

NTS Flexibility Capacity Product – current enduring proposals and some alternatives

Enduring Offtake Working Group

1st February 2006

(nks/060201_EOWG_Expanding_flexibility_product_v0p4 29/01/06)

Background and presentation objective

- ... this presentation draws heavily on a presentation given to the 18th January EOWG*
- ... it has been structured to provide further explanation of the “expanding flexibility product” and “single product” models explored at that meeting*
- ... some examples of DN offtake “throughput” and “flexibility” experience are presented*
- ... views of transporters, shippers, connectees and consumers are sought to inform timely policy development*

Presentation Structure

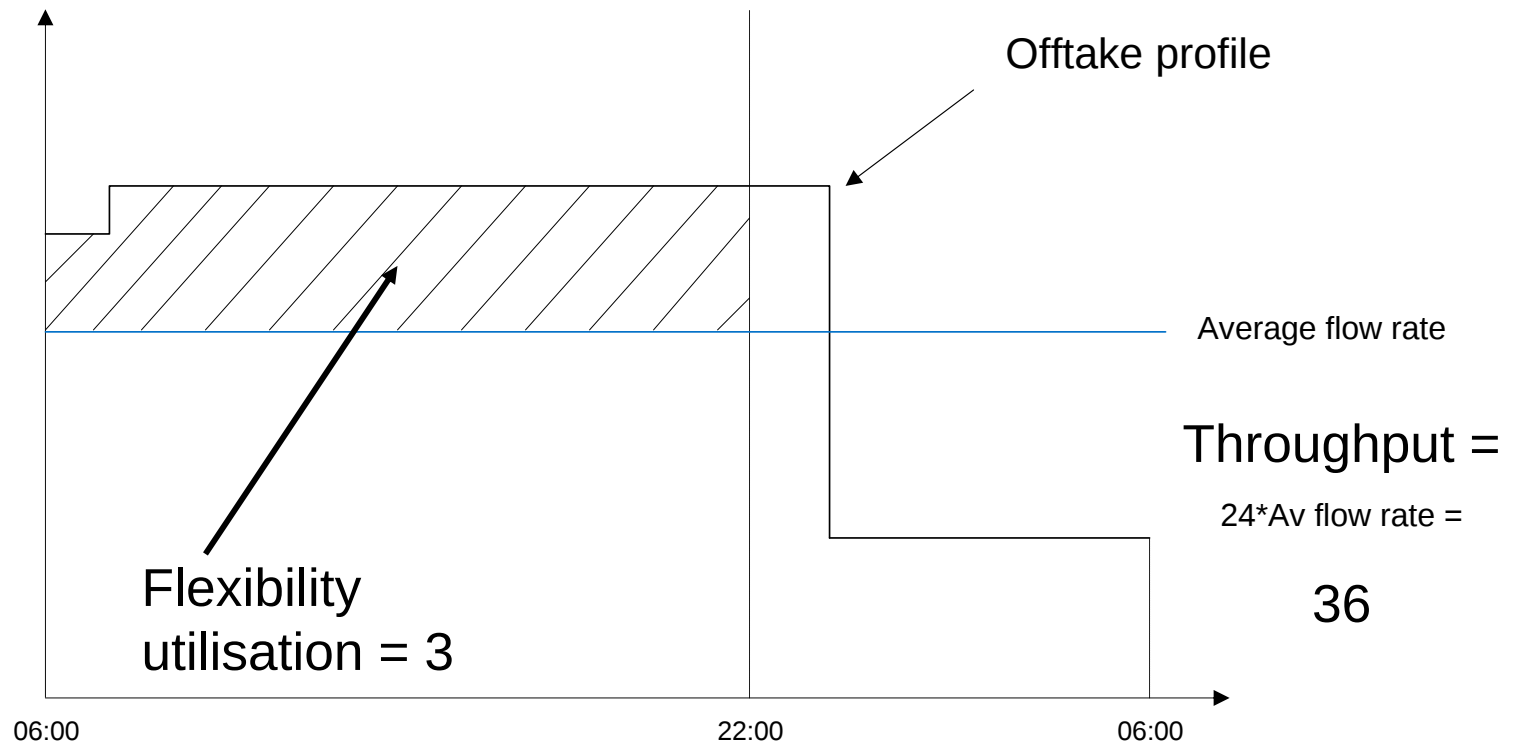
- ◆ The concepts
 - ◆ Recap of “flexibility utilisation” assessment
 - ◆ Expanding flexibility model
 - ◆ Single product model
- ◆ Example throughput/flexibility utilisations
- ◆ Areas for consideration
 - ◆ Does either approach address current TANIF weaknesses?
 - ◆ Implications of either approach
 - ◆ To User bookings? (inc DN incentives)
 - ◆ To NTS investment considerations?
 - ◆ To NTS operations?

... either approach will not be a panacea

... but is either worthy of further consideration and development?

