

Dutch Shale Gas Development

“Shale development in the heart of Europe”



Energizing the future

Warner ten Kate

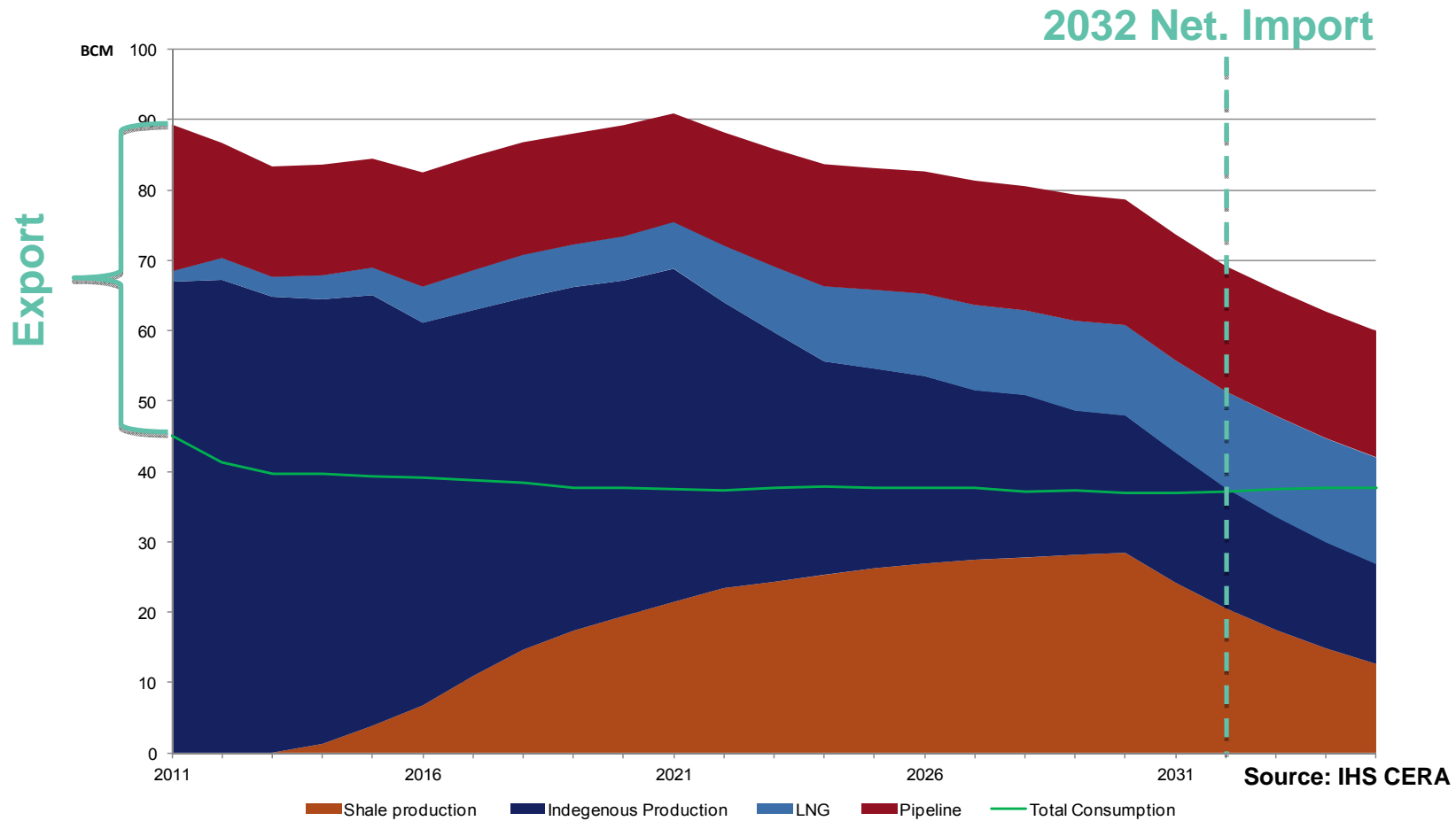
Paris, March 23rd 2012

Outline Presentation

