



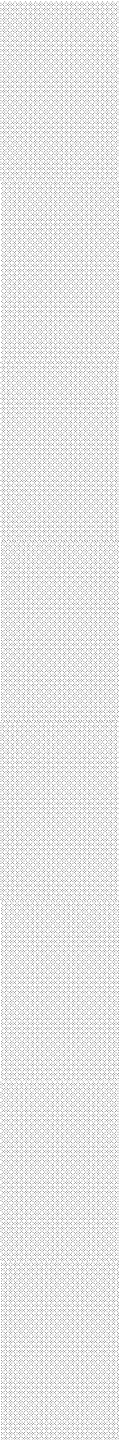
TU Clausthal

Developing Networks in Germany Onshore and Offshore

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Institute of German and International Mining and Energy Law

Hannover, 28 January 2013



Outline

- **Transmission Network Development in Germany**
- Electricity Transmission Network Onshore
- Electricity Transmission Network Offshore
- Gas Transmission Network



Legal categories of transmission network development

Determination of network development needs

- Specific regulation only since 2009 / 2011 / 2012 (power) and 2011 (gas)

Determination of network corridors

- Regional planning (power and gas)
- or sectoral planning since 2011 (certain power lines)

Authorization of networks

- Integrated procedure („Planfeststellungsverfahren“, power and gas)

Approval of costs

- Incentive regulation with benchmarking exercise (power and gas)
- Separate authorization for a limited time without benchmarking (power and gas)



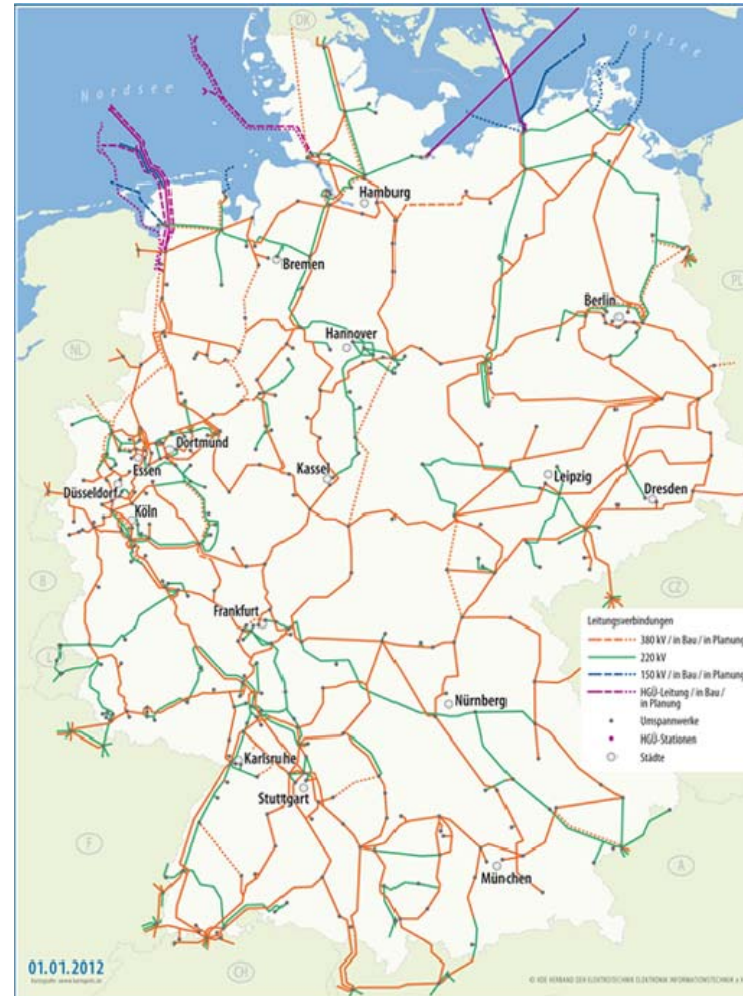
Outline

- Transmission Network Development in Germany
- **Electricity Transmission Network Onshore**
- Electricity Transmission Network Offshore
- Gas Transmission Network



