

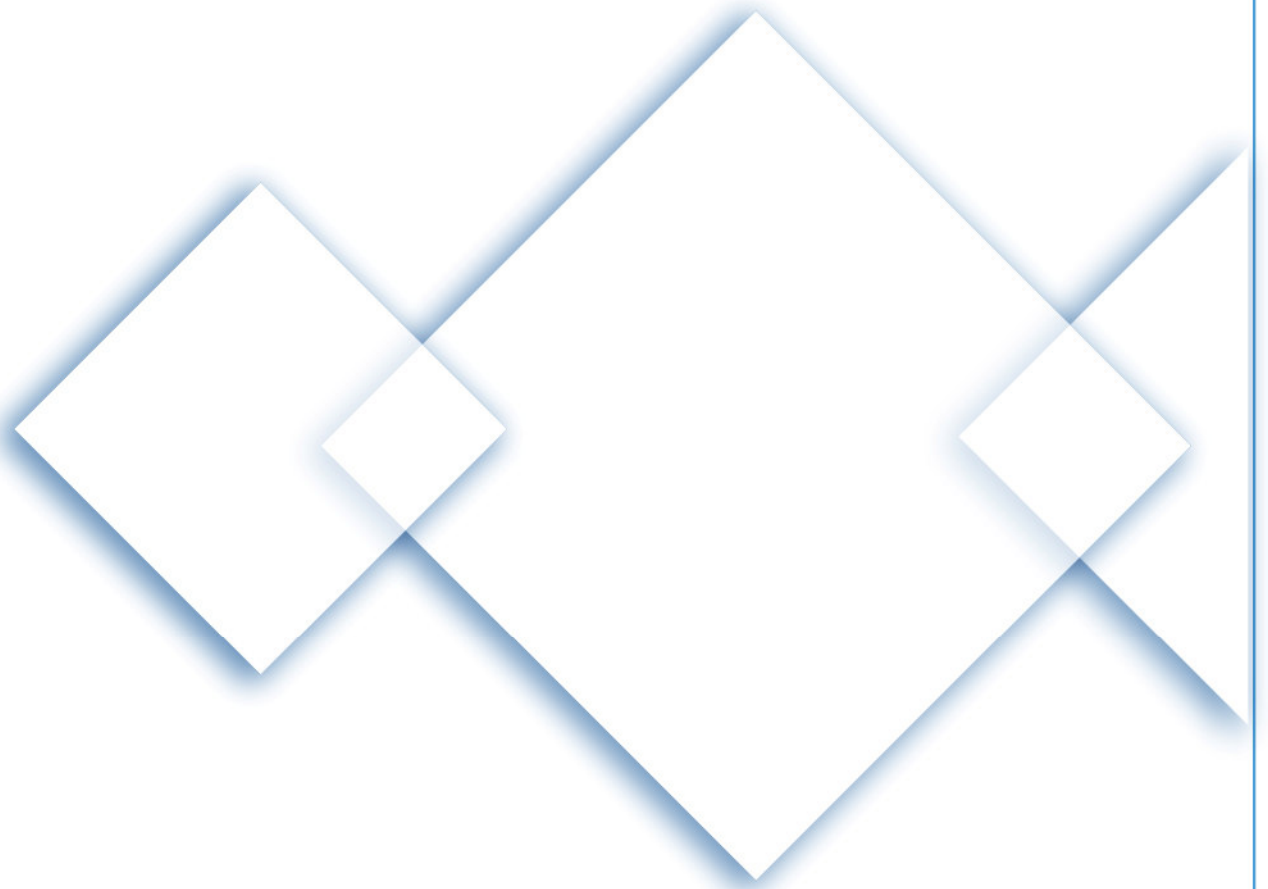


TAR WG2 – Subgroup CAP166 Issues

Hilton - Leamington, Tuesday 25th November 2008

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LCN Interaction

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LCN – Interaction between “Local” and “Wider” Works

- ◆ **CAP166 Working Group Consultation defined two approaches**
 - ◆ Approach 1: Auction Result drives LCN Allocation
 - ◆ Approach 2: LCN Allocation drives Auction Result

Approach 1: Auction Result drives LCN Allocation

Transition Only

Enduring & Transition

- ◆ **Existing TEC rights withdrawn:** Users granted LCN MW level equal to the pre-existing TEC and a LCN effective date equivalent to the TEC Effective date
- ◆ **User wishes to vary LCN** (either MW or effective date)
 - No: Process ends
 - Yes: Following Steps completed
- ◆ **New Users:** Follow Process from this point onwards
- ◆ **Earliest LCN Date calculated:** Earliest possible date **each project's** “local” works can be completed – **ignoring** resource constraints
- ◆ **Backstop LCN Date calculated:** Earliest possible date **a group of projects** “local” works can **all** be completed – **allowing** for resource constraints

Approach 1: *Auction Result drives LCN Allocation*

- ◆ **Conditional on Auction results:** Both the earliest and backstop LCN effective dates are conditional depending on the results of the next wider auction
- ◆ **User Bids in Auction:** User can Bid for wider rights in the next auction, but only for rights that are effective on or after its “Earliest LCN Effective Date”
- ◆ **Users successful in auction:** These Users will have their LCN effective date aligned with the first year in which they have secured a non-zero volume of wider access
- ◆ **Users unsuccessful in auction:** These Users will have their LCN effective date moved to their “Backstop LCN Effective Date”

Approach 1: *Auction Result drives LCN Allocation*

- ◆ **Further Optimisation:** Those Users who did not secure wider access may have their LCN date optimised ahead of their Backstop LCN date depending on the following:
 - **Auction Model results:** Auction model analysis performed to see in which order the losing bids would have secured access if unlimited capacity had been available. Any unallocated LCN capacity then optimised according to this order
 - **First Come First Served:** Alternatively if there is scope to bring forward any unsuccessful auction participants then this may be done through advancing Users on a first come first served basis (on time of signature of offer for connection / use of system)

