

New Offshore Wind Tenders in Denmark



This is all you have to know

15 percent

30 percent

70 percent

Denmark - 24 years of experience in offshore wind

- **1991**: First Danish offshore wind farm
- **2007/08**: Strategic assessment for future location of 5200 MW wind power. Revised in 2011.
- **2011**: 868 MW offshore
- **2012**: Anholt 400 MW new offshore wind farm
- **2013**: app. 1300 MW offshore



New Offshore Wind projects in Denmark



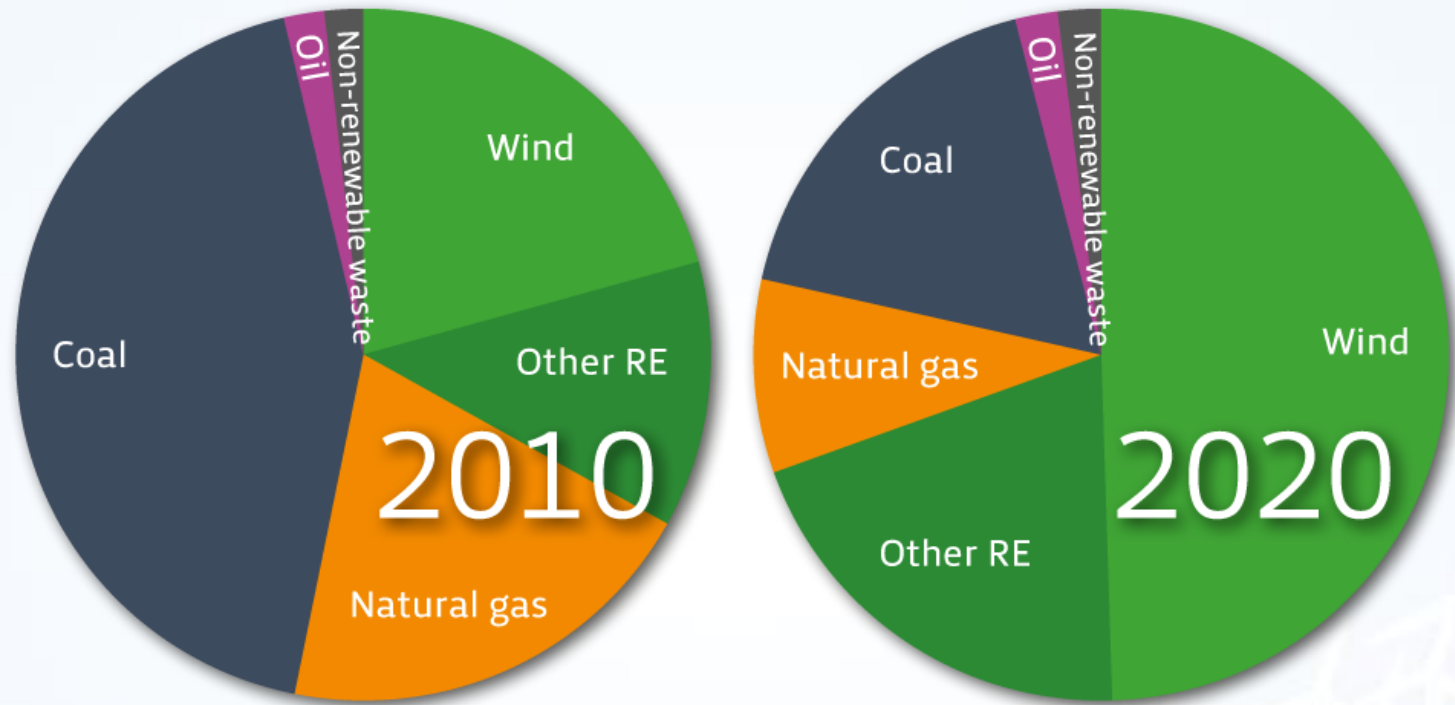
Horns Rev 3: 400 MW

Kriegers Flak: 600 MW

Tender for 350 MW near
shore wind farms

50 MW turbines for research
and development