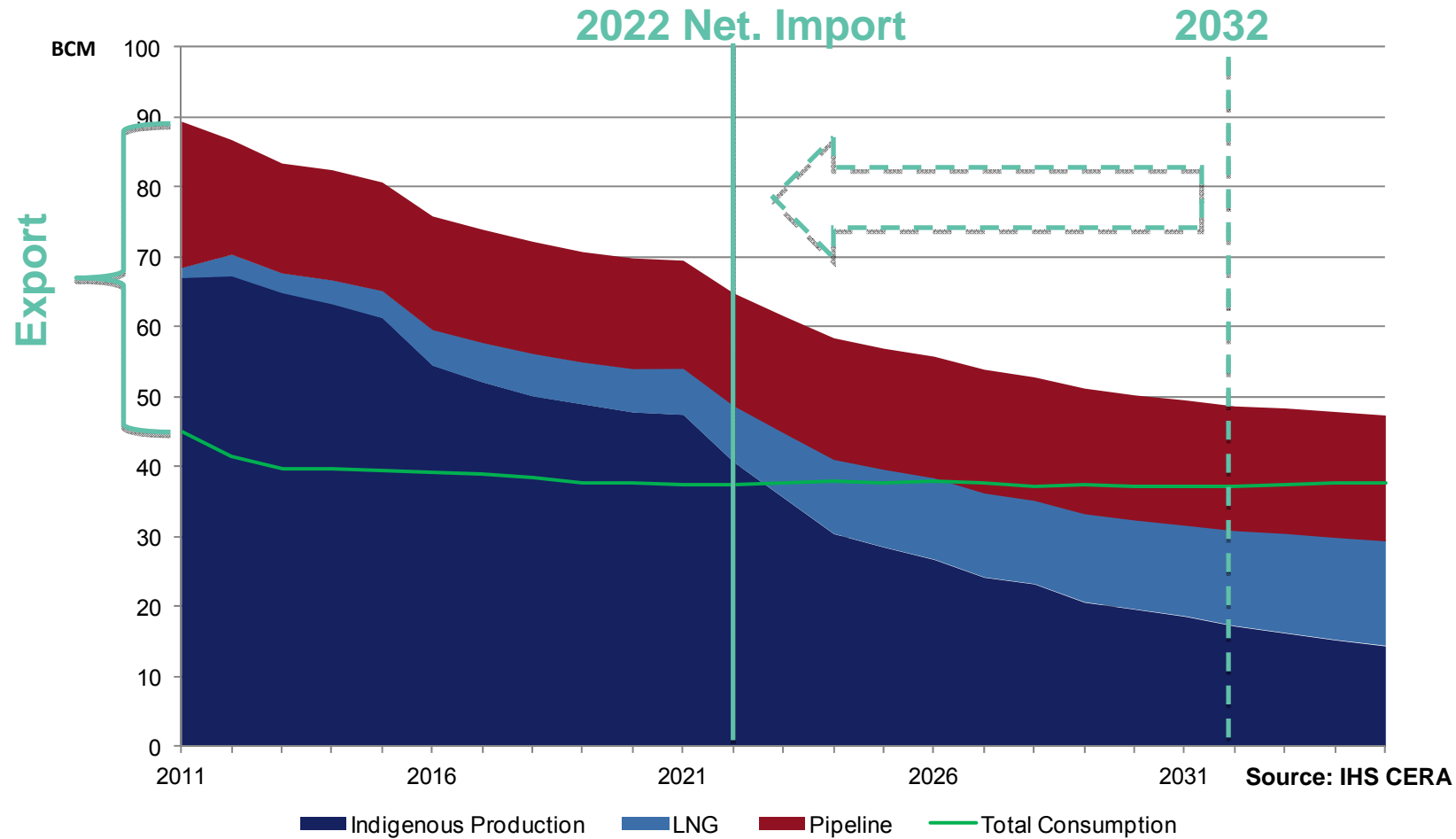
- Dutch Shale Gas: With or Without You?
- Challenges Ahead?
- Shale gas reserves?
 - Development licenses
- Government Policy & NIMBY?
- Conclusion



Dutch Shale Gas: With....



.... or Without You?

