



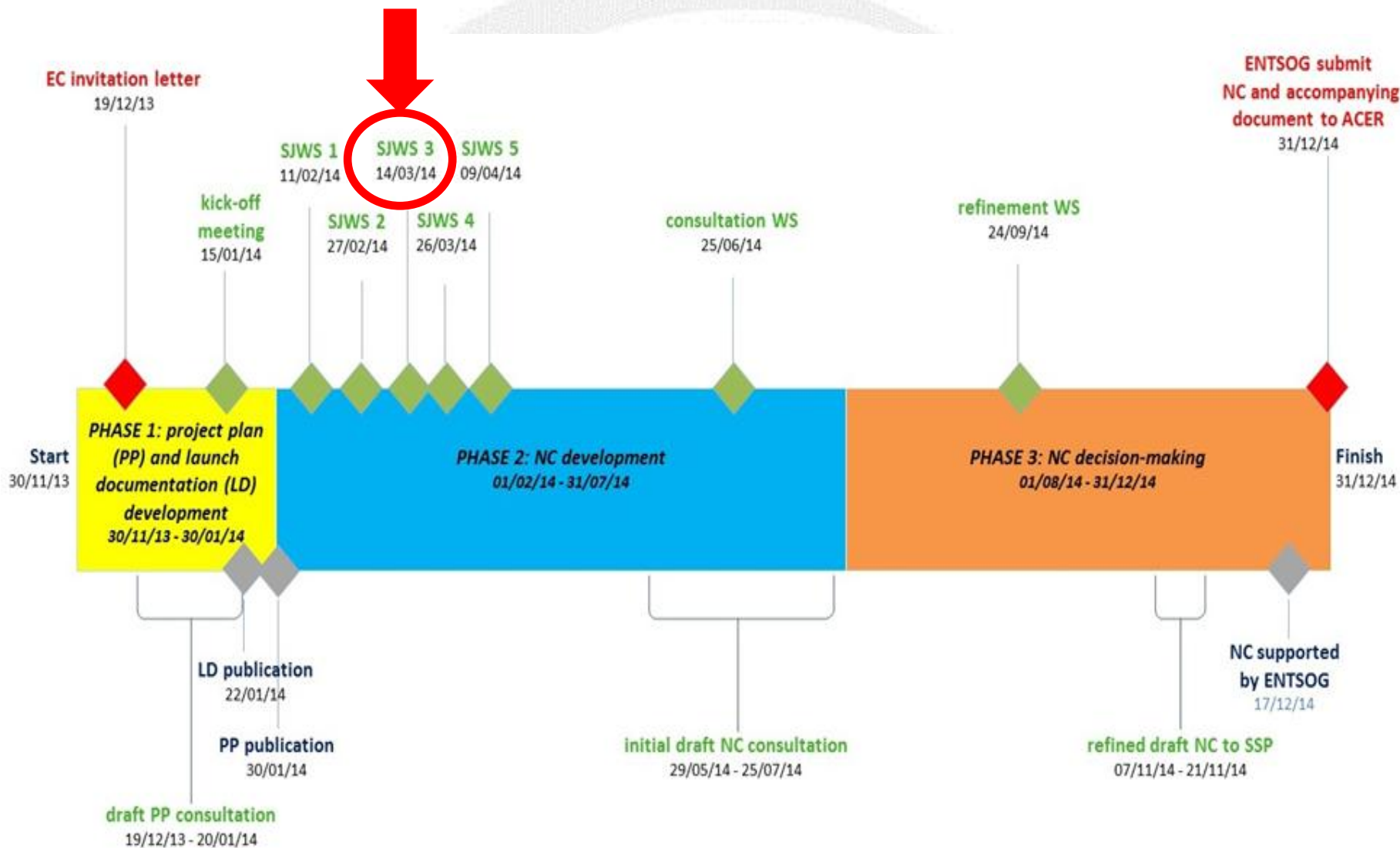
Development of the TAR NC: 3rd Stakeholder Joint Working Session

Introduction: Process Update and Meeting Objectives

**Ann-Marie Colbert
ENTSOG**

TAR SJWS 3 – the 14th of March 2014

Phase 2: Network Code Development

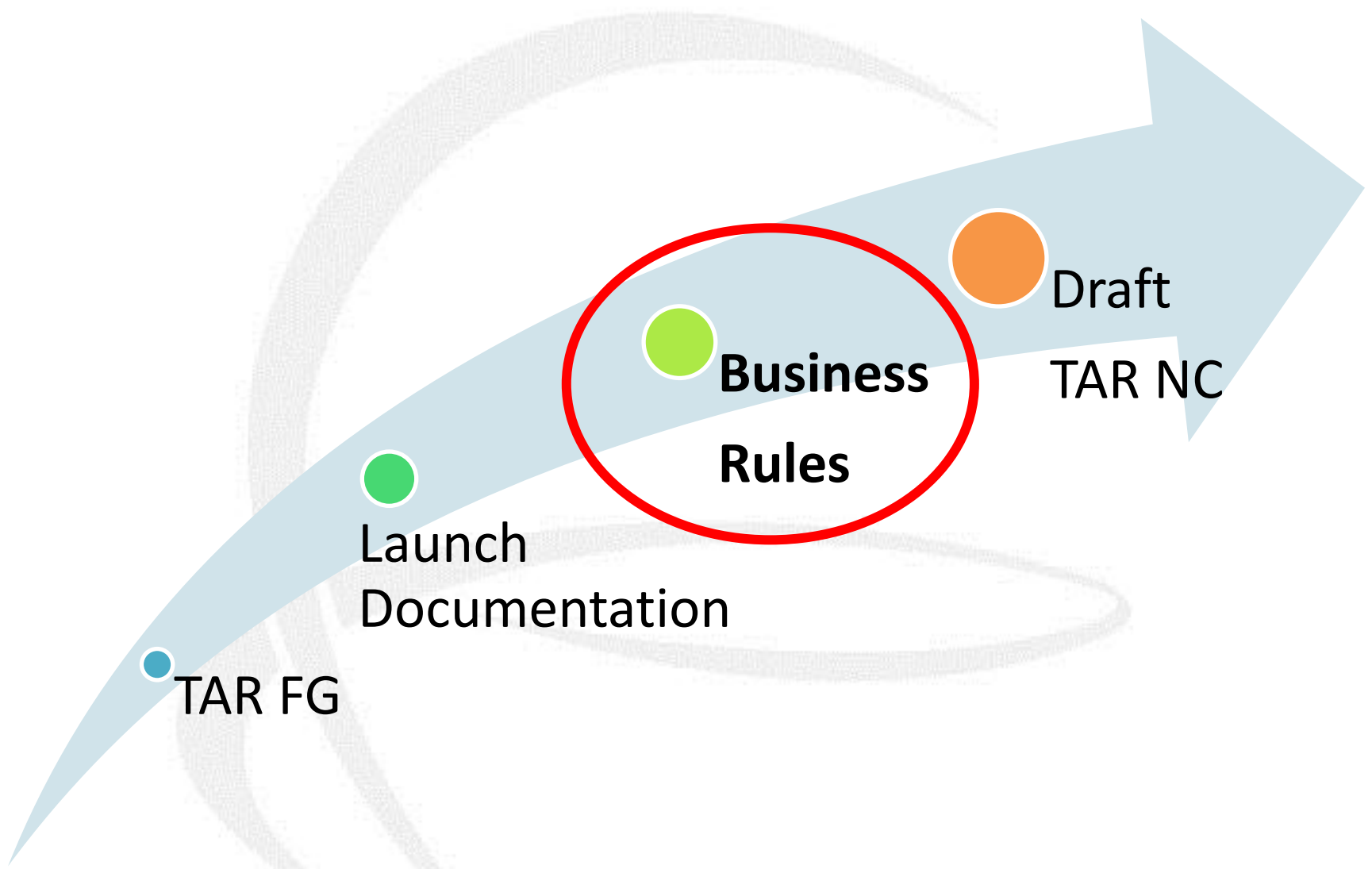


TAR NC SJWS 3 – Meeting Objectives

- Open Discussion of Tariff Topics below:
 - Revenue Reconciliation
 - Storage
 - VIPs
 - Interruptible Capacity - Business Rules
 - Cost Allocation - Business Rules (Part 1)
- Input from Stakeholders, suggestions welcome

What are Business Rules?

- Business Rules are:
 - Semi – developed rules
 - An interim step in the development of the TAR NC
 - For discussion with all stakeholders at the SJWSs
 - Feedback on the business rules is important to help develop the draft TAR NC



TAR FG

Launch
Documentation

**Business
Rules**

Draft
TAR NC



Thank you

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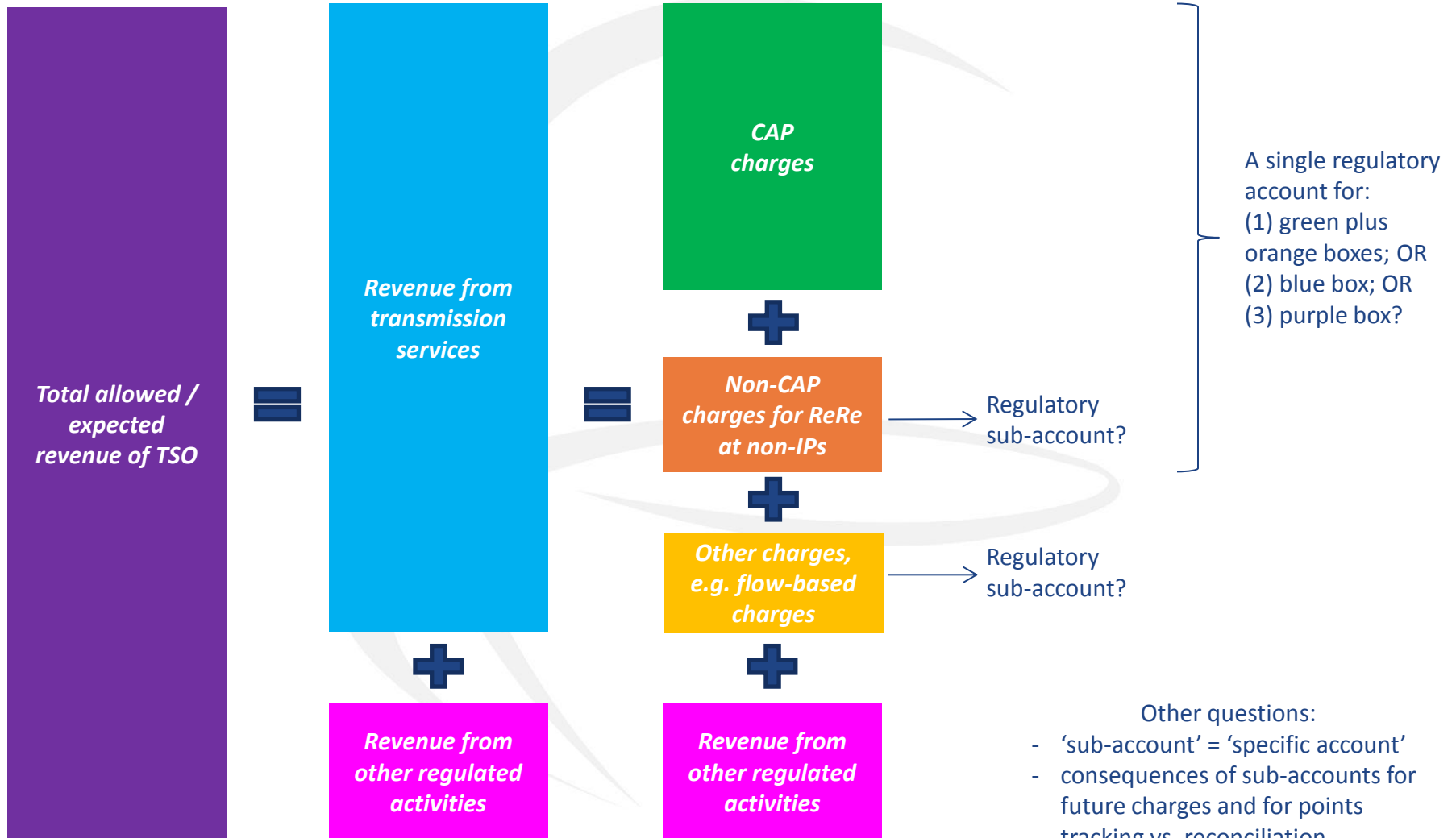
Development of the TAR NC: 3rd Stakeholder Joint Working Session

Revenue reconciliation

**Ann-Marie Colbert
ENTSOOG**

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Questions on Revenue Reconciliation



- Other questions:
- 'sub-account' = 'specific account'
 - consequences of sub-accounts for future charges and for points
 - tracking vs. reconciliation
 - reference price – identification of green box and orange box
 - orange box in the 1st year




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Thank You

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ACER

 Agency for the Cooperation
of Energy Regulators

Framework Guidelines on rules regarding Harmonised Transmission Tariff Structures

Revenue Reconciliation

François Léveillé

Co-chair of ACER Tariff & incremental TF

ENTSOG Tariff Workshop– 14 March 2014

Background:

- The regulated tariffs are calculated on the basis of forecasts of costs and revenues **but** there will always remain a gap between the forecasts and the actual costs and revenue. A mechanism shall reconcile these gaps.
- This is the purpose of the regulatory account and of the floating payable price.
- This mechanism shall preserve the integrity of the initial cost allocation methodology. In particular:
 - It shall not generate cross-subsidies between domestic and transit flows.
 - It shall not create an excessive volatility of the tariff fees.

