

GRID CONNECTION OF POWER GENERATING FACILITIES

FEBEG POSITION
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CONTENT

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- General principles
- Integrating new power plants in the grid
- Grid connection procedure
- Firm capacity for injection
- Congestion management
- Derogations
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CURRENT DEVELOPMENTS

- Proposals Elia (WG Belgian Grid) for new capacity reservation procedure
- Proposals Elia (WG Belgian Grid) for new connection procedure
- Proposals in Policy Platforms VREG and CWaPE (REDI) regarding flexible access (= conditional connection)

GENERAL PRINCIPLES (1)

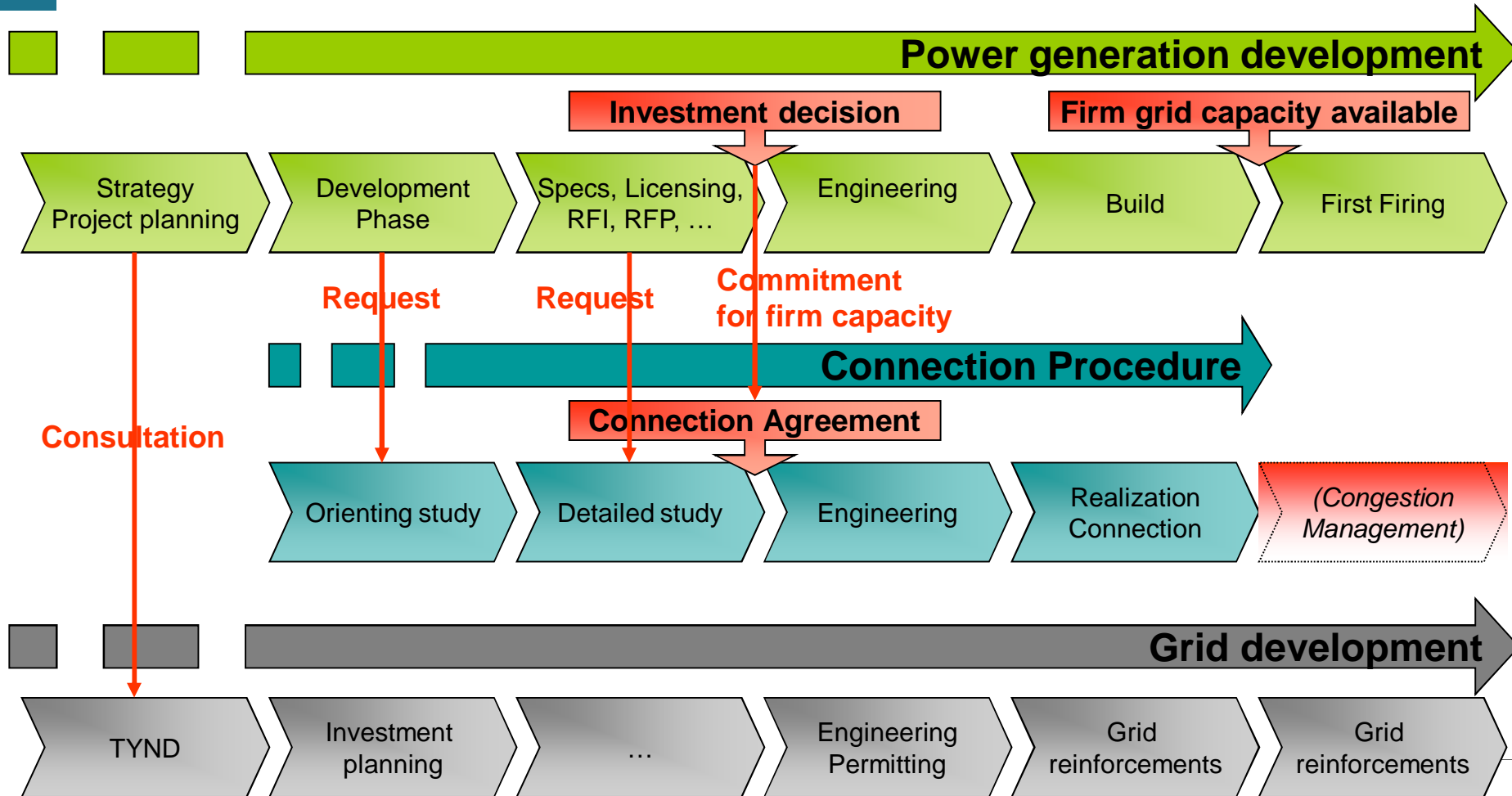
- Need for transparent and efficient procedures for non-discriminatory connection of new power plants to the grid (art. 23,1 of EU Electricity market directive)
- All new generation capacity should be timely connected to the grid (art. 23,2):
 - connection cannot be refused on the grounds of possible future limitations to available network capacities ➡ current situation in BE is not compliant
 - connection cannot be refused on the ground that it will lead to additional costs linked with necessary capacity increase of system elements
- Power generators need firm commitment and predictable conditions at the moment of their investment decision

