

Gasmarknadsrådet

Göteborg, 24. november 2009

Energinet.dk

- 1. Denmark's oil and gas production forecast**
- 2. Status on Open Season 2009**
- 3. The Danish transmission tariffs**
- 4. Status on Swedish expansion – a possible road map**

- 1. Denmark's oil and gas production forecast**
- 2.**
- 3.**
- 4.**

1. Denmark's oil and gas production (1/2) ENERGINET/DK

- **DEA expect Denmark to be self sufficient with gas until 2020–29**

fig. 2.4 Produktion af olie og gas

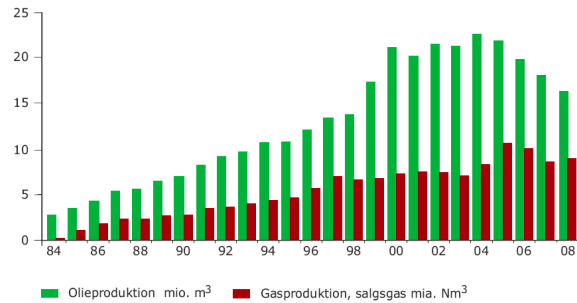


fig 6.5 Naturgasproduktion og reservebidrag

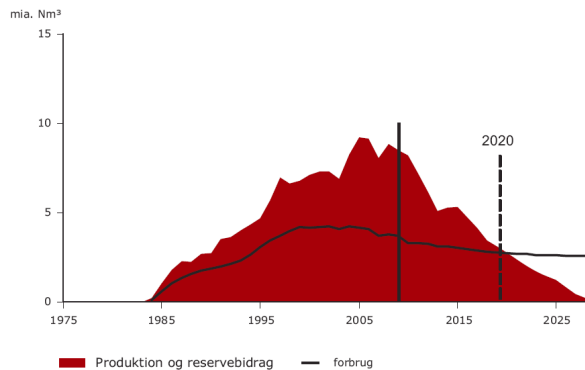
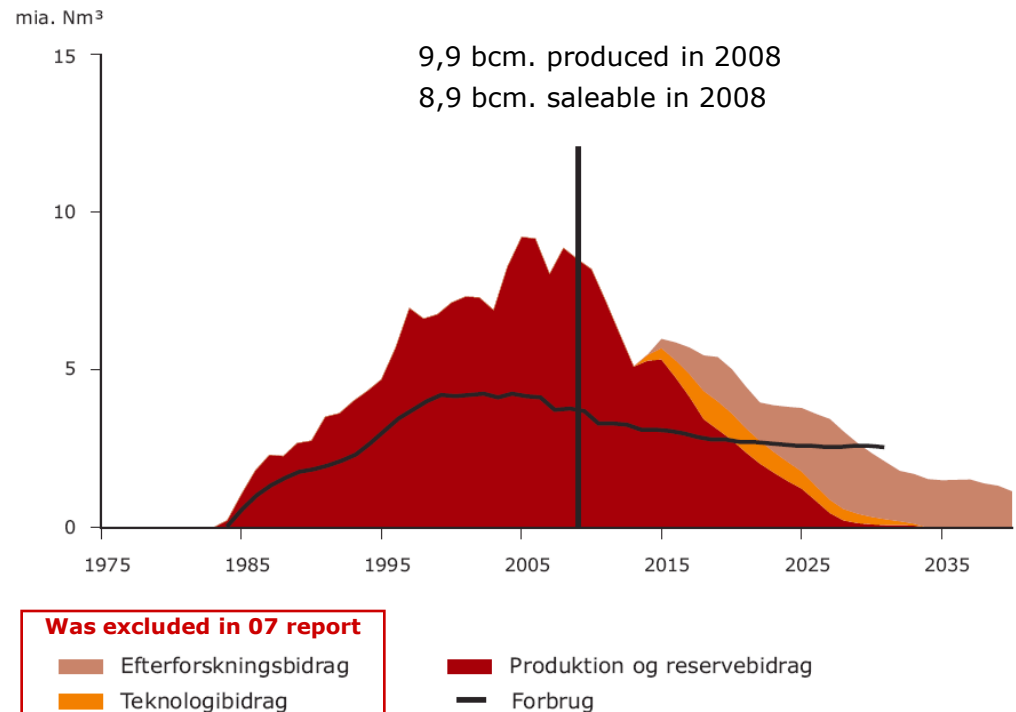


fig 6.7 Naturgasproduktion og prognoseskøn



- **BUT demand in S (and NL?) increases demand with +1 bcm/y**
- **BUT production fields going of plateau may be unstable and e.g. cold winters and dry years may increase demand**