Objectives:

- When setting up revenue reconciliation, NRAs shall strike the right balance between several objectives:
 - favouring tariff stability for network users;
 - promoting efficiency of the TSOs;
 - allowing for a timely recovery of the efficiently incurred costs (and only those costs) in order not to hamper the financial sustainability of the TSOs.

Regulatory account (under revenue cap regime):

- In order to reach these objectives, the following measures have been defined in the FG:
 1. Ex-ante, the regulated tariff shall be calculated on the basis of the more plausible forecasts of revenue and efficient costs ⇒ the NRA shall minimise the probability of under or over-recovery
 2. The NRA shall define ex-ante which fraction of the under or over-recovery would be logged on to the regulatory account
 - In this way, the NRA can incentive the TSO to be more efficient on a specific item
 - ⇒ For example, if only 80% of the gap between the forecast of fuel costs and the actual fuel cost is covered by the regulatory account, the TSO will be incentivised to reduce its consumption.
 - ⇒ A different level of incentive is also possible for over and under-recoveries.

Regulatory account (under revenue cap regime):

3. In the standard case, ring-fencing shall be avoided. Only one single regulatory account shall be implemented
 - In this way, we have a chance that different over or under-recoveries on various items or points compensate each other ⇒ A single regulatory account improves tariff stability.

4. However, the NRA may decide to use a specific account in the specific case of over-recovery resulting from auction premia:
 - to avoid a situation where the TSO would derive a benefit from a congestion; or
 - to finance the reduction of a physical congestion.

Reconciliation of the regulatory account

1. The reconciliation of the regulatory account is done through adjustments of the reference price (i.e. floating payable price). These adjustments shall be calculated in accordance with the chosen cost allocation methodology.
2. The NRA shall determine or approve how often and how fast the regulatory account has to be reconciled:
 - The higher the frequency is, the less important will be the temporary amount of under or over-recovery
 - The lower the frequency is, the smoother will be the tariff adjustments (for instance an over-recovery in year 1 may be compensated by an under-recovery in year 2 without any tariff adjustment)

Reconciliation of the regulatory account

3. On points not under the scope of CAM, the NRA may decide to use alternative methodologies to reconcile the regulatory account:
 - The principle of avoiding cross-subsidies between cross-border and domestic flows has to be respected
 - In the systems using a commodity charge to recover the flow based costs, NRAs may decide to use this charge to reconcile the share of the regulatory account allocated to the non-CAM points.

Regulatory account (under price cap regime):

- Under price cap regime, only the potential auction premia shall be logged on to the regulatory account:
 - to avoid a situation where the TSO would derive a benefit from a congestion; or
 - to finance the reduction of a physical congestion.

TAR NC : Eurogas' views at this stage of the process

Entsog's 3rd SJWS

Brussels – 14 March 2014

Claude Mangin

Chairman of the Task Force on Tariffs

On revenue reconciliation

- § 4.2. of the FG (Framework Guidelines) states that:
 - ❖ “All entry and exit points will contribute to the reconciliation through an adjustment of the reference price” or through “alternative methodologies” (options only for “points not under the scope of the CAM NC”).
 - ❖ “Avoiding cross subsidies between cross-border and domestic flows”.
- Is this consistent with the participation of the following points to the reconciliation of the regulatory account ?
 - ❖ Storage entry/exit.
 - ❖ Exit towards end customers.
- Regarding the next section on storage, transmission tariffs to/from storage points should be cost-reflective. Taking into consideration the main drivers generally used to calculate tariffs, these transmission tariffs will be lower than other points’ tariffs “per se”.

Thank you for your attention!

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Storage

Ann-Marie Colbert
ENTSO-G

TAR SJWS 3 – the 14th of March 2014

Storage

TAR Framework Guidelines Requirement:

The Network Code on Tariffs shall specify that, in setting or approving tariffs for entry and exit points from and to gas storage facilities, NRAs shall consider the following aspects:

- *The benefits which storage facilities may provide to the transmission system.*
- *The need to promote efficient investments in networks.*

NRAs shall also minimise any adverse effect on cross-border flows.

Transportation Tariffs for Storage

Some examples of transportation tariffs for storage:

Member State	Specific Transport Tariff for Storage
UK	No commodity charges for storage
Germany	Reduction to entry and/or exit tariffs for storage, possible use of seasonal factors to incentivise efficient use of the grid
Belgium	Exit tariff is reduced but entry tariff is not
Hungary	Reduction to entry and/or exit tariffs for storage
Spain	Zero entry tariff and zero exit tariff

Storage

Consider balance between the potential costs and benefits created by Storage facilities:





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Tariff Network Code ENTSOG SJWS 3

IFIEC-CEFIC response on Network Code on Tariff structures **Storages**

Dirk Jan Meuzelaar

Brussels, March 14th 2014

(Gas) Storages are market based commercial activities

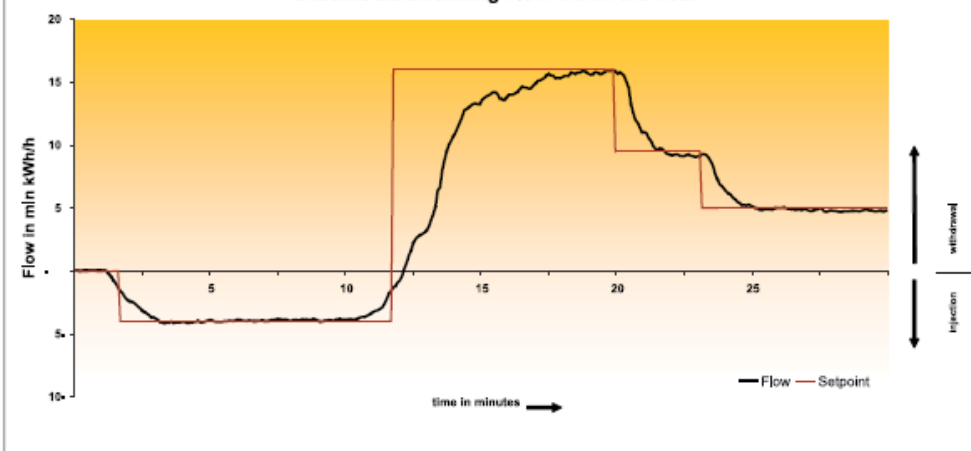
Gasunie Zuidwending



Oil Storages Rotterdam



Gasunie Zuidwending Flow within the hour



From a limited injection of 5 million kWh Gasunie Zuidwending goes to a send-out capacity of 16 million kWh in just 10 minutes

Gas:

Short term peak storages

- High injection and withdrawal
- Delivered at Hub (all in tariff) or at the Flange

Seasonal storages

- Injection summer
- Withdrawal winter

For strategic reserves we could consider a Gas Stockpiling Agency

No exemptions for transport costs for storages and LNG

Storages and LNG are important for flexibility, grid integrity and SoS:

- Normal part of a gas portfolio
 - Daily flexibility for customers with a profiled consumption pattern
 - Intra-day balancing
 - Seasonal flexibility to cover seasonal volume and price risks
- Most storages and terminals are private investments:
 - Tariffs of storages are not part of the regulated system;
 - Transport tariffs should be the same as for other market participants;
 - Non-discriminatory;
 - Avoid cross-subsidies; causer pay principle
- Storages and terminals must support efficient trading & competition;
- Assets contributing to lower investments in transportation network capacity (like storages) is a leverage (part of business model) but not a justification for special treatment.