German EHV network (status 1.1.2012)

- about 36.000 km built



Source: VDE



4 TSOs responsible for different areas in Germany



Source: www.netzentwicklungsplan.de



Energy Network Development Act 2009 (Energieleitungsausbaugesetz (EnLAG))

- EnLAG network development plan
 - statutory determination of need for 24 projects (about 1834 km, mostly new lines)
 - today about 250 km built → not very successful
- 4 pilot lines for possible underground cable segments
 - so far no underground segments realized



Status of the EnLAG projects (July 2012)

Legend

yellow: procedure not opened
red: regional planning procedure
blau: authorization procedure
grün: authorized / being built
pink: construction completed

black dot: delayed project
gray dot: project on schedule

Source: www.netzausbau.de





German Energy Package, 2011

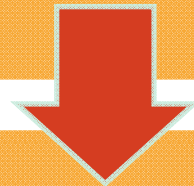
Statutory provisions

- Determination of network development needs
 - Reform of the German Energy Act (EnWG)
 - detailed system based on third EU energy infrastructure package 2009
- Regional planning (Raumordnung) / sectoral planning (Fachplanung)
 - New Act for the Acceleration of the Electricity Transmission System Development (NABEG)
 - introducing a federal sectoral planning for certain power lines
- Authorization (Planfeststellungsverfahren)
 - Changes in the existing procedures
 - Authorization procedure in NABEG for certain power lines, possibility to introduce a federal competence