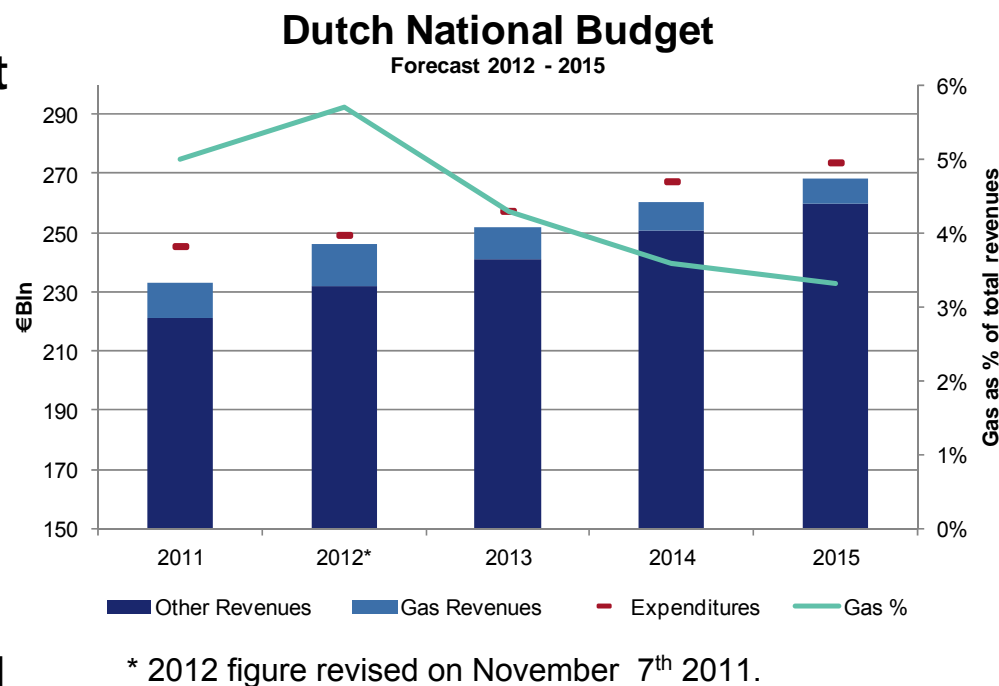


In a Dutch BAU scenario the current export position will be a net import position within ten years!



Challenges Ahead?

- **The Dutch government confirms its commitment to 20-20-20**
 - 49 Bcm consumption in 2030
- **Not In My Back Yard?**
 - Strong sentiment in the Netherlands
 - Strong influence of local/provincial governments
- **In an age of austerity?**
 - Gas revenues are expected to decline