The concepts: “flexibility utilisation” assessment principle

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



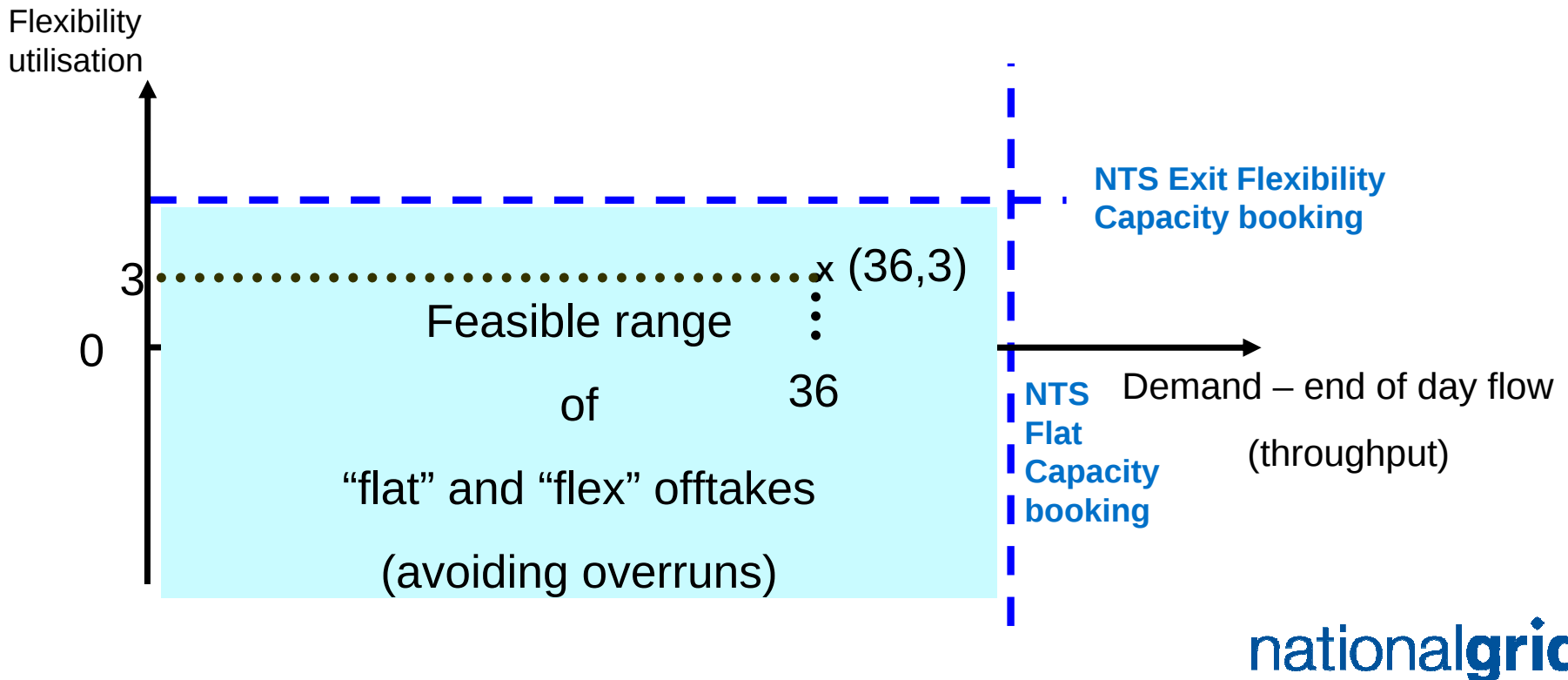
Product designed to reflect linepack impact at 22:00; time of maximum system stress

The concepts:

Towards a New Industry Framework (TANIF) 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



The concepts: Expanding flexibility product

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

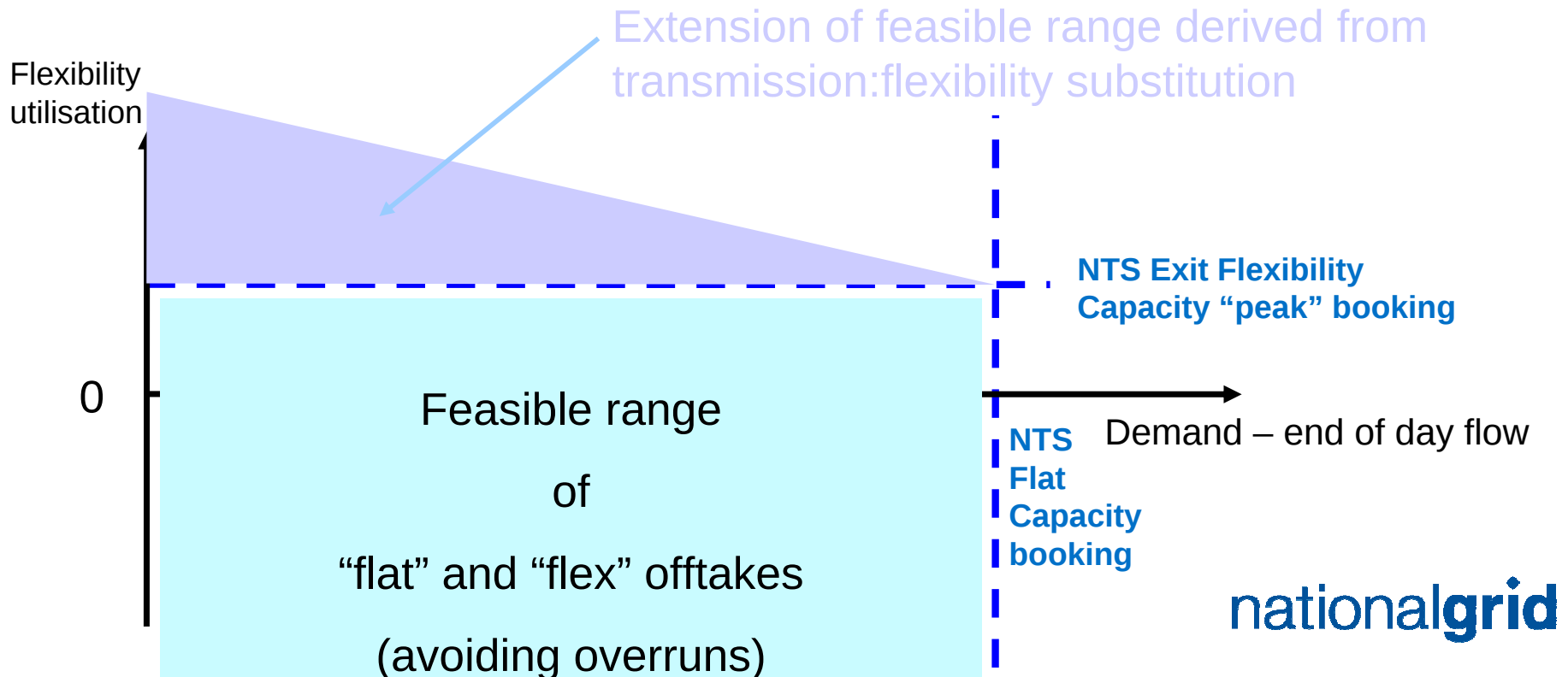
... this may force individual users to “over book” a combination of “flat” and “flexibility” capacity

