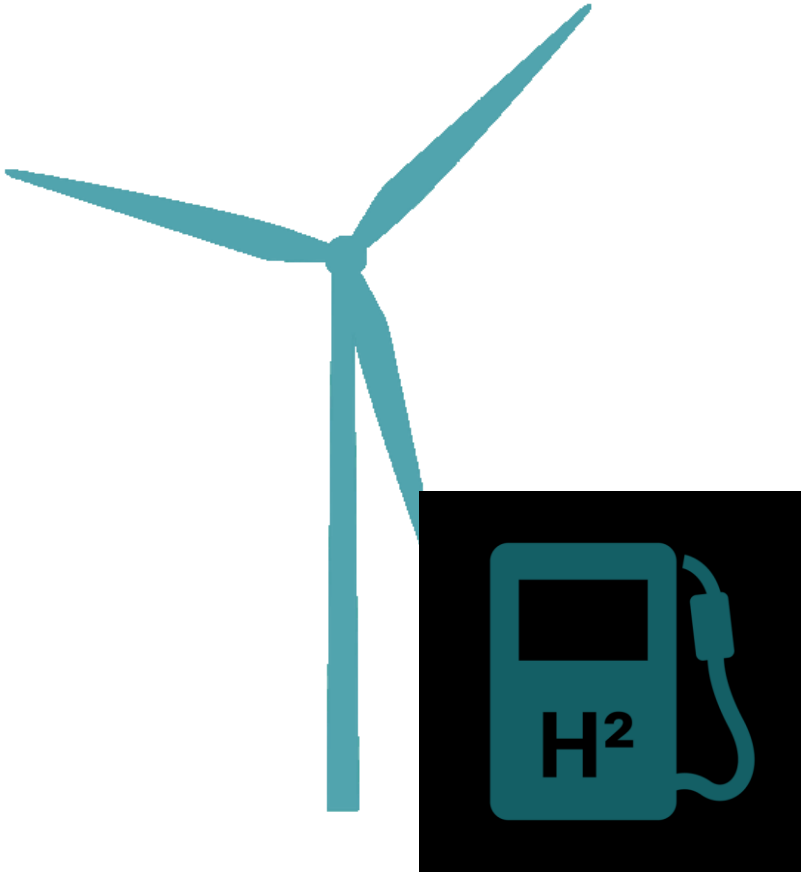
Danish Energy Agency

State aid scheme for the production of Power-t-X in Denmark

The Danish Energy Agency

AGENDA

- Political framework
- State aid approval
- Economy and bidding caps
- Winning critieria
- Link between full capacity and production
- Phases of the state aid scheme
- New installations
- Green hydrogen
- 70% reduction target for the production
- Maturity of the projects
- Full capacity and start of production
- Penalty and documentation of full capacity
- Administration and payment of state aid
- Other conditions
- Content of a bid



- Questions regarding the material of the state aid scheme

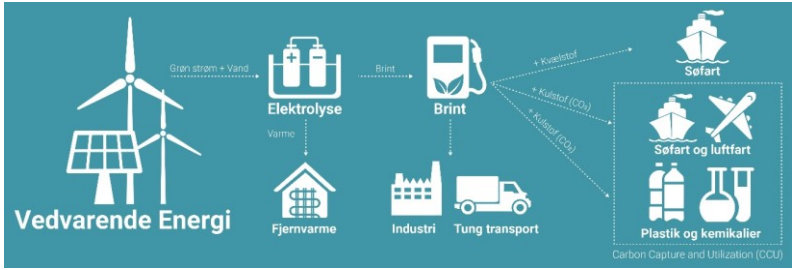
- Minor changes can still occur until opening the PtX tender happens