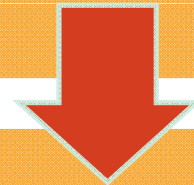


Determination of network development needs

Scenario framework
2011



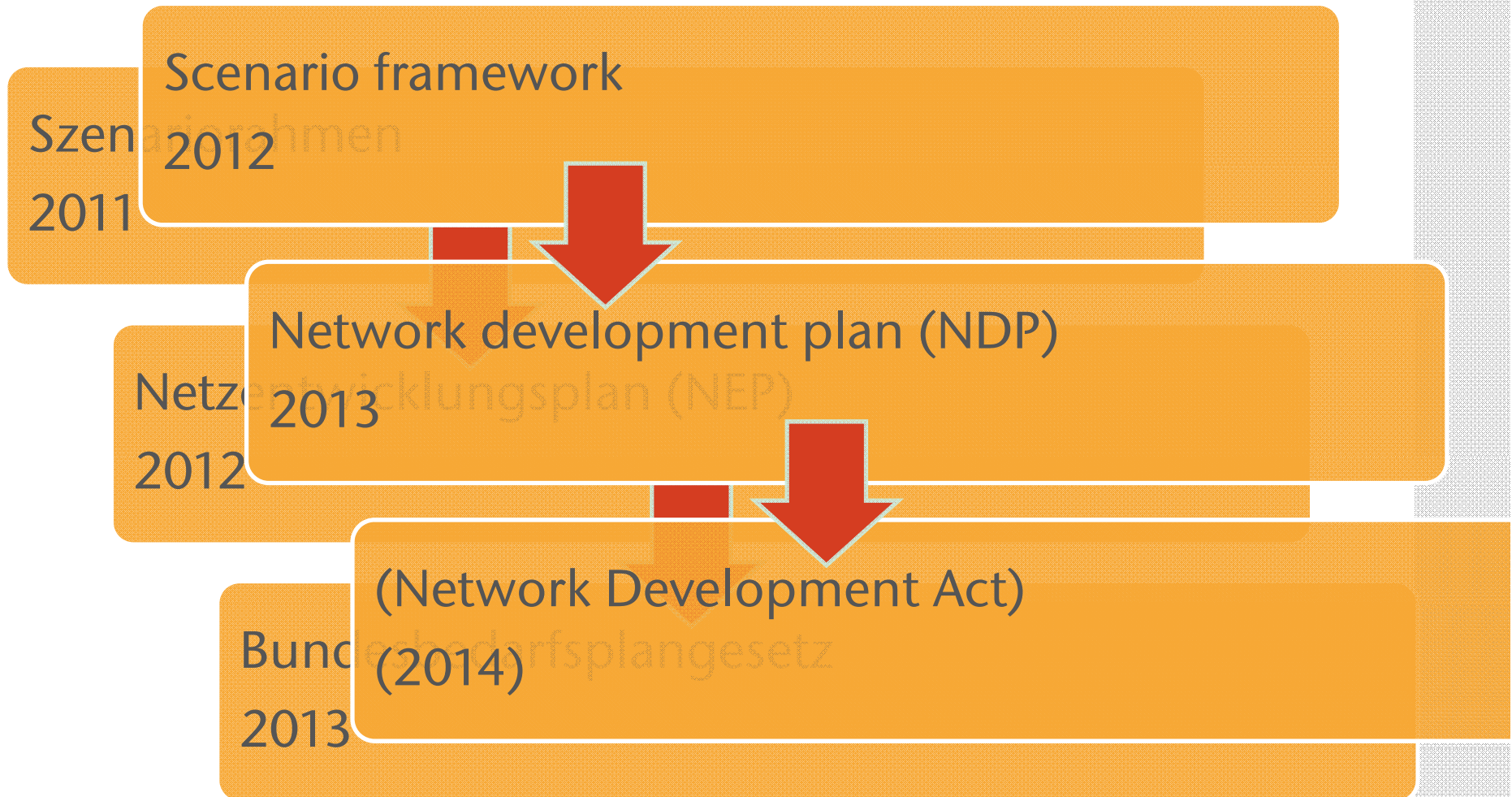
Network development plan (NDP)
2012



Network Development Act
2013



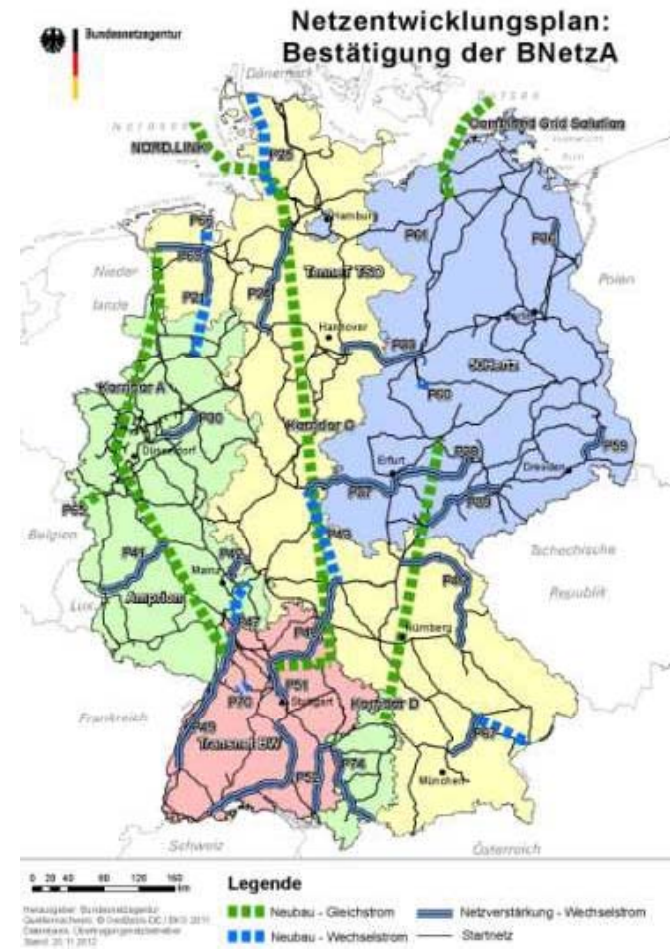
Determination of network development needs - an annual exercise