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

The concept: User booking requirements in an “expanding flex world”

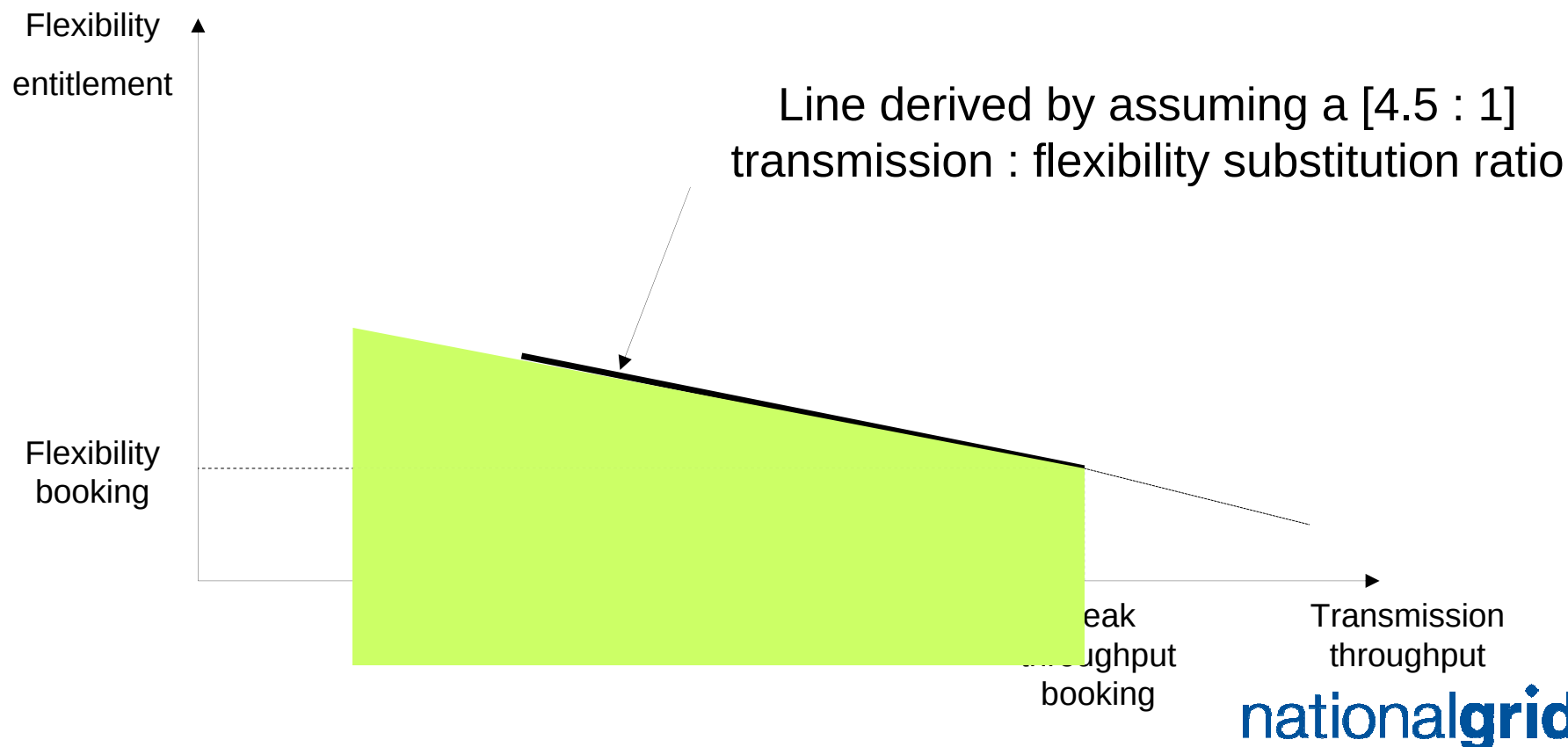
... expectation Users will book NTS “Flat” and “Flexibility” capacity levels required to satisfy their requirements on “peak throughput” day

... unused transmission capacity “automatically converted” into extra Flexibility availability based on a transmission:flexibility substitution ratio



The concept: 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 + $\frac{2}{9}$ (peak throughput booking – throughput)