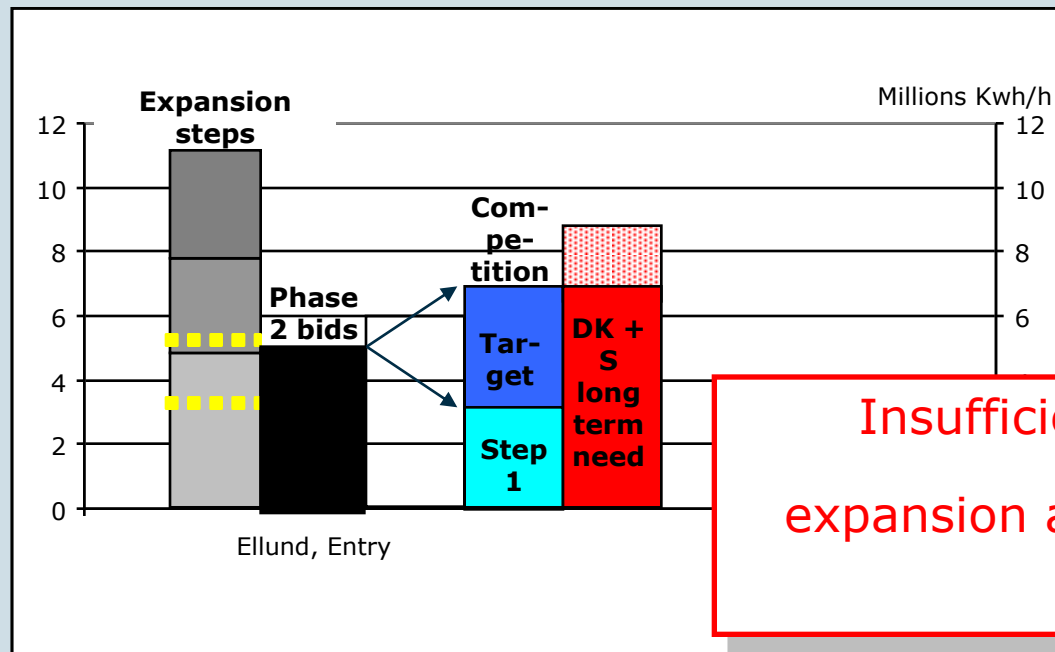
1.

2. **Status on Open Season 2009**

3.

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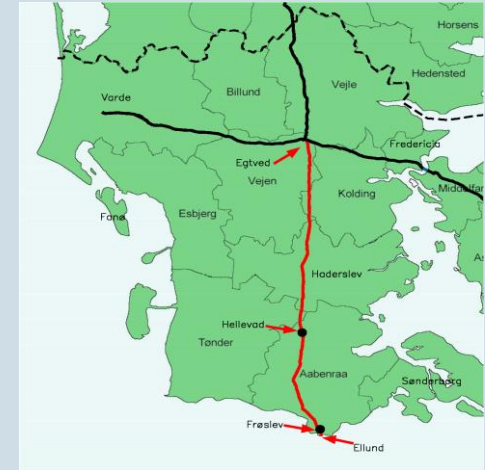
The Danish – Swedish long term capacity need



- ENDK estimate is a need equal to step 2 in 2019
- Could be needed earlier if:
 - The Netherlands (NOGAT) takes the Danish North Sea gas
 - The Danish North Sea production declines earlier than expected

Investment recommendation: Looping and compressor

- Sufficient to secure current S + DK capacity
- Demand as of October 2013 or earlier
- 50% EU-recovery grant finance support likely
- Location of compressor in Egtved considered
- New Construction Section established
- EIA in progress



