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The Licensing Procedure for Offshore Wind Farms in the German EEZ

Bremerhaven, 20 February 2014

Dr. Nico Nolte

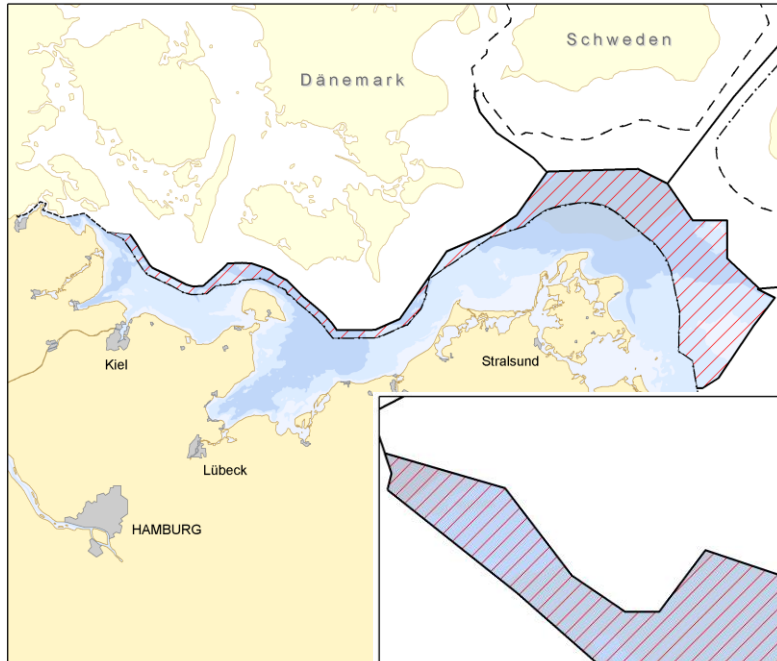
Federal Maritime and Hydrographic Agency
(BSH)



