NTS Flexibility Capacity Product – current enduring proposals and some alternatives

Enduring Offtake Working Group

18th January 2006

(nks/draft v0p2 18/01/06)

nationalgrid

Background and presentation objective

… the current NTS Exit Flexibility Capacity product was developed as part of the DN sales process

… implementation of the enduring regime deferred to permit more time to consider the proposed framework

… many industry participants have advocated consideration of alternative approaches

… this presentation describes the current NTS Exit Flat and Flexibility proposal and some refinements and alternatives

nationalgrid

The NTS Exit Capacity Products & Alternatives

- “Current” Flat and Flexibility Capacity products
- Refinements
  - Flat and “Increased Flexibility tolerance” product
  - Expanding flexibility model
  - Single product model
  - User high/low flexibility model
- Alternatives
  - “Old NTS Exit Capacity Product” (“NERA” Model)

…the above is not intended to be an exhaustive list of possibilities

nationalgrid

Current NTS Flat and Flexibility Capacity products

… the definitions of the above products have already been implemented in the UNC

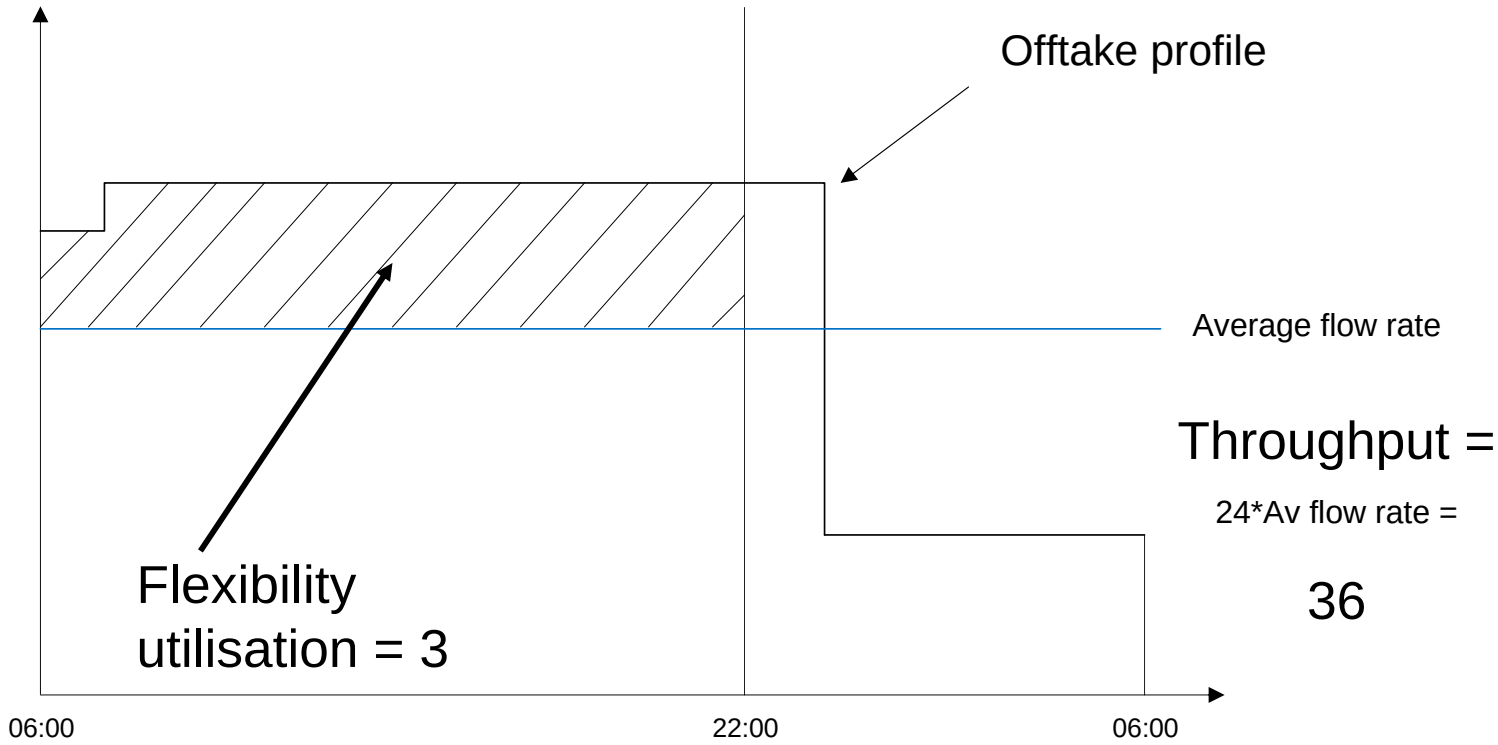
… DNs secure NTS Exit Capacity products via the Offtake Capacity Statement (OCS) application and allocation processes

If implemented in the enduring regime we assume overrun arrangements will be in place to encourage connectees at offtake points to offtake in a manner consistent with their NTS Exit Capacity holdings

nationalgrid

Understanding the “flexibility utilisation” assessment principle ….