Network development plan 2012 – Draft and approved NDP

Source: BNetzA





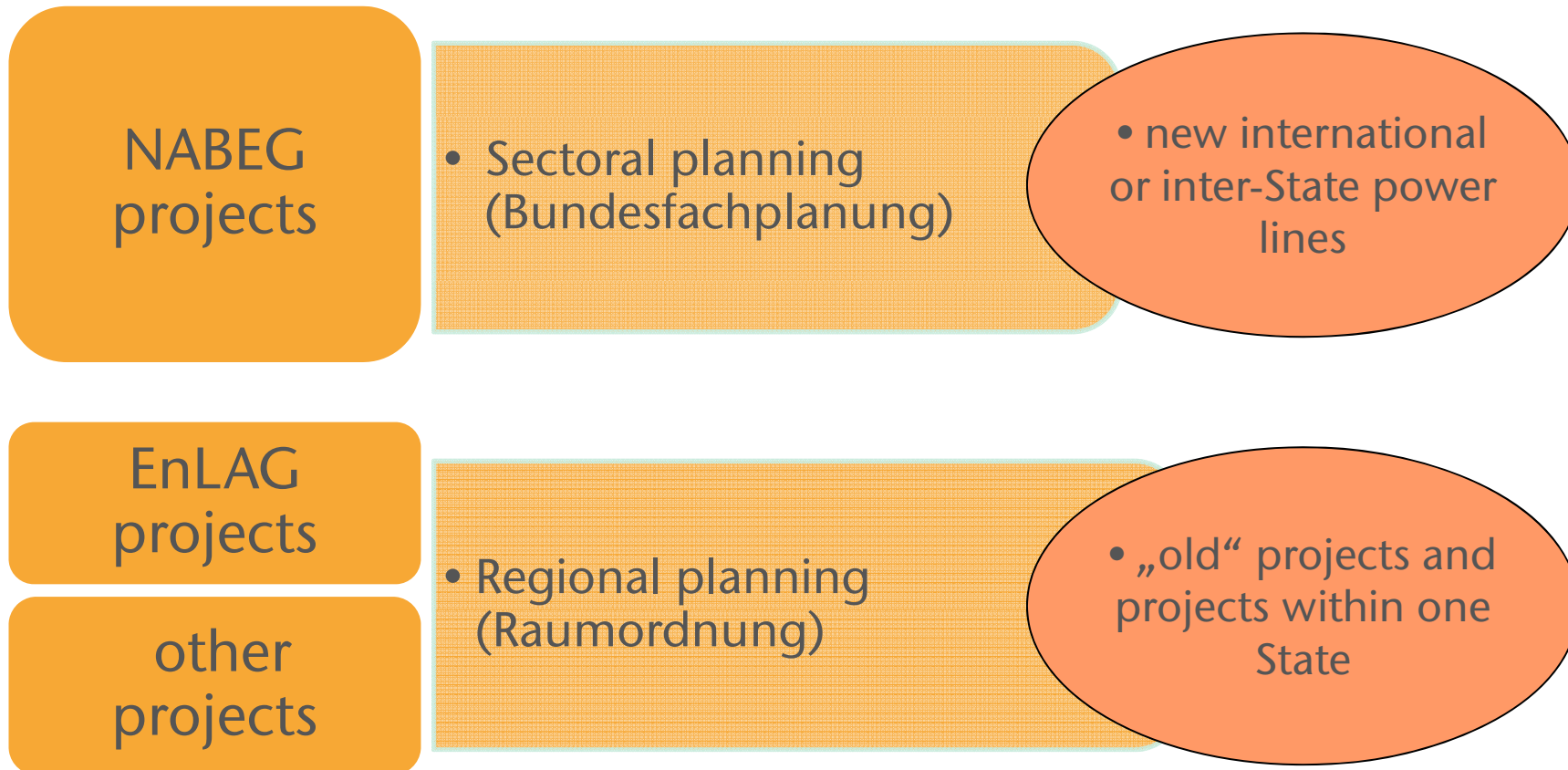
NDP 2012

- Network development needs
 - existing projects („Startnetz“), not included in the NDP
 - about 2000 km of new power lines
 - NDP 2012
 - several thousand km of new power lines
 - three major DC lines
 - significant reductions by the BNetzA in comparison to the draft NDP (may be considered in later NDPs)
- ➔ significant need for network development

- Network Development Act expected for mid 2013
 - statutory determination of need for projects included
 - binding for the authorization procedure