GENERAL PRINCIPLES (2)

- Grid operators should employ all reasonable means to timely connect all new generation capacity:
 - at a reasonable cost
 - at the most appropriate connection point (location, voltage, ...)
 - without imposing disproportionate or discriminatory technical or operational constraints to power generators
- Grid operators should proactively invest with a long term vision in order to reach this objective¹
 - ensure the long-term ability of the system to meet demands for transmission of electricity in a secure, reliable and efficient way
 - contribute to security of supply through adequate transmission capacity and system reliability
- Solidarity and coordination between TSO and DSOs regarding grid investments and choice of most appropriate connection point for power plants

¹ Art. 12 of EU Electricity Market Directive

INTEGRATING NEW POWER PLANTS IN THE GRID



CONNECTION PROCURE

Capacity reservation

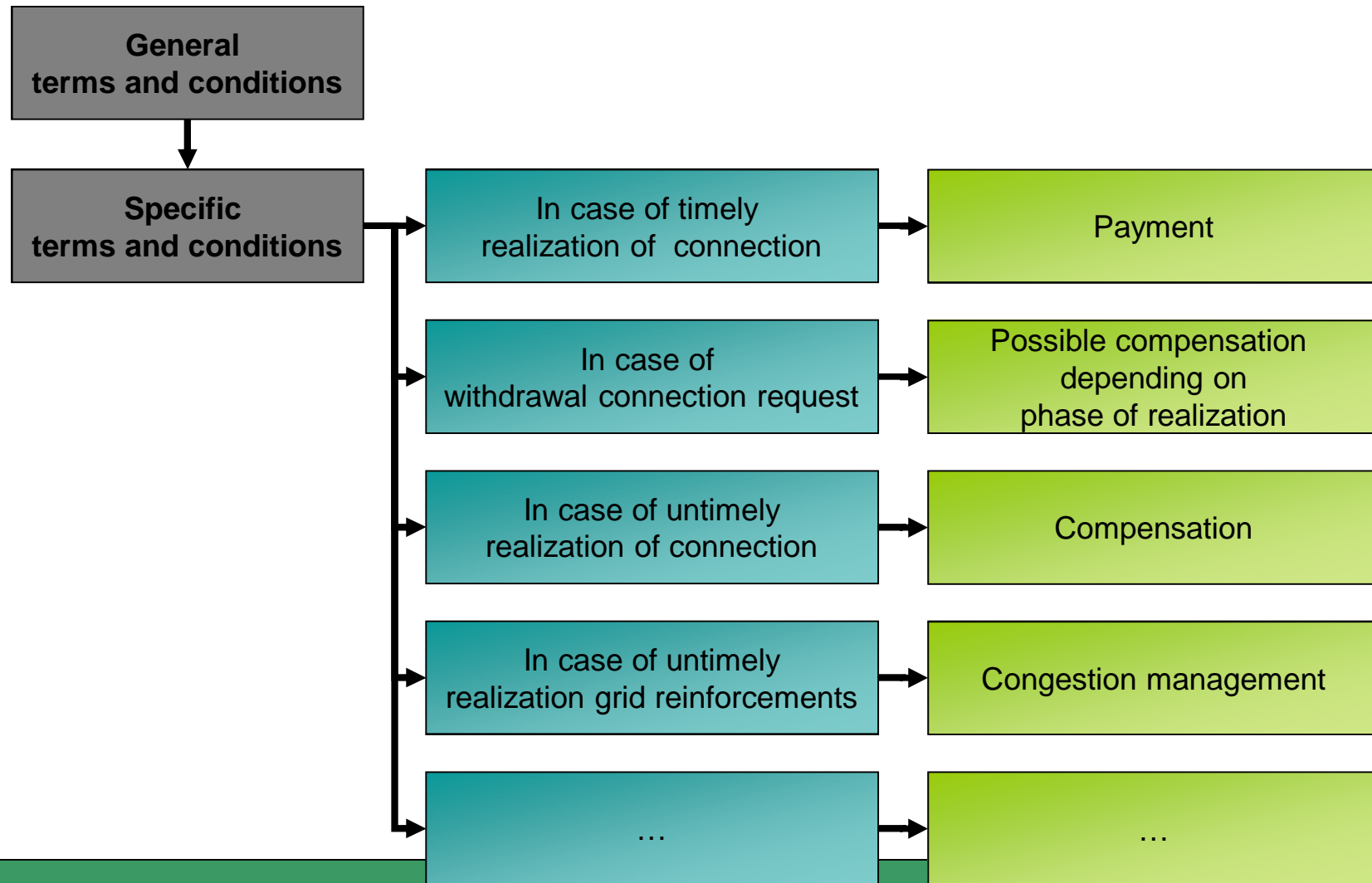
- TSO should treat all applications for grid connection on a transparent and non-discriminatory manner
- At the moment of its investment decision (financial closing) the applicant needs firm commitment that grid capacity will be firmly available at the commissioning date
- Objective is to avoid grid capacity hoarding for non realistic projects and reduce interdependencies and administrative overhead for Elia and applicant:
 - frequent in between checks based on permitting status or confirmations of requests should be avoided
 - ad hoc intervention of Minister in individual procedures is not appropriate

