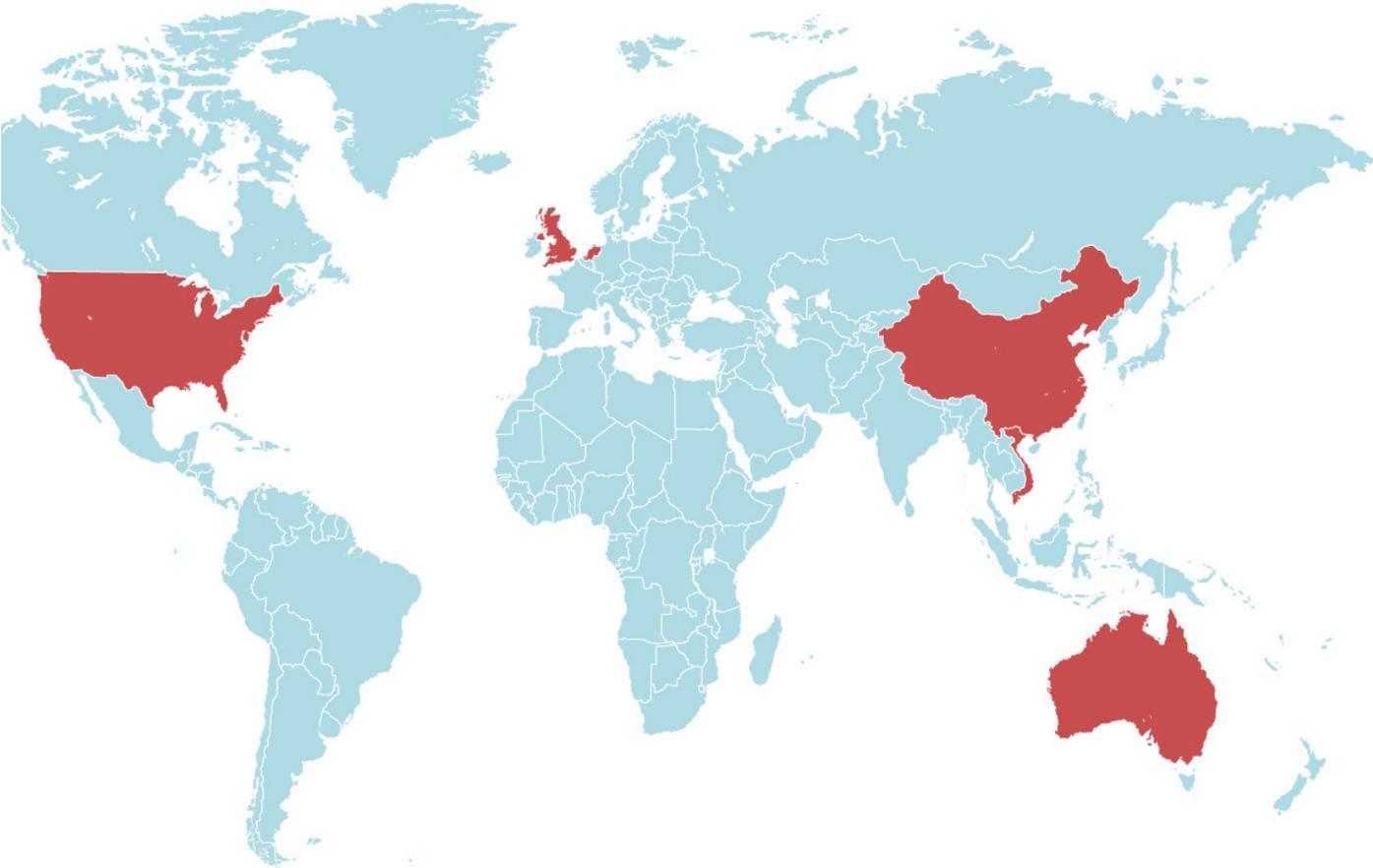
The Netherlands

The UK

The USA

Australia

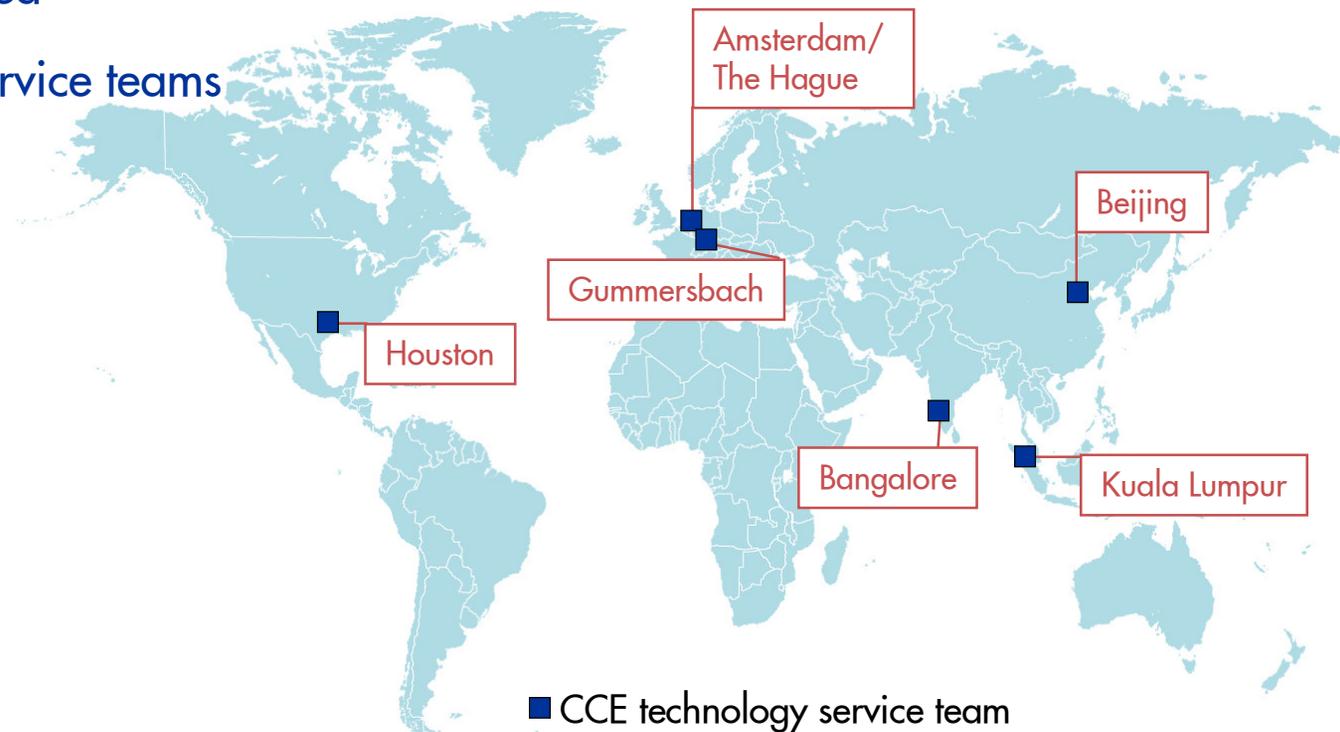
Vietnam



Technology differentiation and deployment

Combining advanced technologies and strong support from experienced staff around the world

