



Linepack Flexibility Service

Commercial Framework Kernel Group

Introduction

- The term linepack can be used in many different contexts
- In this presentation we are focusing on a specific provision on use of linepack within the framework guidelines

“The network code on gas balancing shall not prevent TSOs from allocating linepack to network users if approved by the relevant NRA. Where linepack is sold, TSOs shall allocate the linepack to network users as a commercial product on a transparent and non-discriminatory basis and it shall be offered at a cost reflective price. The price may also be determined through competitive mechanisms. The decision by the relevant NRA to allocate linepack shall be based on objective criteria, including the physical characteristics of the networks, whether the provision is consistent with Section 4 of these Framework Guidelines and whether offering a linepack product would facilitate a more efficient use of the system.”

Introduction

- There are significant differences in the levels of linepack offered throughout Europe
- This clause refers to a linepack flexibility service which some TSOs might be able to offer network users considering physical characteristics of the networks.
- In essence the framework guidelines state that the network code should not prevent this service being offered, but that it must satisfy certain criteria
- So what does a linepack flexibility service look like?

How is it offered to Network Users

- If we consider linepack flexibility as the extent to which mismatches between input and offtake flows can be accommodated in the system
 - referring to aggregate inputs and offtakes (and so no specific targeting of costs /utilisation to a specific user).
- In the context of linepack flexibility we are seeking to sell end-of-day linepack flexibility to individual network users and make them responsible for staying within their service entitlements.
 - Therefore it is only meaningful to sell such services where there is a sufficiently large amount of flexibility over and above that which might be considered to have a benefit from some form of socialisation?

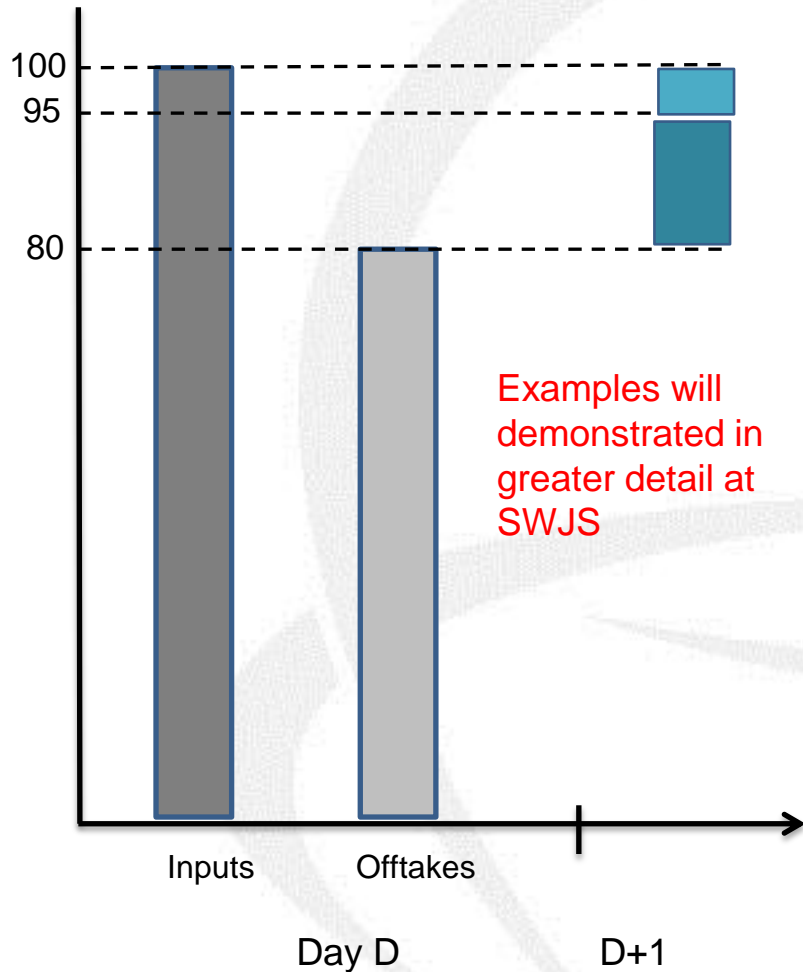
ENTSOG have identified two high level means of offering this product to network users:

1. Implicit linepack service
2. Explicit linepack service

Implicit Linepack Service

- Here Network Users does not nominate the TSO of its intention to use the service within the Gas Day
- If the Network User has an imbalance quantity at the end of the day there is an “implicit” assumption that it wished to use the service
- Its imbalance quantity to be cashed-out is reduced by up to the pre-arranged inventory capacity
- The amount in the inventory derived for the end of day influences the inventory change that can be accommodated the next day

Implicit Linepack Service



Assume

- Network User has booked 15 units of implicit linepack storage which is empty at the start of the Gas Day
- In the example the Network User has an imbalance of 20 – however the TSO does not know until the end of the Gas day whether the Network User intended to use the implicit storage or not
- 15 units are therefore assumed to be stored, meaning the network Users starts the next Gas day 15 units long
- 5 units are sold to the TSO at the Marginal Sell Price