IFIEC/CEFIC are against exemptions for storages and LNG-terminals



Tariff Network Code

-Tariffs at storage points-

Brussels, March 2014

Key principles for storage connection-points

Cost Reflectivity

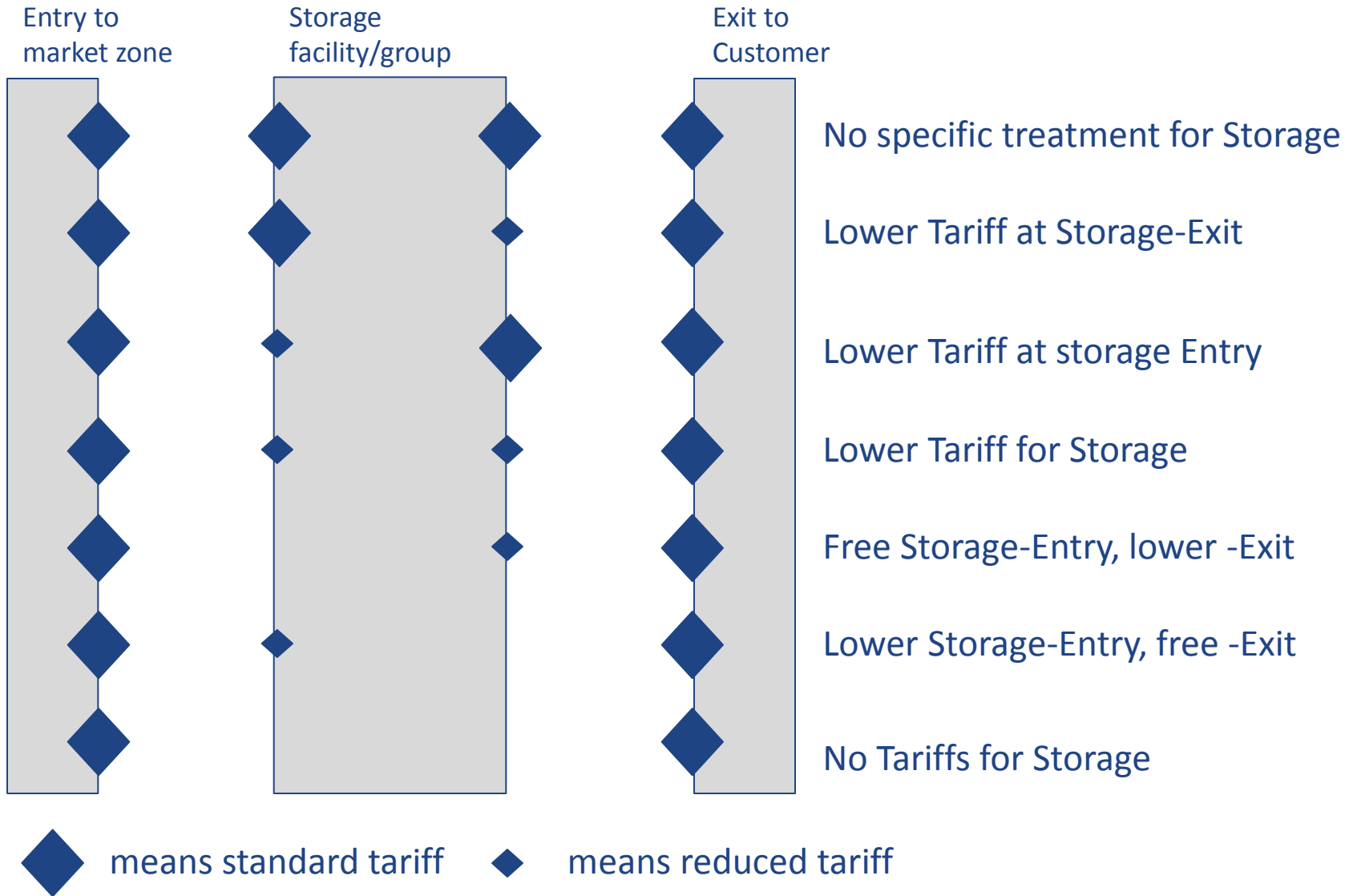
**No barriers for
market**

Benefits of Storage

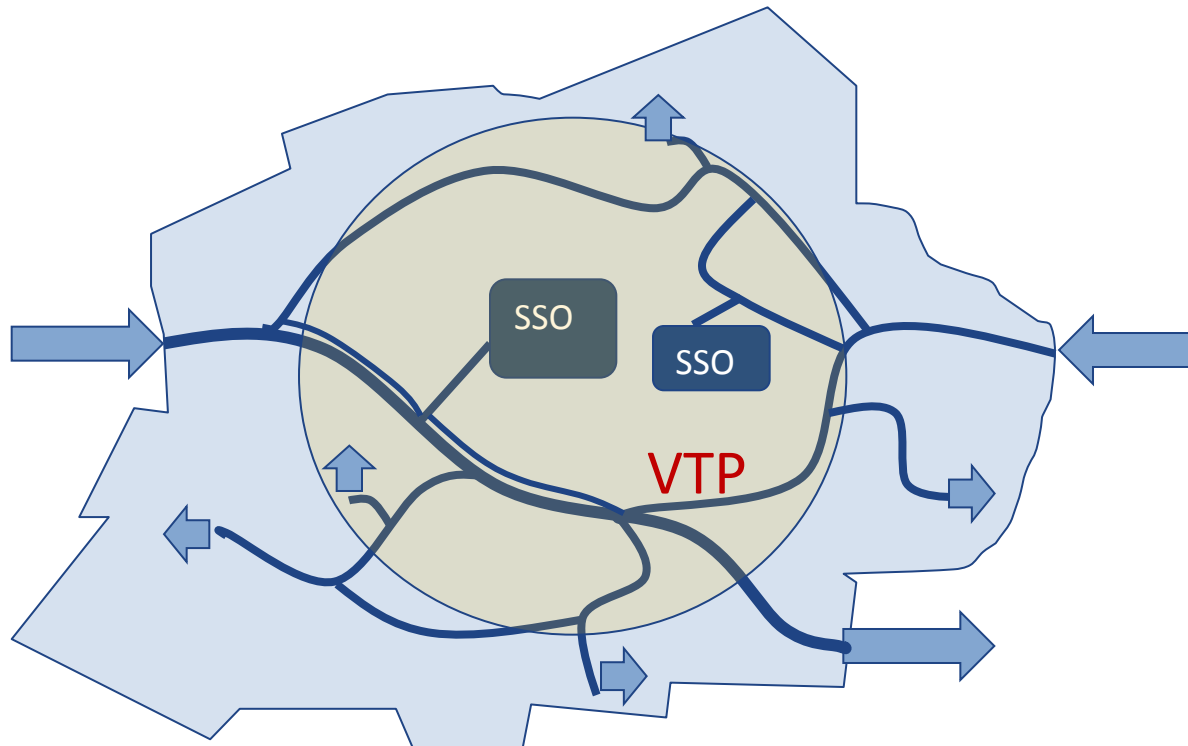
No cross-subsidies

**No undue
discrimination**

European overview

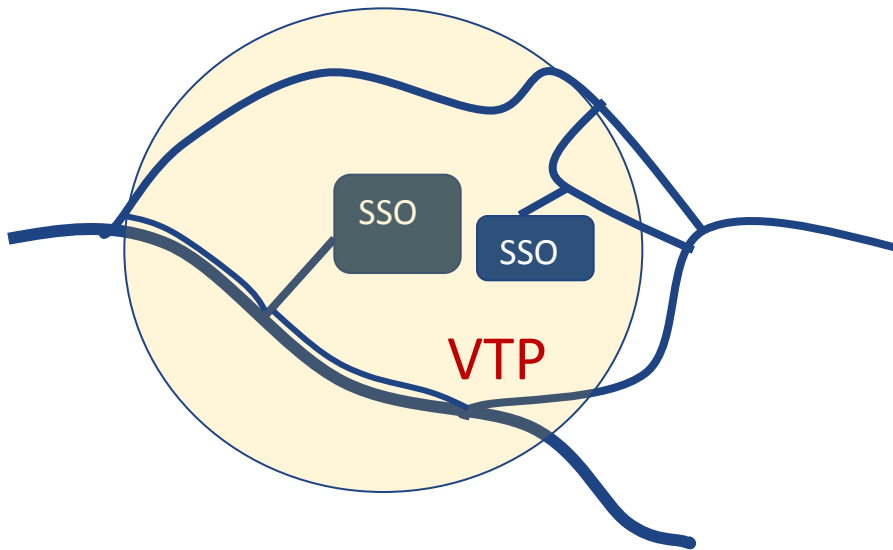


Storage in Entry/Exit-Systems



Via entry fee a network user has paid for the costs of network system; he will also pay an exit fee.

No barriers to trade or park the gas



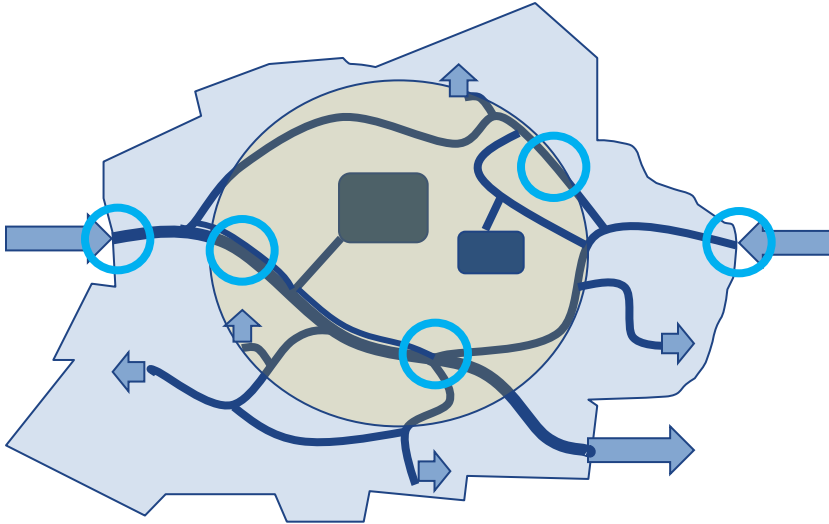
Once gas has entered the network, NU has the choice to trade or park the gas (in storage), merely shifting consumption in time

There should be no barrier for the market

When NU decides to store gas, at maximum he should pay for the additional costs directly due to connection to storage, i.e.

- Capacity-related costs for the integration, last mile, connection of storage
- Operational costs for transporting gas to and from storage, including the administrative costs of nominations/ matching
- Quality of service (firmness of capacity) to be taken into account

Benefits of Storage



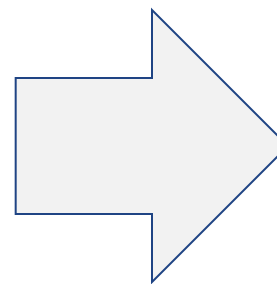
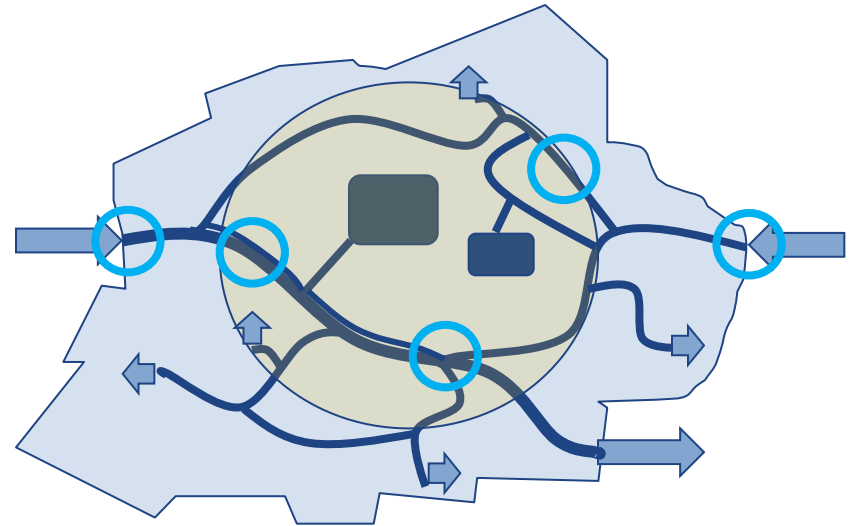
Clear benefits of storage for the transmission system. But benefits of storages for the system cannot be represented by a formula.

How?

- Quantitative analysis to be made transparent and to be subject to consultation
- Analysis of saved investments in transmission system, of saved OPEX and improved system stability required

Summary

- Network users shall pay for the service they receive
- For using the network storage user has paid entry and will pay exit
- Costs related to integration of storage into system to be covered
- Operational costs to transport gas to/from storage to be covered
- benefits that storage facilities provide to the system must be taken into account



Cost Reflectivity

No barriers

Benefits of Storage

No cross-subsidies

No undue discrimination



Thank you for your attention.

GIE - Gas Infrastructure Europe
www.gie.eu



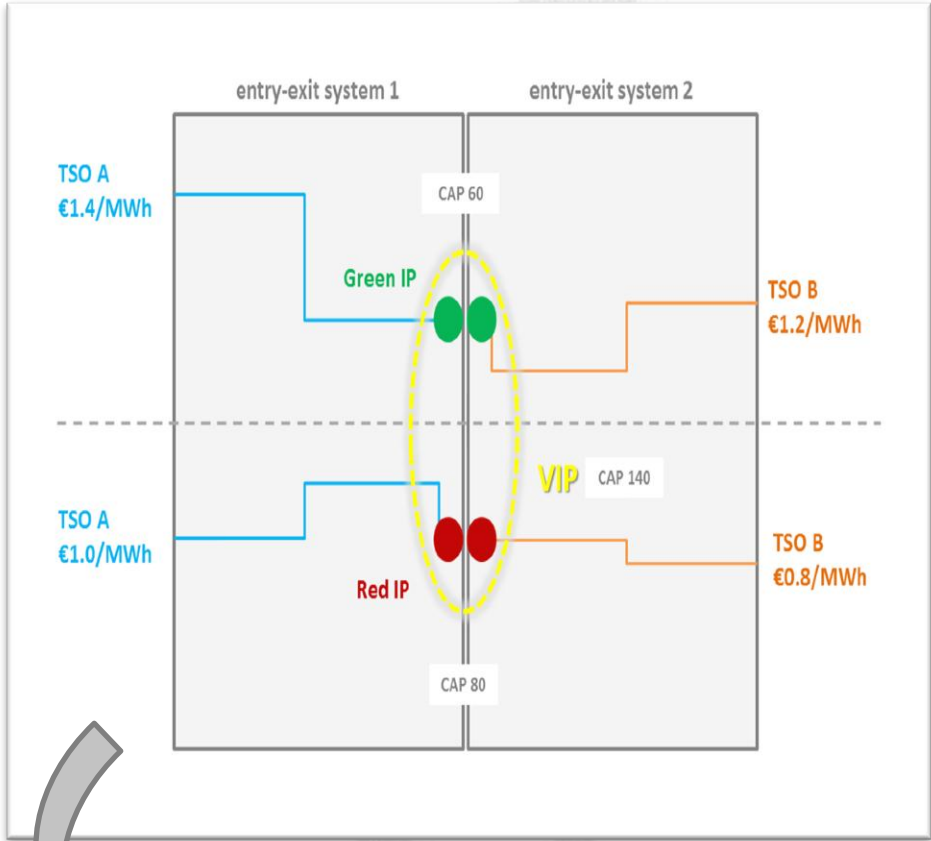
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**VIPs: the situation with more than 1 TSO
at the border side**

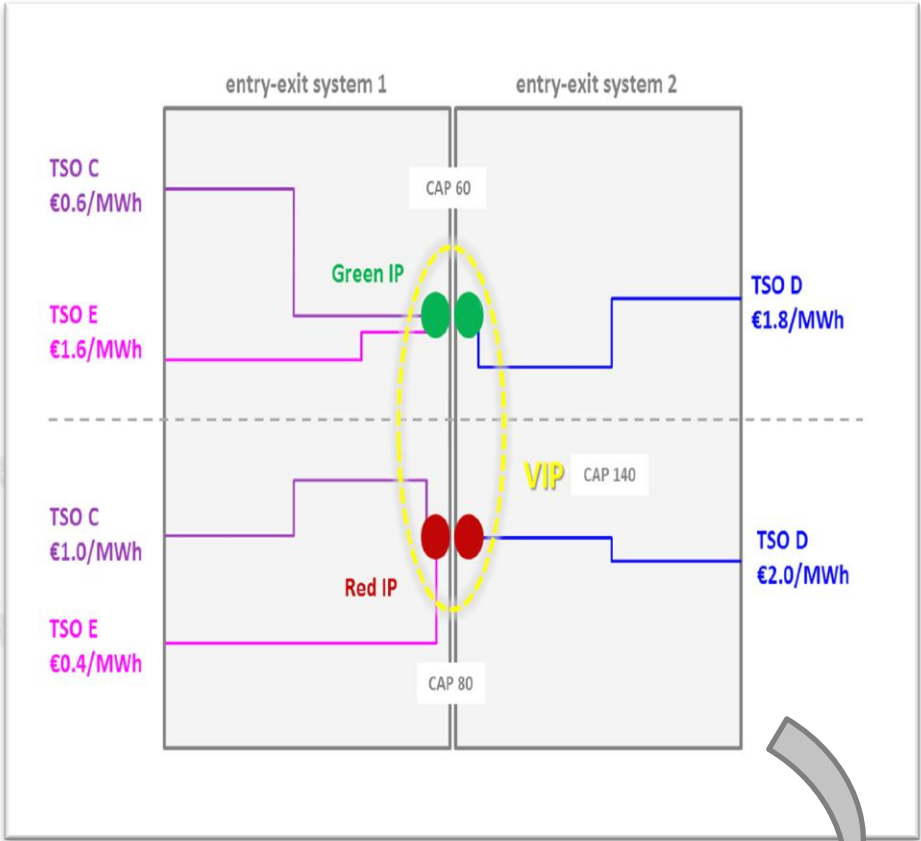
**Irina Oshchepkova
ENTSO-G**

TAR SJWS 3 – the 14th of March 2014

Multiple TSOs at a border side vs. 1 TSO at each side: examples from the Launch Documentation