POLITICAL FRAMEWORK

PURPOSE

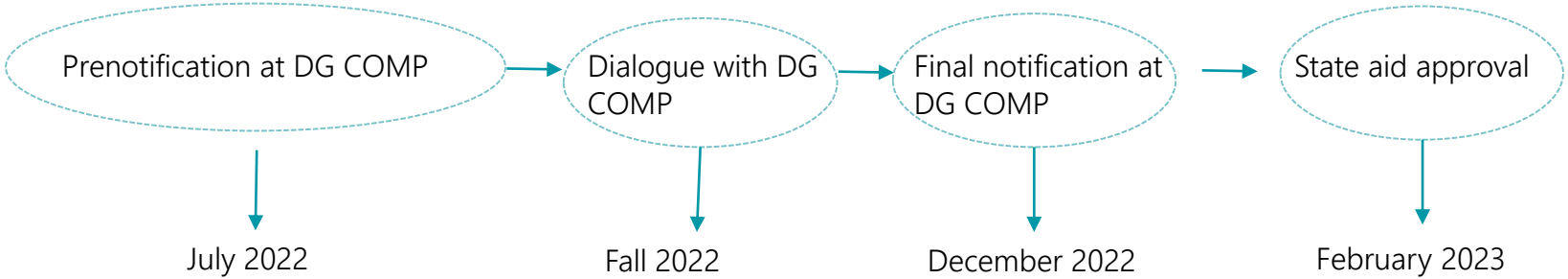
To support and help industrialization and upscaling of Power-to-X production and thereby support the green transition

- 1,25 mia. DKK = €170 mil
- Operational support to production of green hydrogen over a period of 10 years
- Competition based tender in order to get the cheapest and largest production of green hydrogen
- Aid given as fixed price DKK/GJ produced hydrogen
- Bidding caps – overall bidding cap and budget regulating cap
- Winning criteria: Lowest bid prize



STATE AID APPROVAL

- State aid approval were given to Denmark February 15 2023 ☺
- Approval proces by the EU Commission



- Conditions of the tender

- Approval from the EU COM + finalized conditions = Launch of the PtX-tender

ECONOMIC FRAMEWORK AND CAPS

General cap

120 DKK/GJ produced green hydrogen

Budget regulating cap

70 DKK/GJ produced green hydrogen

Enough bids below 70 DKK/GJ → **Full budget spend 1,25 mia. DKK**

Not enough bids below 70 DKK/GJ → **1. round 750 mio. DKK**

New tender → **2. round 500 mio. DKK**

WINNING CRITERIA

Lowest bid prize DKK/GJ produced green hydrogen

Together with the bid prize, the bidder announces:

- Prize with 4 decimals
- Total amount of green hydrogen produced in 10 years that need subsudies
- Full capacity of the electrolyser installation
- Number of full load hours

LINK BETWEEN FULL CAPACITY AND PRODUCTION VOLUME

The total amount of green hydrogen that the bidder wish to produce during the 10 year periode has to be linked to the size of the electrolyser plant (full capacity) :

*(GJ green hydrogen pr. hour at full capacity) * (number full load hours pr. year) * 10 year = total amount of produced green hydrogen*