The concept: “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

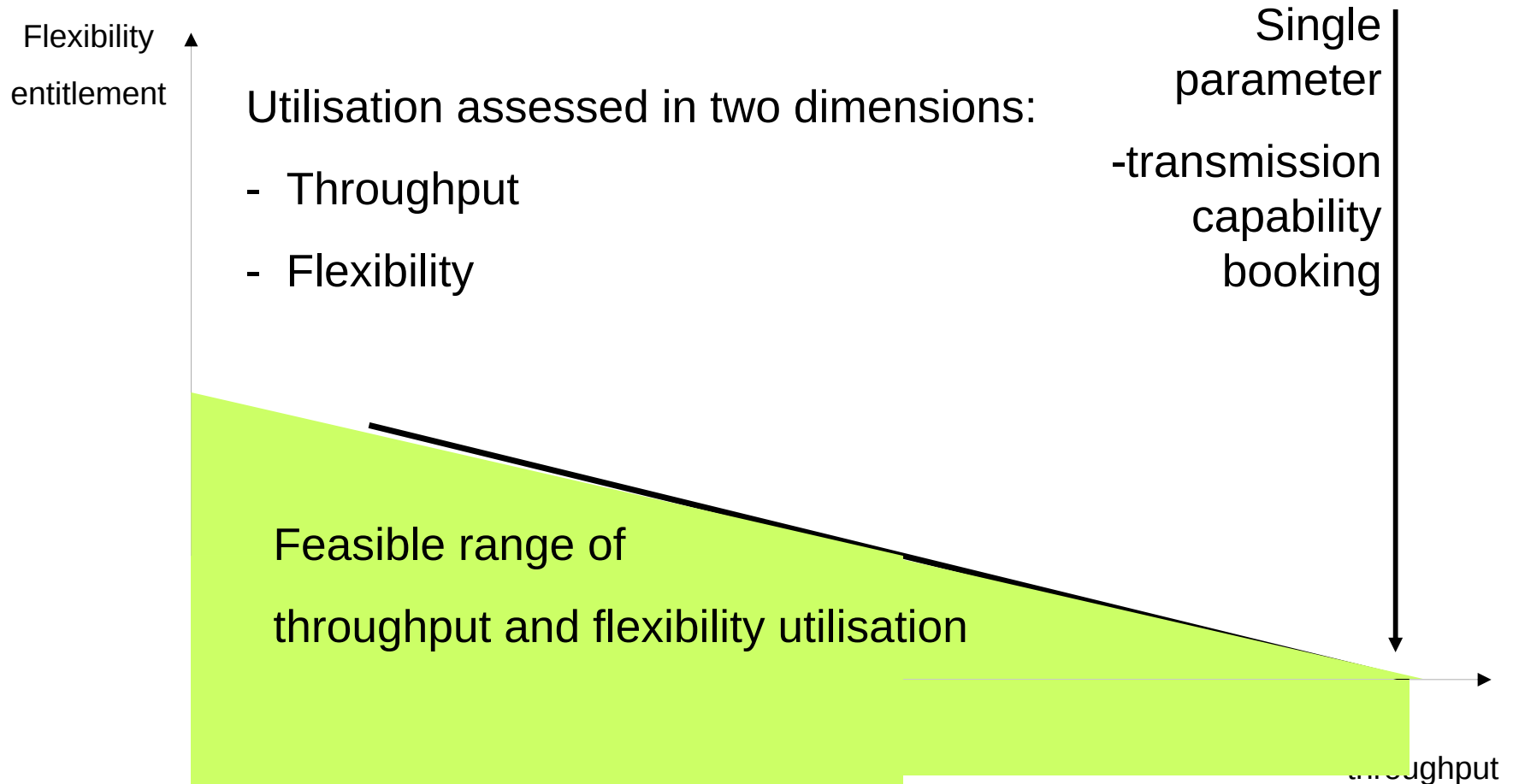
... assessment of product utilisation made in respect of two dimensions:

throughput against single “transmission capability” booking

flex usage against a derived flex “entitlement”

The concept:

Developing a simple single parameter booking regime?

