

Implementation Workshop

Tariff Network Code



Agenda

Welcome

ENTSOG's Implementation WS

- Registration and welcome coffee
- ENTSOG and TAR NC

1st Session

Introduction

- TAR NC process
- Tariff-setting process overview
- TAR NC: final building block of the EU internal gas market?
- Q&A
- Coffee break



Agenda

2nd Session

Implementation and Publication

- Scope and implementation timeline
- Publication requirements
- Regulatory account
- Q&A
- Lunch break

3rd Session

Consultation

- Consultation requirements
- Interruptible capacity pricing
- Q&A
- Coffee break
- Prime movers
- Q&A
- Conclusions

ENTSOG and TAR NC

TAR NC Implementation Workshop

Jan Ingwersen

General Manager, ENTSOG



TAR NC Implementation Workshop



1st Session: Introduction



European
Commission

Tariff Network Code process

Benedikt Klauser

Tariff setting process overview

TAR NC Implementation Workshop

Malcolm Arthur

Business Area Manager, Market, ENTSOG



Agenda

1. Setting the scene
2. Overview of tariff-setting





1. Setting the scene



What we are trying to achieve?

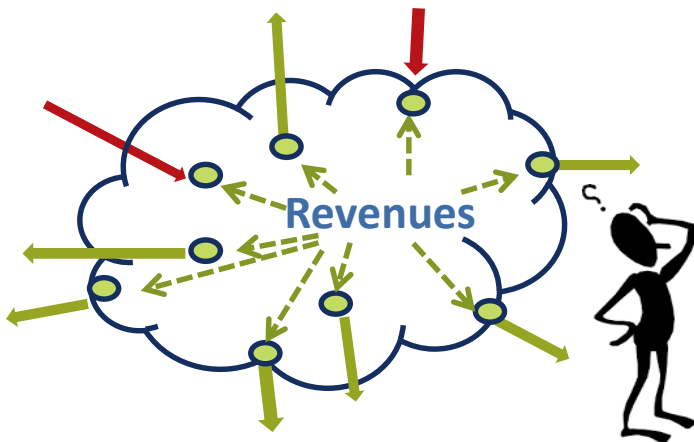
What transportation costs should be recovered?

Out of scope

What stakeholders are these costs recovered from?

In scope

Entry-exit system



Tariffs should be:

- Cost reflective
- Minimise cross subsidies
- Non-discriminatory





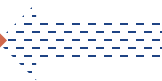
Balance of which stakeholder pays

DISCOUNT



~~DISCOUNT~~

FORWARD FLOW



Reverse flow

Low multipliers



High multipliers

domestic

Network user

Cross border



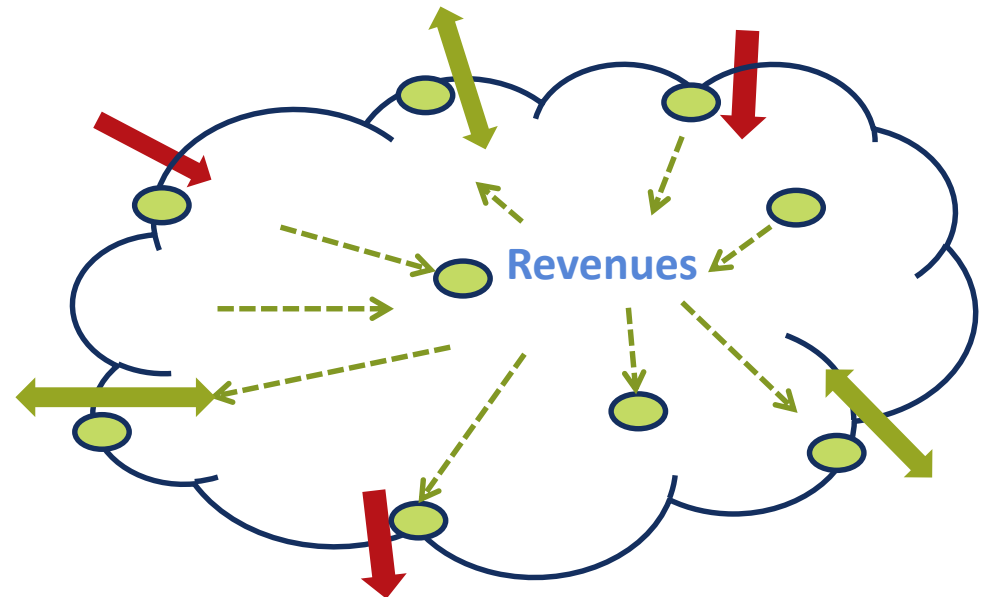


TAR NC – Revenue recovery

Overall aim is to recovery revenues

- Revenues recovered at each entry and exit point
- Reference price methodology (RPM) used to determine reference price at each point
- Reference price is for yearly capacity
- Prices for other standard capacity products are derived from the reference price