Electricity consumption by energy source



Role of the Danish Energy Agency



Responsible for the call for tenders

Contracting authority

Responsible authority for EIA offshore

One-stop-shop for permits

Planning of future wind farms

The Danish offshore approach

Low risk

TSO to develop the site and EIA

Grid connection constructed and paid for by the TSO*

Fixed feed-in tariff for 50.000 full-load hours

Priority access to the grid

*For nearshore farms: Cable to shore constructed and paid for by the investor

The Danish offshore approach

Low risk

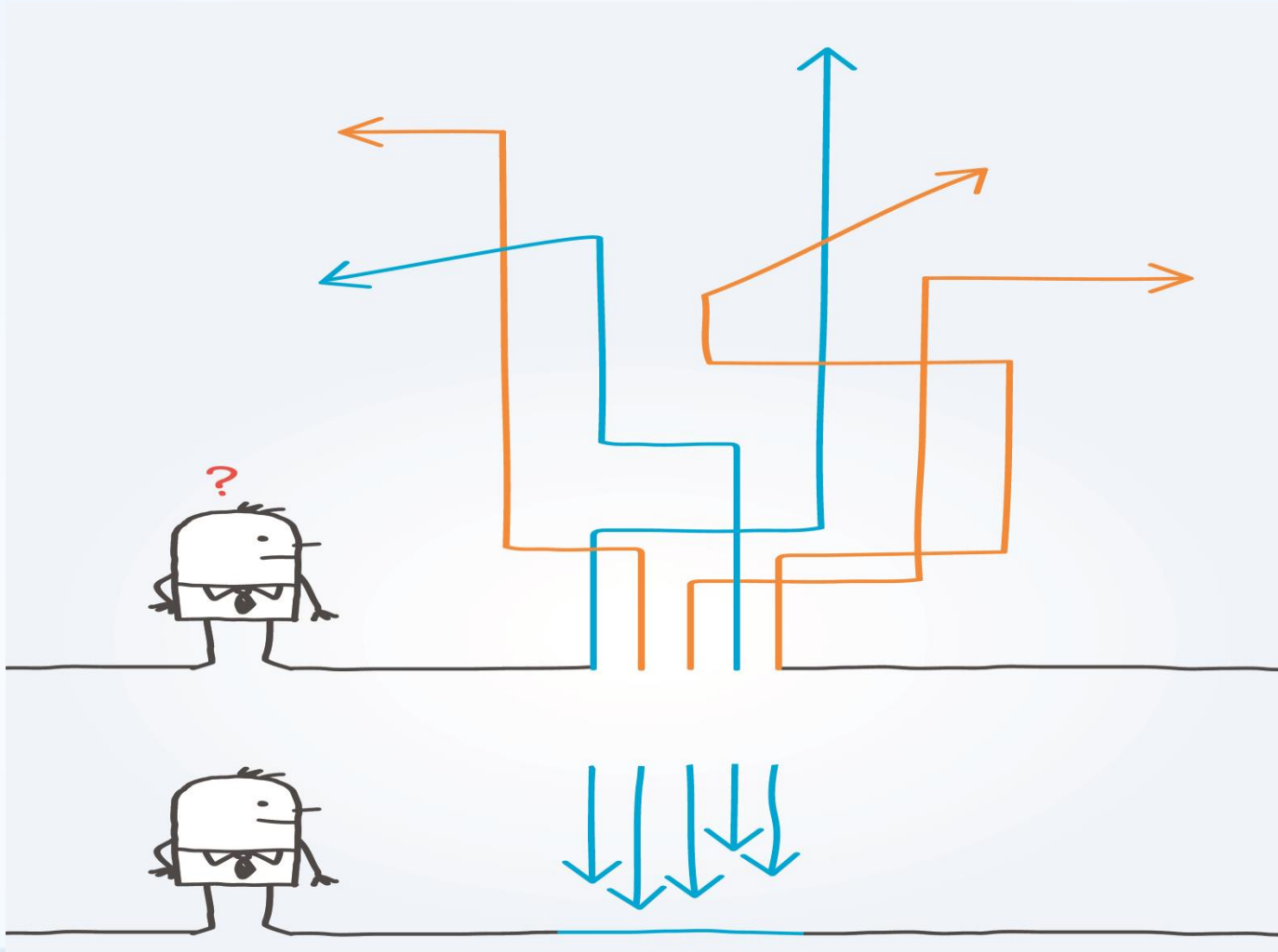
Dialogue and negotiation with potential bidders