Flexibility utilisation = cumulative offtake to 22:00 – (2/3) of daily flow



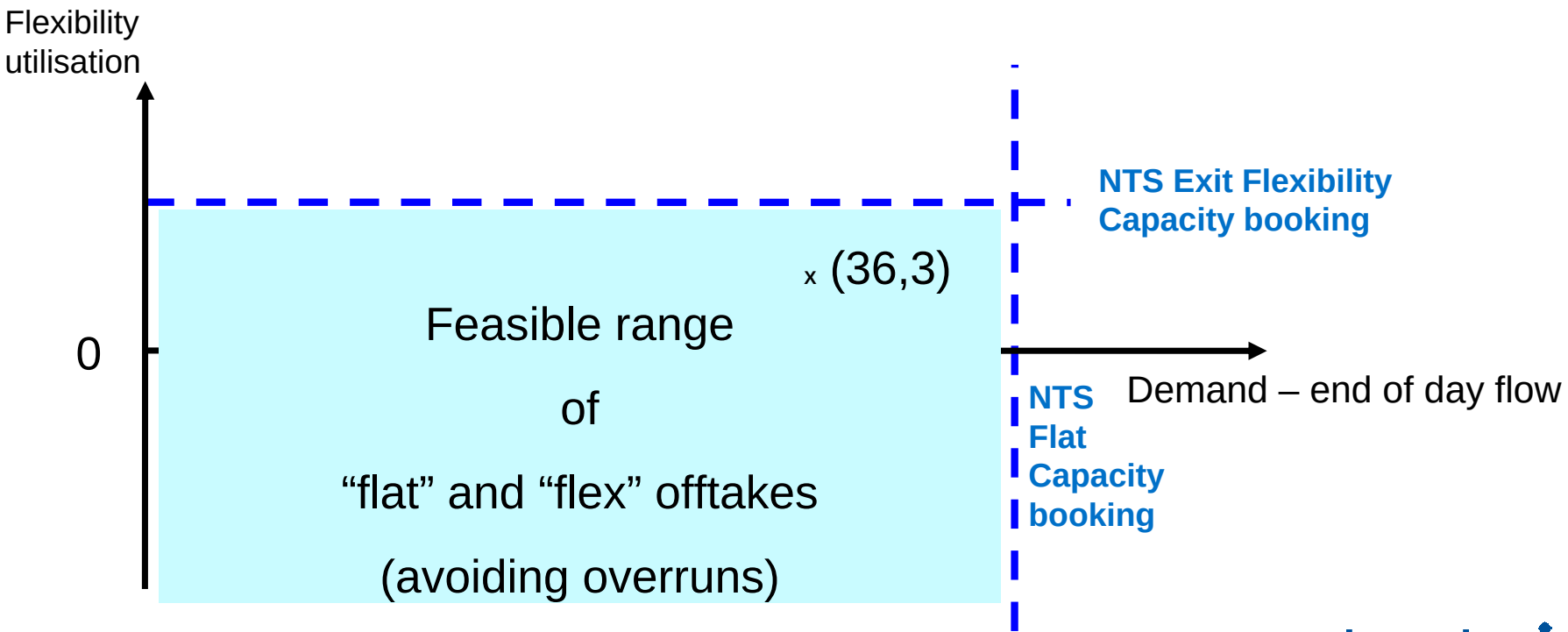
Product designed to reflect linepack impact at 22:00; time of maximum system stress

nationalgrid

User booking requirements

… expectation Users will book NTS "Flat" and "Flexibility" capacity levels required to satisfy all their requirements

… may require users to consider both their highest throughput and highest flexibility utilisation requirements