Implicit Linepack Service

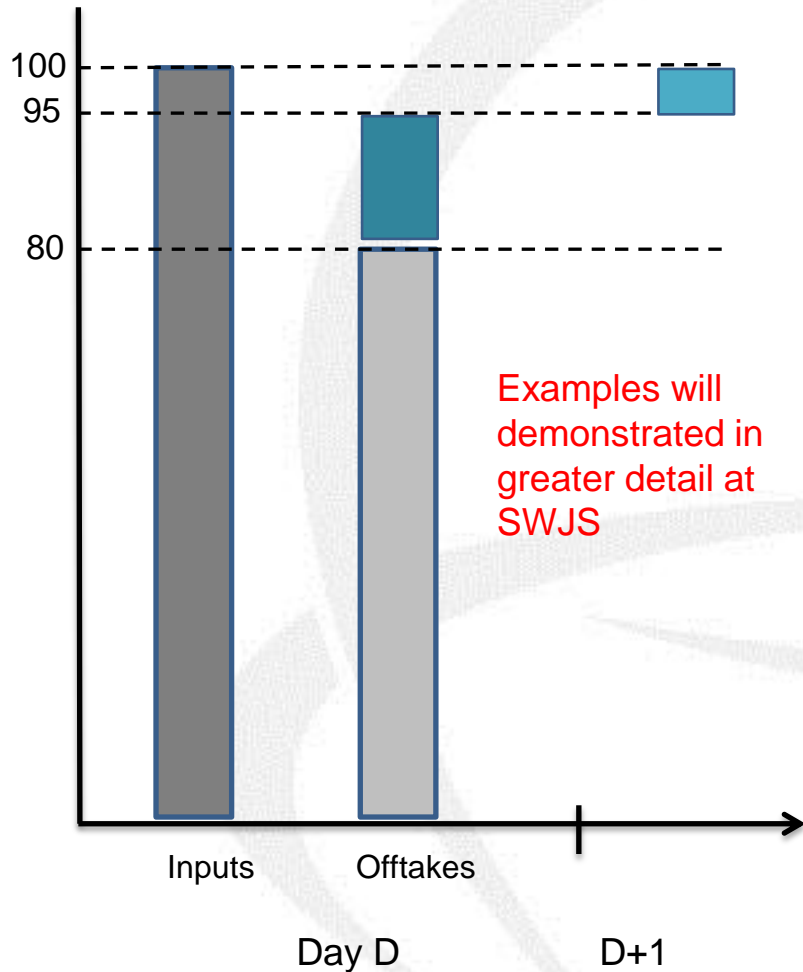
Some considerations:

- TSO does not know within the day Network Users intention to balance – may make balancing actions more difficult
- iTSOs and Network User may require a final imbalance calculation in the early hours of D+1 – has implications on reconciliation. This is a strong information requirement.

Explicit Linepack Service

- Here Network Users does nominate the TSO of its intention to use the service as an injection or withdrawal at the end of the Gas Day
- Network users will only be able to nominate up to their maximum level of inventory in the linepack service available.
- To all intents and purposes it is basically a standard storage service

Implicit Linepack Service



Assume

- Network User has booked 15 units of implicit linepack
- In the example the Network User has an imbalance of 20
- If the TSO has not nominated to inject 15 units of gas it is fully cashed out for 20 units at Marginal Sell Price

Or

- If the TSO had nominated to inject the gas carries 15 units carries forward like the implicit service and 5 units are cashed out

Review of framework guidelines

- The framework guidelines ask that certain criteria are met in order for the service to be offered

Criteria

(i) the physical characteristics of the networks

- The TSO should not need to contract any other infrastructure (e.g. storage or terminals) to provide this service
- so the extent of linepack flexibility available would be limited to that beyond which otherwise might be used to manage imbalances in flow rates on the system.

Criteria

(ii) whether the provision is consistent with Section 4 of the framework guidelines

So what is in Section 4:

4.1 Balancing Period

- Standardised Balancing period
- Network Users financially settled after each Balancing Period

4.2 Within Day Obligations

4.3 Nominations

ENTSOG will have to pick the specific criteria based on Section 4 of the framework guidelines for inclusion in the Network Code

Criteria

(iii) whether offering a linepack product would facilitate a more efficient use of the transmission system

- If offering the service reduces the overall cost of operating the system
- does not place any additional cost on those network users that do not avail of the facility;

Process

Once the linepack service has met the above criteria and being sold, its sale as a product must:

- be a commercial product
- be sold on a transparent and non-discriminatory basis
- be offered at a cost reflective price or competitive mechanisms.

Issues for Stakeholder Feedback

- The Framework guidelines include specific criteria that a linepack flexibility service must be considered against
 - ENTSOG have identified views on each criteria – do you agree
- Are there any more criteria you would like us to consider
- Any views on the two models described
- Could the adoption of different models between balancing zones create any flow distortions at IPs?