Regional planning / sectoral planning





Determination of power line corridors

Common features of regional and sectoral planning

- Power line corridor as result
- Consideration of competing uses

Differences between NABEG and other projects

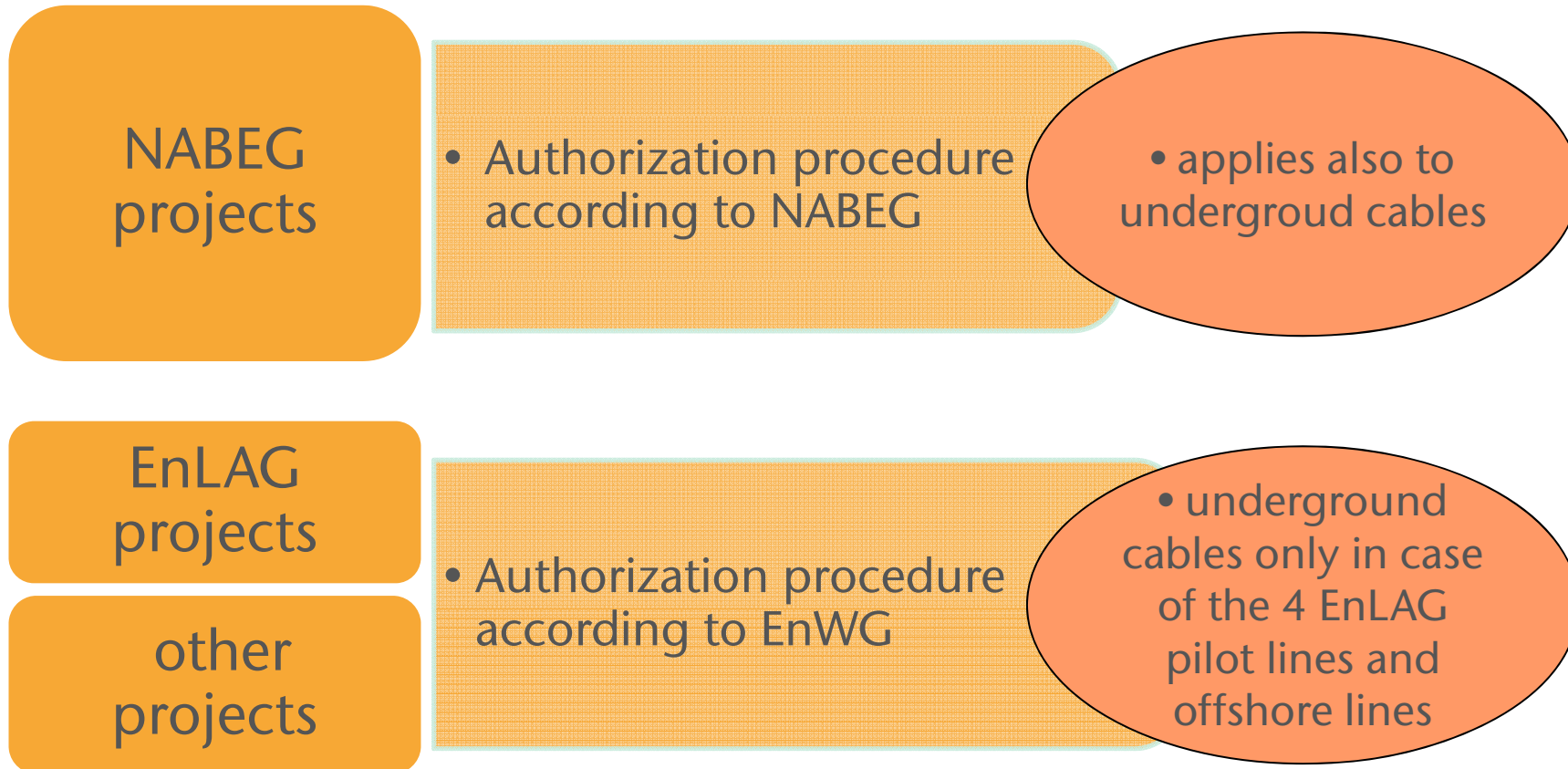
- Federal competences (BNetzA) vs. State competences
- public participation, consideration of alternative planning options
- different forms of environmental assessment