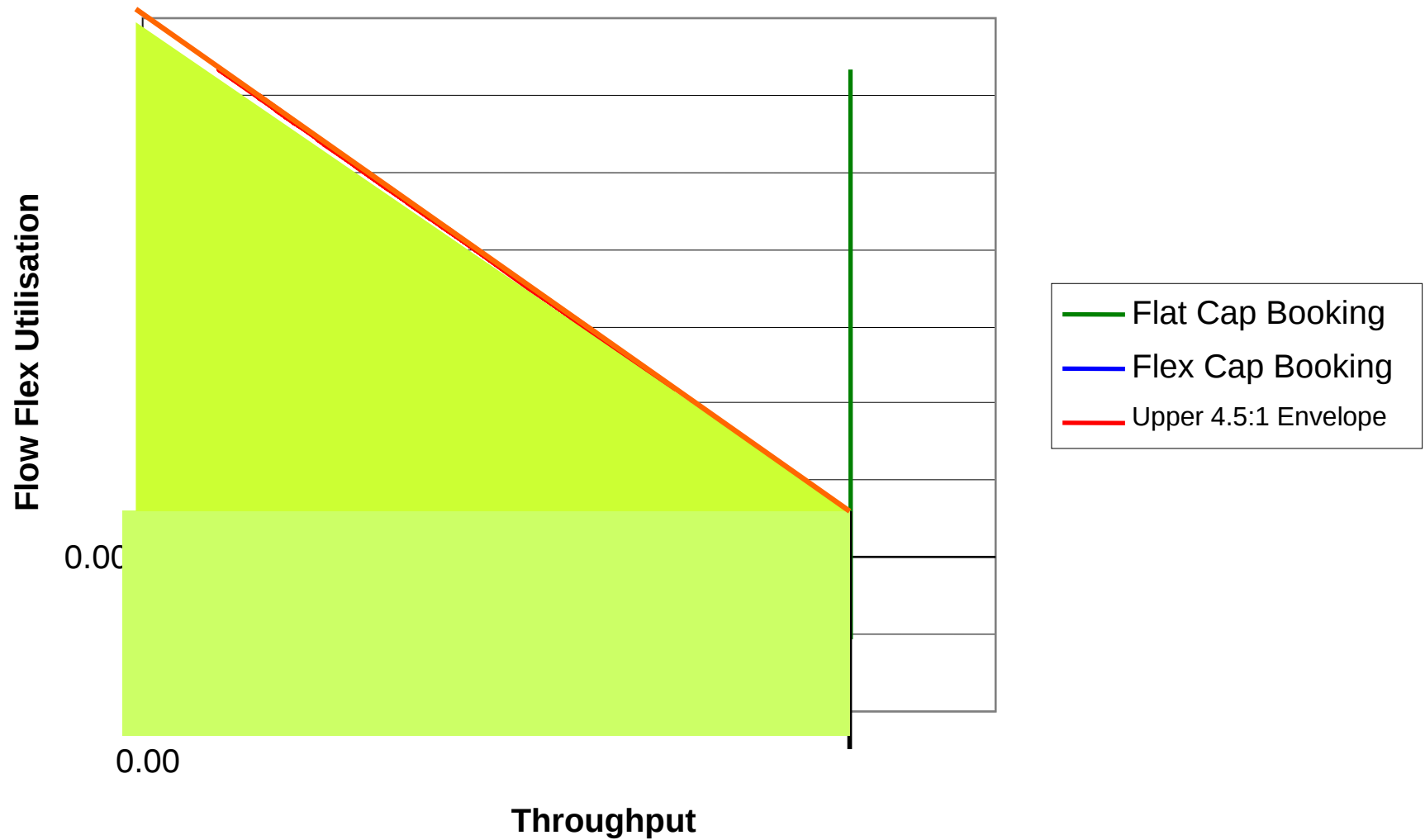


Example throughput/flexibility combinations

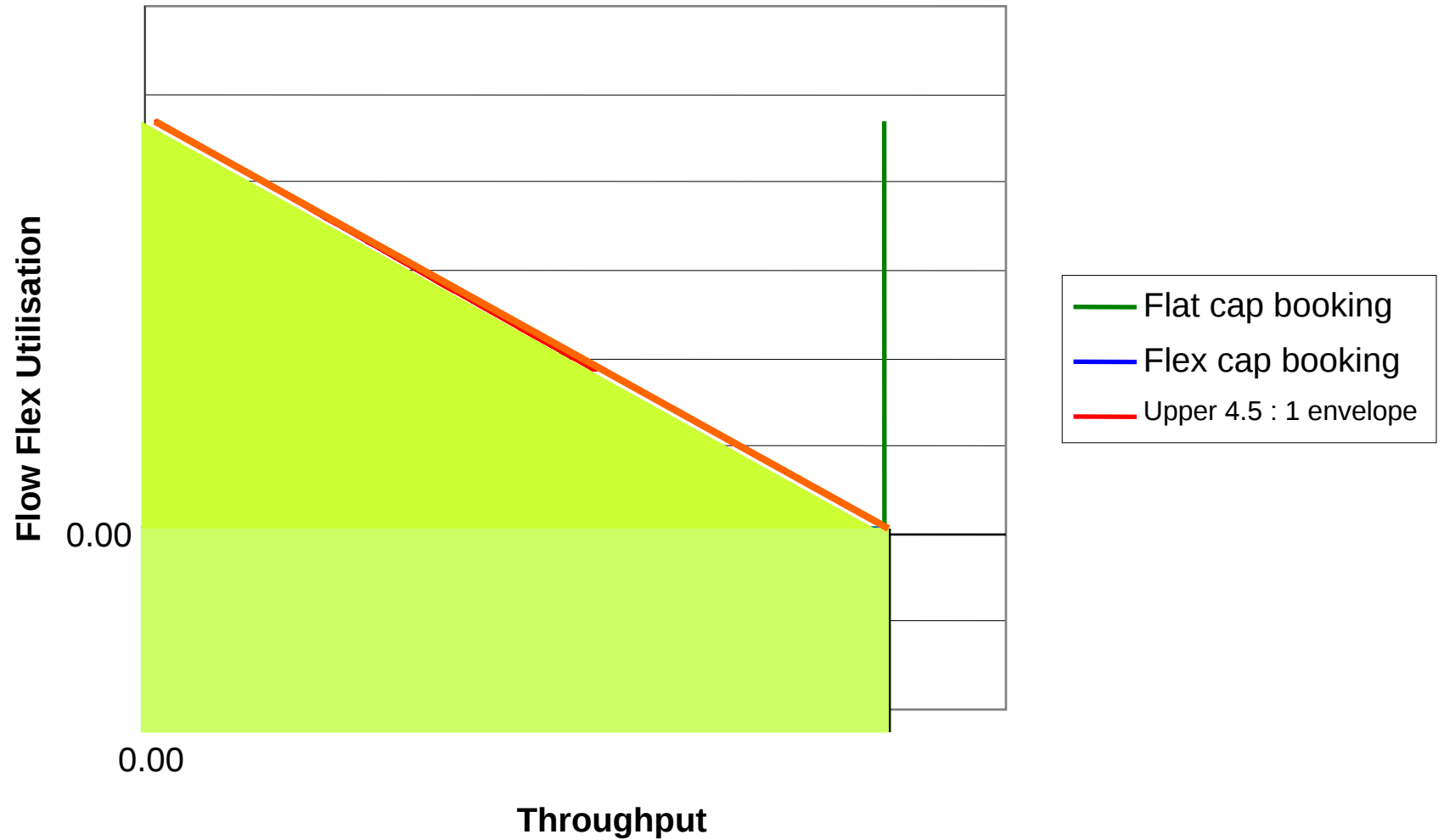
.. the following three slides provide three usage pattern graphics for 3 DN offtake