SJWS 1



SJWS 3

VIP: CAM NC requirements and TAR FG provisions

CAM NC, Article 3(17)

Virtual interconnection point:

‘two or more interconnection points which connect the same two adjacent entry-exit systems, integrated together for the purposes of providing a single capacity service’

CAM NC, Article 19(9)

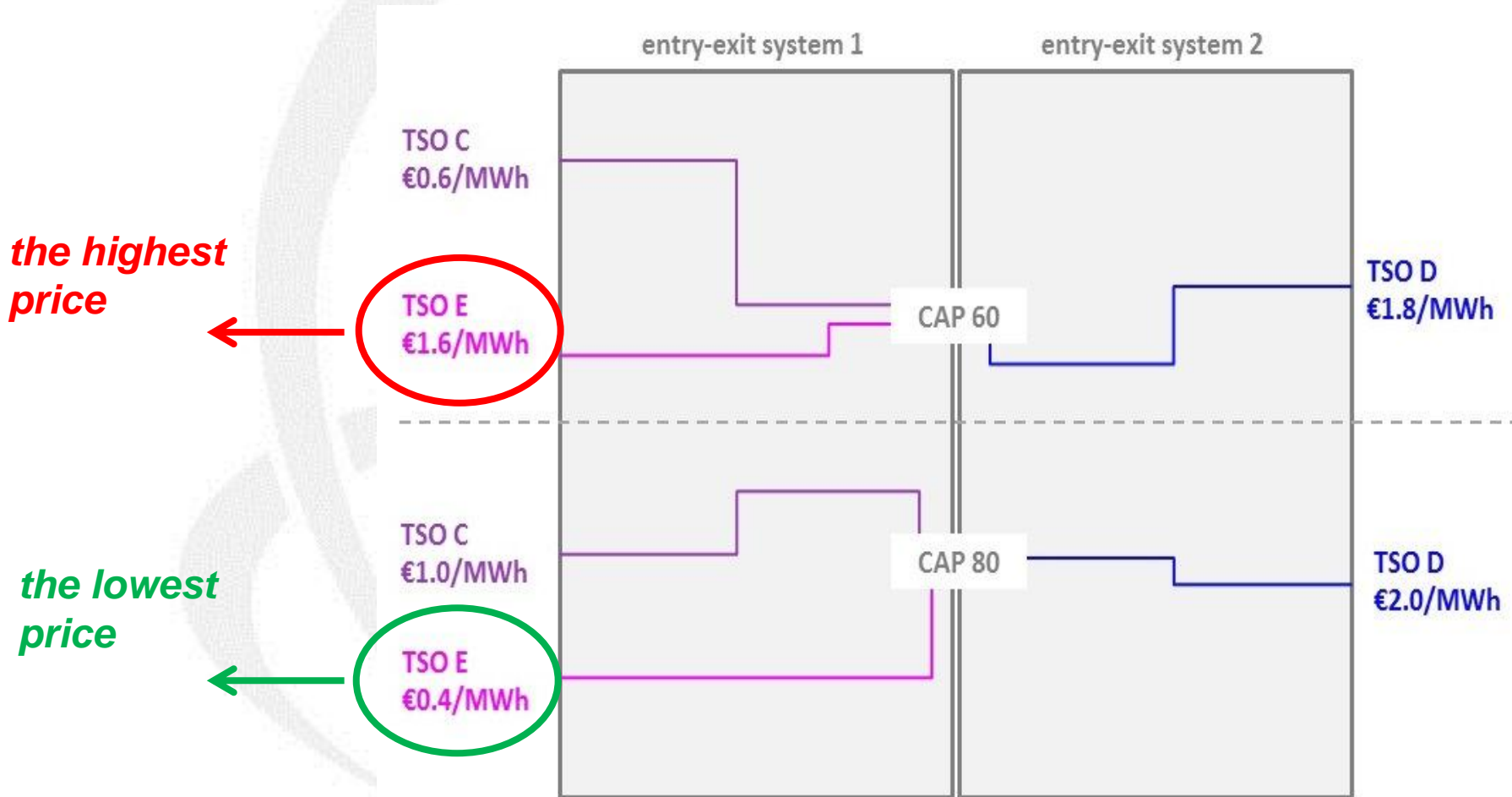
‘In case *more than two transmission system operators are involved* because capacity in one or both entry-exit systems is marketed by more than one transmission system operator, the virtual interconnection point *shall include all of these transmission system operators, to the extent possible.*’

TAR FG, Chapter 6 ‘VIPs’, paragraphs 2 & 3

The *reserve price for virtual interconnection points* shall be established based on the *combination of the reserve prices set for the individual entry or exit points*. The combination mechanism shall be elaborated in the Network Code on Tariffs consistently with the fulfilment of the overall objectives of these Framework Guidelines, and especially avoiding that the establishment of a virtual interconnection point creates barriers to cross-border trade.

The Network Code on Tariffs shall include *mathematical formulations for the reserve price for virtual interconnection points*.

Pricing at border side 1 before VIP establishment



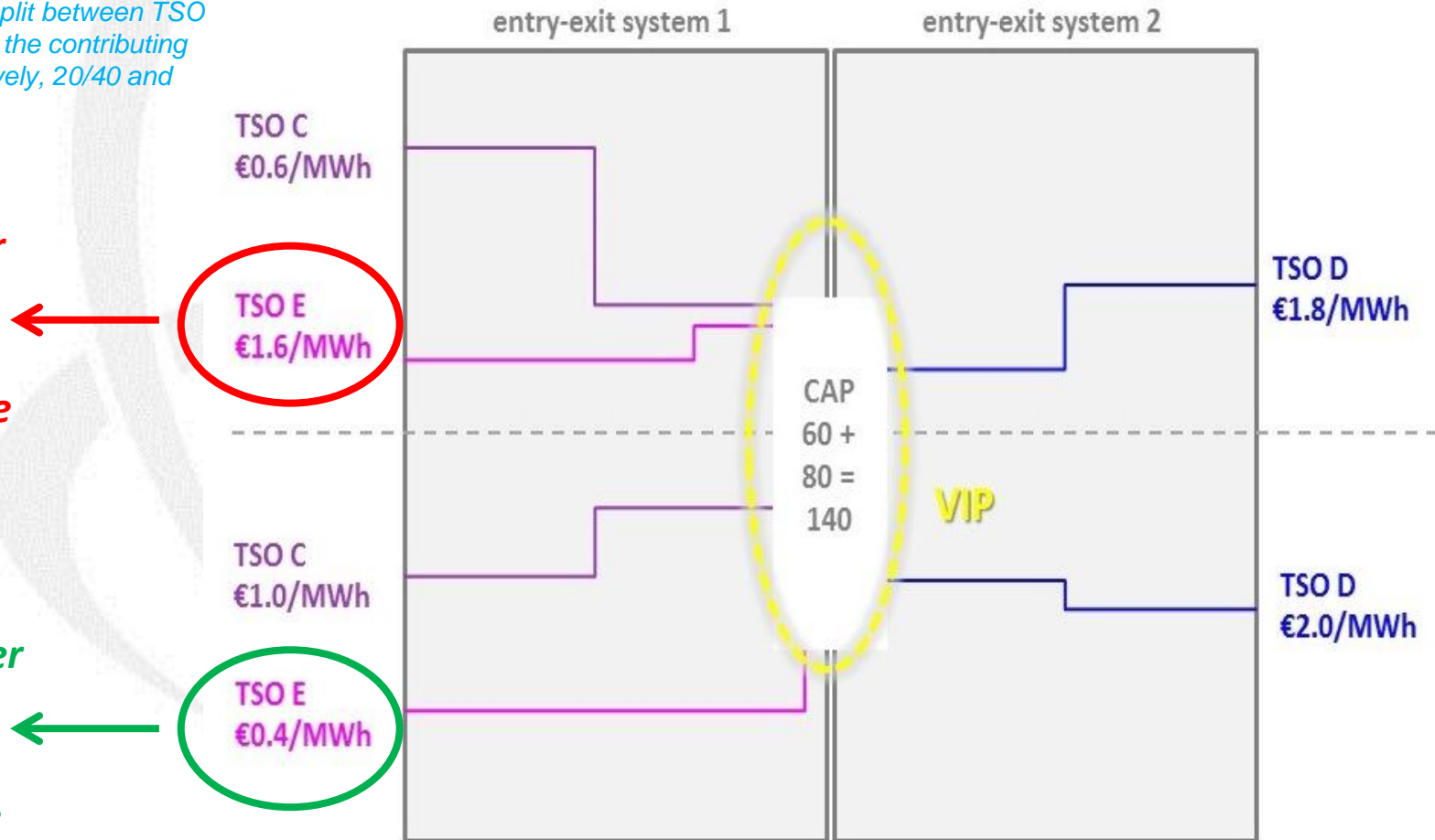
A possible example of pricing at border side 1 when VIP can be established per Art. 19(9) CAM NC

E. g. Price at border side 1 = $\frac{(0.6 \cdot 20 + 1.6 \cdot 40) + (1 \cdot 30 + 0.4 \cdot 50)}{(20 + 40) + (30 + 50)} = 0.9$

** The assumption is that CAP 60 and CAP 80 is split between TSO C and TSO E at the contributing IPs as, respectively, 20/40 and 30/50*

0.9 is lower than the original highest price

0.9 is higher than the original lowest price



Consequences of capacity pricing at border side 1 when the VIP is established

- VIP tariff at the border side 1 depends on the parameter to be weighted by;
- In terms of existing contracts (in particular, long-term ones), there will be no differences between individual tariffs anymore. Average tariffs will apply to all contracts which means some may pay more or less than before.
- Concerns about potential contradiction with European competition law;
- Consider the consequences for cross-border trade, e.g. for shippers:
(1) no possibility to optimise their transport capacity since there is no possibility to choose between different IPs; (2) equal conditions regarding tariffs at the VIP;
- Uncertainty regarding contractual partners both for existing and new contracts;
- Uncertainty regarding the allocation of revenue gained from VIP contracts between the TSOs.



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Thank You

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TAR NC : Eurogas' views at this stage of the process

Entsog's 3rd SJWS

Brussels – 14 March 2014

Claude Mangin

Chairman of the Task Force on Tariffs

On Virtual Interconnection Points

Virtualization of IPs would be detrimental for some shippers. Indeed, some will face a tariff increase because the tariff of the future VIP will be the weighted average of the tariffs of the previous different. In consequence :

❖ One should carefully assess if article 19.9.b. of the CAM NC is fulfilled (i.e. VIP facilitates the economic and efficient use of the system) before implementing a VIP or not.

❖ When implementing a VIP, mitigating measures must be offered.

- Moreover, shippers have booked capacity because of historical competition between different pipelines / IPs.
- It is unfair, uneconomic and inefficient to question past choices without having the right for the shippers to avoid the averaging of the IP's tariffs.
- Termination of the capacity contract and/or tariff protection of the booked capacity are two obvious mitigating measures to propose to shippers.

Thank you for your attention!

A light blue graphic of a globe is positioned on the left side of the slide, partially behind the main title. The globe is represented by several overlapping curved lines that form a spherical shape.