German Exclusive Economic Zone



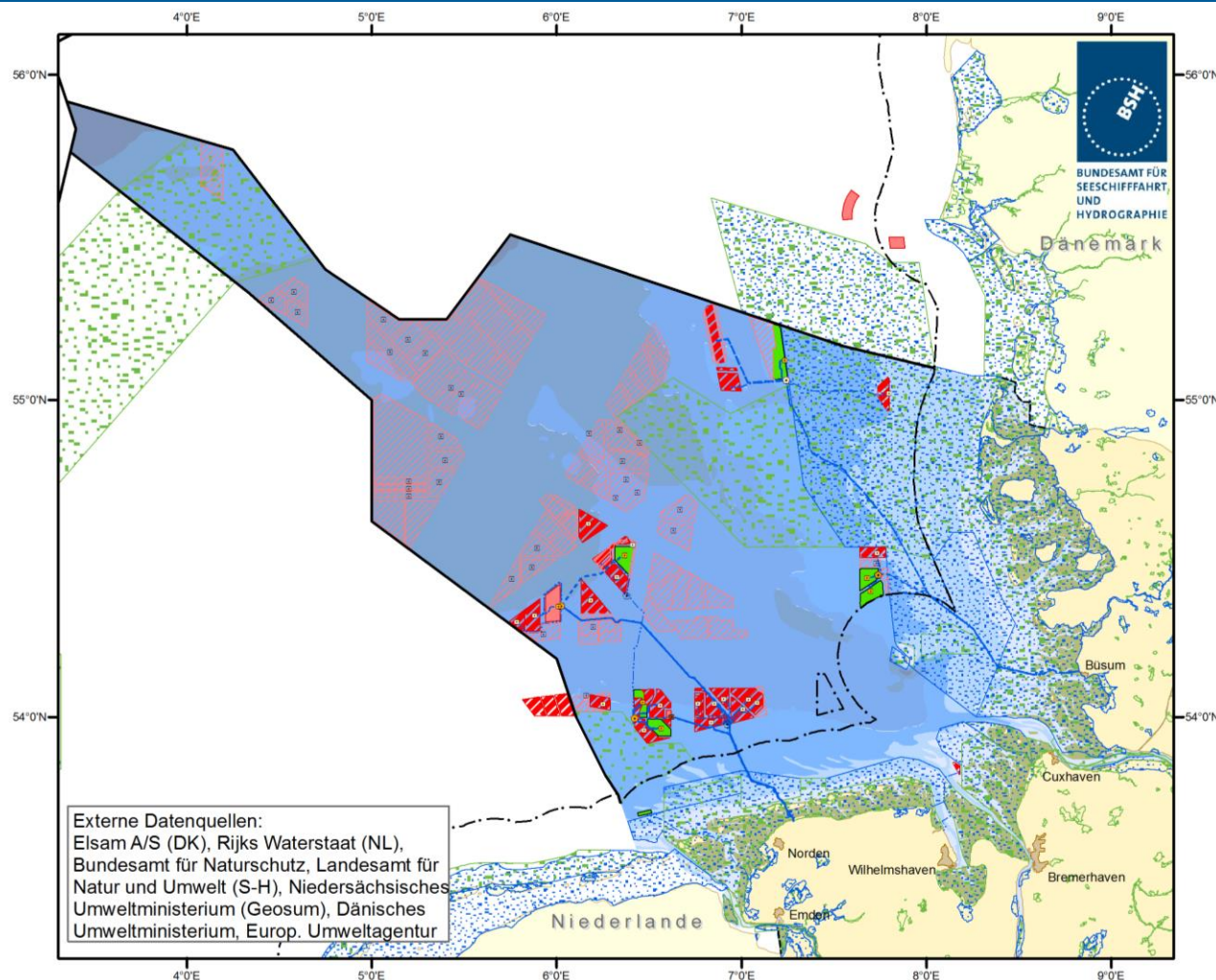
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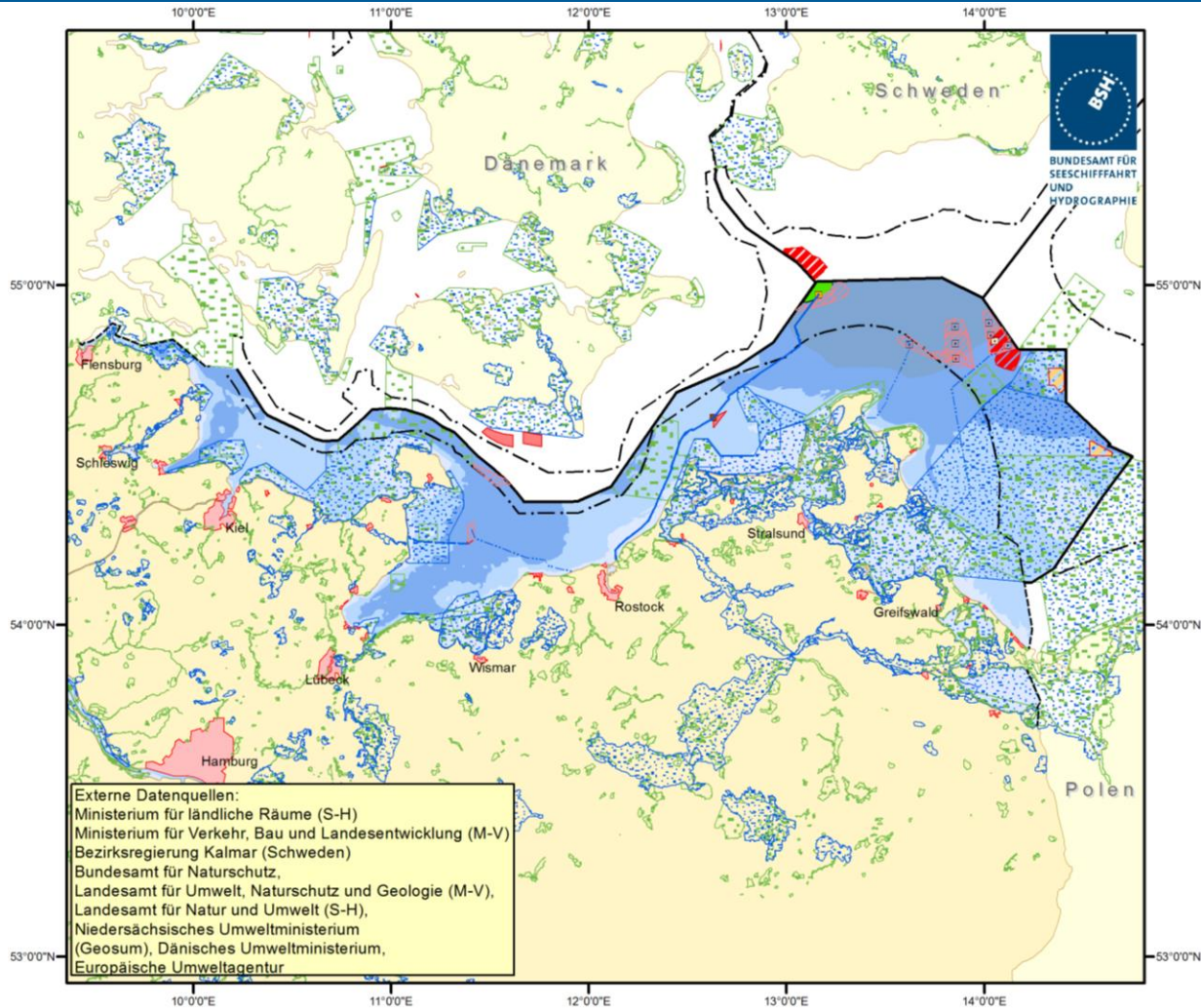
Baltic Sea : 4.500 km²