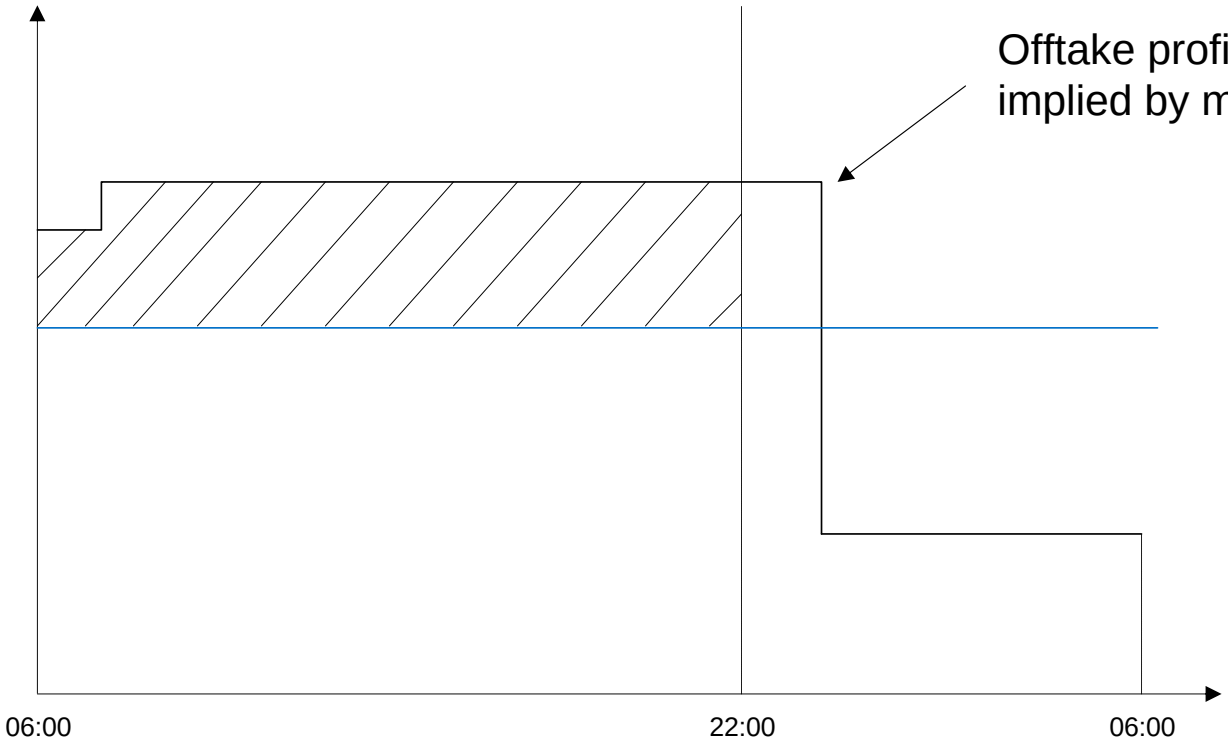
nationalgrid

Addressing metering offtake uncertainty

Flexibility utilisation = (cumulative offtake to 22:00) – (2/3) of daily flow

*** (1 – tolerance)**

Tolerance set at 1.5%



nationalgrid

Flat and “increased tolerance” flexibility

… even users with low levels of offtake flow rate variation may have some “flexibility utilisation”

… the “tolerance” could be expanded such that users, who might only have a moderately higher average offtake flow rate first 16 hours than over the full day, might not be required to book “flexibility”