Entry-exit system

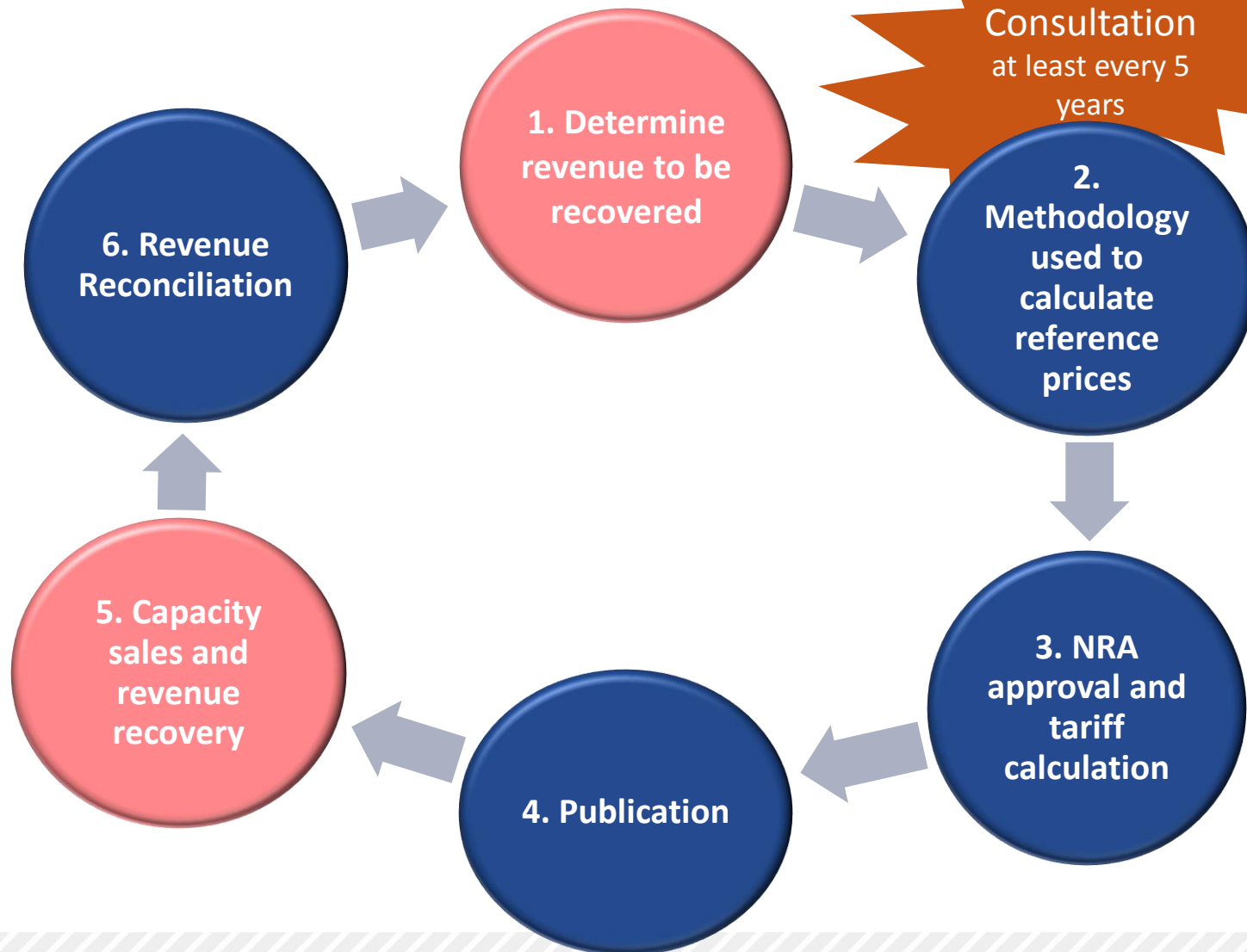




2. Overview of tariff-setting

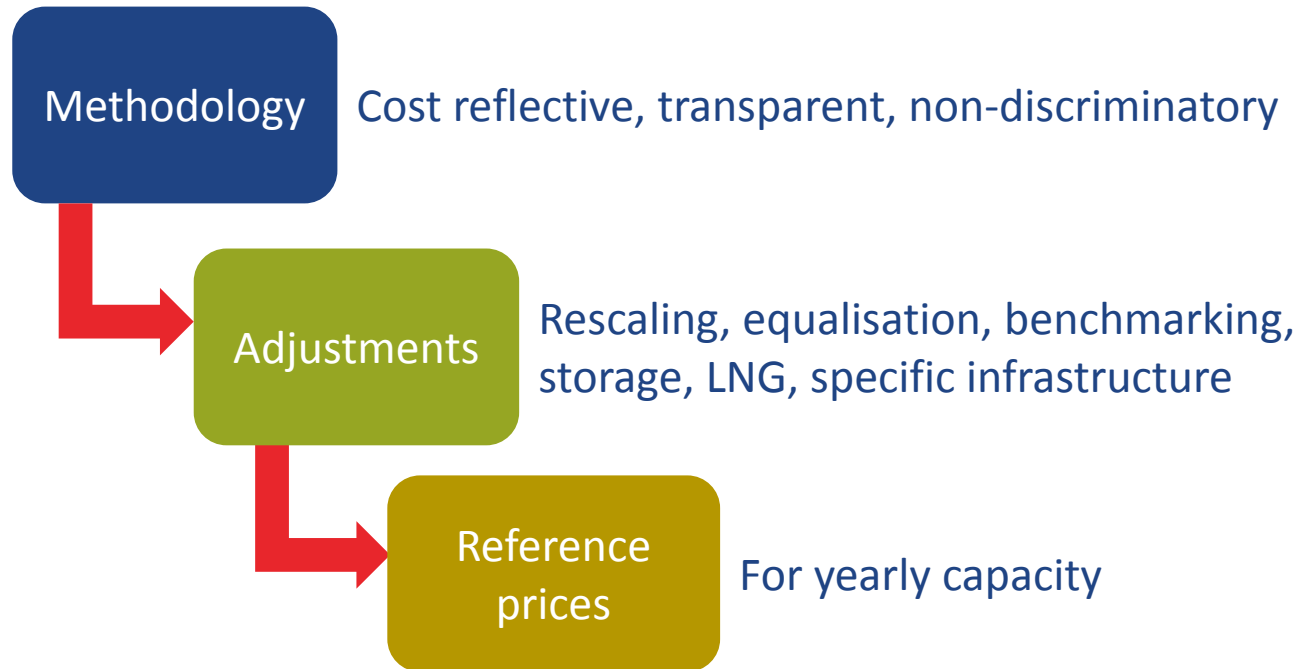


Process for tariff calculation



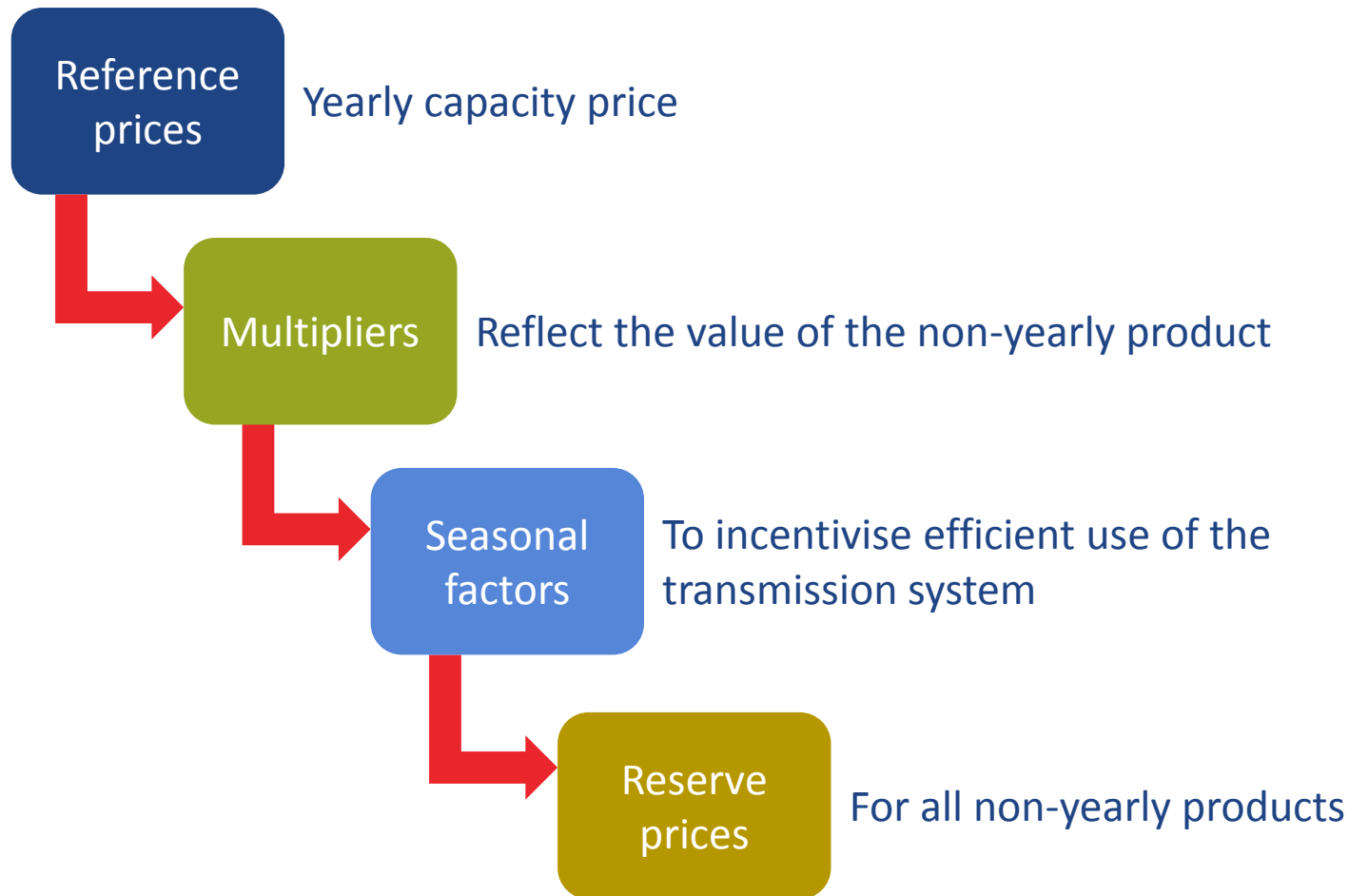


Reference price calculation





Reserve price





Now for the detail






Thank You for Your Attention

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ACER

 Agency for the Cooperation
of Energy Regulators

TAR NC: final building block of the EU internal gas market ?