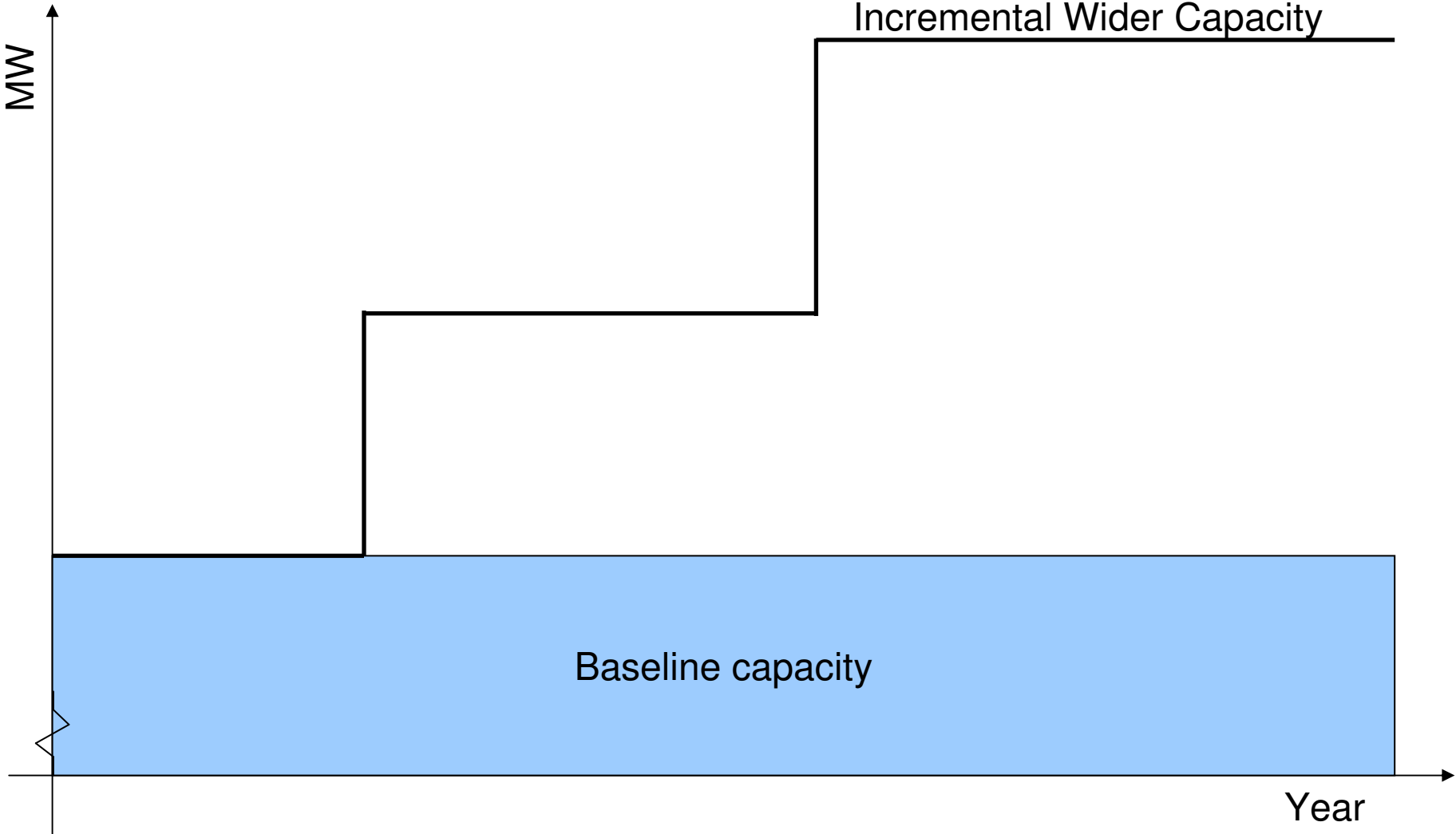
Approach 2: *LCN Allocation drives Auction Result*

Transition Only

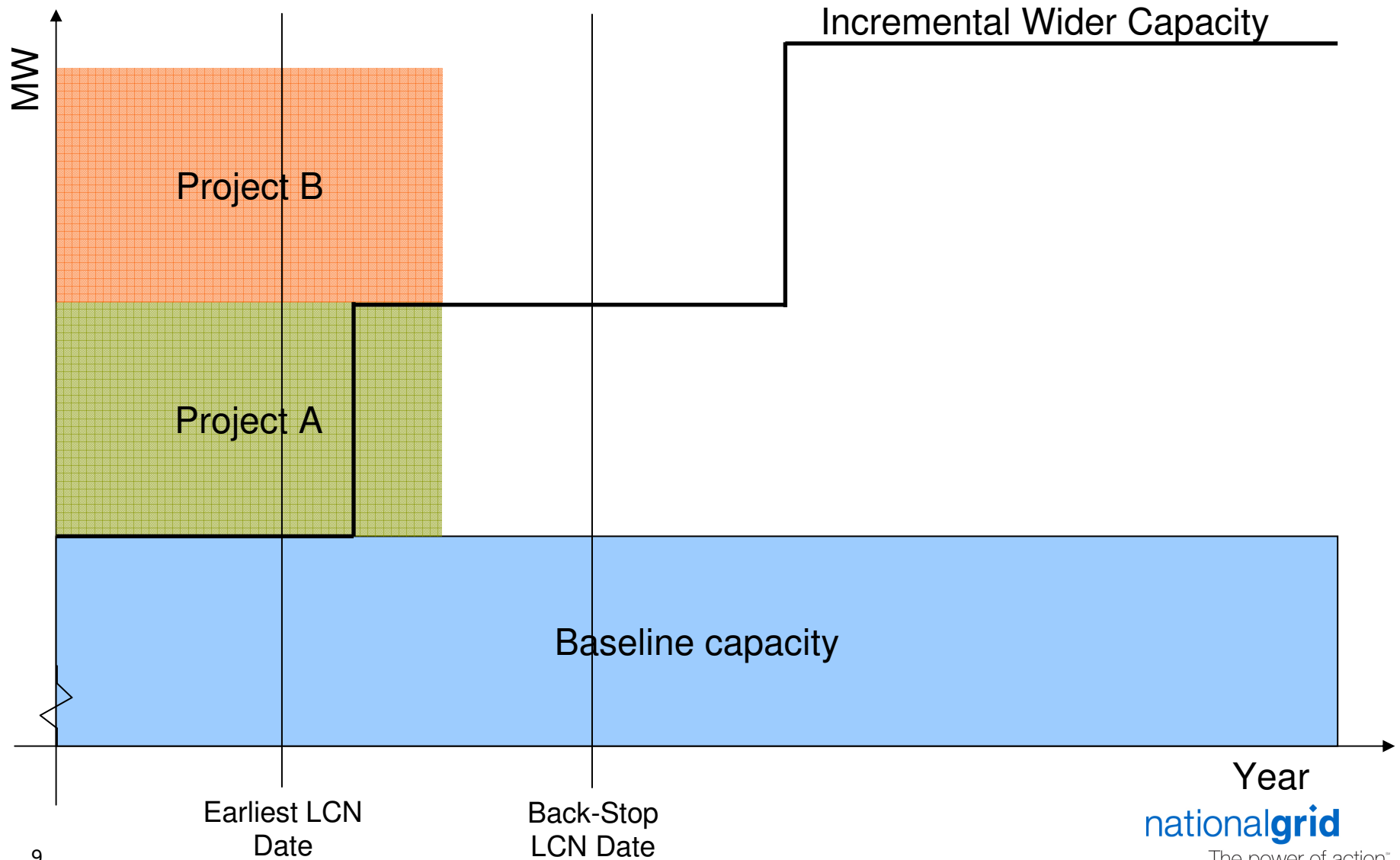
Enduring & Transition

- ◆ **Existing TEC rights withdrawn:** Users granted LCN MW level equal to the pre-existing TEC and a LCN effective date equivalent to the TEC Effective date
- ◆ **User wishes to vary LCN** (either MW or effective date)
 - No: Process ends
 - Yes: Following Steps completed
- ◆ **LCN Commencement Date calculated:** Date is the earliest each project can have its local works constructed accounting for construction resource constraints
 - In the event two or more projects are subject to a common resourcing constraint all are given the same date – the date by which all works can be constructed
- ◆ **No further optimisation of LCN Effective dates**