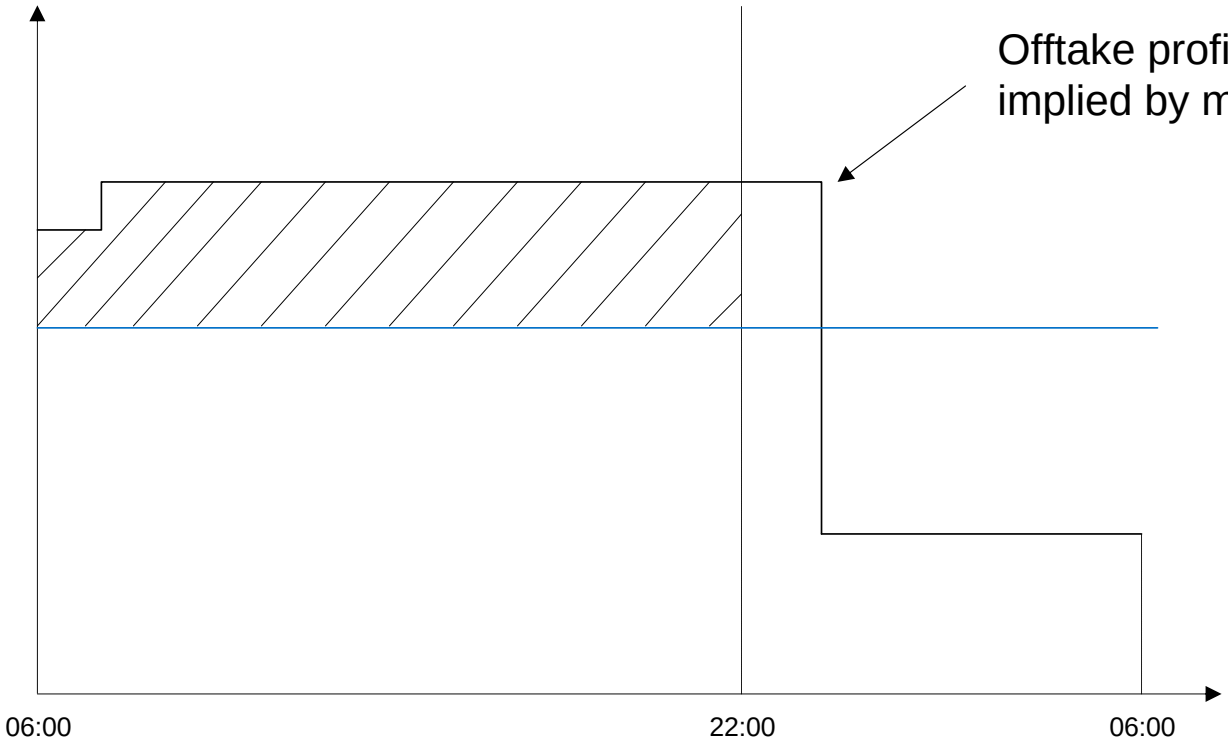
nationalgrid

Eliminating “flex holding requirement” for low variation users

Flexibility utilisation = (cumulative offtake to 22:00) – (2/3) of daily flow

*** (1 – tolerance)**

Tolerance set at [6]%



nationalgrid

Expanding flexibility product

… many users are unlikely to have coincident peak flexibility and daily offtake requirements

… this may force users to "over book" a combination of "flat" and "flexibility" capacity

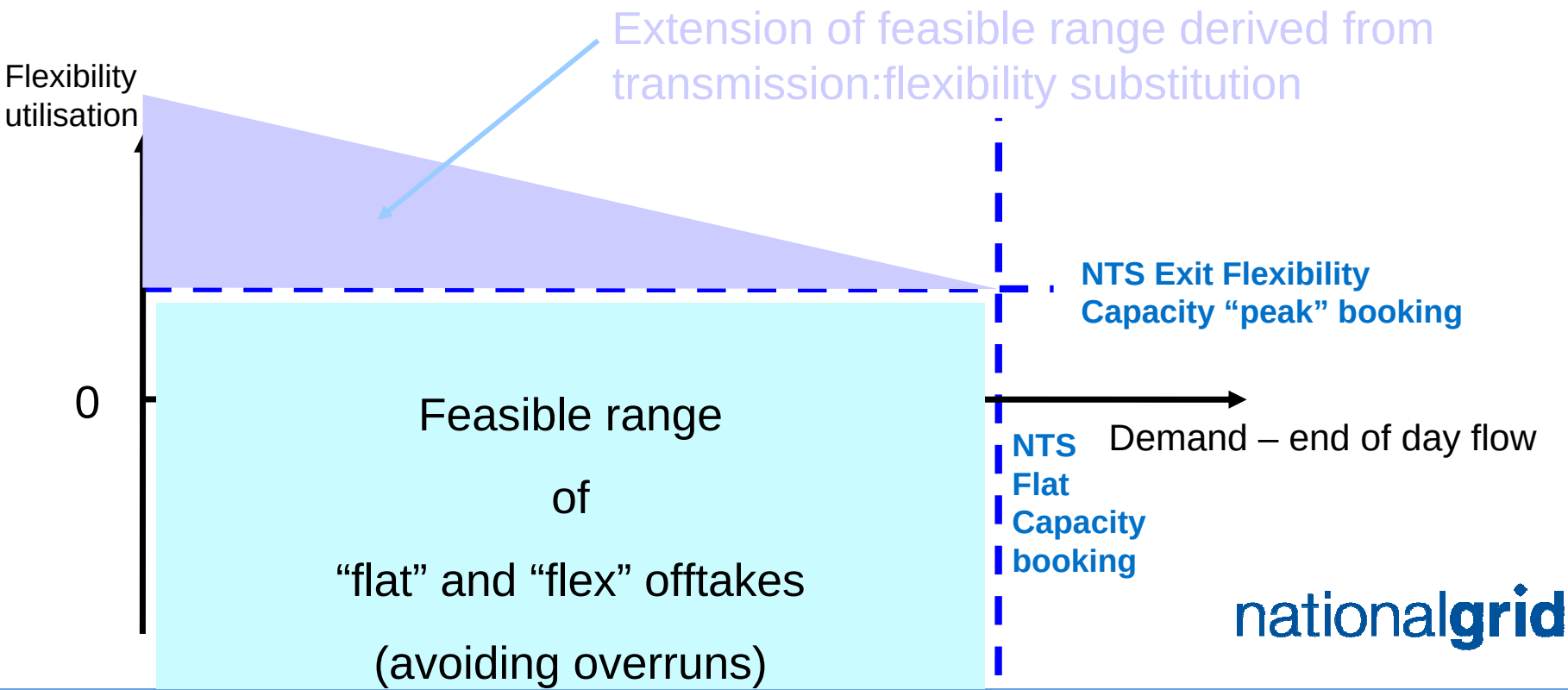
… so there might be scope for contemplating a "Flexibility" entitlement that expands when a user is not fully utilising his "Flat" holding

