

Strawman A Current World Evolution

A1. Definition of access rights

Type: Entry/exit Capacity

Rights/Obligations:

Through initial allocation: rights to generate or consume up to a certain level, no obligations;

Through subsequent constraint contracts: some obligations may arise (eg from constrain-on contracts) to generate or consume at or above a certain level.

Locational: nodal for generation; GSP groups for suppliers

Temporal: annual with possibility to slicing within year through constraint contracts

Firmness: firm

A2. Allocation / payment / trading of access rights (who, how)

Participants: generators, suppliers and interconnector asset owners.

Provision: initial allocation of rights according to existing position; new comers subject to “secure, connect, use” process.

Quantity: maximum available: initially subject to defined “baseline” network capacity or subsequently agreed as part of connection process.

allocated to participants: for generation, MEC; for suppliers, unlimited (or eg forecast peaks scaled to match GSP group limits?)

Duration: lifetime, provided that participants keep paying relevant transmission charges (i.e. no reservation of rights during mothballing period)

Price: either: TNUoS (capacity, locational) + BSUoS (usage, non-locational);

or: TNUoS (capacity, non-locational) + BSUoS (usage, locational).

Trading: Between generators at the same node: little facilitation from National Grid;

Between generators at different nodes: more administered facilitation from National Grid;

Between National Grid and participants: through constraint contracts which may give rise to obligations (eg constrain-on contracts).

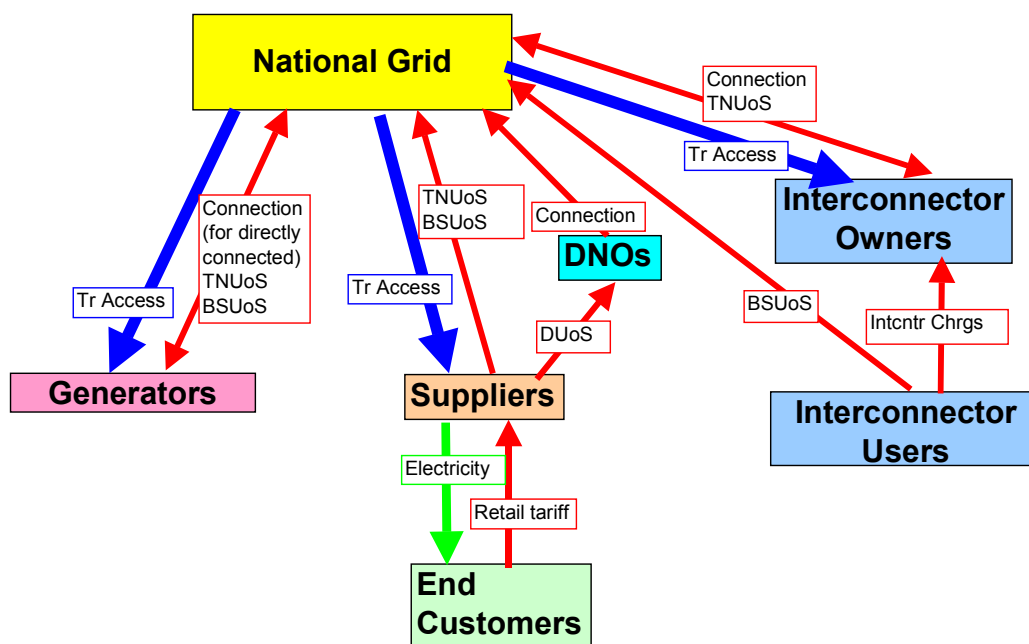
A3. Enforcement of access rights

Participants: Contractual limits for generators: MEC for initially allocated rights which are monitored and enforced through CUSC terms; for rights modified by constraint contracts, additional specific contractual terms would apply; especially for constrain-on contracts giving rise to obligations, individual settlement may be required;

For suppliers: limited by total GSP group intake, perhaps enforced through DNO connection agreement.

National Grid: commercial rates for constraints via constraint contracts and residual BM actions; compensation for disconnection at agreed rates;

A4. Contractual relationships between participants



A5. National Grid's transmission investment

National Grid would be obliged to offer terms to applications for connection and/or use of system. Transmission investment would be carried out for the following reasons:

- Providing the minimum capacity as required by the Security Standard against the background of contracted MECs and forecast GSP demands (TO allowed revenue);
- Reducing constraint costs as incurred in the constraints contracts and residual BM actions (SO BS incentives).

Assessment / Issues

Pros:

- Financially firm access rights are defined, which help separate the constraints resolution from the energy market (but see the point regarding demand impact below).
- Contractual terms allow rights to be defined long term.
- Constraints contracts allow trading of rights between National Grid and participants, which may provide additional market signals for National Grid's transmission investment.
- Reasonable implementation cost due to the avoidance of a full settlement system.