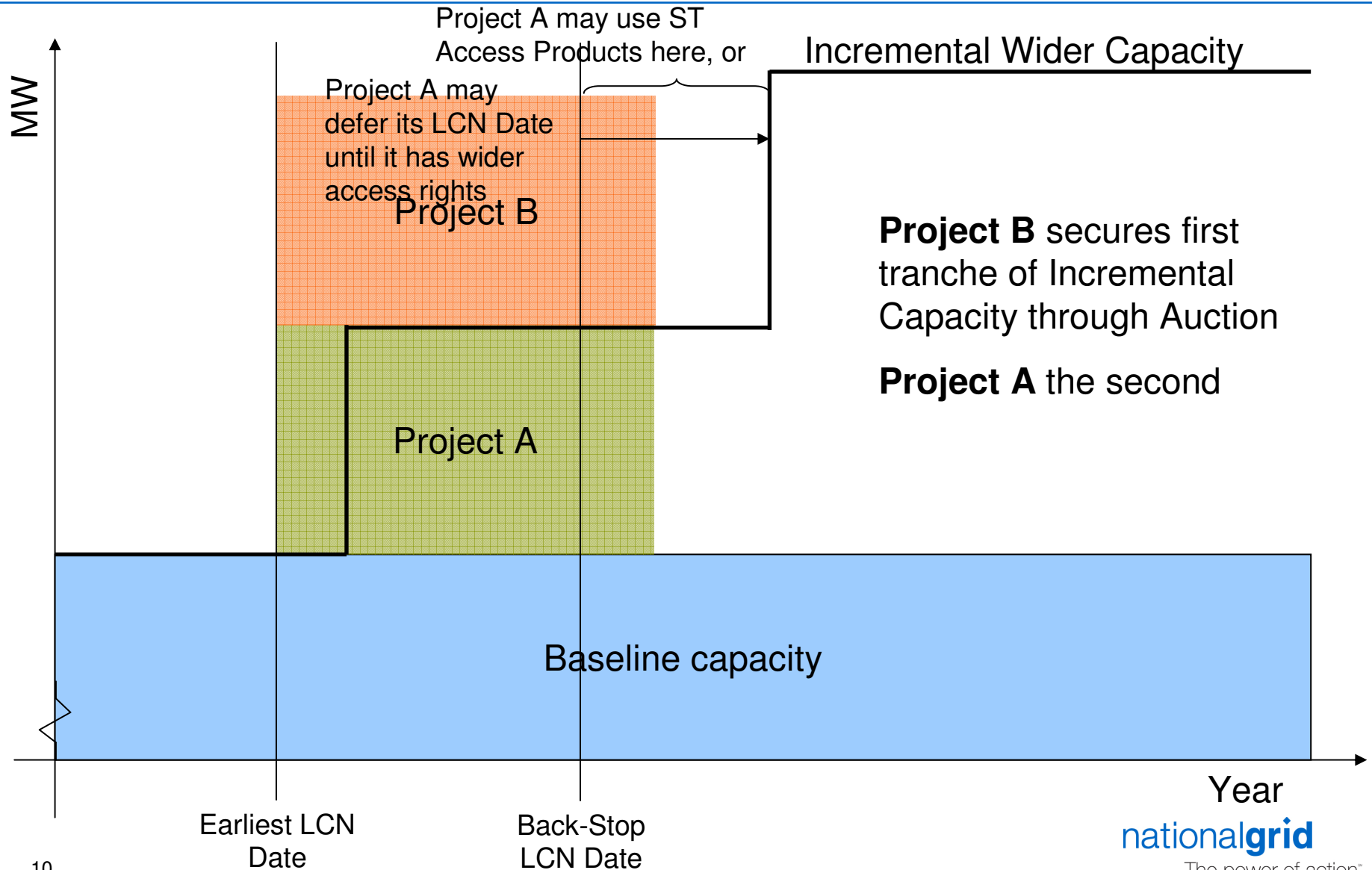
Worked Examples – Approach 1



Scenario 1 – Wider Constrains Local



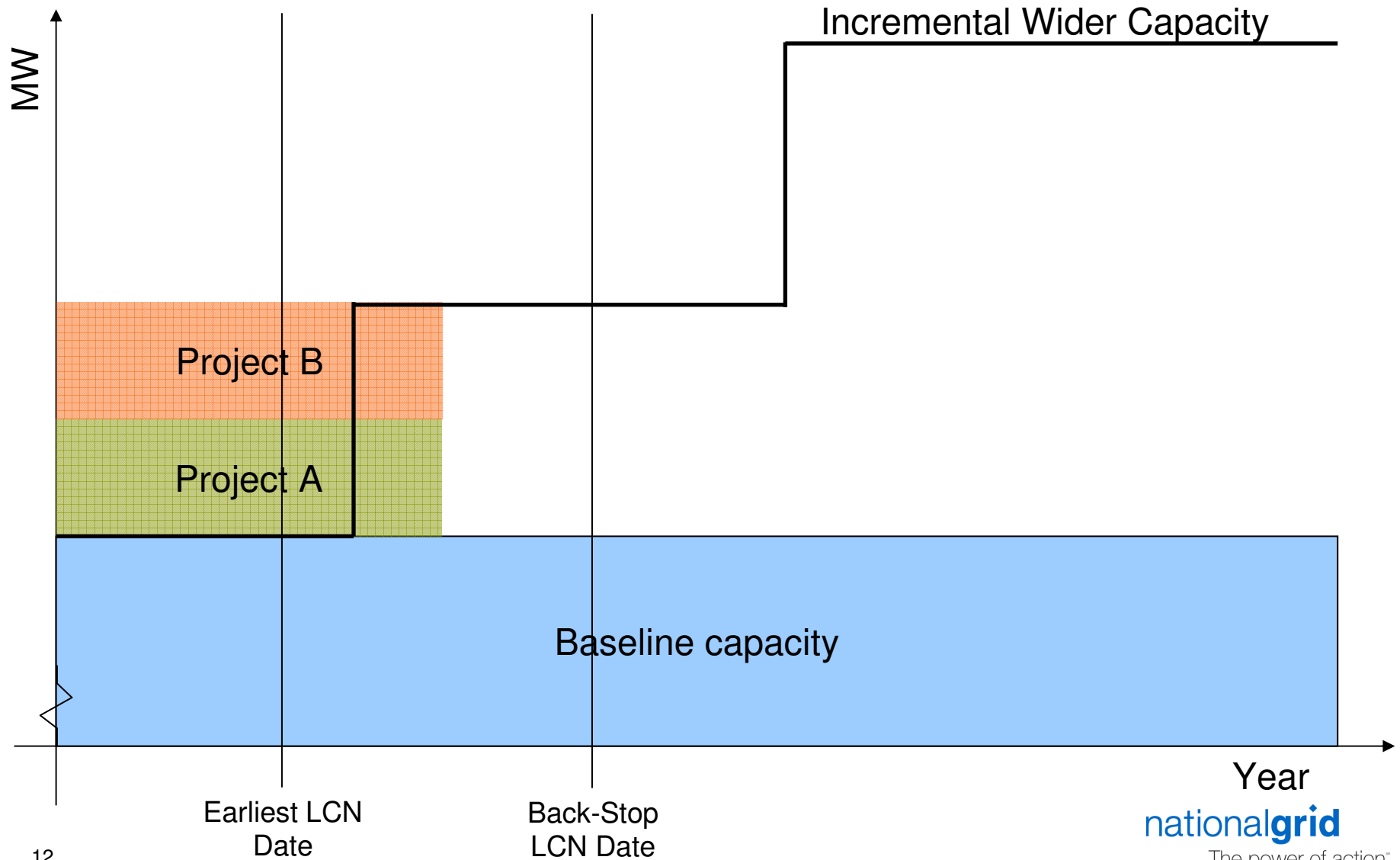
Scenario 1 – Wider Constrains Local



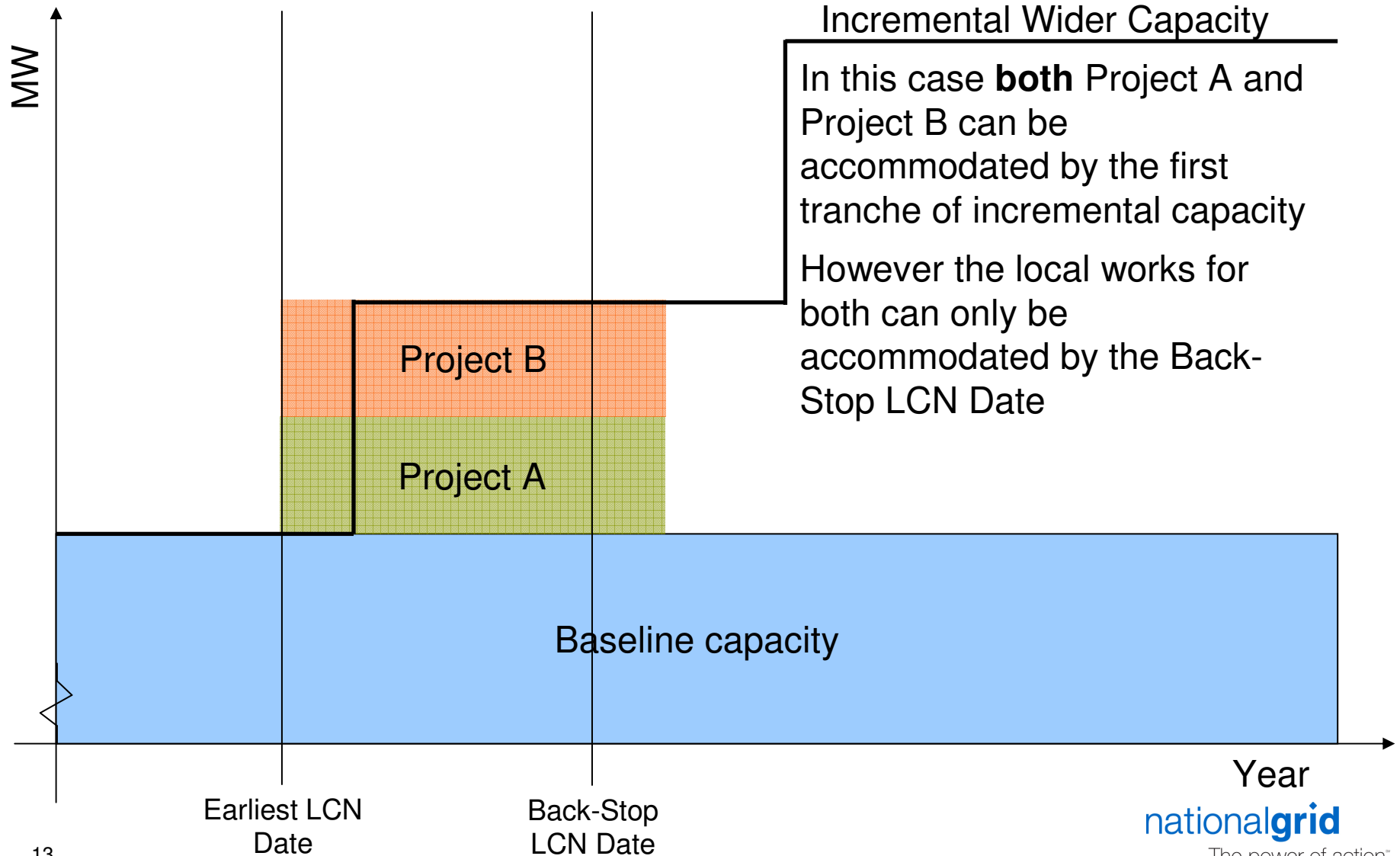
Wider Constrains Local - Conclusions

- ◆ **Wider Access supply constrains ability of Generators to achieve their “Earliest LCN Date”**
 - ◆ Generators have to be successful in auction to get Earliest LCN Date
- ◆ **Otherwise Generators must wait until their Back-stop LCN Date**
 - ◆ Backstop LCN Date calculated to allow TOs to complete all contingent local works on schedule