Relation to the authorization procedure

- no separate action against regional or sectoral planning
- binding character of sectoral planning for the authorization procedure



Authorization of EHV power lines





Authorization of power lines

Common features of NABEG and EnWG procedures

- authorization of the exact location and technical realization of the power line
- integrated procedure, relating to all legal requirements, including environmental impact assessment, public participation

Differences between NABEG and EnWG procedures

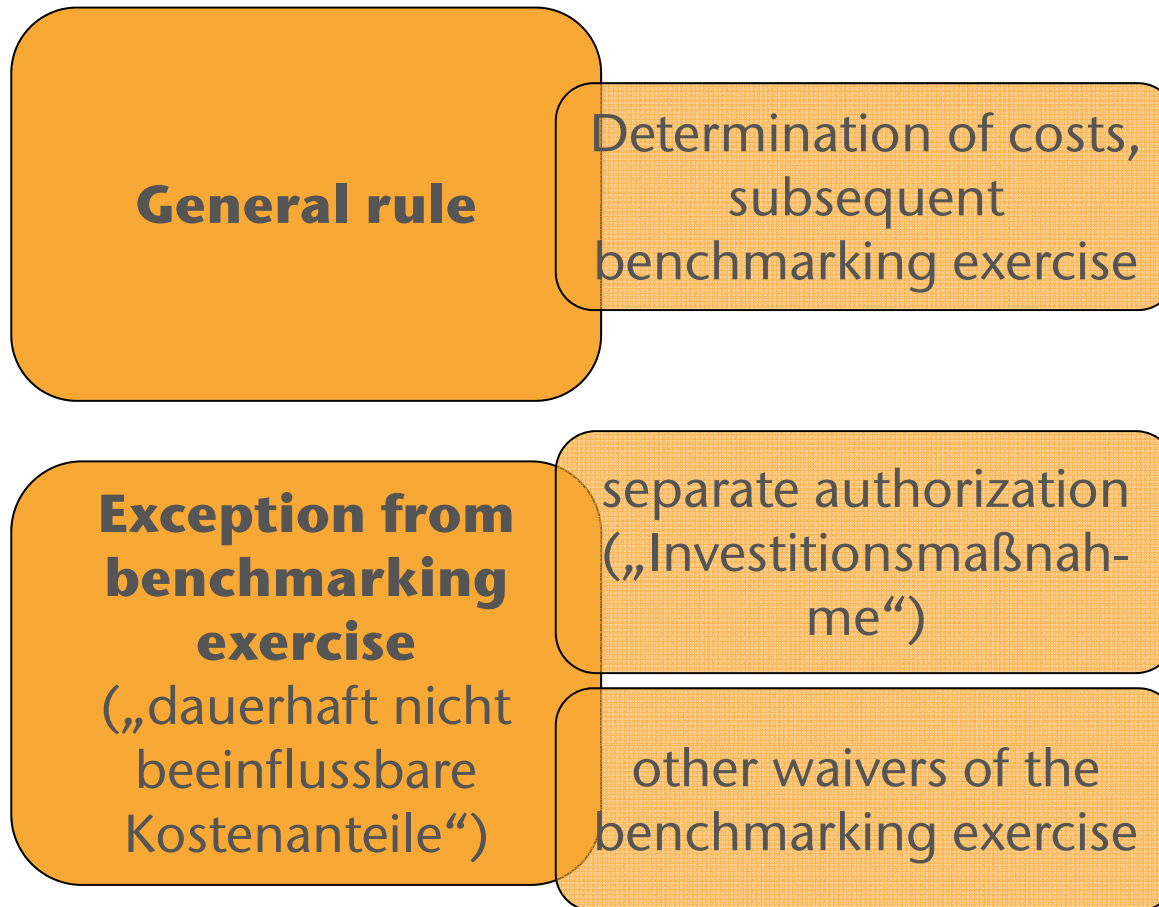
- in general State competences, but for NABEG projects may be transferred to the federal regulator (BNetzA) by ordinance