Max number of full load hours pr. year = 5500 hours pr. year

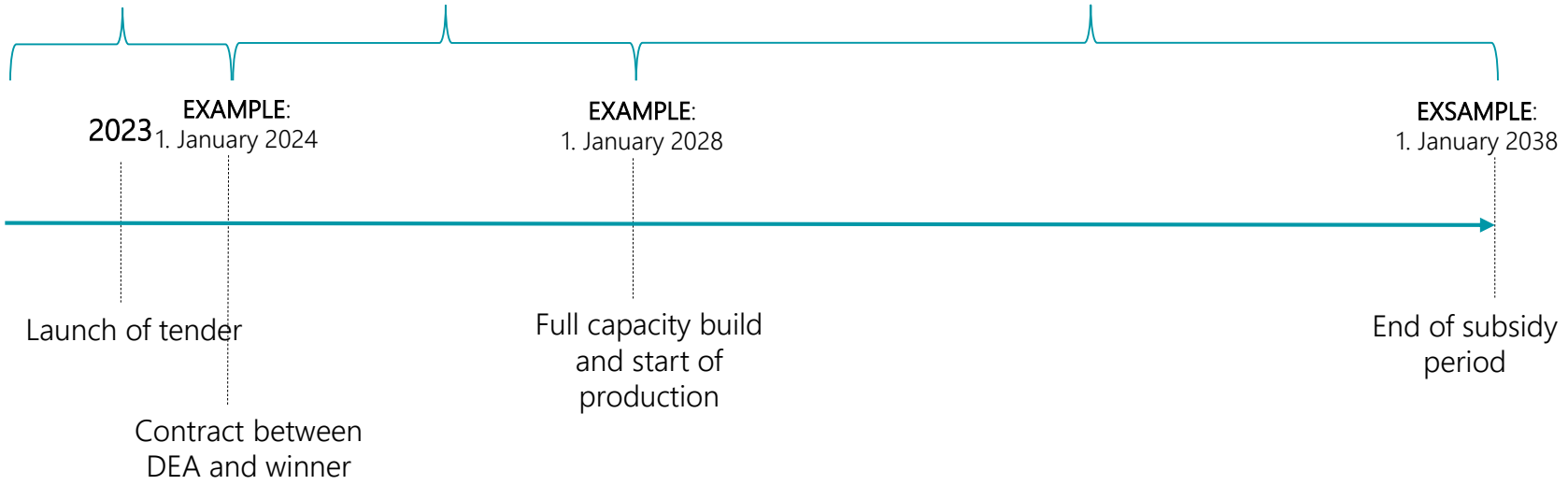
The plant can produce more than green hydrogen than mentioned in the contract, but will not recieve more state aid.

PHASES OF THE STATE AID SCHEME

Development of projects

Building the plant
Approvals and full capacity max 4 years

Operational and subsidy period
Production of green hydrogen
Measurement and documentation
10 years



REQUIREMENTS TO THE ELECTROLYSER

- Electrolyser plant has to be a new installation
- No final investment must be made before participating in the tender
- Make sure not to have recieved any other subsidy

GREEN HYDROGEN

The state aid only supports green hydrogen

- Meaning green hydrogen as defined in the upcoming EU regulation – delegated act of RFNBO (Renewable Fuel of Non-Biological Origin)
- The electricity has to come from renewable energy sources only

Delegated act for RFNBO –published February 10 2023

- Electricity from the grid: Start of production before January 1 2028, no demand of additionality, but have to show temporal and geographical correlation.
- Exemption from additionality until 2038
- If the renewable share is higher than 90% in the bidding zone not necessary to document temporal and geograhical correlation.

70% EMISSION SAVINGS FOR THE FULL PRODUCTION

- All hydrogen that is produced on the plant in the 10-year period has have a CO2 emission saving of at least 70% compared to the fossil reference according to the GHG methodology
- Documentations to the DEA on a yearly basis

MATURITY OF THE PROJECTS

Grid connection

If a project wants to connect to the grid – screening report from Energinet (Danish TSO)

Environmental approval

Relevant environmental authorities has to be contacted before hand and statements of the maturity of the project has to be given