Scenario 2 – Local Constrains Wider



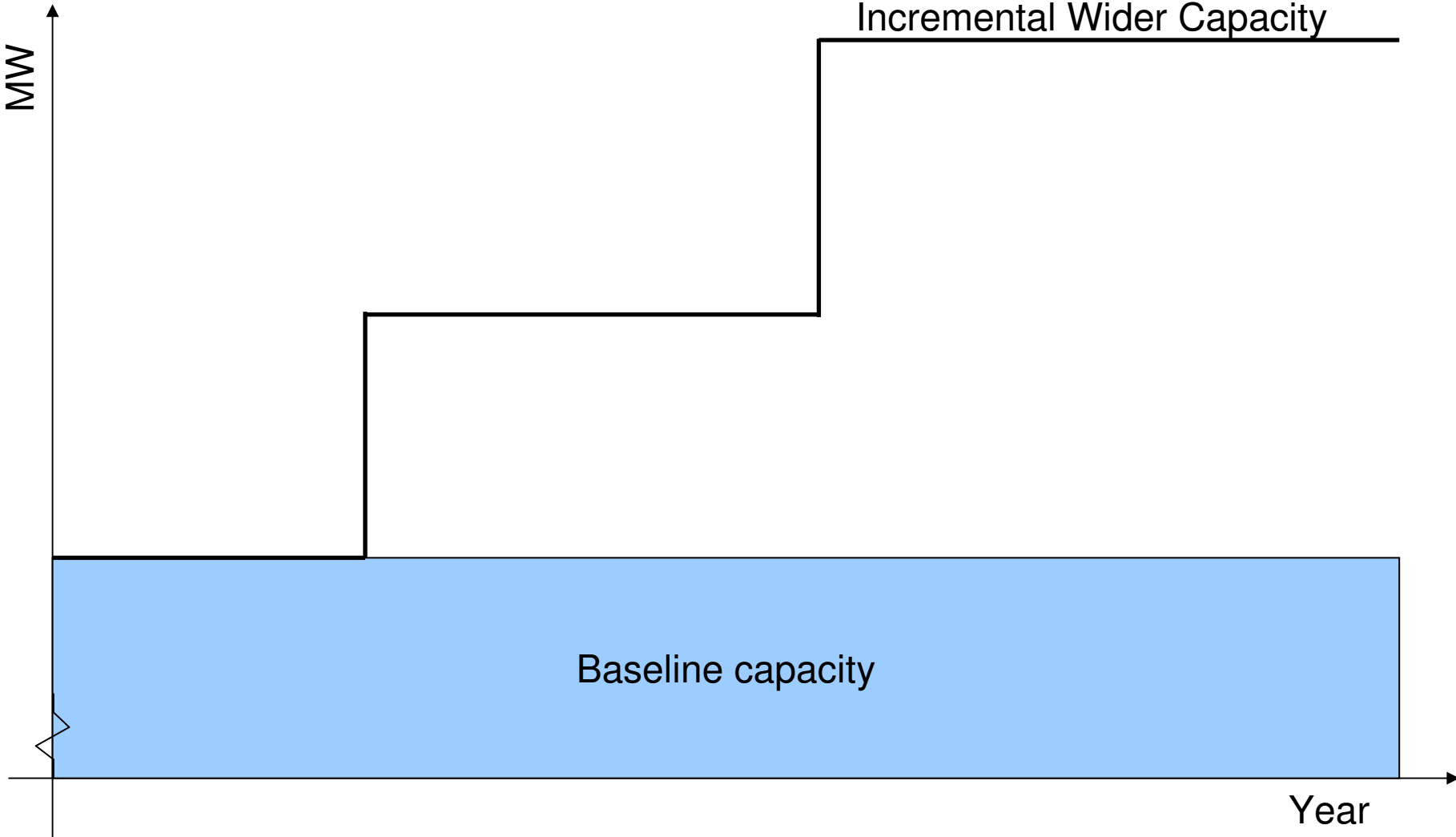
Scenario 2 – Local Constrains Wider



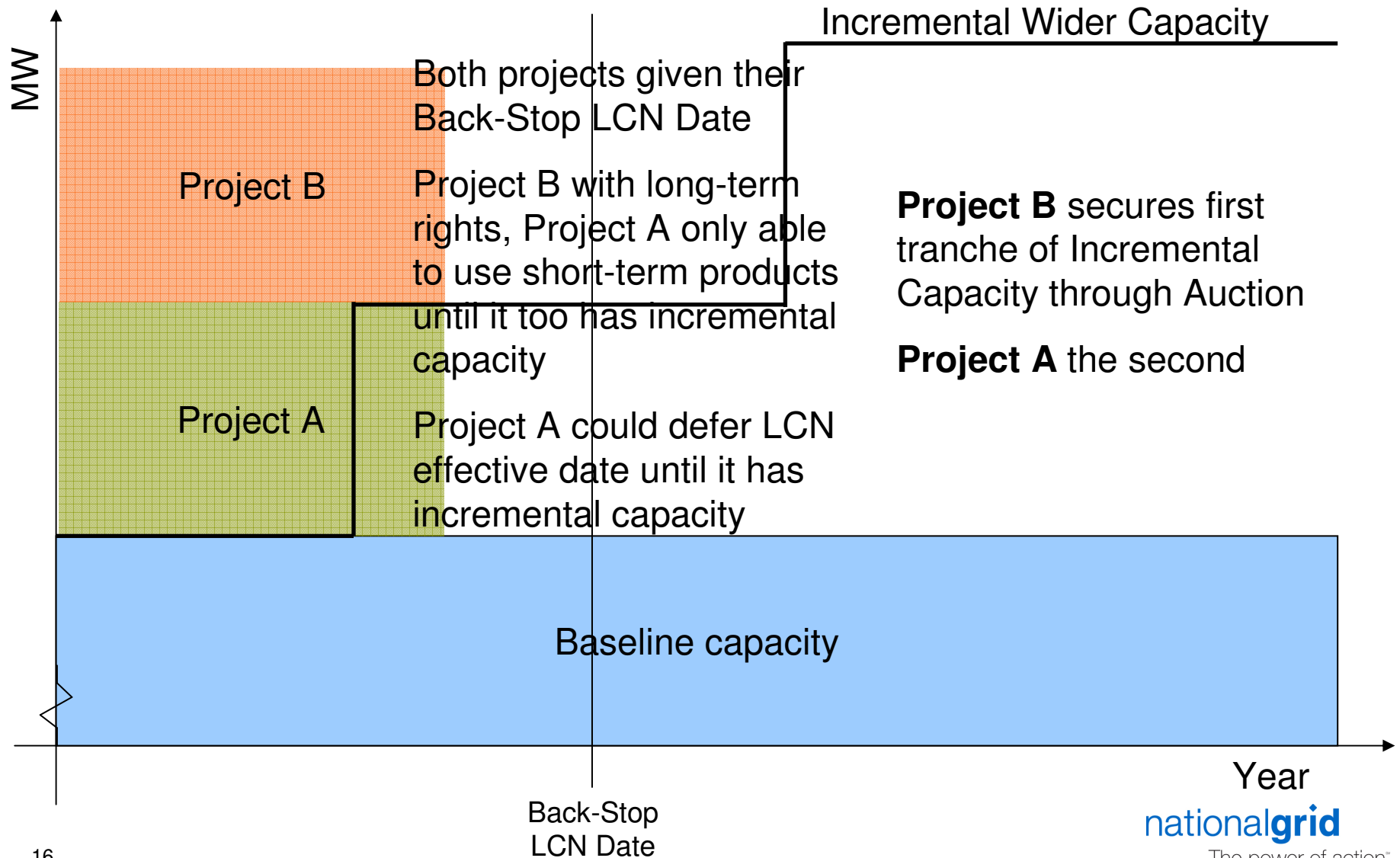
Local Constrains Wider - Conclusions

- ◆ **Wider Access supply unable to constrain the ability of Generators to achieve their “Earliest LCN Date”**
 - ◆ Generators are all successful in auction and thus able to achieve their Earliest LCN Date
- ◆ **Creates resourcing issues for TOs**
 - ◆ TOs may be unable to deliver local works in time for the wider access secured through auctions