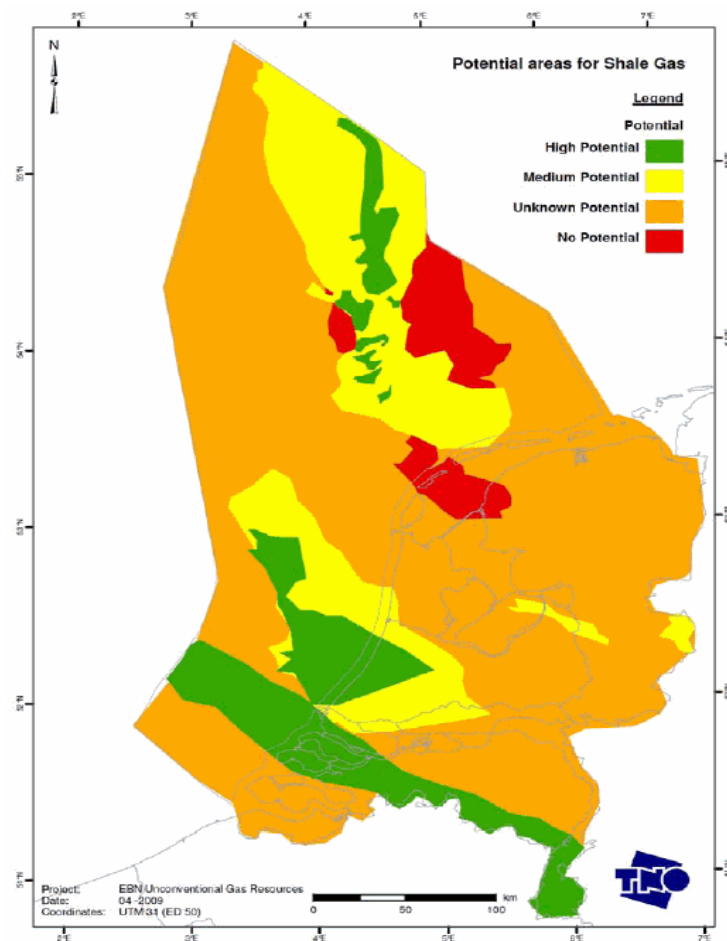


Considerable environmental, social and economic challenges!

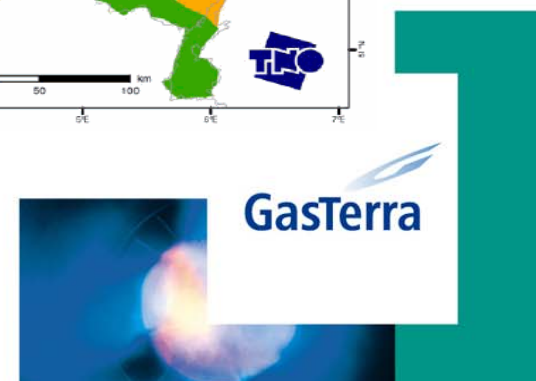


Shale Gas Reserves?

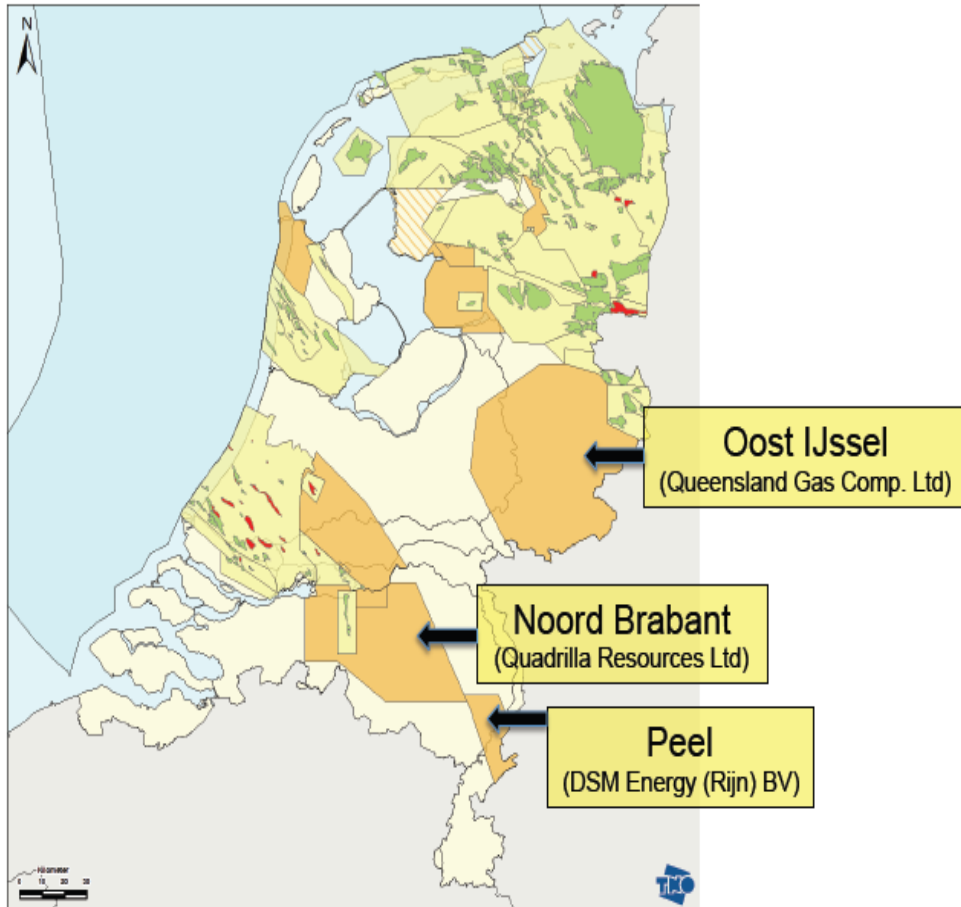
- Unconventional reserves in the Netherlands range from tight gas, CBM, to shale gas
- 2009: EBN estimated reserves at 110.000 Bcm (!)
- These figures drew considerable attention but were highly theoretical
- 2011: EIA estimated economically recoverable reserves in the Netherlands of 481 Bcm
- Resource potential remains highly contentious on technological advances and gas price