nationalgrid

User booking requirements

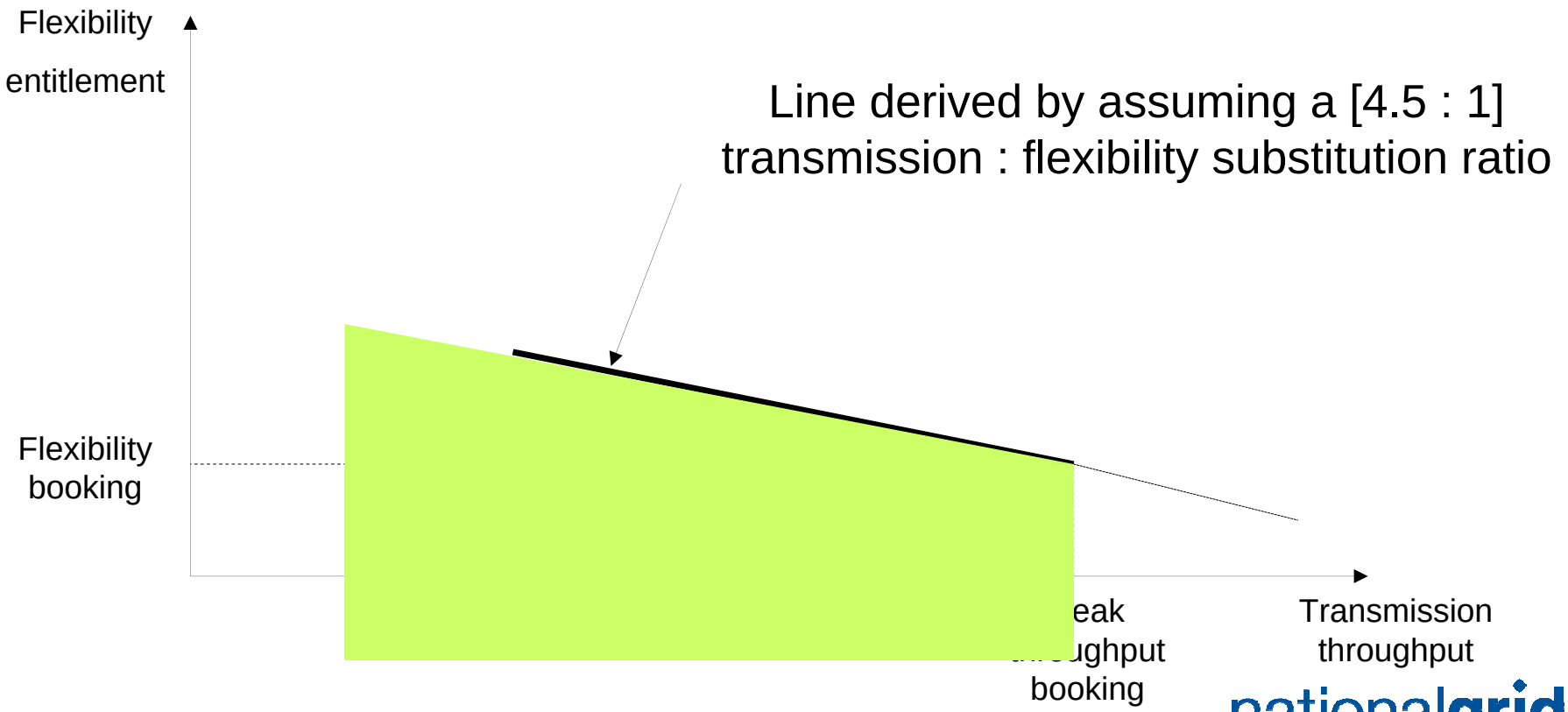
… expectation Users will book NTS "Flat" and "Flexibility" capacity levels required to satisfy their requirements on "peak throughput" day

… unused transmission capacity "automatically converted" into extra Flexibility availability based on a transmission:flexibility substitution ratio



.. the “expanding flexibility product” may facilitate efficient User booking?