Worked Examples – Approach 2



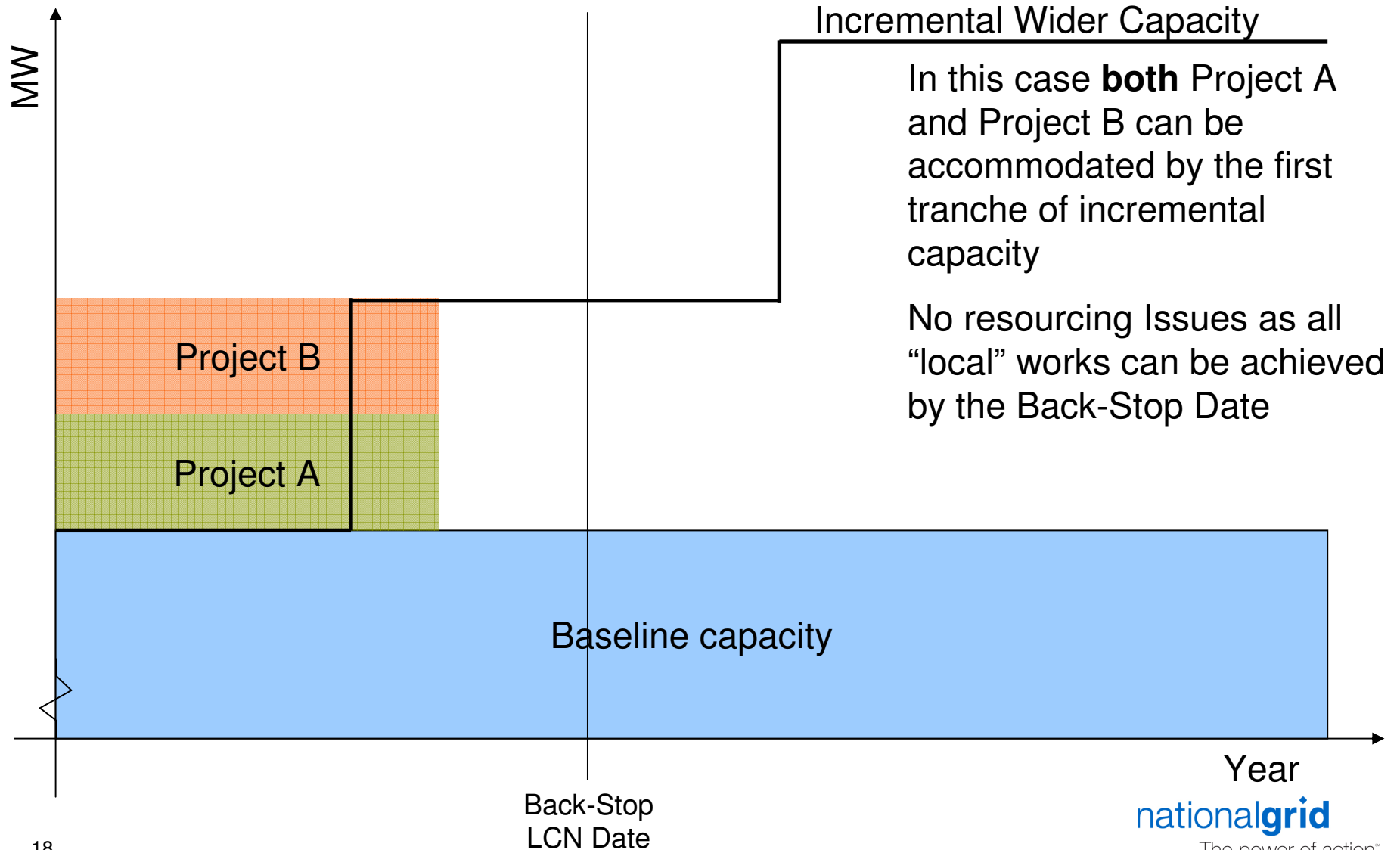
Scenario 1 – Wider Constrains Local



Wider Constrains Local - Conclusions

- ◆ **Back-Stop LCN Date constrains ability of Generators to connect to the system**
 - ◆ All generators in a locality get local connection at the same time
 - ◆ Limits ability of Generator to get wider access which could be theoretically achieved earlier
 - ◆ No resourcing issues however as Backstop LCN Date calculated to allow TOs to complete all contingent local works on schedule

Scenario 2 – Local Constrains Wider



Local Constrains Wider - Conclusions

- ◆ **Lack of Wider Access Constraints compensated by the Back-Stop LCN Date**
 - ◆ Removes any resource implications for TOs
- ◆ **Again however in theory an earlier connection for one of the generators could have been achieved**
 - ◆ However no easy way of modelling this through the auction (unless it accounts for local access resource constraints as part of the incremental capacity release supply function)