Court actions

- court actions restricted to one instance for EnLAG projects (BVerwG – Federal Administrative Court)
- in the future possibly all projects of the Network Development Act



Approval of costs in the system of the incentive regulator





Approval of costs in the system of the incentive regulator

separate authorization of the investment

- competence of BNetzA
- approval for a limited period without benchmarking
- approval without examination of costs, no time lag (March 2012)

additional costs of (certain) underground cables

- waiver from benchmarking, no time limit
- financial balancing between all four TSOs



Outline

- Transmission Network Development in Germany
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Offshore power lines

- Relevant power lines
 - from wind farm to onshore network (wind farm lines)
 - cross-border power lines (interconnectors)
 - connecting wind farms among each other or with interconnectors

- Wind farm lines are defined as part of the transmission system
 - financing via network fees



Legal framework for offshore power lines

Determination of offshore network development needs

- Introduction of an offshore NDP (December 2012)
- approval by BNetzA in coordination with BSH
- concerns all wind farm lines, includes temporal aspects of the realization
- BNetzA can enforce realization, tender exercise possible

Determination of power line corridors

- annual sectoral offshore plan by BSH in accordance with BNetzA and in coordination with BfN (federal competence) – exclusive economic zone
- sectoral planning procedure (BNetzA) – territorial water and onshore
- in the future possibly stronger involvement of the coastal States
- binding character for the authorization procedure

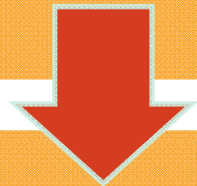
Authorization of power lines

- Legal regime uncertain
- integrated authorization, competence of BSH (?)

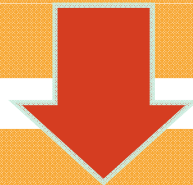


Determination of offshore network development needs

Scenario framework
2012



Network development plan offshore
2013 (first time)



Network Development Act
2014 (?)

inclusion of offshore lines



Legal framework for offshore power lines

Approval of costs

- Costs initially borne by TenneT or 50Hertz Transmission
- subsequent financial balancing between all four TSOs
- recovery by way of network fees, incentive regulation
- separate authorization without benchmarking for a limited time

Limited liability of TSOs

- Wind farm line completion date determined in the context of the offshore NDP (December 2012)
- limited liability for financial damages, additional levy besides network fees
- caps for physical damages

Certification of TSOs

- BNetzA sees sufficient financial means as conditional for certification
- lack of certification does not prevent network operation



Outline

- Transmission Network Development in Germany
- Electricity Transmission Network Onshore
- Electricity Transmission Network Offshore
- **Gas Transmission Network**



Legal framework for gas transmission networks

Determination of network development needs

- Introduction of an NDP gas (2011)
- approval by BNetzA
- restricted to onshore pipelines (?)

Determination of pipeline corridors

- Regional planning for pipelines ≥ 300 mm diameter
- only limited binding character for the authorization procedure
- State authorities

Authorization of pipelines

- Integrated authorization procedure („Planfeststellungsverfahren“) for pipelines ≥ 300 mm onshore, competences of State authorities
- double authorization for transit offshore pipelines by State Mining Authority and BSH



Determination of network development needs

Scenario framework
2011/2012



Network development plan
2012/2013 (BNetzA asked for
changes)

- no Network Development Act Gas!



Determination of network development needs

Scenario framework

2011/2012

Scenario framework

2012 (legal action pending)

Network development plan

2012/2013 (BNetzA asked to
changes)

Network development plan

2013



Gas transmission network development

- BNetzA can denominate responsible TSO
 - has been done in three cases for NDP gas 2012
 - BNetzA can enforce realization, tender exercise possible

- BNetzA considers NDP gas to underestimate need for network development
 - situation contrary to the power sector
 - NDP gas 2012 has been mainly approved by BNetzA
 - but changes requested for NDP gas 2013
 - legal action pending against scenario framework gas 2012

Thank you for your attention!

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