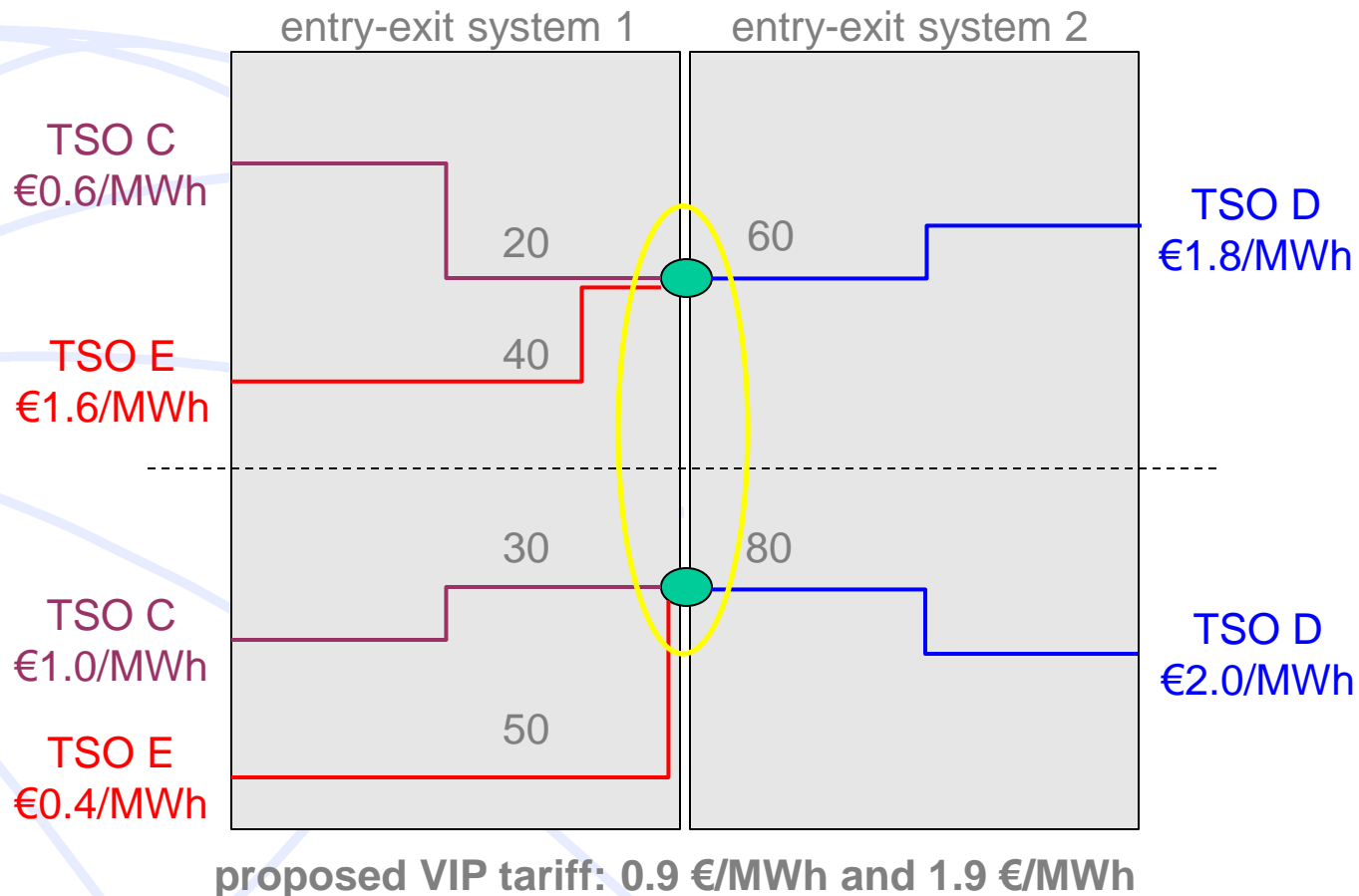
Comments on Virtual Interconnection Points

**ENTSOG 3rd SJWS on Tariff NC
Brussels, 14 March 2014**

Kees Bouwens, ExxonMobil

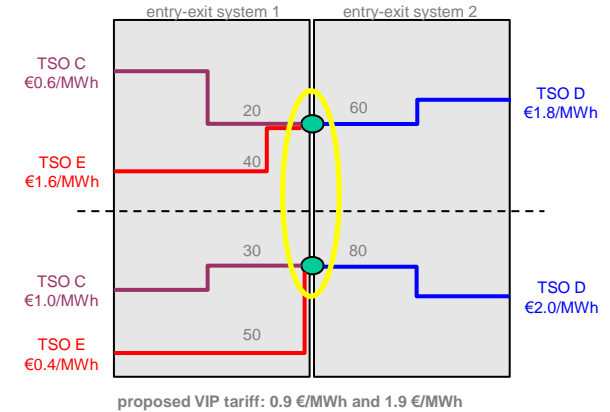
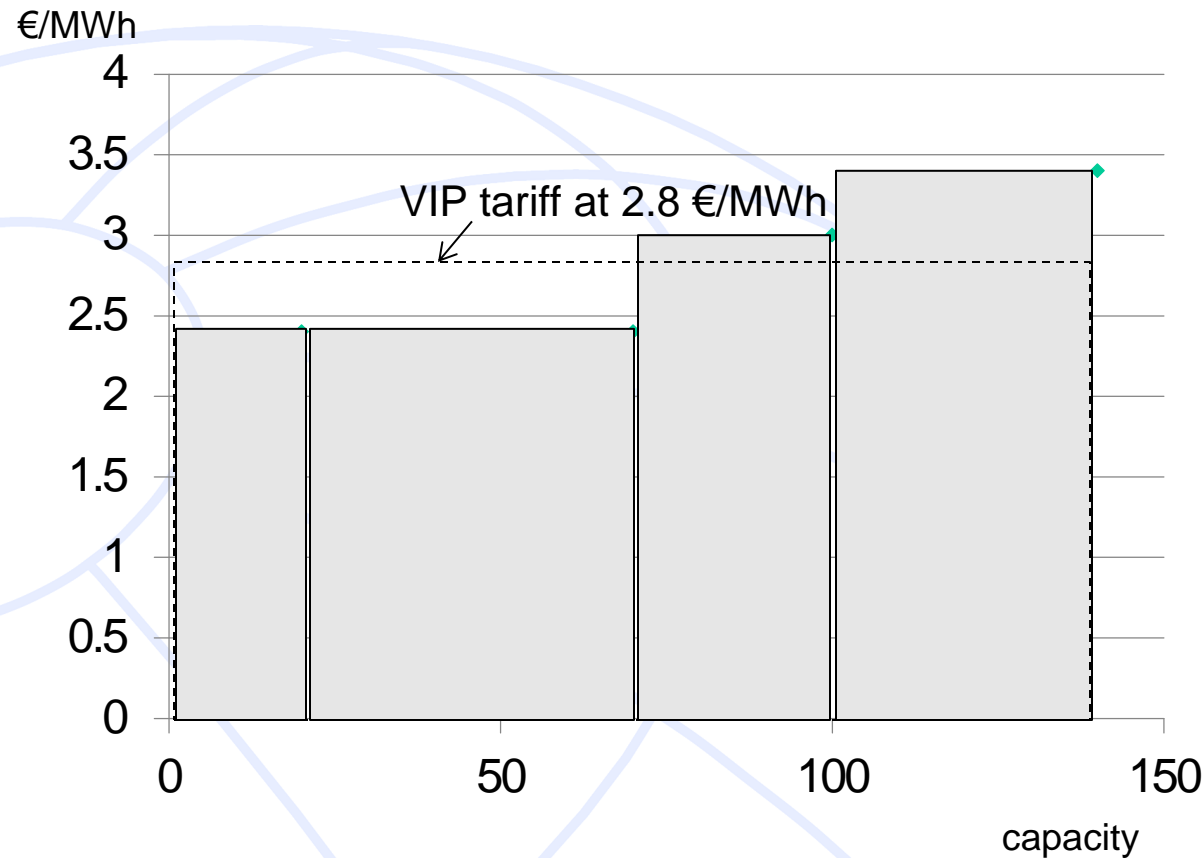
Tariff setting at VIPs

- A possible example of pricing at a VIP



Tariff setting at VIPs

- A possible example of pricing at a VIP



- Single tariff would remove incentive for transport optimisation



Development of the TAR NC: 3rd Stakeholder Joint Working Session

Interruptible Capacity & Non-Physical Backhaul

**Violeta Bescós
ENTSO-G**

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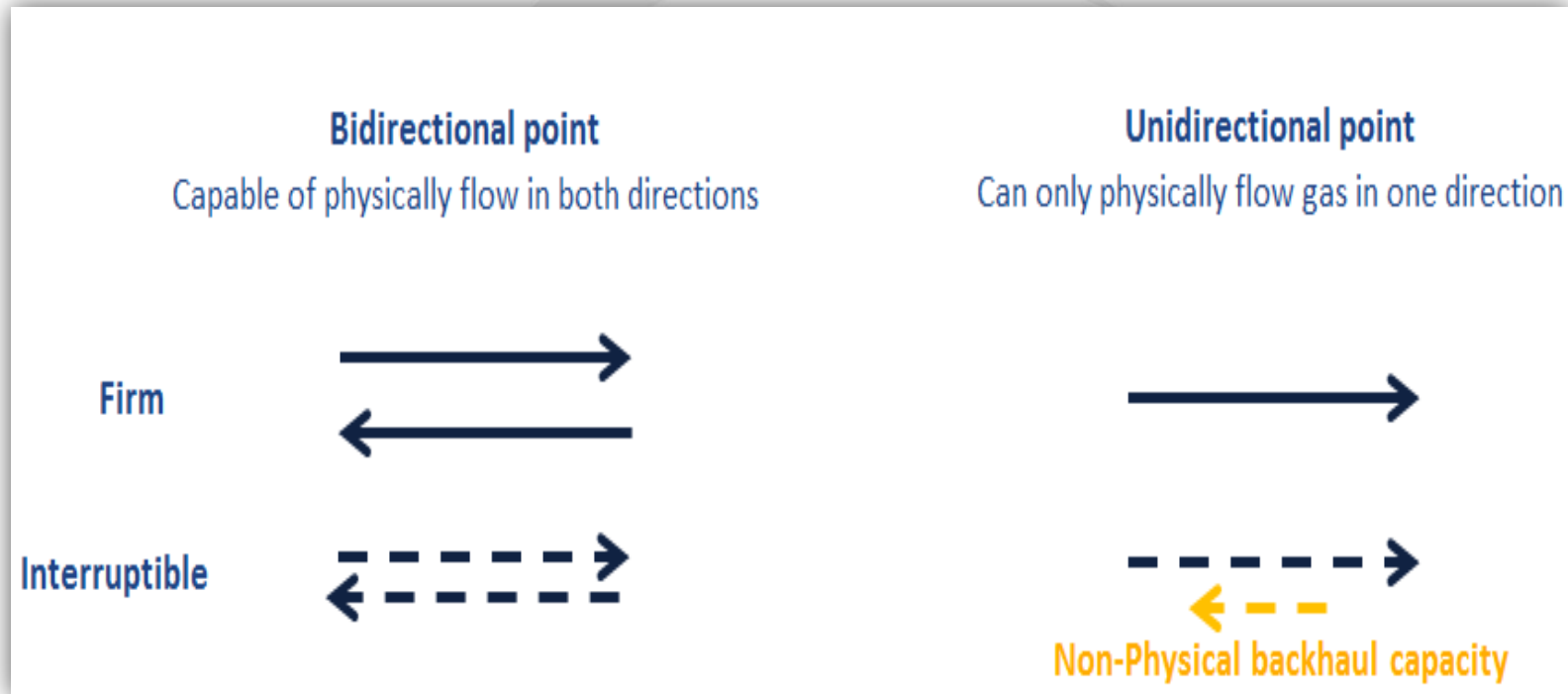


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Overview

TAR SJWS 3 – the 14th of March 2014

Interruptible Capacity – Definition of the Concept





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Interruptible capacity at bi-directional points

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PRESENTED AT SJWS1 on the topic

FGs Requirements

(1) an ex-ante discount only

Discount Alternatives

(2) an ex-post discount only

(3) combination of an ex-ante and an ex-post discount

Evaluation of the Risk

Option A, with 2 parameters, $L(\%)$ and $Du(\%)$

Option B, with 3 parameters N , d and C

PRESENTED AT SJWS1 on the topic

Calculation of ex-ante Discount

Ex-Ante Disc (%) = Risk x α

Ex-Ante Disc (%) levels set out on the basis of Risk ranges

Ex-post Discount

Ex-Post Disc (%) = $f_{\text{ex-post}}$ x $\frac{\text{interrupted cap for the product duration}}{\text{nominated cap for the product duration}}$

How to calculate reserve prices

Assessment Report

Business Rules on Interruptible Capacity

Standard interruptible capacity products at bidirectional IPs

Discount Options

Risk Assessment

Formulas for the Reserve Prices

Assessment Report

Published on the 11th of March on ENTSOG's website

Business Rules on Interruptible Capacity

Standard interruptible capacity products at bidirectional IPs

Discount Options

Risk Assessment

Formulas for the Reserve Prices

Assessment Report

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Risk Assessment

Option chosen - taking account of 3 parameters

- N = statistical expectation of number of interruptions over the whole duration of the product
- d = average duration of each interruption (hours or days)
- C = average interrupted capacity of each interruption (kWh/h or kWh/d)

historic /forecast
data could be used

$$\text{Risk (\%)} = \left(\frac{N \times d}{\text{total duration of the product}} \right) \times \left(\frac{C}{\text{total capacity of the product}} \right)$$

More precise and simpler than having two options

How to calculate reserve prices

Setting within-day interruptible capacity tariffs

Setting of within-day tariffs based on the proportion of the yearly product with a specific multiplier for within-day products

or

Setting of within-day tariffs at the same level as the tariff of the daily capacity products

In line with FGs, but more complex and more difficult to implement

In line with (reduced) past experience on within-day products

$$P_{INT} = (1 - Di_i) \times (m_{WD} \times sf) \times (p_y/8760) \times h$$

$$P_{INT} = (1 - Di_i) \times (m_D \times sf) \times (p_y/365)$$



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Interruptible capacity at uni-directional points

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Business Rules on Interruptible Capacity

Standard interruptible capacity products at unidirectional IPs (in the direction of the physical flow)

For the pricing of these products, ENTSOG considers that the same methodology set out for bidirectional IPs shall also apply.