North Sea : 28.600 km²



Windparks (EEZ)
applied: 78
licensed: 30 (2010 turbines)
Under construction: 7
In operation: 2



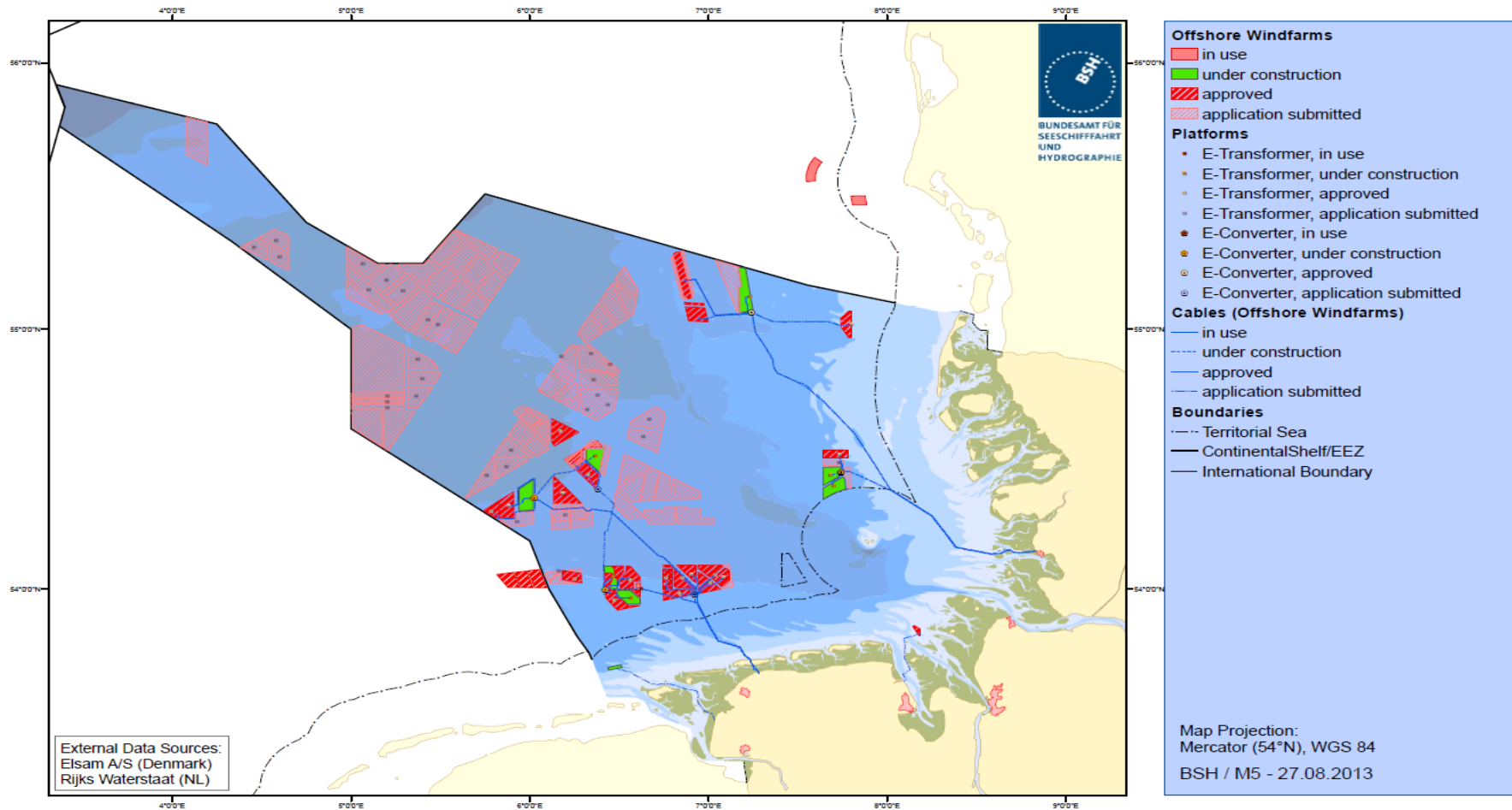
Windparks (EEZ)
 applied: 17
 licensed: 3 (240 turbines)
 Under construction: 1
 In operation: 0