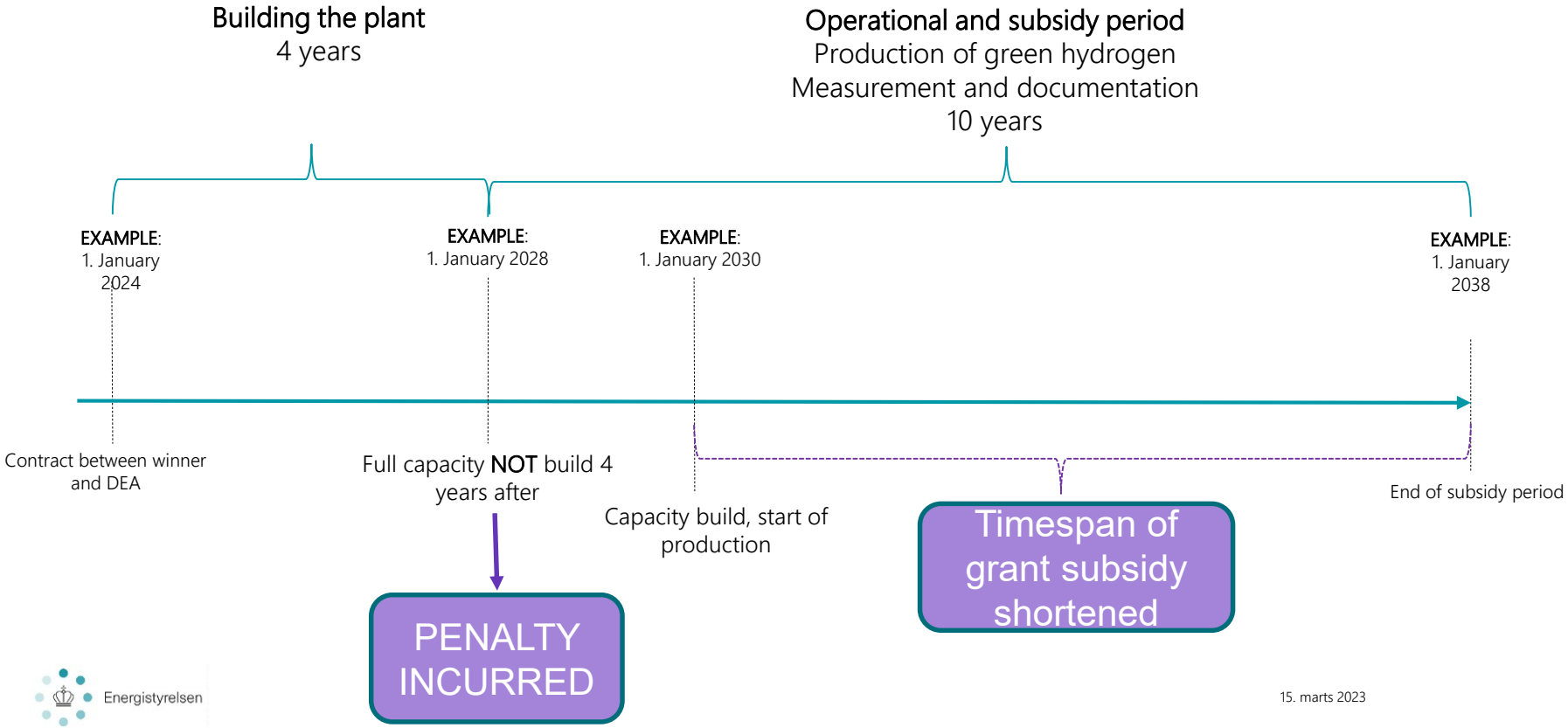
FULL CAPACITY AND START OF PRODUCTION

Full capacity has to be established and production of green hydrogen start no later than 4 years after the contract has be signed with the Danish Energy Agency