Increase of capacity - Ellund Egtved	2009				2010				2011				2012				2013				2014																					
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
Environmental Impact Assessment																																										
EIA Scoping process - Initial public hearing																																										
EIA investigations and public process																																										
EIA approval																																										
ESPOO process																																										
Authority approval of the project																																										
Energinet Board approval of investment, conditional																																										
Application acc. Law of Energinet.dk																																										
Danish Climate & Energy ministers approval, conditional																																										
Energinet Board approval of investment																																										
Danish Climate & Energy ministers approval, final																																										
Gas pipeline Frøslev - Egtved West																																										
Pre-investigations																																										
Agreements with landowners																																										
Award of Engineering contract																																										
Engineering																																										
Procurement of linepipe and equipment																																										
Award of Construction Contract																																										
Construction period																																										
Testing and Commissioning																																										
Compressor station Southern Jutland																																										
Pre-engineering																																										
EPIC tender process																																										
EPIC contract																																										
EPIC Detailed engineering																																										
Procurement of land lead items																																										
Production of compressor units																																										
Site prep, Construction & Installation																																										
Completion/Testing and Commissioning																																										
Compressor & pipeline in operation																																										
Contractors one year operation period																																										
Handing over of Compressor to Energinet.dk																																										

Transport start up in October 2013

Phase 2 current status

- Final entry capacity at Ellund dependent on:
 - Minister for Climate and Energy's decision
 - Outcome of Gasunie's open season in Germany and the Netherlands

- Uncertainty is still expected to remain throughout 2010 in relation to:
 - environmental impact assessment in Southern Jutland
 - final investment decision taken by Gasunie at the end of 2010

1.

2.

3. **The Danish transmission tariffs**

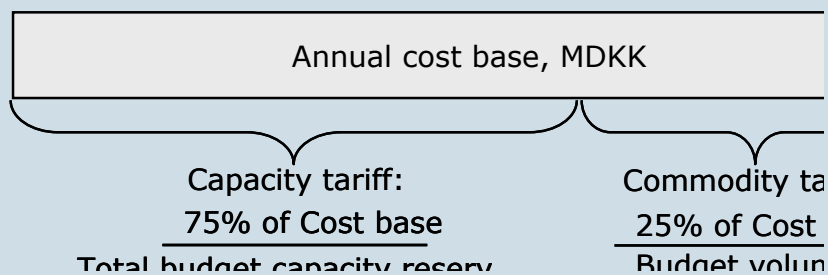
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Current tariff methodology

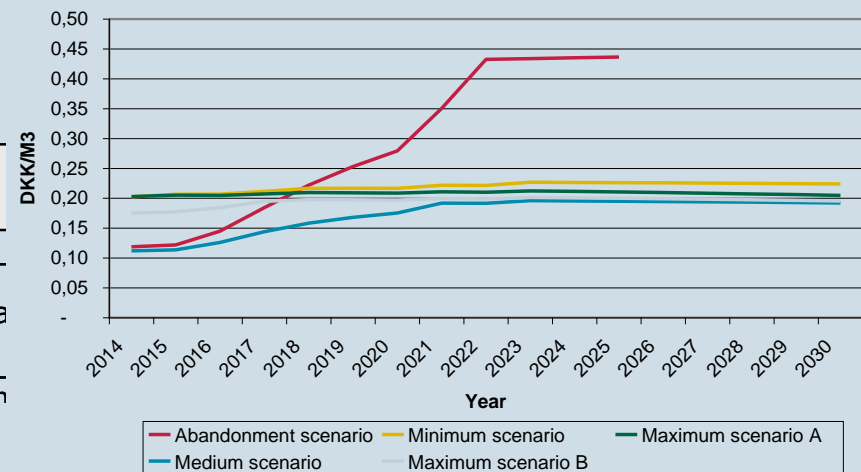
- The current tariff methodology is uniform capacity tariffs in all points
- March 2009 Economic analysis, chapter 4.3:

Energinet.dk has decided to focus on limiting tariff differentiation at an individual point, if applied at all, to a maximum 20% variation from the average capacity tariff. This is not a guarantee against greater differentiation in the future, but a yardstick for proportional comparison of investments at different points relatively. However, it does give an indication that Energinet.dk does not foresee any justification for a substantial tariff differentiation even in the future after the Open Season.