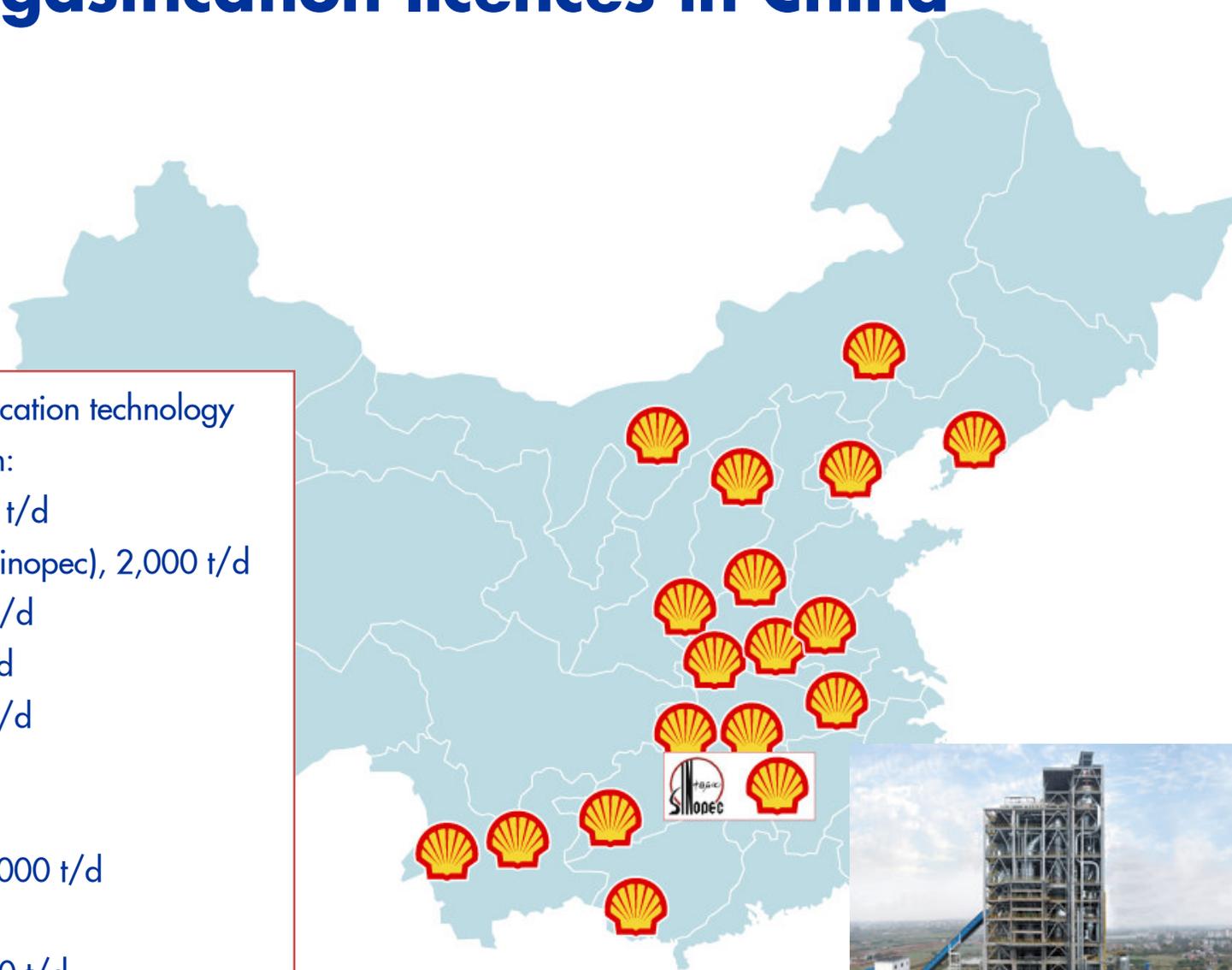
- Technology can process the widest range of coal
- Highest cold gas efficiency
- Design capacity confirmed
- Dedicated technology service teams



Shell's coal gasification licences in China



- 18 licences for Shell coal gasification technology
- 11 plants currently in operation:
 - Hubei Shuanghuan, 930 t/d
 - Dongting JV (Shell and Sinopec), 2,000 t/d
 - Sinopec Anqing, 2,000 t/d
 - Sinopec Hubei, 2,000 t/d
 - Guangxi Liuhua, 1,100 t/d
 - Yuntianhua, 2,700 t/d
 - Yunzhanhua, 2,700 t/d
 - Yongcheng (Phase 1), 2,000 t/d
 - Shenhua, 2,000 t/d
 - Henan Zhongyuan, 2,000 t/d
 - Henan Yima Kaixiang 1,100 t/d



Shell's first investment in a coal gasification plant

Yueyang Sinopec and Shell Coal Gasification Co. Ltd