Production can start before

If the full capacity has not been build after 4 years penalty will be given

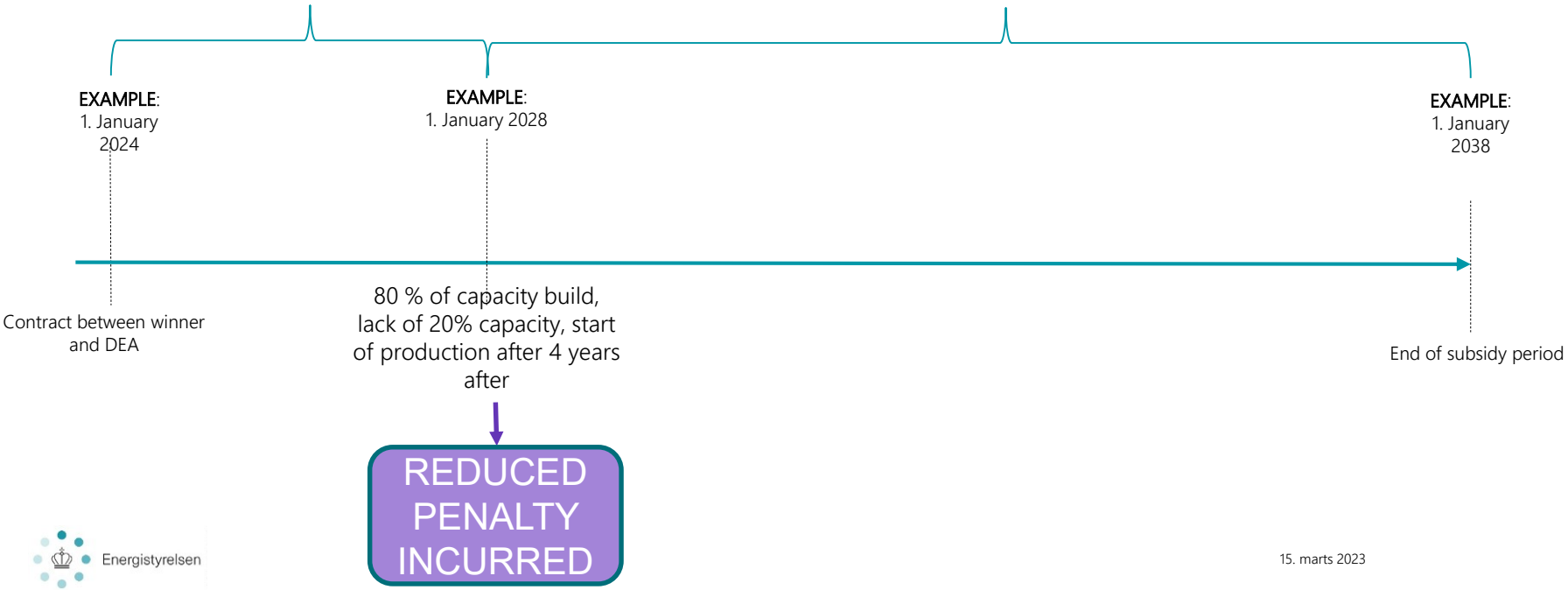
PENALTIES


Building the plant
4 years
Operational and subsidy period
Production of green hydrogen
Measurement and documentation
10 years
EXAMPLE:
1. January
2024
EXAMPLE:
1. January 2028
EXAMPLE:
1. January 2030
EXAMPLE:
1. January
2038
Contract between winner and DEA
Full capacity NOT build 4 years after
Capacity build, start of production
End of subsidy period
PENALTY INCURRED
Timespan of grant subsidy shortened

PENALTIES

Building the plant
4 years

Operational and subsidy period
Production of green hydrogen
Measurement and documentation
10 years



DOCUMENTATION OF FULL CAPACITY

- Full capacity is shown when the electrolyser plant has had a electricity input equal to the maximum effenciency for 500 hours

- Documentation of full capacity, no later than 3 month after the 4-year deadling to the DEA

RISK PREPAREDNESS AND LAW OF SCREENING OF INVESTMENTS

Risk preparedness

- Be aware of coming rules for risk preparedness in the hydrogen sector – both on cyber security and physical risk preparedness

Law of screening of investments

- Foreign companies may need an approval according to the law of screening of investments (Investeringsscreeningsloven)

EXTENSION OF DEADLINE FOR START OF PRODUCTION

- Up to 1 year extension at special circumstances
- Extern circumstances
    - Force majeure, archaeological find, pandemic, etc.
- Not business relations

ADMINISTRATION OF THE STATE AID SCHMEE

- All approvals
- Documentation of full capacity
- Measuring the hydrogen – on a monthly basis
- Yearly document that