Responses to CAP166 WG Consultation - LCN

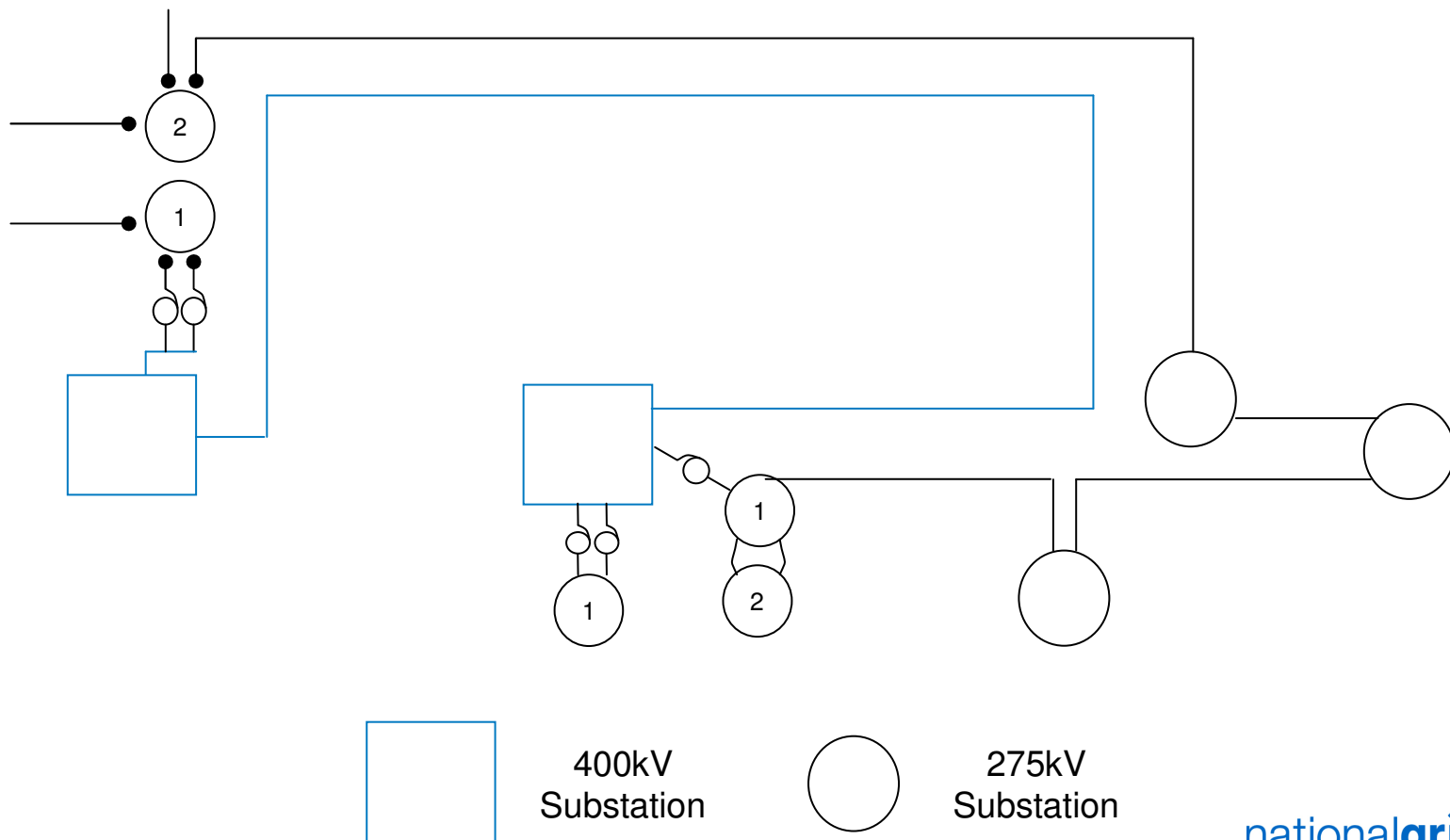
Respondent	Comment
British Energy	Supports neither Approach: Does not believe that the allocation of local access rights should be influenced by the success or otherwise of a User in the wider access auction. Does not therefore support Approach 1. Also however believes Approach 2 to be flawed as it potentially gives generators a later date than is practically achievable.
EON	Supports Approach 1 as will allow for the earliest connection date
Fairwind	No direct comments on either of the 2 approaches but would not support any option that would effectively introduce an “LCN Queue”
RWE	Believes that Approach 1 has issues if a large number of parties apply to advance their LCN date and that this will cause resourcing issues if resource constraints are ignored. Also concerned that Approach 1 potentially discriminates against Users of short term access in favour of those booking long-term access. Supports Approach 2
ScottishPower Energy Wholesale	Supports neither Approach: Believes any interaction between local works and wider access auctions presents a barrier to entry. Does not support Approach 1 as it does not give a firm date for both wider and local access and o does not allow Users to plan robustly. Does not support Approach 2 however as believes it still discriminates against Users of short-term access.
Scottish and Southern Energy	Believes that Users should be able to close a contractual position defining what their local and wider rights are. Users should also have the ability to flexibly between seeking and accepting local and wider works. No specific comments on the two approaches.
Welsh Power	Does not support either Approach. Queries that one simply creates a local queue (rather than a wider) and has the potential to leave assets stranded at a local level. The other whilst allowing for post auction movement does not contain sufficient detail to allow Users to judge if it will give them what they want in the timescales they want it.

Worked Example (1)

- ◆ **The following example shows the practical difficulties in adopting a “one-size fits all” approach with the LCN / Auction Interaction**
- ◆ **Example is of two generators connecting whose local works are interactive**

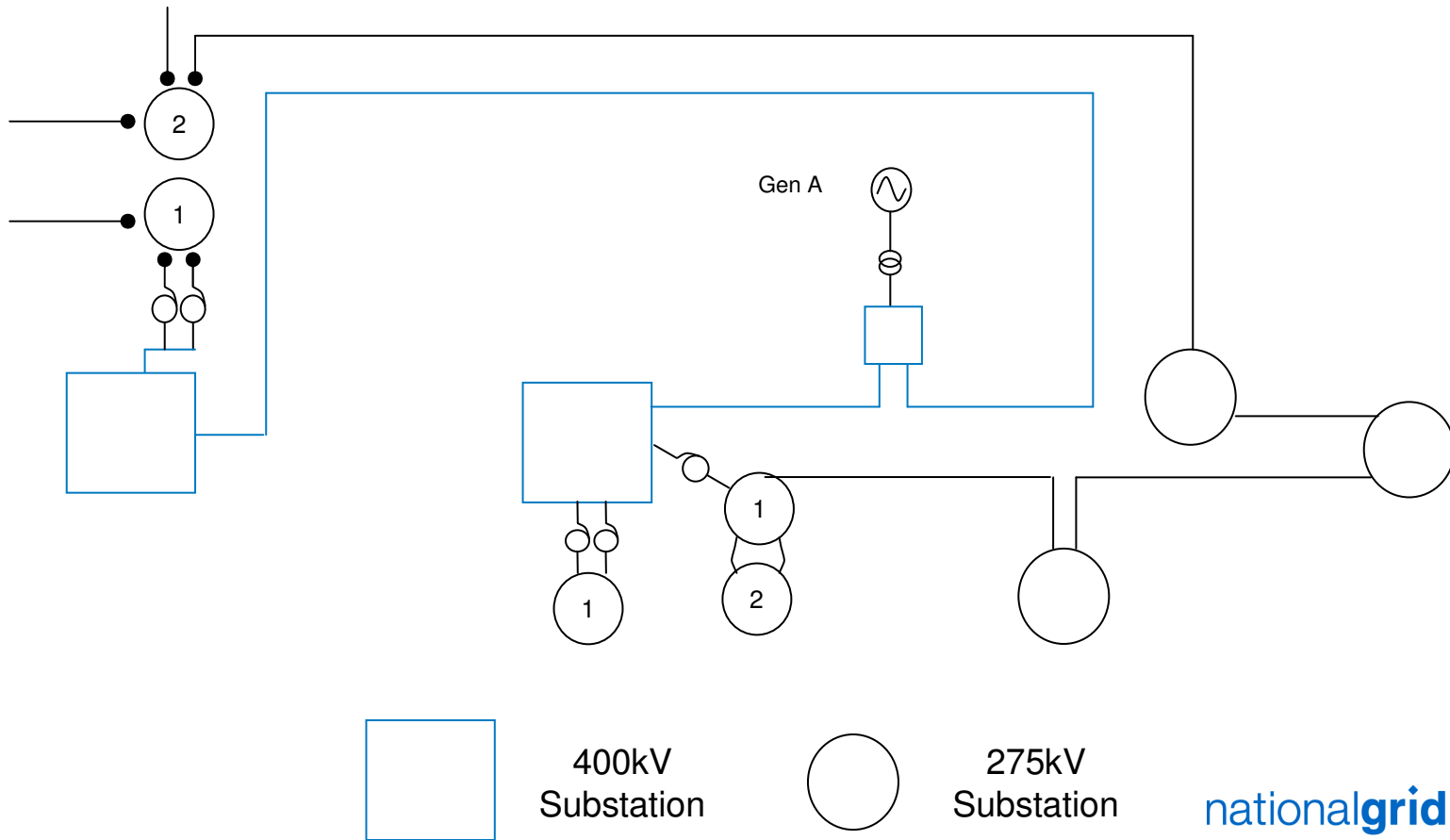
Worked Example (2)