Shale gas potential needs to be clearly communicated!



Development Licenses



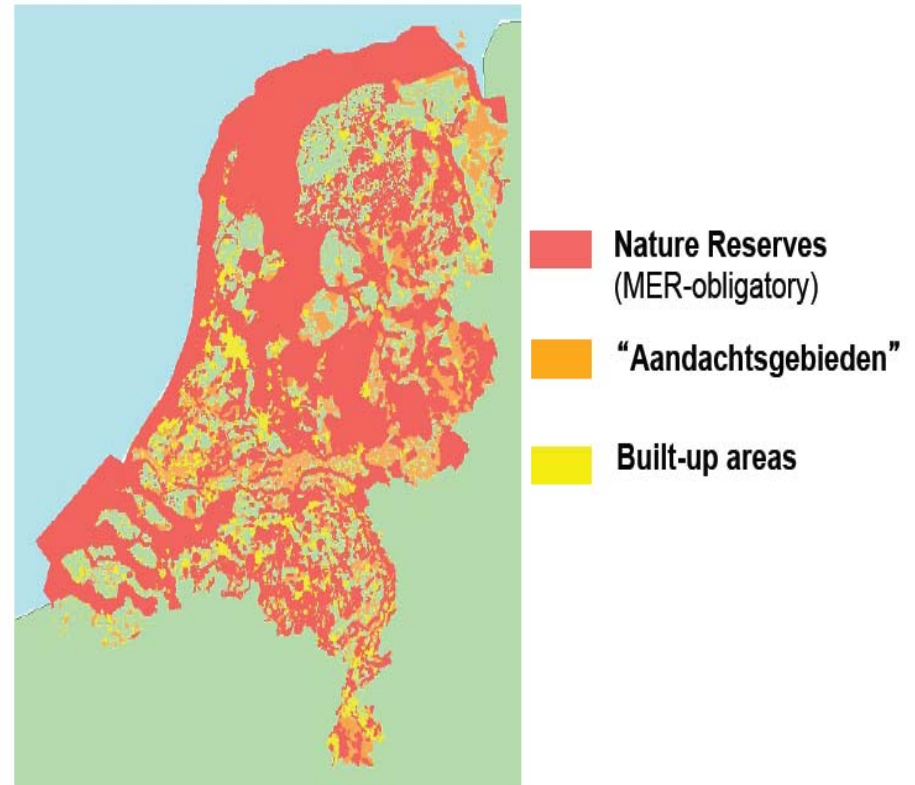
- Licences granted:
 - Developer: Cuadrilla
 - Shale gas
 - Noordoost polder and Noord-Brabant
 - DSM Energy
 - CBM
 - Peel
- Licences returned:
 - Developer: Queensland
 - CBM
 - Oost-IJssel
- Two licenses are currently under consideration

So far limited activity has delivered limited results!



Government Policy & NIMBY?

- National political wishlist:
 - *“The government wants to maximise natural gas reserves, shale gas can deliver a significant contribution to this goal”*
- Public Acceptance
 - (Initially) small group that made a lot of negative noise
 - In response a government sponsored national consultation on shale gas development started
- Current exploration activities are halted
- Local politicians delay development where they can
 - Knowledge on the subject is an issue



Local governments have the tools to obstruct shale gas development, and use them!



Conclusion

- Netherlands has considerable shale gas production potential
- Considerable difference between government ambitions and progress
- Future prospects may change considerably as the Dutch net export position deteriorates
- Developments in such a densely populated area should serve as a *"weather bell"* for EU prospects





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