Efficient and transparent electricity market

No requirement for local content

Award criteria is price only

One Stop Shop

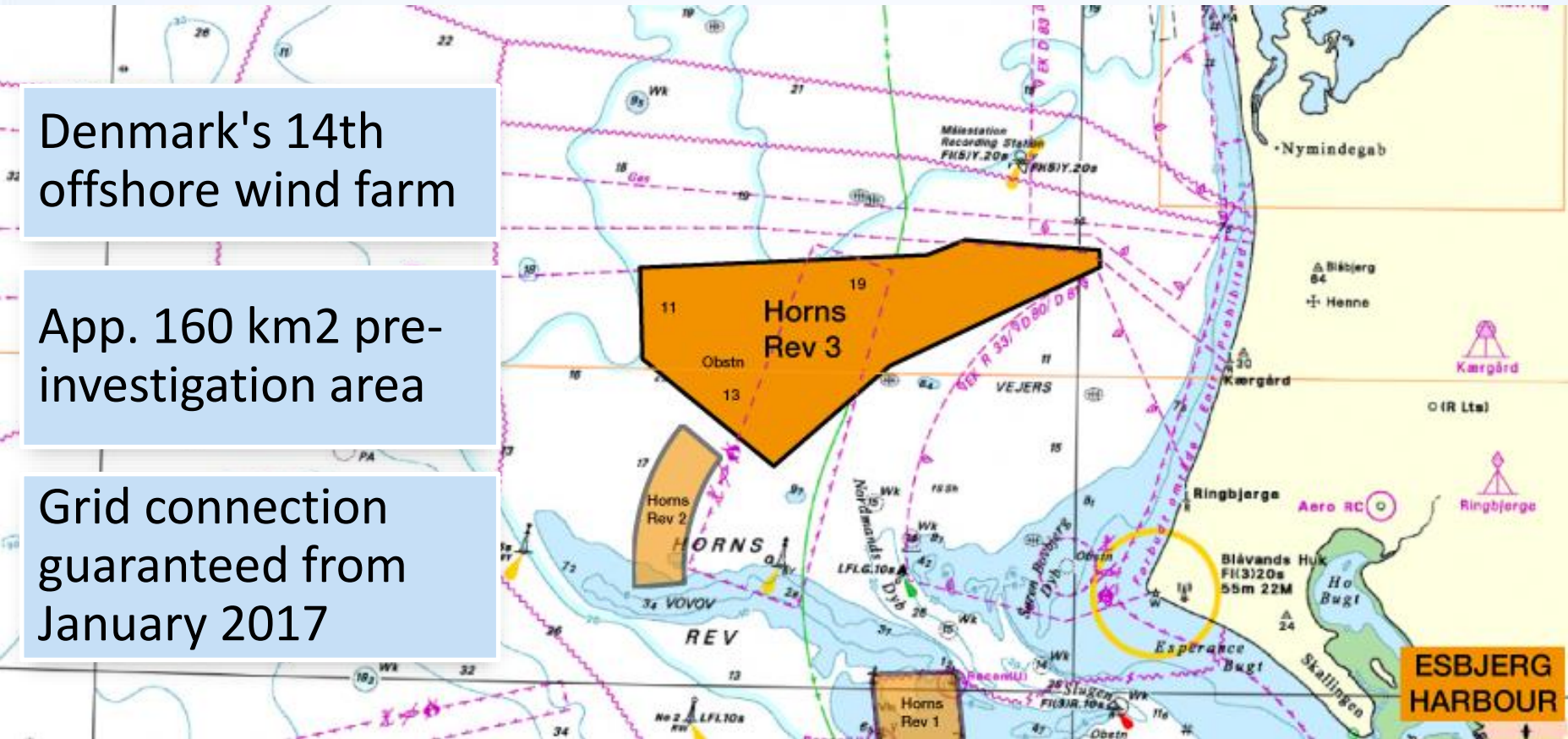


Horns Rev 3

Denmark's 14th offshore wind farm

App. 160 km² pre-investigation area

Grid connection guaranteed from January 2017



Horns Rev 3 timeline