  1) the hydrogen produced is green accordning to the delegated act on RFNBO

  2) that the total production of hydrogen has an emission saving of min 70%

PAYMENTS OF THE STATE AID

- The state aid is paid retroactively – on a monthly basis
- Is paid once the production of the hydrogen has been given to the DEA
- No payment in beforehand
- A fixed yearly amount can be paid with some fluctation to accomodate flexible production

ØVRIGE KRAV

- Ikke modtage dobbeltstøtte: Erklæring om, at tilbudsgiver ikke vil modtage anden statsstøtte til dækning af de omkostninger, som støtten i henhold til nærværende udbud skal dække.
- Anlægget skal opføres i Danmark
- Der skal stilles en anfordringsgaranti svarende til fastholdelsesboden
- Alle tilladelser på plads og indsendt til Energistyrelsen inden støtten kan udbetales
- Mulighed for at give mere end et bud
- Sprog – tilbud på dansk

OTHER CONDITIONS

- Not possible to recieve double state aid to cover the same costs
- The electrolyser plant has to be placed in Denmark
- A bank guarantee has to be given
- Possible to be part of more than one bid/project
- All approvals in place before state aid can be paid
- Materials in english – but the bid has to be given in Danish

ET TILBUD SKAL INDEHOLDE

- en budpris per GJ, en samlet mængde grøn brint (GJ) og en samlet vandelektrolysekapacitet (MW), antal fuldlasttimer
- en erklæring om forpligtelsen til at etablere fuld kapacitet og starte produktion af grøn brint

Udfyldt skabelon til beskrivelse af anlæg omfattet af tilbud (**bilag 2**).

Udfyldt skabelon til hensigtserklæring om at stille anfordringsgaranti (**bilag 4**).

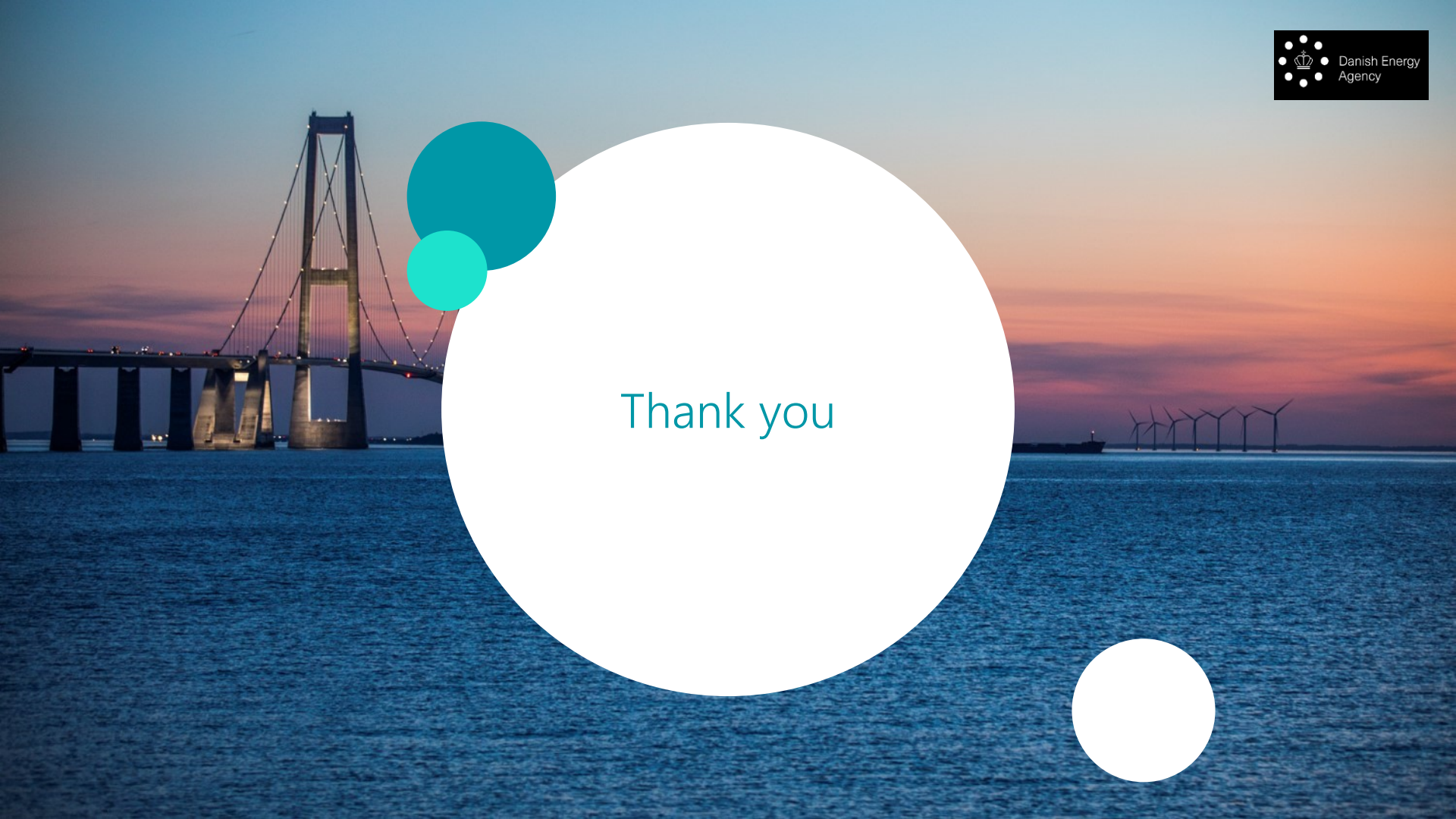
En udtalelse fra den kompetente miljømyndighed (se punkt 5.7)