Current tariff methodology => Uniform tariffs



Average transportation costs 2014-2030



Alternative tariff models

■ Models for differentiated tariffs:

- Auctioning
 - used for storages and could be relevant for existing congested capacities – e.g. Ellund
- Implicit auctioning
 - Used with success on Nordic electricity interconnectors
- Ramsey-pricing
 - Theoretically optimal for maximising use and revenue
 - Discriminatory and practically impossible
- Variable tariffs (exit-zone)
 - Could increase use of existing (exit-zone) capacity and give more equal competition situation
 - Requires intelligent solution to avoid unfair cost-redistribution and capacity problems
- Objective cost-based – specific extra costs for e.g.:
 - Payment for additionally reserved physical capacity for the zone
 - Payment for free balance margin to zone capacity
 - Payment for additional investments in entry capacity due to SoS needs in the zone and Sweden
- Historical/replacement/marginal cost
 - historical cost and revenue allocation to existing points and allocation of new investments to new capacity

■ Entails:

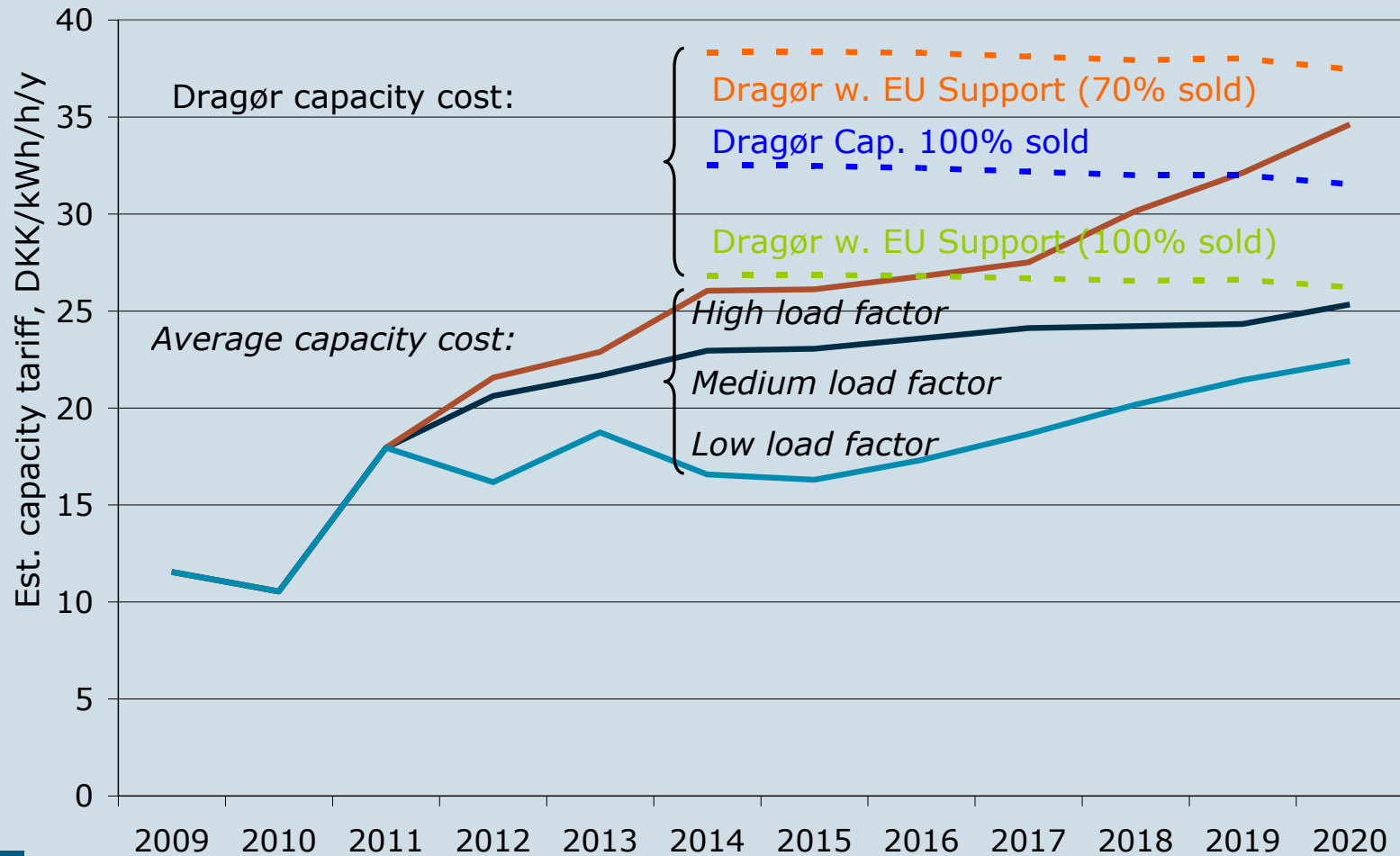
- Risk of instable tariffs with regular over-/under-recovery
- Difficult to predict and justify in a mature system that is facing changes to flows, costs and required investments.