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Business Rules on Interruptible Capacity

Standard interruptible capacity products at unidirectional IPs (in the other direction of the physical flow) → Non-Physical Backhaul

For the pricing of these products, ENTSOG considers that the same methodology as that used for other interruptible capacity shall also apply.

- ENTSOG has several concerns with the marginal pricing approach, already presented at SJWS1 (high risk of potential cross-subsidies at an IP, affects the provision of investment signals...)

- ENTSOG believes that the above pricing is more aligned with the objectives of the Gas Regulation that the marginal pricing approach.

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Annexes

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Risk of Interruption – Option A with 2 parameters

Example for a daily product

- Du(%) is the duration of the interruptions expressed as a % and calculated in accordance with the defined assumptions.

$$Du (\%) = \frac{\text{estimated duration of interruptions (days)}}{\text{total duration of the product (days)}}$$

- L(%) is the likelihood of the assumptions defined by the TSO using historical data, forward looking projections or a combination of both, expressed as a %

Daily product	0 h	6h	12	18	24 h	Du
	0%	25%	50%	75%	100%	<i>hours of interr / total hours of the prod</i>
0%	0%	0%	0%	0%	0%	
10%	0%	3%	5%	8%	10%	
20%	0%	5%	10%	15%	20%	
30%	0%	8%	15%	23%	30%	
40%	0%	10%	20%	30%	40%	
50%	0%	13%	25%	38%	50%	
60%	0%	15%	30%	45%	60%	
70%	0%	18%	35%	53%	70%	
80%	0%	20%	40%	60%	80%	
90%	0%	23%	45%	68%	90%	
100%	0%	25%	50%	75%	100%	
L <i>Probability of the assumptions</i>	Risk (%) = L x Du					

Risk (%) = L x Du

This option was presented at SJWS1 as an option to evaluate the Risk of Interruption. ENTSOG considers now, that, while this is a valid option, OPTION B (slide 9) is more precise, appropriate and simpler.

Calculation of ex-ante discount from the Risk

> Alternative 1 for Step 2 based on a formula

$$\text{Discount, } D_{i1} = \text{Risk} \times a$$

a: constant included to improve the attractiveness of the product and the real value of the interruptions (interruptions usually more probable during periods in which users most need the capacity). To be defined by TSO and NRA nationally.

There is a cap of 100% on the discount.

> Alternative 2 for Step 2 based on ranges

Ranges to be defined by TSO and NRA nationally.

Example:

if Risk is below 2% → Discount is equal to 10%

if Risk is between 2% and 5% → Discount is equal to 20%

etc.

Ex-post Discount

> Calculation of the Ex-Post Discount

The ex-post discount will be calculated by the following formula, taking into account the fraction of the capacity that was actually interrupted:

$$Di_{II} (\%) = \min \left[f_{\text{ex-p}} \cdot \frac{\Sigma \text{ interrupted cap for the product duration}}{\Sigma \text{ nominated cap for the product duration}} ; 100\% \right]$$

The default value for the factor 'f_{ex-p}' shall be 1. Other values shall also be possible, subject to the NRA approval, in order to find the appropriate level for the ex-post discount, depending on the characteristics of each system or its circumstances.

The calculation would need to be carried out for each invoice period separately.

The ex-post discount is capped to 100% to limit the reimbursement to 100% of the reserve price

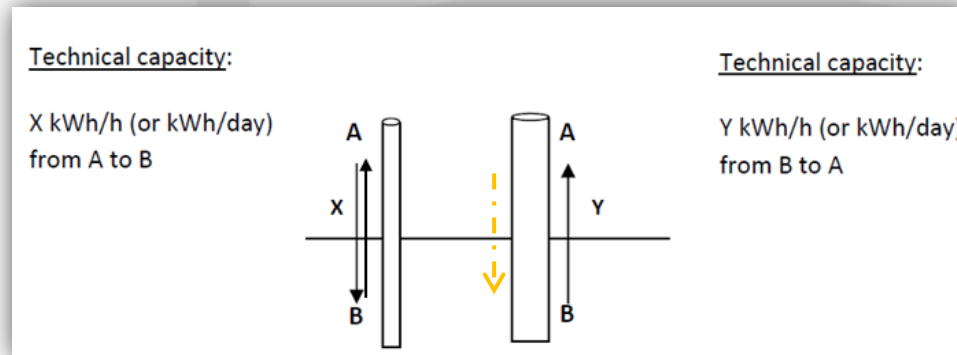
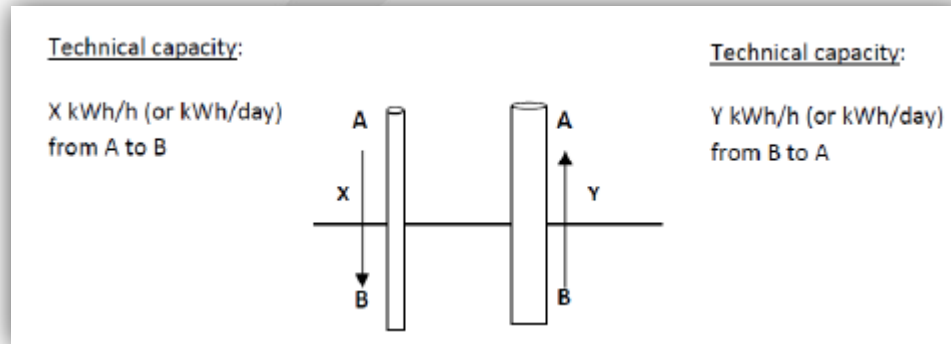
Assessment Report

- TSOs may publish the report on their assessment of the risks of interruption at the same time as tariffs publication.
- The assessment report will include at least:
 - Detailed list of the interruptible standard capacity products offered during the following year
 - Detailed explanation on how the risk of interruption is calculated
 - Table for each IP and for each interruptible standard product offered

	Year A – IP x, daily product		
	Type 1	Type 2	Type n
Description Brief description of the main characteristics of the product			
Risk of interruptions (L(%) and Du(%) or Risk(%))			
Other optional information e.g. <ul style="list-style-type: none"> • Max. allowed interruptions (e.g. for a yearly product) • Max. duration of each interruption • Max. duration of overall interruptions during the whole duration of the product 			
Ex-ante Discount $Di_{d,I}$			
Ex-post Discount $Di_{d,II}$			

ENTSOG's view

- ! Forward flows and backhaul products could be offered in parallel to enter the same E/E zone, even at the same IP (more than 1 TSO at 1 side); creating the risk of potential cross subsidies.



BOOKINGS SHIFTED TO THE UNI-DIRECTIONAL IP

ENTSOG believes that treating the pricing for all interruptible capacity in the same way is a viable option to be considered

TAR NC : Eurogas' views at this stage of the process

Entsog's 3rd SJWS

Brussels – 14 March 2014

Claude Mangin

Chairman of the Task Force on Tariffs

On Interruptible Capacity & Non-physical backhaul

Interruptible and Non-physical Backhaul should be handled in the same way : via an ex-ante discount superior to the probability of being interrupted.

- Eurogas favors EntsoG proposal for a constant “a” which will reduce the **reserve price to improve the attractiveness of the product and the real value of interruption** (since shippers will have to cope with the risk by for instance having another supply option in case of interruption of his flow).

→ *Should “a” be defined by TSO and NRA nationally as proposed by EntsoG?*

- Eurogas is **against an ex-post reimbursement** if the capacity has been actually interrupted since this ex-post discount does not take into account the back-up solution (and its cost) a shipper would have put in place to cope with potential interruption.

- Eurogas shares EntsoG’s view that **interruptible and Non-Physical backhaul can be treated in a similar way**. However, since they are not interruptible because of the same reason, the discount for Non-physical Backhaul could be greater than the one for interruptible capacity.

Thank you for your attention!

A stylized, light blue globe is positioned in the background on the left side of the slide. It features several curved lines representing latitude and longitude, creating a grid-like pattern over a circular shape.

Comments on Interruptible Capacity

**ENTSOG 3rd SJWS on Tariff NC
Brussels, 14 March 2014**

Kees Bouwens, ExxonMobil

- **TSOs should maximize the offer of firm capacity products**
 - When firm capacity is sold out day-ahead, TSOs shall offer interruptible capacity (CAM NC)
 - Interruptible capacity is a congestion management measure
 - TSO revenue recovery should not be an issue or driver
- **ACER monitoring report on CMP guidelines:**
 - “Another possible reason why interruptible capacity offered is not booked could be that the interruptible products offered are not attractive enough for the market in terms of pricing, likelihood of interruption, etc.”
- **Pricing of interruptible capacity should be consistent with alternative congestion management measures**
 - Oversubscription capacity, Secondary capacity, Firm day-ahead UIOLI

1. Firm capacity from existing capacity holders

- Only route for existing capacity holders to get compensation
- Either active marketing (secondary market – any price) or passive (capacity release at regulated price)
- No risk or upside for TSOs, but need to process capacity transfer

2. Firm capacity offered by TSOs (at regulated price)

- Oversubscription scheme provides incentive for TSOs, but TSOs carry buy-back risk
- FDA UIOLI releases capacity with no risk or upside for TSOs, but limited to day-ahead

3. Interruptible products pass risk to network users

- Offer could be limited to day-ahead products
- Ex-ante discount allows market to determine appropriate value
- With ex-post discount the product works similar to oversubscription capacity, but network users carry buy-back risk at predefined price

- **Network Code should provide clear default rule rather than accommodating all existing practices**
- **Consider auction process to determine price for interruptible day-ahead product by setting zero reserve price**
 - Should result in price that adequately reflects risk of interruption
 - Does not mean that the clearing price should be zero
 - Establishes right drivers to maximize offer of firm capacity
 - By TSOs using oversubscription capacity
 - By existing capacity holders through surrender or secondary market
 - Could also be used for other interruptible products

Thank you for your attention !

Interruptible Capacity Price at IPs

Steve Rose – Tariff SJWS3 – 14/3/14



Disclaimer

The views presented below do not represent the official position of RWE Supply & Trading but are provided in my capacity as a Prime Mover for the purposes of discussion and debate, as part of the on-going EU Network Code development process. RWE Supply and Trading will express its official position on this, and other issues, in response to the consultation.

Price of Interruptible Capacity at IPs

- > **TSOs should be incentivised to maximise the firm capacity offered to the market**
- > **Any positive reserve price for interruptible capacity:**
 - reduces the incentive to make firm capacity available
 - creates an incentive to convert firm capacity to interruptible
 - undermines the over selling and buyback principle CMP
- > **Should not pretend assessing the risk of interruption is an exact science**
 - any assessment (backward or forward looking) involves guesswork and assumptions
 - conditions for selling interruptible capacity may vary year to year
 - the drivers for interruption are inherently unpredictable e.g. FM, renominations, flow change
 - number, length and duration of interruptions are less clear the further out you look
- > **NC should not just try to replicate the pricing arrangements TSOs currently have in place**
- > **Over complication risks hampering opportunities for efficient arbitrage**
- > **Adequate TSO information enables shippers to form their own view of interruption risk**

Price of Interruptible Capacity at IPs - Conclusions

- > **Ex-post discounts for interruptible capacity should not be an option in the Network Code**
 - No justification provided for why they are appropriate
 - Transfers interruption risk from TSO to shipper
 - Firm and interruptible products have different risks of interruption when auctioned ex-ante
- > **Interruptible capacity should have a default zero reserve price in all auctions**
 - Maximises the incentive on TSOs to release firm capacity and to oversell capacity
 - TSOs only have to offer interruptible capacity day-ahead when all firm capacity is sold out
 - If all firm capacity is sold at an IP a TSO will already be earning its allowed revenue entitlement
- > **For auctions other than day-ahead ex-ante discounts may be applied instead of the default**
 - Provided they do not undermine CMP or reduce firm technical capacity made available
 - Subject to justification and stakeholder consultation
 - Subject to a simple harmonised EU rule e.g. between 25%-75% of equivalent firm price



Development of the TAR NC: 3rd Stakeholder Joint Working Session

Cost Allocation Business Rules

**Laurent De Wolf
Fluxys (on behalf of ENTSOG)**

TAR SJWS 3 – the 14th of March 2014

Cost Allocation Business Rules

Structure of the Cost Allocation Business Rules

1. **General**
2. **Cost allocation methodology selection**
3. **Circumstances influencing the choice of a cost-allocation methodology**
4. **Methodology counterfactual**
5. **Cost allocation test**
6. **Cost Allocation Methodology Consultation**
7. **Transmission Services**
8. **Other Charges/Non-capacity based charges**
9. **The entry-exit split**
10. **Distance, Average Distance and Network Representation**
11. **Inputs for Cost Allocation Methodologies**
12. Main cost allocation methodologies
13. Postage stamp
14. Capacity-Weighted Distance approach
15. Virtual point based approach
16. Matrix approach
17. Secondary adjustments
18. Rescaling
19. Equalisation
20. Benchmarking
21. Storage