Såfremt projektet forsynes med elektricitet via transmissionsnettet, en screeningsrapport fra Energinet, som dokumenterer, at det er muligt at tilslutte projektet til transmissionsnettet inden for 4-årskravet (se punkt 5.7)

Det skal af tilbuddet tydeligt fremgå, hvilken virksomheden eller sammenslutning af virksomheder, der afgiver tilbuddet.

ET TILBUD SKAL INDEHOLDE FØLGENDE ERKLÆRINGER

- en tro og love erklæring om, at tilbudsgiver ikke har ubetalt, forfalden gæld til det offentlige på over 100.000 kr.,
- en tro og love erklæring om, at tilbudsgiver har efterkommet ethvert eventuelt krav om tilbagebetaling af støtte, som Europa-Kommissionen ved en tidligere afgørelse har fundet ulovlig og uforenelig med det indre marked,
- tro og love erklæring om, at tilbudsgiveren ikke er en kriseramt virksomhed, som defineret i punkt 20 i Kommissionens meddelelse om Rammebestemmelser for statsstøtte til redning og omstrukturering af kriseramte ikke-finansielle virksomheder (EUT C 249, 31.7.2014, s. 1)
- en tro og love erklæring om at tilbudsgiveren ikke vil modtage anden støtte til samme projekt og/eller med samme formål end pristillæg i medfør af kontrakten,
- en erklæring om at arbejde på projektet ikke er påbegyndt,
- en erklæring om at tilbudsgiveren ikke har taget forbehold over for udbudsmaterialet,
- en erklæring om, at tilbudsgiver er indforstået med, at Energistyrelsen behandler personoplysninger afgivet af tilbudsgiver som led i afgivelse af tilbud og
- en erklæring om at tilbudsgiver er indforstået med, at Energistyrelsen er berettiget til at offentliggøre oplysninger om vindende tilbud, herunder budpris, mængde af brint, placering, teknologi og navnet på tilbudsgiveren.


Danish Energy Agency
Thank you