... but we must be wary of data issues and interpretation

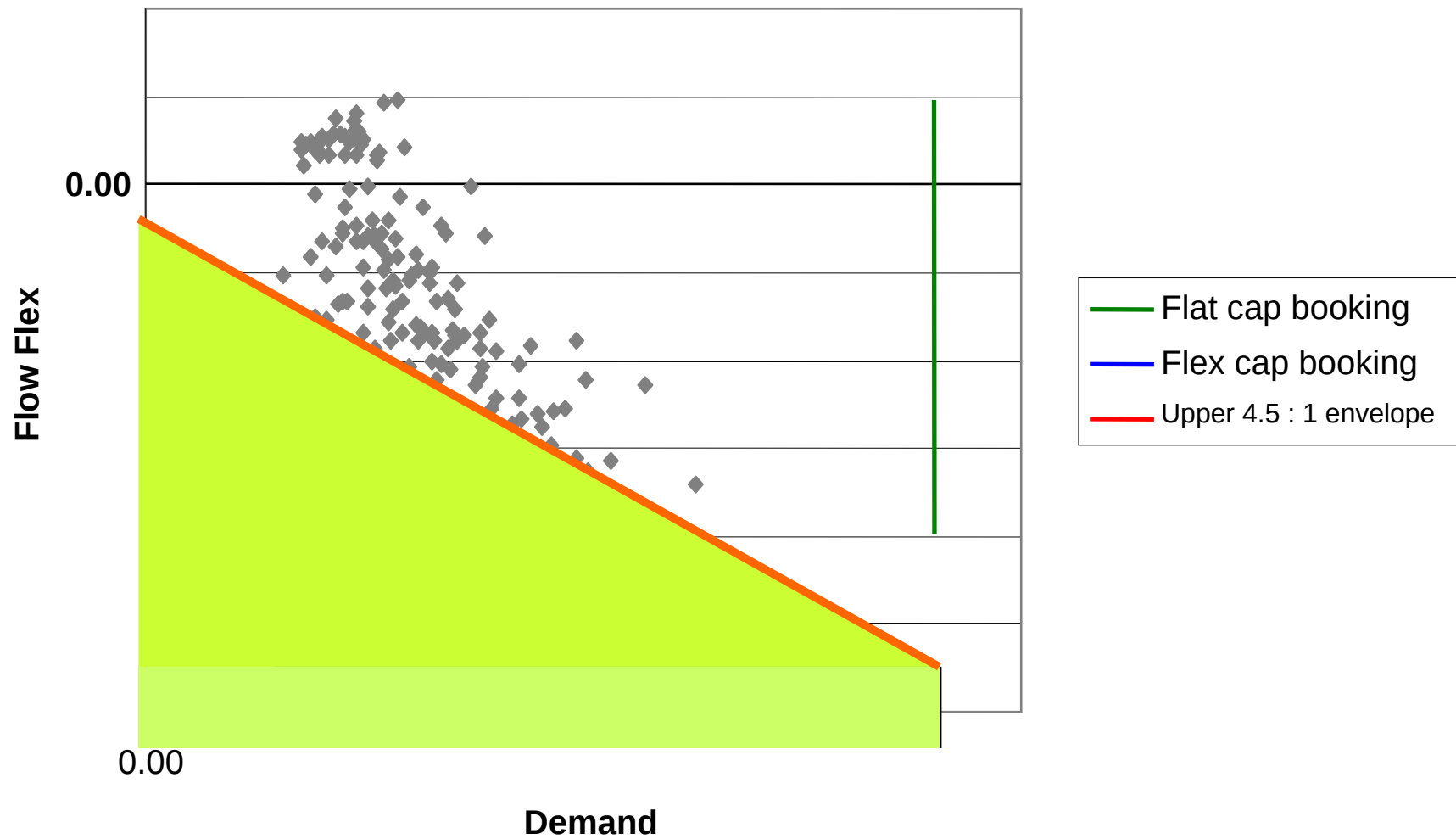
Offtake 1 (June 2005 to November 2005)



Offtake 2 (June 2005 to November 2005)