Analysis to review tariff methodology considered

- ENDK considers:
 - To start internal analysis
 - To start dialogue with DERA
 - To start dialogue with shippers

- What is the opinion in Shippers' Forum?

Comparing marginal cost of expanding Dragør to average system cost



- 1.
- 2.
- 3.
4. **Status on Swedish expansion – a possible road map**

Relevant entry-exit points:

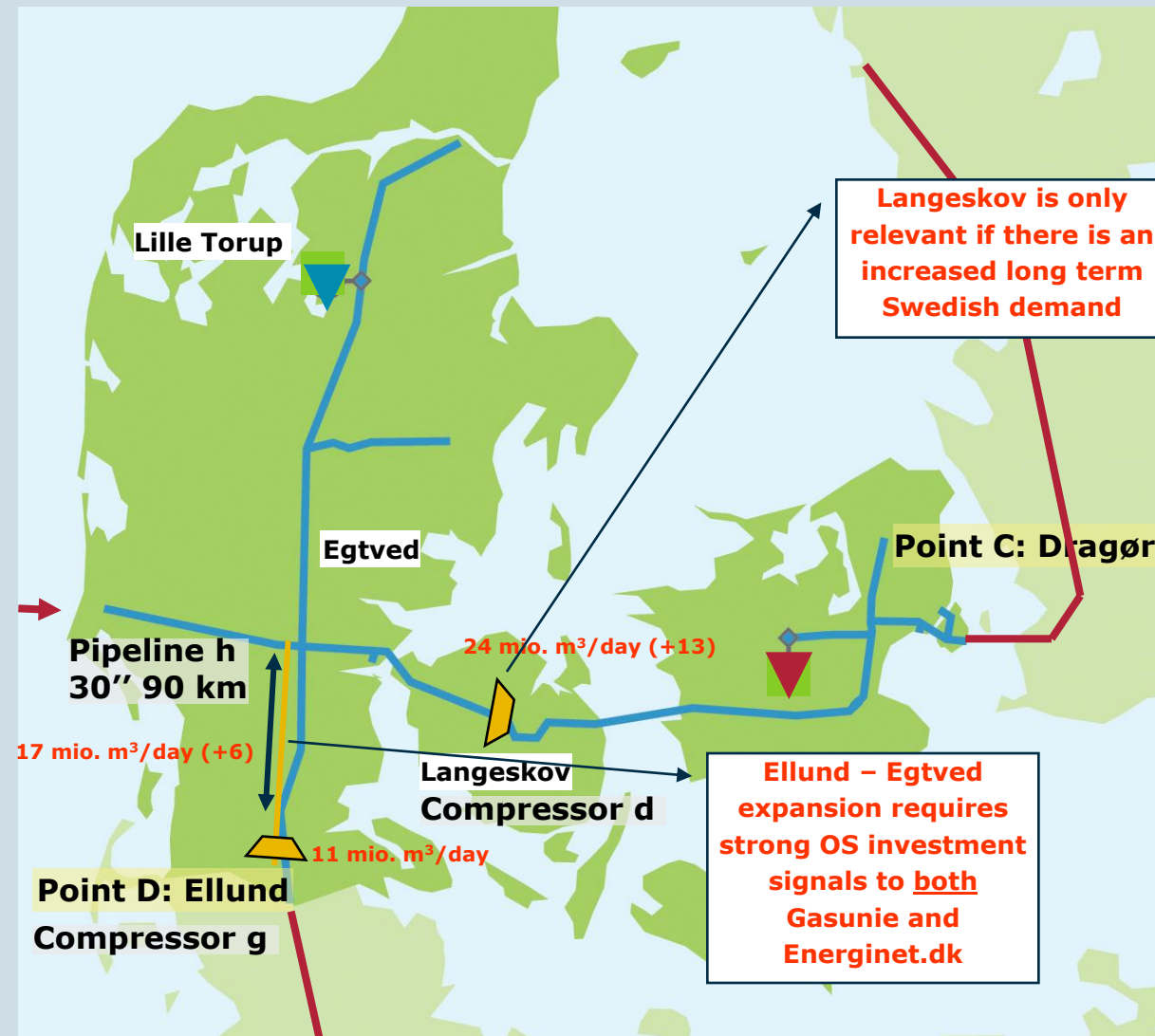
- C Dragør to SE
- D Ellund to/from Germany