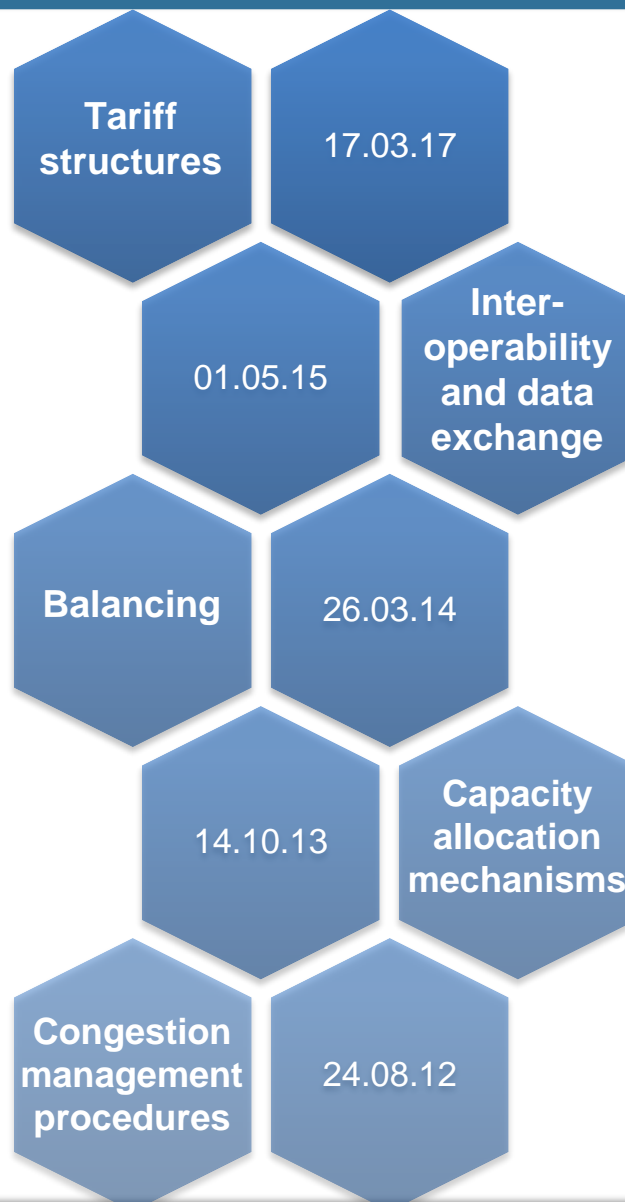
Tom Maes Vice-chair ACER Gas Working Group, and
Co-chair ACER Tariff Task Force

**ENTSOG Implementation Workshop for the Tariff Network Code for Gas
29 March 2017, Brussels**

- Setting the scene
 - » The big picture
 - » Back to basics
 - » Benefits for consumers
- Mission from Madrid
 - » Regulators' contribution to the iDoc
 - » Consultation template
 - » Cost allocation assessment
- Conclusion

The big picture

- Quo vadis?



Complementing CAM

- Price setting for standard products
- Tariff stability for market participants and TSOs

Transparency

- Publication and justification of reference price methodology
- Review by ACER

Cross-border efficiency

- Same reference price methodology applied to all entry and exit points
- Equally used to reconcile differences between budget and actuals

Benefits for consumers

Transparency

- Publication requirements
- Consultation requirements
- Minimum notice period for tariff publication

Efficient trade & competition

- Capacity based pricing
- Default rule on entry-exit split
- Cap & floor on multipliers and seasonal factors
- Harmonised pricing of non-firm products

Avoidance of cross-subsidies & discrimination

- Coordinated approach to cost allocation: benchmark reference price methodology + ACER review
- Streamlined approach to rescaling, equalisation and benchmarking

Framework for efficient investment

- Harmonised revenue reconciliation
- Economic test for incremental/new capacity
- Payable price – predictability for all users

“The Forum encourages Member States, NRAs and all involved market participants to ensure the timely implementation of these rules and invites ACER and ENTSOG to support and monitor the implementation and report back to the Forum.”