Cons:

- Trading of rights between participants at different sites requires administered facilitation from National Grid.
- If BSUoS charges are to be locational, a new system of administered short-term locational pricing would need to be developed.
- The accuracy of resolution of constraints across GSP groups is affected by the uncertainty of demand impact.

Strawman B Full Scale Access Market

B1. Definition of access rights

Type: Entry/exit capacity

Rights/Obligations: Rights and Obligations to generate or consume at a certain level.

Locational: nodal

Temporal: half hourly

Firmness: firm

B2. Allocation / payment / trading of access rights (who, how)

Participants: generators, suppliers, interconnector asset owners, traders.

Provision: initial allocation year-ahead by auction, with simultaneous clearance giving rise to rights and obligations; further allocations in secondary trading.

Quantity: maximum available: subject to "baseline" network capacity, eg boundary capacity, published in advance for auction; interactive with other rights made available, especially the two-sided rights at same node.

allocated to participants: determined through simultaneous clearance in initial auction and then further trading; possibility of profiling across certain time blocks

Duration: explicitly fixed period

Price: Access fee = auction price (capacity, locational) + residual (capacity/usage, non-locational)
BSUoS (usage, non-locational)

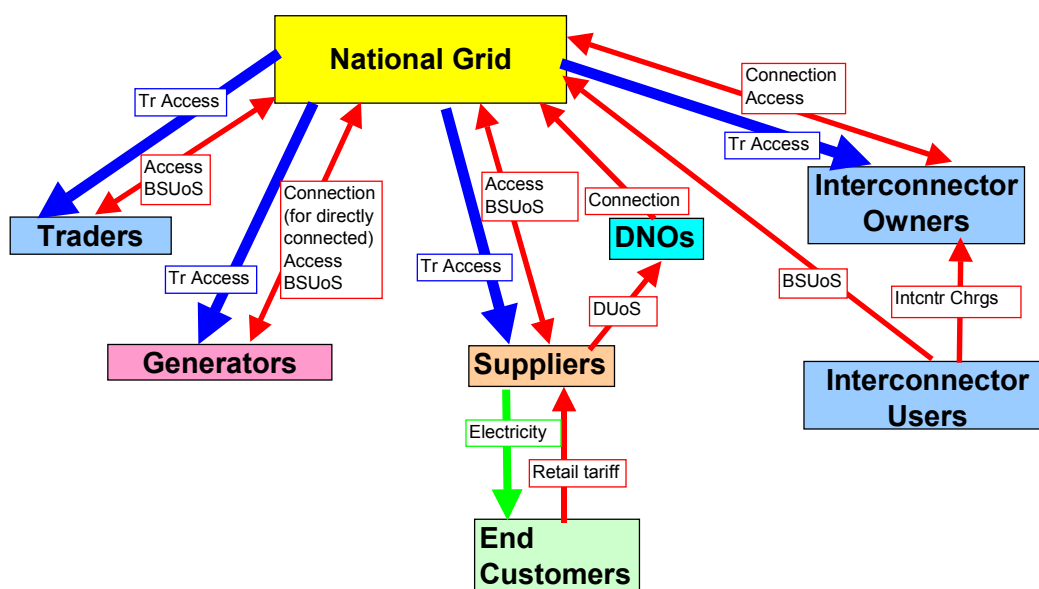
Trading: Between participants at the same node: non-facilitated;
Between participants at different nodes: facilitated by National Grid;
National Grid may also buy-back or release more during secondary trading.

B3. Enforcement of access rights

Participants: Imbalance charges (locational) for over- and under-runs every half hour through a full settlement system.

National Grid: Compensation via buy-backs for constraints, deemed buy-backs for disconnections

B4. Contractual relationships between participants



B5. National Grid's transmission investment

National Grid's investment would be for the following reasons:

- Providing baseline network capacity (TO allowed revenue)
- Reducing constraints costs within baseline network capacity, with additional signals arising from buy-back costs (SO BS Incentive)
- Providing network capacity beyond baseline, responding to long-term access market (deep SO incentive).

Assessment / Issues

Pros:

- Financially firm access rights are defined to reflect the transmission system characteristics. Transmission constraints could theoretically be resolved before Gate Closure.
- The rights are of long term duration.
- Reasonably consistent with Gas arrangements

Cons:

- Very complex and costly settlement systems required.
- If demand side access rights are associated with suppliers, then nodal rights would be difficult to implement in practice. Approximating the demand side access rights into GSP groups, on the other hand, would introduce disparity between generation and demand and reduce the accuracy of constraint resolution. An alternative could be to associate the nodal access rights with DNOs.
- Trading of rights between different nodes requires National Grid's facilitation.
- The rates for deemed buy-backs to compensate for disconnection would be subject to careful consideration and would give rise to additional revenue requirement for National Grid.
- Year-ahead auctions would not give rise to sufficiently long-term investment signals. It would require careful consideration as to which long-term market would provide the appropriate investment signals for capacities beyond the baseline.