Pipelines:

- h Ellund-Egtved

Compressors:

- d Langeskov – to SE
- g Ellund – to DK and SE

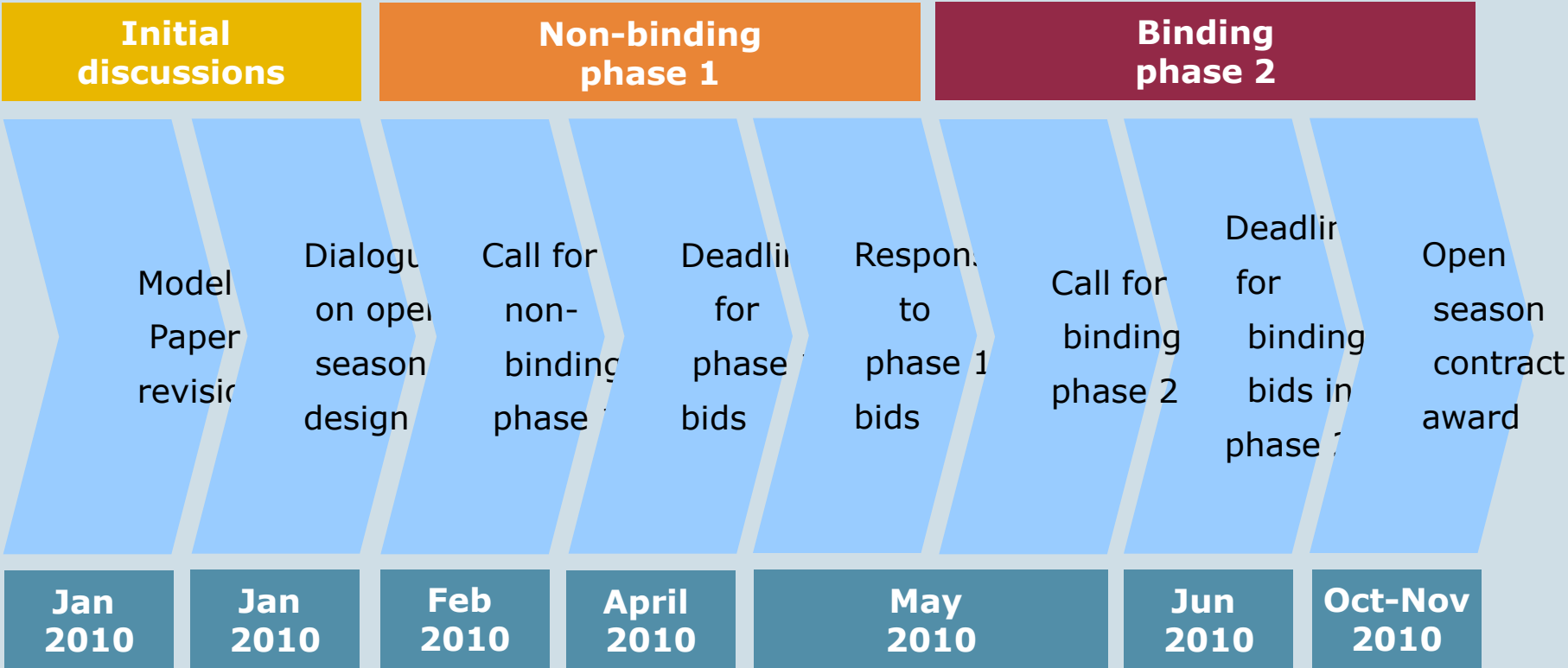


An expansion of Dragør will not be decided in 2009 and Swedish capacity may drop if an Ellund-Egtved looping falls