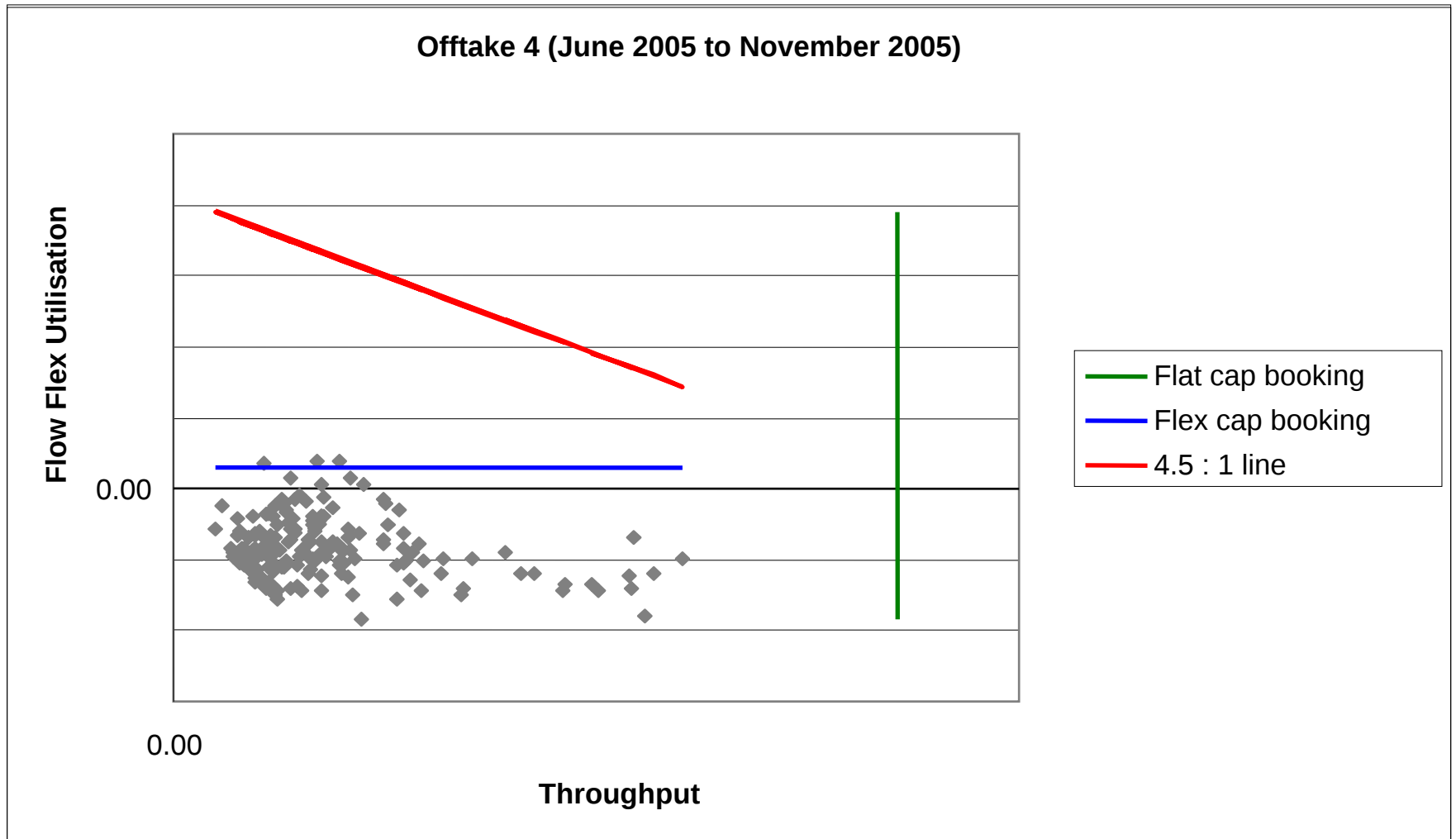


Offtake 3 (June 2005 to November 2005)