Offshore Activities 2014



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North Sea: Offshore Windfarms



http://www.bsh.de/en/Marine_uses/Industry/CONTIS_maps/index.jsp

Marine Facilities Ordinance (Seeanlagenverordnung)

Installation and operation of OWT require planning approval
(Planfeststellung)

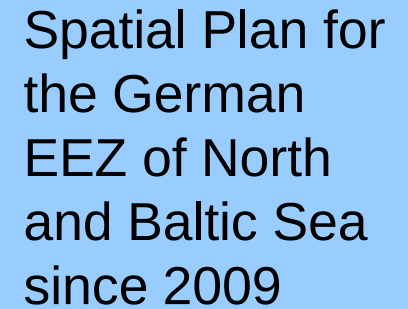
A plan may be only approved if there is:

- no threat to the marine environment
- no threat to safety or efficiency of shipping traffic
- no threat to national or allied defence
- other public law requirements

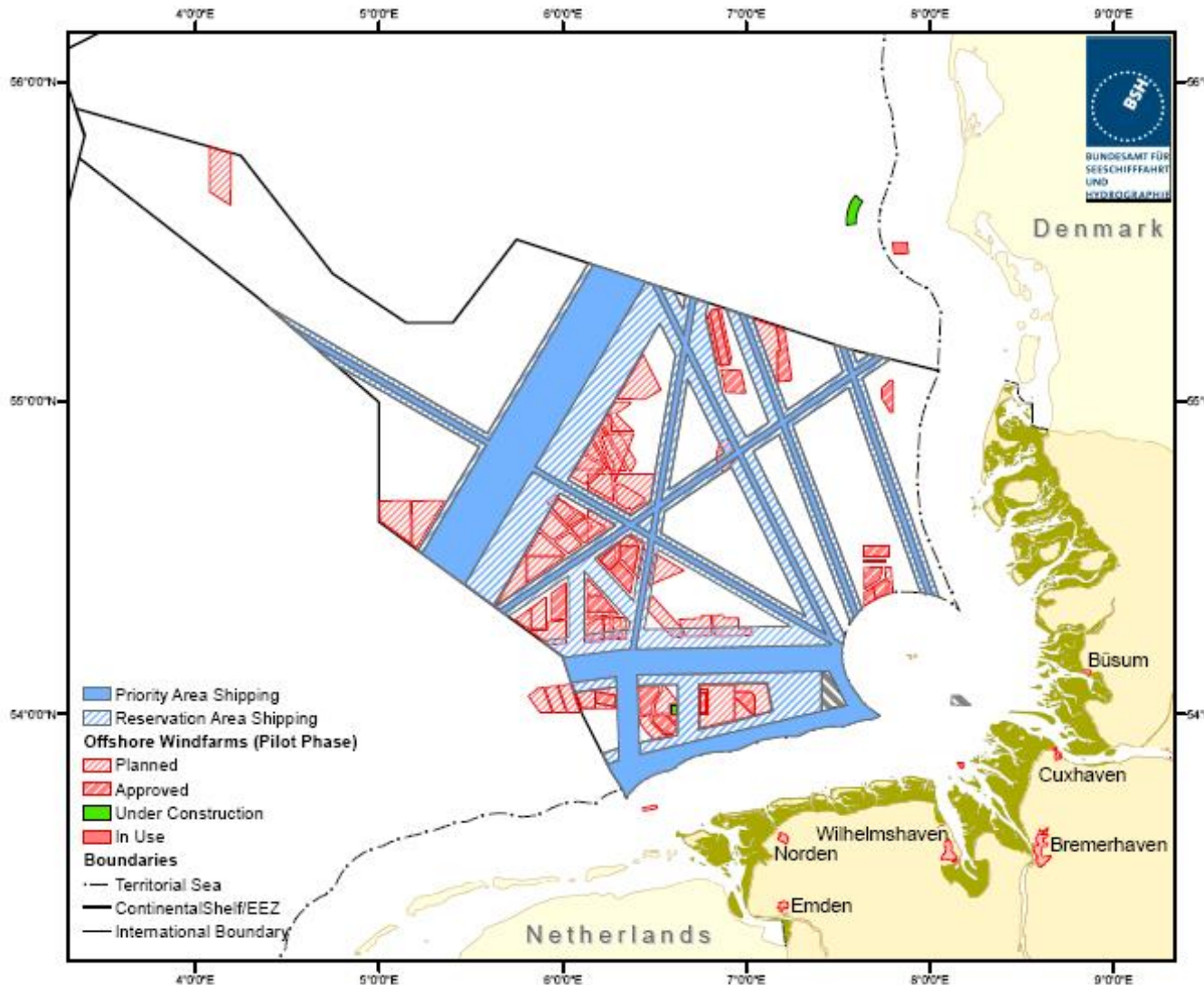
Positive:

- concentrating effect, no other public law licenses are necessary (all licenses are concentrated within one license)
- balancing of interests (fishery, sand and gravel....)

Raumordnungsplan für die deutsche ausschließliche Wirtschaftszone in der Nordsee - Kartenteil -



Effects of the spatial planning

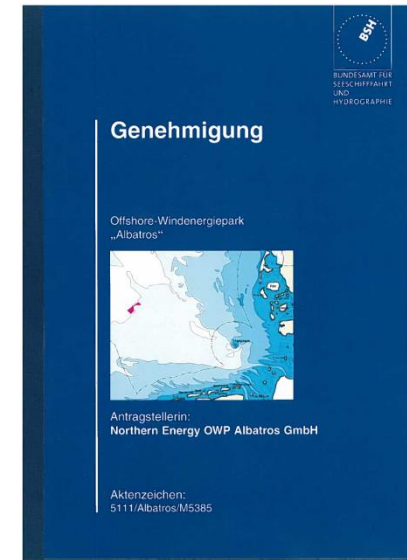


Effects of the spatial planning:

Applications for windparks followed the draft of the spatial plan, but rules for spatial-temporal development are missing

Approval Procedure for installations in the EEZ:

- project **application**
- 1st round of participation: small circle of authorities
- 2nd round of participation: broader circle including several NGOs and associations → **application conference** (scoping)
- 3rd round of participation: as 2nd round with participation of neighbouring states → **hearing according to EIA-act**
- **decision** (depending on quality of documents after roughly 3 years)



- Environmental Impact Study
- Technical Risk Analysis about the probability of a ship/wind turbine-collision
- Design Basis (according to Standard „Design of OWT“)
- Preliminary Draft of Installation Structure (according to Standard „Design of OWT“)
- Prognosis on the hull-retaining configuration of the substructure of the foundations

Standard Ground Investigations for Offshore Wind Farms

- update February 2014
- geotechnical and geophysical requirements



Standard Design of Offshore Wind Turbines

- since June 2007
- Requirements for the construction and certification of constructional components of an offshore windfarm



Standard Investigation of the Impacts of Offshore Wind Turbines on the Marine Environment (StUK)

- 4th edition of Oktober 2013
- Requirements for the Environmental Impact Study and Monitoring during construction and operation



<http://www.bsh.de/en/Products/Books/Standard/index.jsp>

Assessment of marine environment

intensive investigations of the features of the project area in the sea before approval

Monitoring program (several years) during construction and operation

investigated subjects:

- Benthos
- Fish
- Birds (resting birds, migratory birds)
- Marine mammals (harbour porpoise, seals)
- natural scenery
- cultural assets

Condition on Mitigation Measures for Marine Mammals

Noise Mitigation Concept:

- Report on background noise in the construction area
- Emission forecast for construction period
- Use of acoustic deterrents
- Use of soft start method
- Use of noise mitigating work methods:



➔ Sound Exposure Level (SEL) must not exceed 160 dB (re 1 μ Pa) outside of a circle of 750m radius and the Peak Level (L_{peak}) must not exceed 190 dB (threshold formulated by Federal Environmental Agency (UBA))

- Monitoring of deterrence and mitigation measures
- Reporting at short notice (during construction period)

Standard Contents of an Approval



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- requirements for safe construction
- use of environmentally friendly substances, non-reflecting coating
- requirement for “collision-friendly” foundations
- requirement for noise mitigation measures
- requirements regarding the equipment (including nautical lights and AIS)
- time-limit for start of construction to avoid occupation of space
- limitation of the operation to 25 years (duty to deconstruction)
- duty to deconstruction and financial security for safeguarding the costs of deconstruction

Thank you!