◆ Existing Transmission System (NE England)



Worked Example (3)

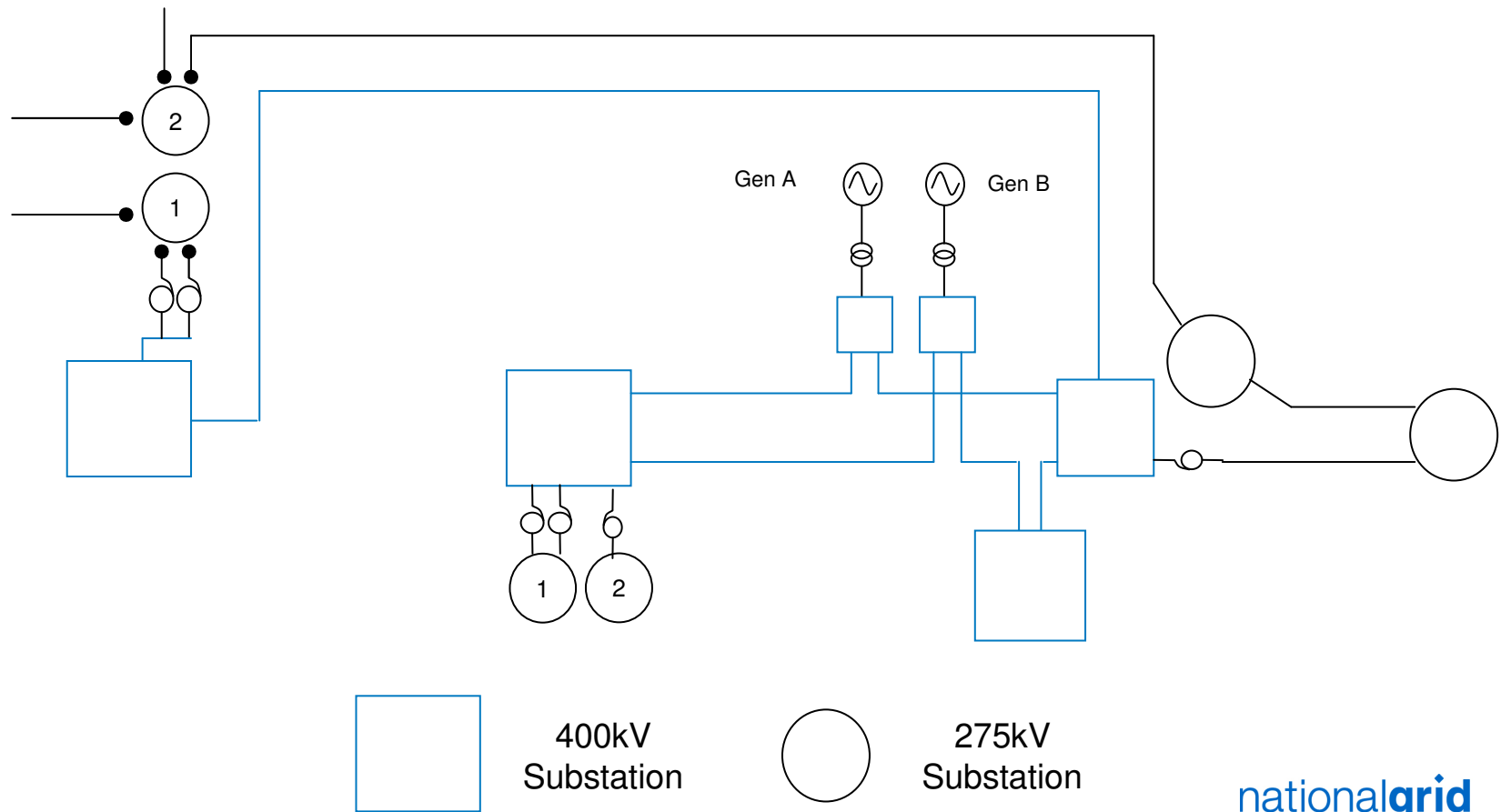
- ◆ Gen A connects to the system
 - ◆ Loop in from existing 400kV circuit



Worked Example (4)

- ◆ Gen B connects to the system

- ◆ Loop in from existing 275kV circuit **and** uprate to 400kV



Worked Example (5)

◆ **Overlay Approach 1 World**

- ◆ Gen A having applied first would receive offer with the less substantive local works and “Earliest” and “Back-stop LCN Dates” would reflect this
- ◆ Gen B then applies (in “application period” for same auction) – does it get same “Earliest” and “Back-stop LCN Dates” as Gen A?
 - Or should Gen B get same earliest LCN Date but Back-Stop Date reflects the more substantive local works?
 - Should Gen A have its Back-stop Date amended to the same?
- ◆ Issue is then who is successful in Auction

Worked Example (6)

◆ Approach 1 World continued

- ◆ If only one of Gen A or Gen B is successful then that party gets earliest LCN Date, the other moves to its Backstop Date
- ◆ If both successful – clearly as Earliest LCN Date is not feasible for both generators we have an issue
- ◆ Solution?
 - Could local works be defined much more narrowly in a world with auctions?
 - Draw auction boundary local to the two generators and reflect “local” works through an incremental capacity supply curve

Worked Example (7)

◆ **Overlay Approach 2 World**

- ◆ In an approach 2 world then Gen A applying first would have less substantive local works reflected in offer (and “LCN Commencement Date”)
- ◆ Gen B then gets more substantive works and later (?) LCN Commencement Date
 - Query is should Gen A have its LCN Commencement Date revised to reflect the more onerous works?
- ◆ If not then Gen A has advantage in auction (can bid earlier)
- ◆ If so then both generators’ connections delayed

Possible solution?

- ◆ **Introduce further auction boundaries**
 - ◆ Auction boundaries would be drawn “locally” to a new connection
 - ◆ Then the incremental capacity supply function would then be used to model the interactions seen in the above worked example
 - ◆ Interaction between Short-Term and Long-Term Access Products