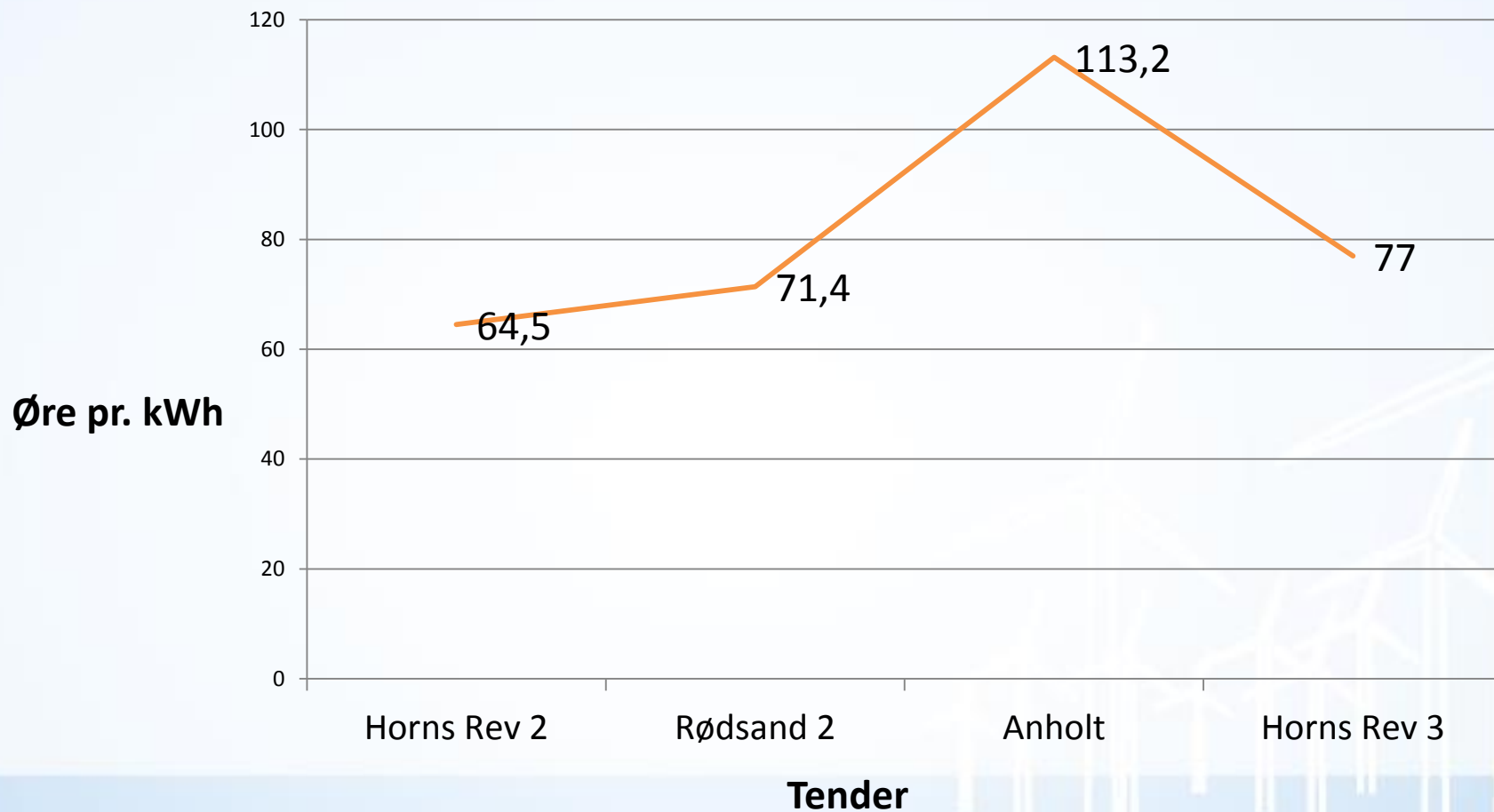


Please note: The deadline for binding tenders has been postponed.

The outcome of the Horns Rev 3 tender:

- Competitive tender procedure
- Price-reduction → 32 percent
- More efficient and bigger turbines drive costs down
- Industry also praised the tender process for being transparent and cost-effective → 15 percent.