Retains the concept of separate products but Users book a “requirement under peak transmission conditions” ie a flat and flex combination but have increased flex availability off-peak arising from transmission/flexibility substitutability



User flex entitlement = flex booking + [2/9] (peak throughput booking – throughput)

“Single product model”

… the preceding model still requires users to book 2 separate products

… a further simplification might be to contemplate a single “transmission capability” parameter to determine a single “product” booking

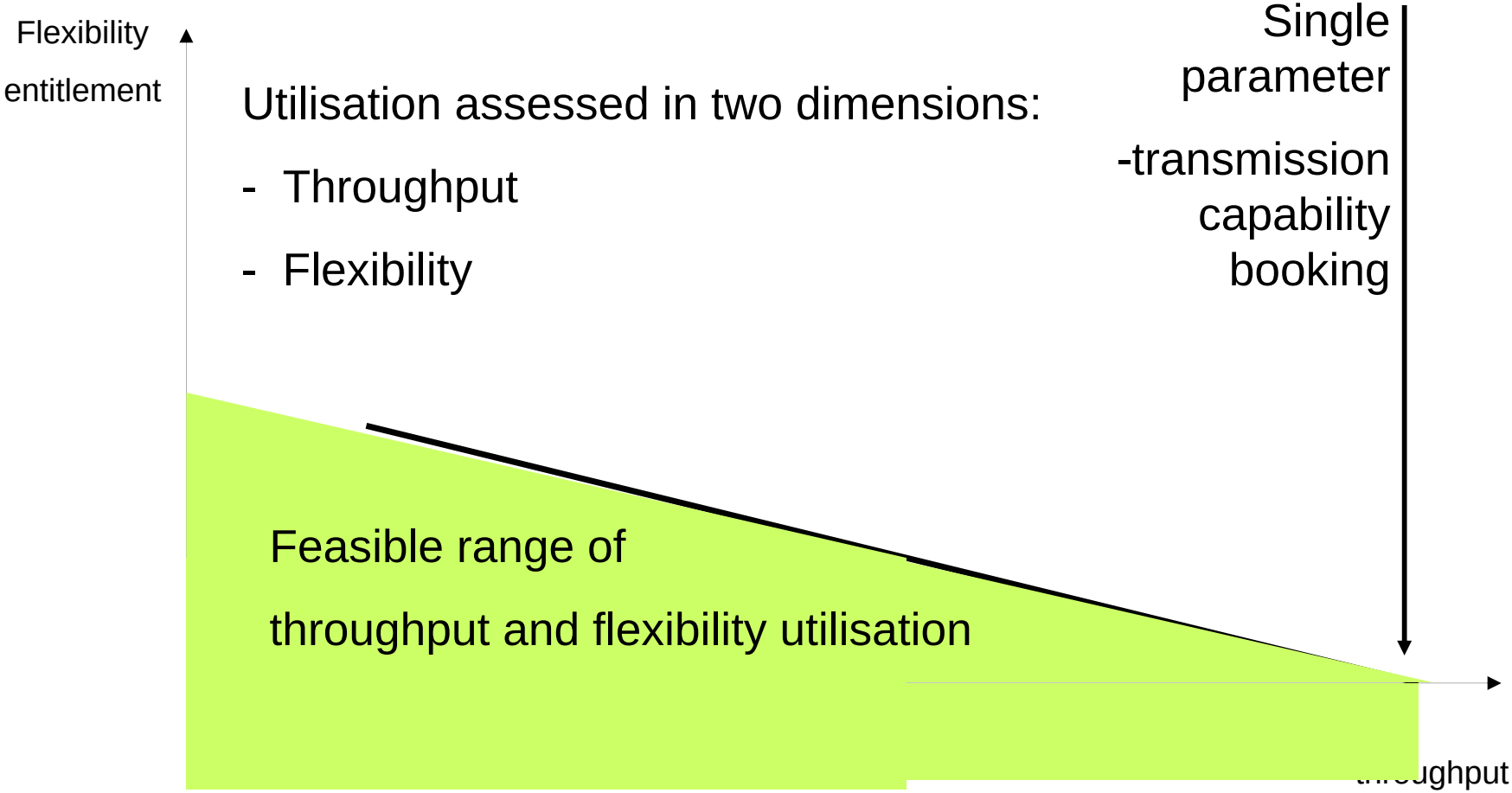
… assessment of product utilisation made in respect of two dimensions:

throughput against single “transmission capability” booking

flex usage against a derived flex “entitlement”

nationalgrid

.. Developing the simple single parameter booking regime?