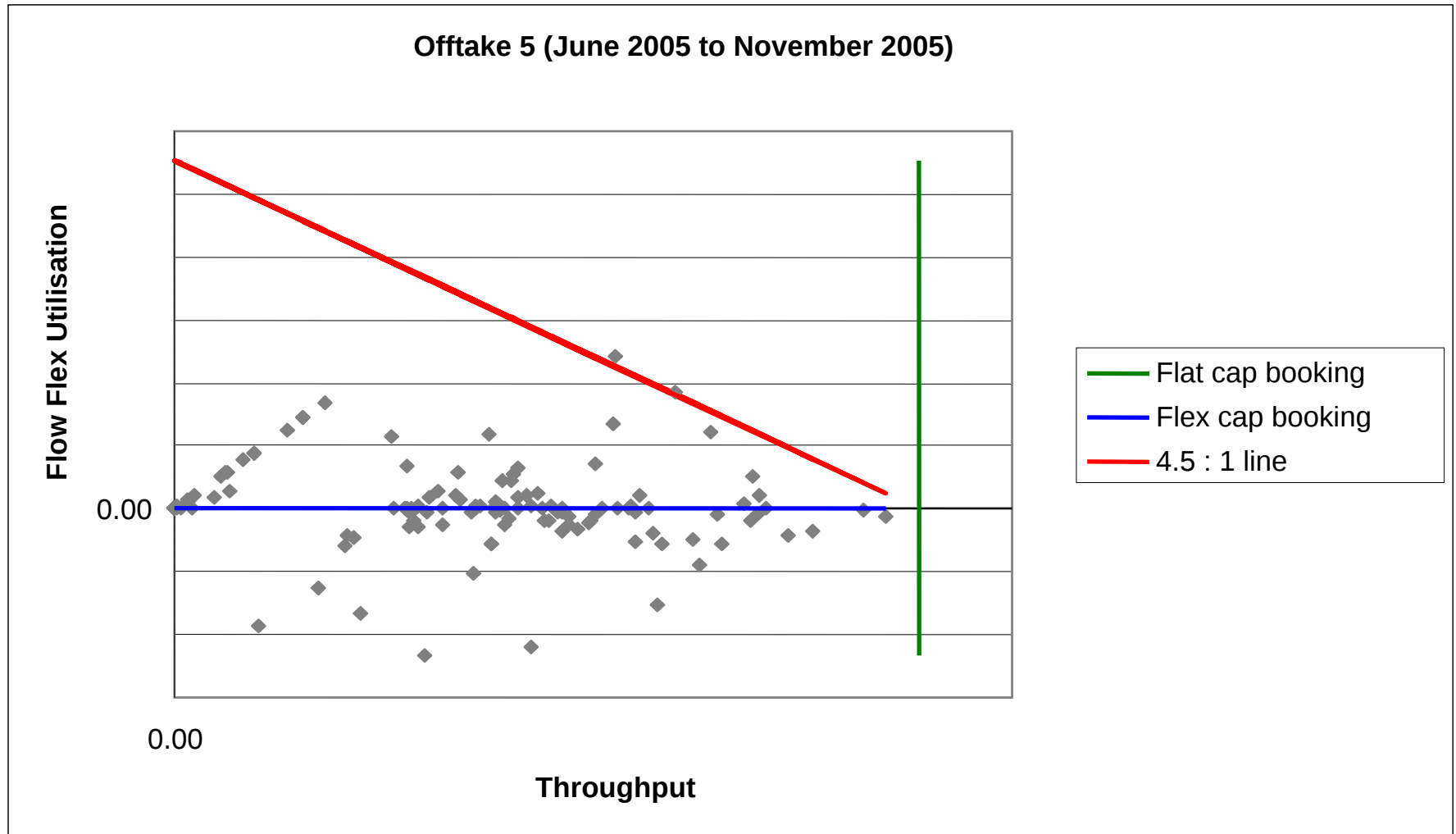


... and three more to illustrate other aspects

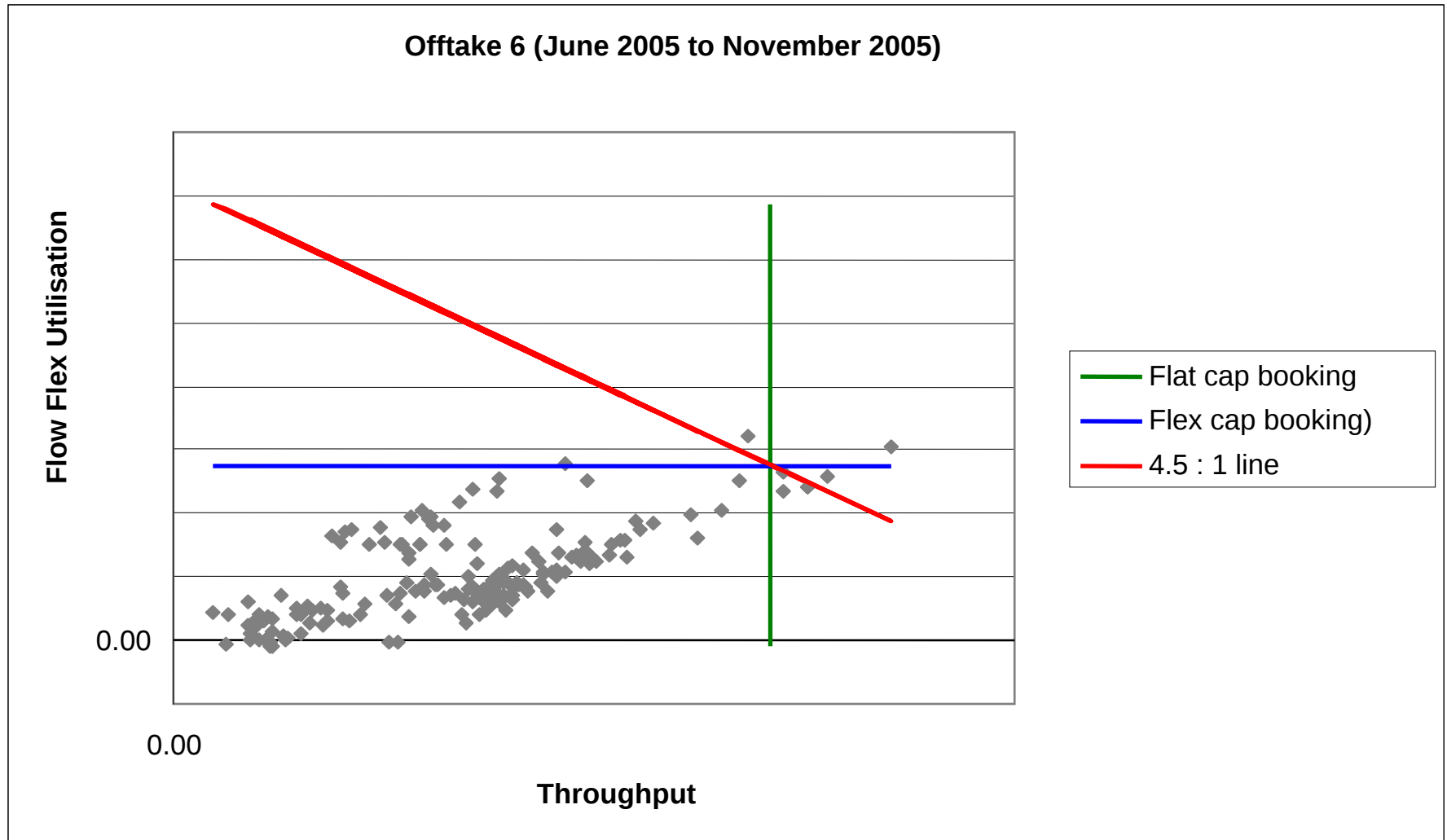
... some are pretty close to being within “feasible range”



... some datasets might have needed “substituted data”



... some might illustrate increased “flat” and “flex” requirements



Assessment of the two options (1)

- ◆ Addressing TANIF “weaknesses”
 - ◆ Complexity?
 - ◆ Accurate user commitment?
 - ◆ Useful information to inform NTS investment?
 - ◆ Other areas?

Assessment of the two options (2)

- ◆ Implications of either approach
 - ◆ To User bookings? (inc DN incentives)
 - ◆ To NTS investment considerations?
 - ◆ To NTS operations?

- ◆ Downsides of approach?

... probably better than TANIF approach

... but which is the better?

... and how does it compare with “status quo” or other alternates?

Next steps

Does the EOWG see merit in further consideration of
the two product (expanding flexibility model) ?
the single booking parameter derivative of the above?

If so, what needs to happen between now and next EOWG?

Alternatively are there other approaches that should be considered at this time?