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Cost Allocation Methodology: Selection and Consultation

TAR SJWS 3 – the 14th of March 2014

Selection Process for the Cost Allocation Methodology

Selecting a Cost Allocation Methodology

Circumstances
influencing the
choice of cost
allocation
methodology

Methodology
Counterfactual

Cost Allocation
Test

3 Pillars Underpinning the Choice of Cost Allocation Methodology

Cost Allocation Methodology – Public Consultation

- The consultation shall be published in the official language(s) of the member state and in English
- The consultation must consider the circumstances and cost allocation test
- Compare the chosen cost allocation methodology with another methodology i.e. the counterfactual
- NRA shall provide detailed explanation and reasoned justification

Cost Allocation
Methodology
Consultation





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Transmission Services and Dedicated Services/Infrastructure

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What's specified in the FG

- **Definition of Transmission Services (which needs to be further specified in NC):**
 - “Any service necessary to transport natural gas through a transmission system, excluding balancing, flexibility, metering, depressurisation, ballasting, odourisation and any other dedicated or specific service”
- **Dedicated Services and/or Infrastructure**
 - The recovery of the costs of these dedicated services and/or infrastructure may be based on other charges than capacity charges
 - The amounts covered with these charges shall be limited to a maximum of 5% of total (allowed) revenues
 - Example given of such Dedicated Service: “the provision of metering services”

→ **Total costs on which the cost allocation methodology apply⁽¹⁾ =**

+ Total Allowed/target Revenues of the TSO

– “Non-Transmission Services”

– “Dedicated Services and/or Infrastructure”



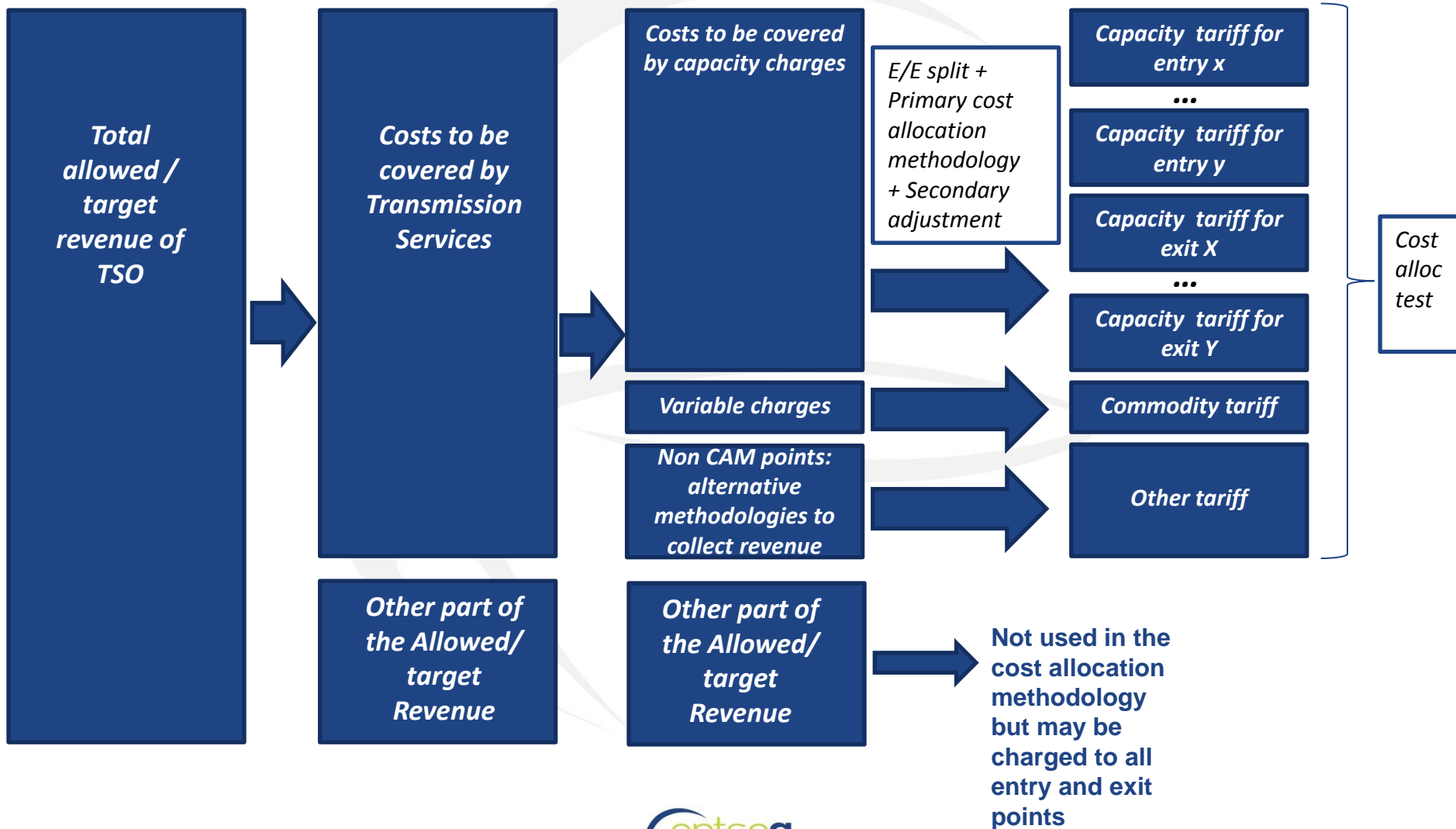
Apparent redundancy: two options for excluding a share of the allowed revenues from the cost allocation methodologies

(1) Although unclear how this can be implemented, but the FG seem to imply that the cost allocation test apply also on the “dedicated services” part of the costs

ENTSOG's proposal for the "Transmission Service" definition

- **Proposed transmission service definition:**
 - *"Any service necessary to transport natural gas through a transmission system, excluding those activities which may be linked to local requirements, depending on national circumstances, (e.g. regional and local transmission activities, flexibility services, metering, depressurisation, ballasting, quality conversion, biogas related services, odourisation, system operation services for third parties and any other dedicated services or infrastructures)"*
- **Through this definition, the "dedicated services" would be excluded at the same level as the "non-transmission services"**
- **Creates more clarity and transparency**

New general overview of the cost allocation methodology process





Development of the TAR NC: 3rd Stakeholder Joint Working Session

Cost Allocation Business Rules

Jean Dubard

GRTgaz Deutschland (on behalf of ENTSO-G)

TAR SJWS 3 – the 14th of March 2014



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Network Representation

TAR SJWS 3 – the 14th of March 2014

Network Representation

- Network representations can be highly complicated and detailed
 - Not always appropriate or practical to use the TSO's detailed network model when applied to methodologies
- Simplifications employed include
 - Clustering of points, e.g.
 - Entry: by geography or type
 - Exit: by geography or type (exit from system, exit (consumption)...)
 - Distance between points
 - Path (pipeline) approach: the distance along the shortest or the average pipeline route connecting the entry and exit points.
 - Euclidean (airline) approach: shortest distance based on the coordinates from each point in the projected coordinate system.

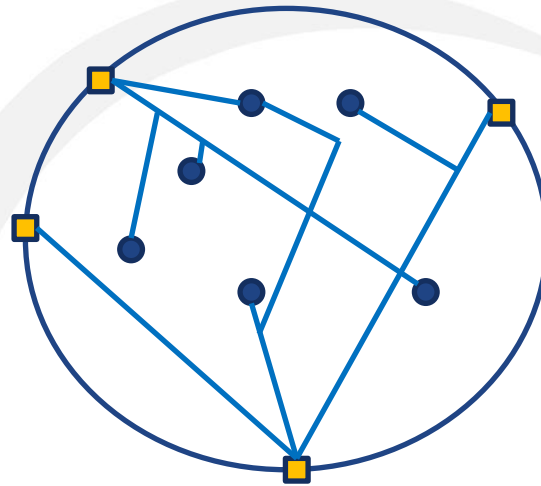
Network Representation

- When to simplify
 - Average distances used for cost-allocation test & criteria for applying postage stamp
 - can be calculated based on the distance matrix from each (clustered) entry point to each (clustered) exit point.
 - Network representation highly dependent on chosen methodology
 - Level of simplification shall be considered with regards to the relevant cost allocation methodology and shall be approved by the NRA.

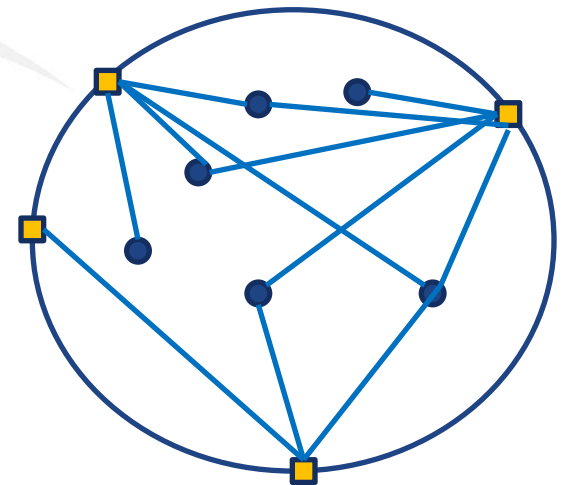
Simplification of Networks



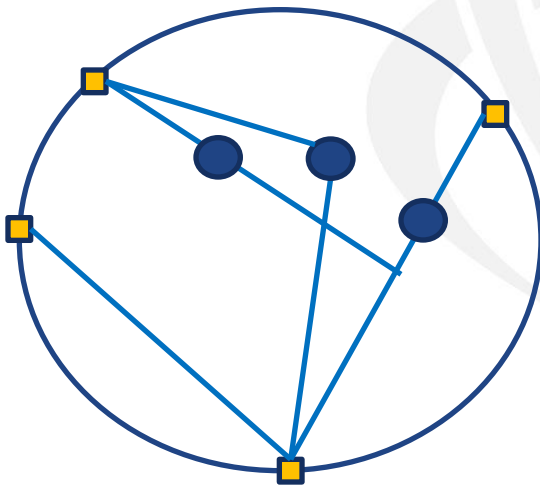
Pipeline distance



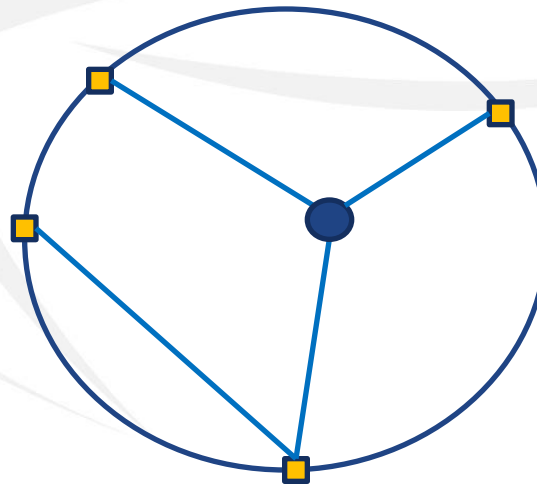
Simplified pipeline representation



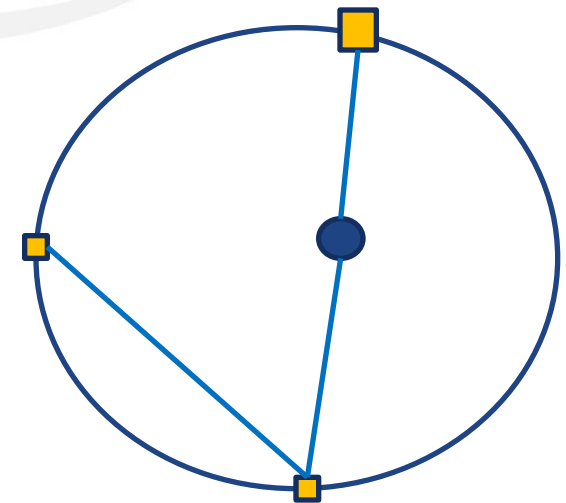
Euclidean distance



Clustering 1



Clustering 2



Clustering 3

Cost Allocation Methodology:

Network Representation Simplification Options

	Clustering		Distance	
	Clustering	No Clustering	Path	Euclidian
Postage Stamp	-	-	-	-
Capacity weighted Distance	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>
Matrix	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✗
Distance to Virtual Point – Variant A	✗	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✗
Distance to Virtual Point – Variant B	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>



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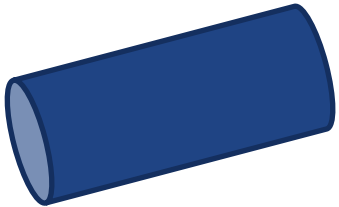
Cost Allocation Methodology Inputs