User flex entitlement = [2/9] (transmission capability booking – throughput)

High/low flexibility user choice model

… *some users may have a requirement for fairly significant high offtake flow rate variations whilst others might have very low requirements*

… *Users might therefore be offered the opportunity to determine their highest day throughput requirement but to choose whether they would like to purchase a high flexibility or low flexibility dimension to their booking*

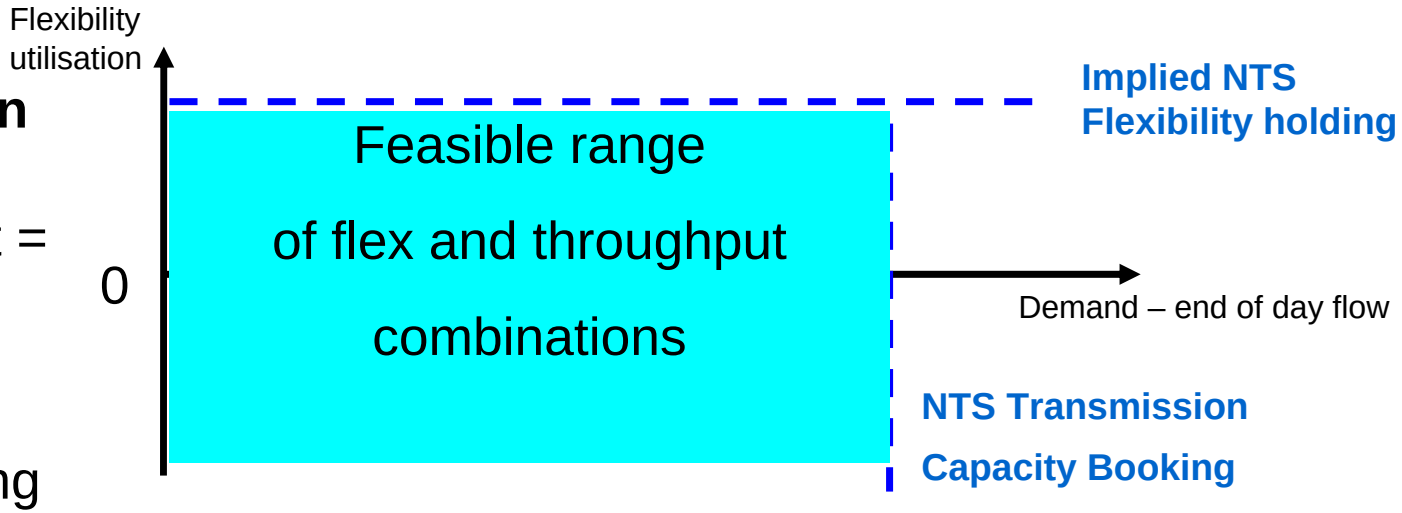
nationalgrid

High/low flexibility choice model

High flex option

Flex entitlement =

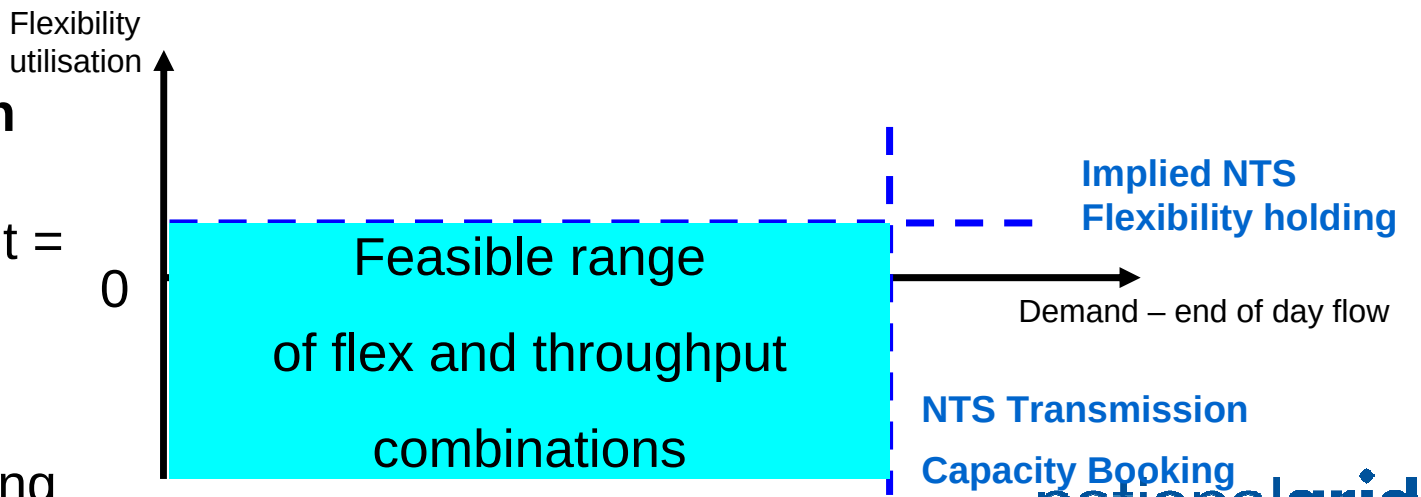
[**20**]% of Transmission Capacity Booking