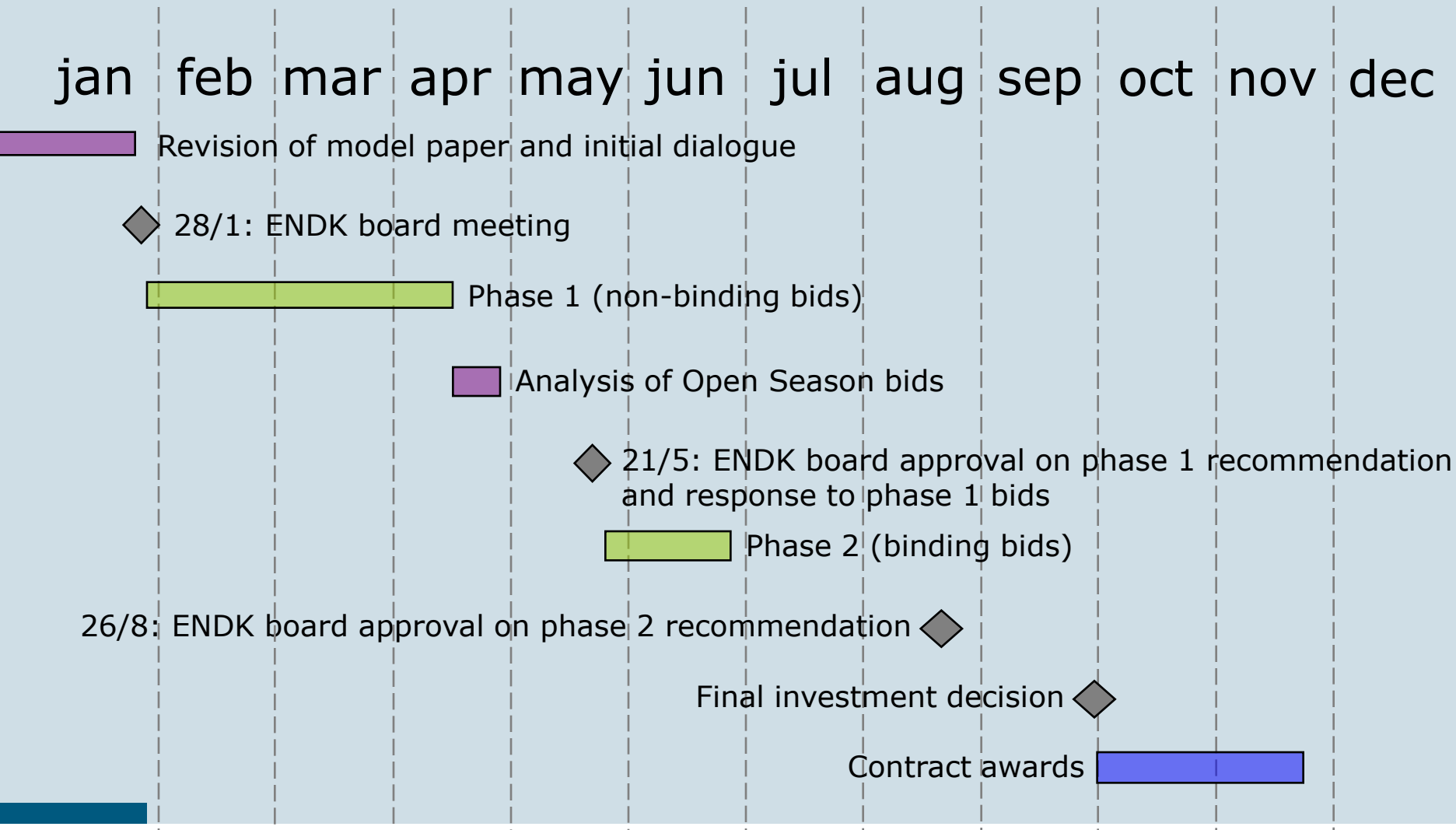
- Langeskov compressor is not offered in OS 2009 Phase 2 as ...
 - ... Energinet.dk got insufficient cumulated bids in OS phase 1 to justify a business case

- But it may be offered in a mini open season in 2010 if ...
 - ... both a compressor and a looping is decided for Ellund-Egtved and
 - ... Energinet.dk receive EU recovery finance for it and
 - ... the Swedish market confirms Swedegas' anticipation of a possible need hereof

Possible Open Season 2010 process



Draft time schedule for a possible OS 2010



Is there a Swedish demand for additional capacity ?

- Is the Swedish market interested in additional capacity?
- Are there potential bidders who did not participate in OS2009?
- Will the bidders from phase 1 bid for 10 year long transport reservations?
- Does it make sense to make a 2010 mini open season for Dragør?
- Energinet.dk needs answers before December 2009 to facilitate an open season process!