TAR SJWS 3 – the 14th of March 2014

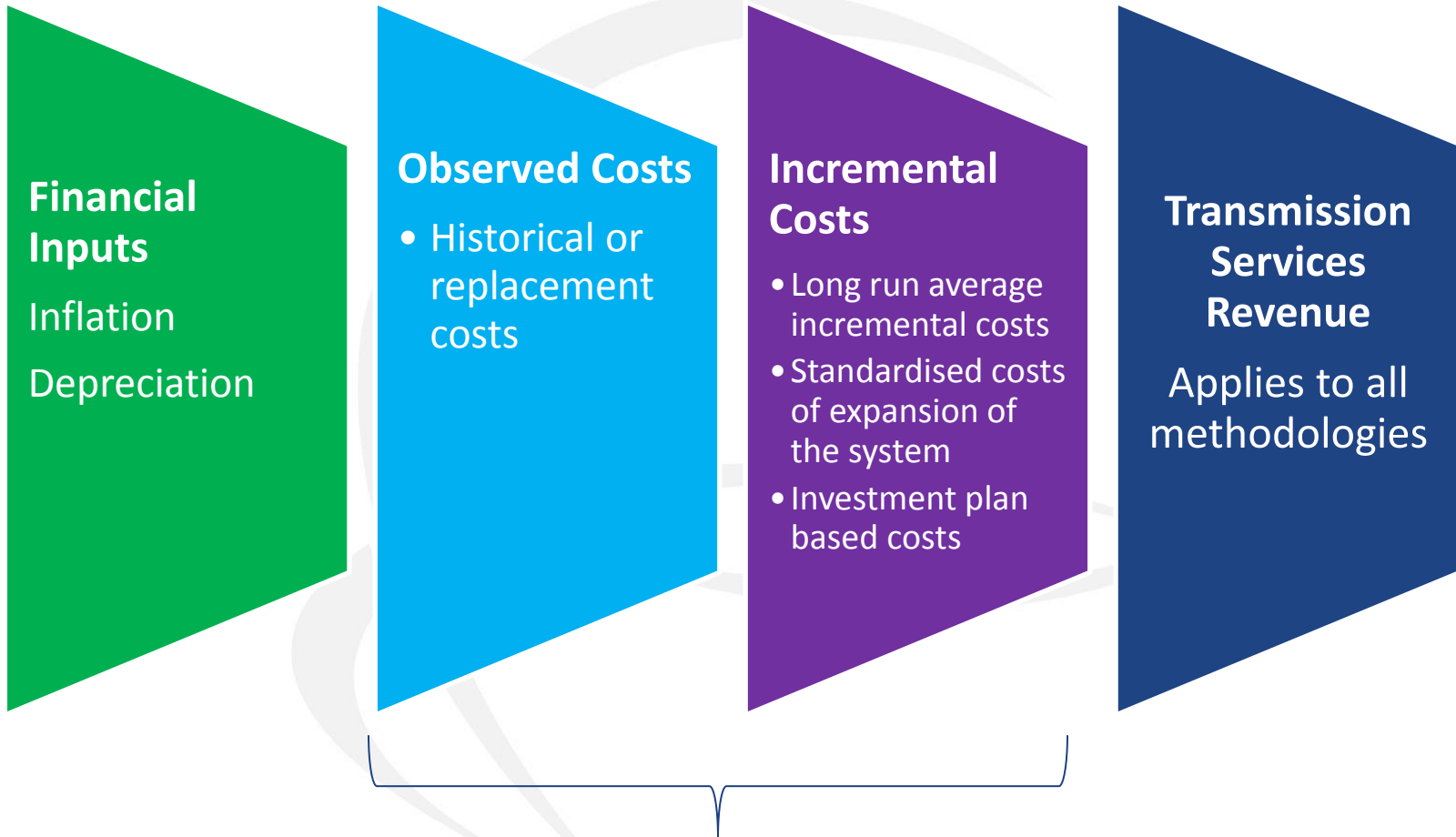
Cost Allocation Methodology Inputs

The TAR FG outlines many inputs for the cost allocation methodologies but each methodology will have a set of distinct inputs necessary to run that methodology.

In the Cost Allocation business rules the inputs are split into:

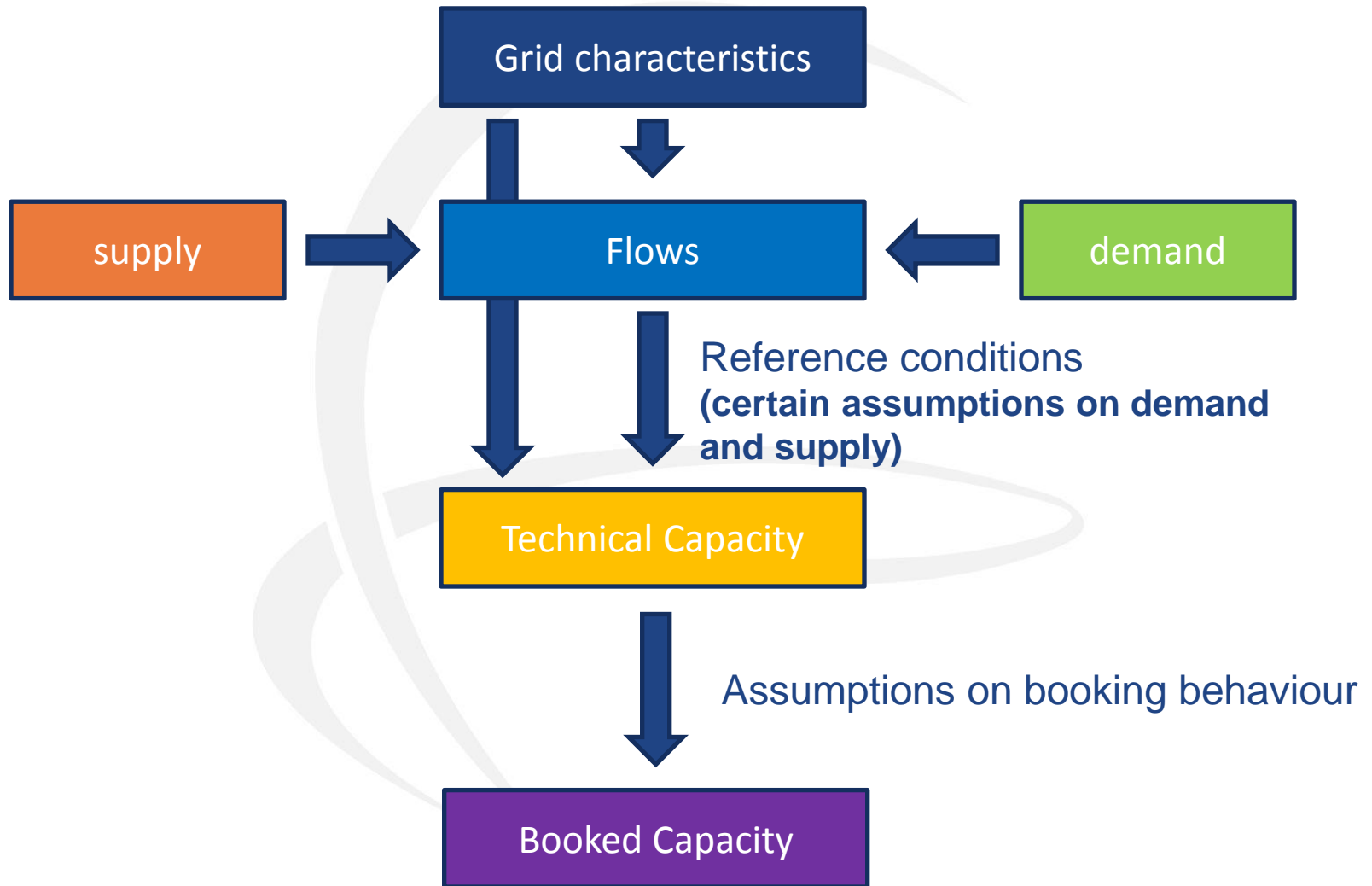
- costs/financial inputs, 
- and
- capacity/flows/system characteristic inputs 

Cost/Financial Inputs



Especially where specific costs for parts of the network are used.

Capacity/Flows/System Characteristic Inputs



Capacity/Flows/System Characteristic Inputs

- The network representation used as an input to the methodology should be detailed or simplified depending on what is necessary for the chosen allocation methodology.
- Technical network information such as pipeline sizes, lengths and diameters and compressor stations power may be provided as an input, if relevant.
- The capacity assumption used in the cost allocation methodology shall be consistent with the economic signals expected from the chosen methodology.



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Thank You

TAR SJWS 3 – the 14th of March 2014

Tariff Network Code ENTSOG SJWS 3

IFIEC-CEFIC response on Network Code on Tariff structures **allowed revenues and cost allocation**

Dirk Jan Meuzelaar

Brussels, March 14th 2014

The European industry is facing serious challenges

More than 150 CEOs will send a wake-up call to the heads of State

- Industry's share in GDP is down to 15,1%
 - It accounts for 80% export and 80% in private research and innovation
- Since 2008 3,5 mln jobs are lost in manufacturing
 - Each job in manufacturing create 2 jobs in service sector
- Gas prices are 2-4 times higher in the EU than in the US
 - The Energy Intensive Industry is a price taker and cannot pass additional costs to its mainly global customers



Harmonized Tariff Structures = Key Success Factor for IEM

Only Performance Indicators can prove its success

Does the NC on Tariff Structure contribute to increasing competitiveness, efficiency gains and price reductions leading to ...

- a level playing field;
- a reduction of the risks of market dominance;
- **non discriminatory transmission and distribution tariffs;**
- guarantee that the rights of small and vulnerable customers are protected

.....as promises in the Gas Directive 2003/55/EC

CEFIC/IFIEC doubt that the current proposals will give enough confidence to meet the required conditions

Does the Allowed Revenues contribute to our confidence of efficient costs and cost effectiveness?

- Under-recovery is the most important concern for TSO's
- Allowed revenues not part of the NC on Tariffs;
 - NRA determines the allowed revenues and tariffs.

Moreover we have experience with disputes about:

- RAB:
 - TSO's high risk investments outside regulated tasks;
 - Revalidation of assets (also for commercial reasons).
- WACC:
 - Too high premiums for debt capital;
 - Excessive high returns on equity;
 - Wrong indexation references.

Allowed revenues should have been part of the Network Code on Tariffs
CEFIC and IFIEC are more anxious about over-recovery!

Cost drivers allocation: should be based on capacity charges with preferred 50/50 entry/exit-split

A roundabout does not have a specific entry and exit



- In a competitive commodity market, participants pay for their own transport
 - in case of liquid bi-direction trade and transport we prefer for gas market a 50/50 split-up
 - 50/50 split as a starting point gives correct incentives & equal risk sharing over all Network Users

Cost allocation methodologies should be transparent & cost reflective

- TSOs still have several options and alternatives for cost allocation;
- These methodologies contain many variables that TSOs can use to manipulate the tariffs (e.g the applied backhaul correction factor);
- Even one single methodology (e.g post stamp tariffs) does not provide reliable information to compare the efficiency of the TSOs.

Recent study of University of Santiago de Compostela*) about entry-exit systems via least squares methodology shows:

“that, even after a given methodology has been chosen, there are still important details to be fixed before the final tariffs are computed. Within the context of the least squares methodology we argue that, although many of these details may seem minor, they can have a big impact on the final outcome.”

*) Alfredo Bermúdez and others, August 2013, Elsevier Ltd.

CEFIC/IFIEC support postage stamp as a starting point for cost allocation (or at least as counterfactual test)

- Distance is not a major cost driver anymore:
 - Hub trade (virtual) instead of point to point supply (physical);
 - Cost socialization: allocation of real costs increasingly arbitrary
- Transparent and deductible to prevent manipulation:
 - Postage stamp as preferred method (at least counterfactual):
 - Simplest, less political and manipulative;
 - First step to compare & benchmark transportation costs;
 - Incentive to realize efficient & lower tariffs.
- One transparent and simple system could improve cooperation and integration of TSO's and strong impetus for the IEM

Current proposal leaves too much room (also via 'back doors') for continuation remaining differences between TSO's

IFIEC/CEFIC major concerns

- This NC is too much focused on short term recovery of costs instead of a long term strategic integration of one internal Energy market
- Allowed revenues should have been part of the NC on Tariffs;
- We doubt that the current proposals will lead to more competition, more efficiency and necessary price reductions
- The current proposals do insufficiently support the pre-requisites e.g. efficient costs, cost reflectiveness, non-discrimination, cross subsidization and causer pay principle;
- All three proposed distance related allocation methodologies are not transparent and can easily manipulated
- The postage stamp should be the preferred cost allocation methodology

We are concerned that this proposal will insufficient contribute to the performance of the 3rd package

Topics for TAR NC SJWS 4 on March 26th

- Cost Allocation
 - Business Rules Part 2
- Multipliers and Seasonal Factors
 - Business Rules
- CAM Related Topics
 - Business Rules
- General Provisions
 - Business Rules
- Transparency
 - Business Rules



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THANK YOU