CONNECTION PROCEDURE

Principles

- Connection procedure should be transparent and efficient and based on non-discriminatory criteria:
 - objective criteria to assess request for connection
 - informative orienting study
 - formal request for detailed study (leading to connection options, including conditions, timing and costs)
 - formal & mutual acceptance of one option
 - signing of the connection agreement
 - start realization according to planning and payment scheme
- Signing of the connection agreement:
 - firmly allocates the capacity to the applicant
 - fixes all terms and conditions between applicant and grid operator, including arrangements if grid operator is unable to timely realize grid connection (reinforcement) or if power plant project is delayed or definitely stopped

CONNECTION PROCEDURE Agreement



FIRM CAPACITY FOR INJECTION

- Flexible connection is unacceptable
 - lack of incentives for grid investments
 - discourages investments in generation capacity
 - discriminatory ➡ competition distortion
 - additional uncertainty and missed revenues for power generator
- NMA1: ‘flexible connections are discriminatory because they make a distinction between existing and new connections’
- If grid infrastructure is not sufficient to guarantee firm connection capacity: market based congestion management as temporary solution pending urgent grid investments

¹ NMA decision of the 20th of May, 2009 (102690/87)

CONGESTION MANAGEMENT (1)

- Objective criteria to measure/predict actual/future congestion
➔ proactive investment program
- Structural congestion is unacceptable
- Occasional congestion:
 - should also be prevented by timely investments
 - market based congestion management can offer temporary solution
- Market based congestion management system with fair compensation ensures:
 - grid operators can assess whether they compensate grid users to ramp up/down or invest in grid reinforcements
 - a correct price which reflects scarcity or oversupply of flexibility
 - a fair compensation incentivizes market operators to invest in flexible generation capacity or flexible demand

CONGESTION MANAGEMENT (2)

- System redispatch with up- and downward regulation can be implemented according to the Dutch Model:
 - clear identification of congested zones on TSO and DSO grid
 - voluntary and, if necessary, mandatory bidding
 - applicable on all grid users (both generators and end users), including already connected parties ➡ no discrimination
 - biddings for different categories of units to prioritize renewables and cogeneration
 - fair and market based compensation
 - net cost of congestion management system is socialized in grid fee

DEROGATIONS

- Derogations of these principles should be avoided:
 - except for system security reasons
 - existing derogations such as mutually agreed upon grid access constraints for specific connections during a limited number of hours for the maintenance of grid components, should not be considered as a precedent

CONCLUSIONS

- Grid operators should employ all necessary means to timely connect all new generation capacity
- Complexity and uncertainty in the connection procedure and agreement should be reduced
- Grid capacity for injection needs to be firm
- Structural congestion must be avoided by timely investments
- Occasional congestion should also be prevented by grid reinforcements or managed with a market based congestion management system with fair compensation