Historic bid prices for Danish offshore wind farms



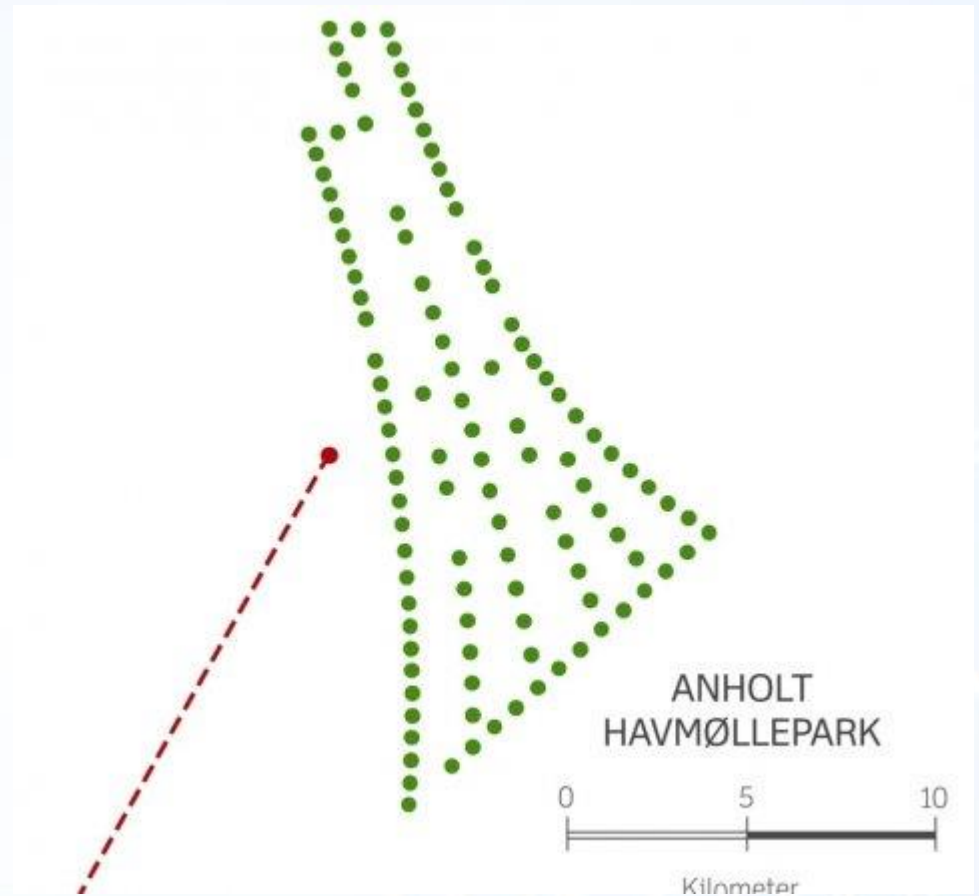
Getting to where we are today:

It took us 11 years and two important rounds of trial and error to get the tender strategy right.



First round: From Rødsand to Anholt

- Get a sharp price!



Second round: From Anholt to Horns Rev 3

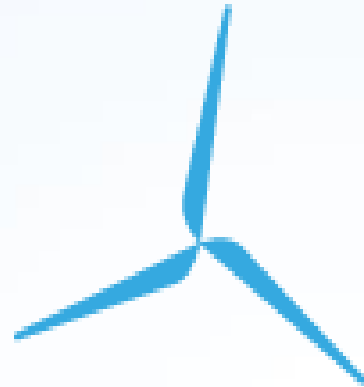
- Dialogue, negotiations and flexibility



Conclusions

- Technology specific tenders work spectacularly well - if they are done right.
- Competitive bidding with initial dialogue and negotiations works – if you have the right partners in a mature market.
- It takes time to develop a successful tender strategy.

Thank you for your attention



INTER-GOVERNMENTAL
OFFSHORE WIND FORLIM

Extra slides



Pre-investigations and EIA On- and offshore (internal resources)	Technical project (grid connection) (internal resources)
4 full-time resources (app. 3 years) (March 2012 – March 2015)	6 full-time resources for app. 2 years
2 full-time resource app. 1 year (March 2015 – March 2016) NOT including consultants doing the pre-investigations and EIA on contract with Energinet.dk NOT including resources to handle negotiations with private landowner (right-of-way etc.).	10 full-time resources for app. 2 years NOT including consultants doing the designs etc. on contract with Energinet.dk. NOT including client representative on various production sites and for the offshore installation.