Low flex option

Flex entitlement =

[**5**]% of Transmission Capacity Booking



nationalgrid

… all of the models presented so far have been derivatives based upon the proposed flexibility product

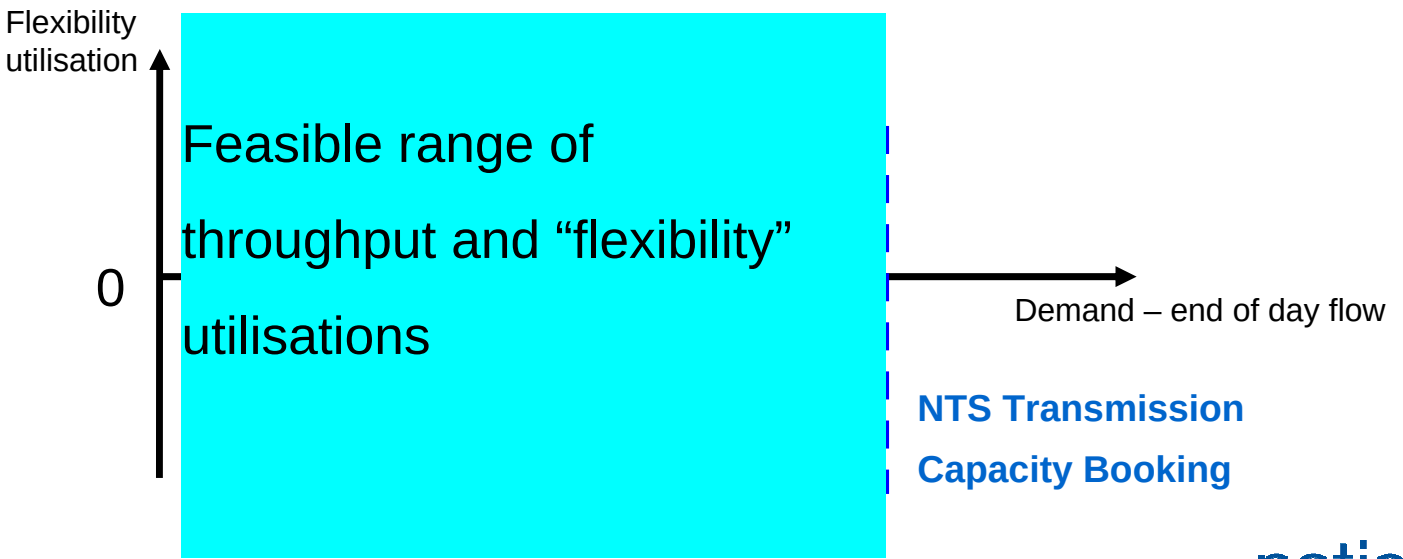
… there are alternatives that do not involve the assessment of a "flexibility overrun"

nationalgrid

“Old NTS Exit Capacity product” (“NERA” model)

… *the NTS Exit Capacity product (as currently applies in respect of Direct Connects) requires a single dimension of the transportation service to be booked; an End of Day quantity corresponding to 24 times the Max Hourly Quantity*

No explicit cap on “flexibility” utilisation



nationalgrid

“Old NTS Exit Capacity product” (“NERA” model)

… *the NTS Exit Capacity product (as currently applies in respect of Direct Connects) permits effectively unfettered access to offtake flow rate variations*

… *the system has not been designed to accommodate all possible offtake flow rate variations*

… *traditionally this has been managed via restrictions to DN offtake flow rate variations*

… *unfettered offtake flow rate variation would require*

a bigger system, and/or

alternative arrangements to limit offtake flow variations, or

certainty that offtake flow rate variations would not exceed capability

nationalgrid

Next steps

There may be some refinements/variants or alternatives to the current “flat and flexibility” that are worthy of consideration

Are there any particular options that EOWG wish to focus upon?

.. or is it best to seek to explore more detail in respect of the current flat/flexibility proposal to ascertain its effectiveness against stated objectives?

nationalgrid