- Our contribution to the iDoc is justified by the importance of having a good implementation
- Read the disclaimer 😊
 - ENTSOG largely took on board ACER and NRAs' feedback
 - The feedback to this document in no way commits ACER or NRAs' institutions
 - iDoc is open for further feedback
- Need for further discussion from NRAs' perspective, e.g.
 - Differentiation between transmission and non-transmission services
 - Conditional firm capacity products will be assessed by ACER
 - In some MS, an alignment of tariff period with the gas year may be considered
- Reviewed version announced for October
- Examples are 'AS IS', not 'TO BE'
 - Consultations at national level will start later this year
 - Consultation responses will be valuable input for resolving open issues

- **Generic review of the tariff regime beyond the report obligation to ACER**
- **Available to NRAs and TSOs before 5th July 2017**
- **Supports the implementation process**
 - » Completeness: Full list of the consultation requirements
 - » Clarity: References to legal text
 - » Explanatory: Rationale behind the consultation elements
- **Provides transparency and comparability of content**
 - » Readability: Summary of the national tariff consultation
 - » Comparability: Homogenisation of submission documents
 - » Transparency: Justification of tariff methodology choices
 - » *Could* include best practices for selected articles
- **Could be built into ACER's website as an electronic submission survey**

[A] PROPOSED REFERENCE PRICE METHODOLOGY [ART. 26(1)(A)]			
[1] Information on the parameters used in the proposed RPM related to technical characteristics of the transmission system [Art. 26(1)(a)(i), Art. 30(1)(a)]:			
Art.26(1)(a)	[A] Description of the proposed reference price methodology <input type="checkbox"/> Short description: Click here to enter text. And, <input type="checkbox"/> Link/reference to consultation documentation: Or <input type="checkbox"/> Attached in file (preferably excel): MS_1_A_RPM		
Art.26(1)(a)(1) Art.30(1)(a)(i)	[B] Technical capacity at entry and exit points <input type="checkbox"/> Attached in file (preferably excel): MS_1_B_EEcapacity <input type="checkbox"/> Other: Click here to enter text.	Associated assumptions <input type="checkbox"/> Information included in: MS_1_B_EEcapacity <input type="checkbox"/> Attached in separate file: MS_1_B_EEcapacity_justif <input type="checkbox"/> Other: Click here to enter text.	Justification of the parameters <input type="checkbox"/> Information included in file: MS_1_B_EEcapacity <input type="checkbox"/> Attached in separate file: MS_1_B_EEcapacity_justif <input type="checkbox"/> Other: Click here to enter text.
Art.26(1)(a)(1) Art.30(1)(a)(ii)	[C] Forecasted contracted capacity at entry and exit points <input type="checkbox"/> Attached in file (preferably excel): MS_1_C_EEforecast <input type="checkbox"/> Other: Click here to enter text.	Associated assumptions <input type="checkbox"/> Information included in: MS_1_C_EEforecast <input type="checkbox"/> Attached in separate file: MS_1_C_EEforecast_justif <input type="checkbox"/> Other: Click here to enter text.	Justification of the parameters <input type="checkbox"/> Information included in: MS_1_C_EEforecast <input type="checkbox"/> Attached in separate file: MS_1_C_EEforecast_justif <input type="checkbox"/> Other: Click here to enter text.
Art.26(1)(a)(1) Art.30(1)(a)(iii)	[D] The quantity and the direction of the gas flow for entry and exit points <input type="checkbox"/> Attached in file: MS_1_D_EEquantity <input type="checkbox"/> Other: Click here to enter text.	Associated assumptions such as demand and supply scenarios for the gas flow under peak conditions <input type="checkbox"/> Information included in: MS_1_D_EEquantity <input type="checkbox"/> Attached in separate file: MS_1_D_EEquantity_justif <input type="checkbox"/> Other: Click here to enter text.	Justification of the parameters <input type="checkbox"/> Information included in: MS_1_D_EEquantity <input type="checkbox"/> Attached in separate file: MS_1_D_EEquantity_justif <input type="checkbox"/> Other: Click here to enter text.
Art.26(1)(a)(1) Art.30(1)(a)(iv)	[E] Structural representation of the transmission network with an appropriate level of detail <input type="checkbox"/> Attached in file: MS_1_E_EEstructure <input type="checkbox"/> Other: Click here to enter text.	Associated assumptions <input type="checkbox"/> Information included in: MS_1_E_EEstructure <input type="checkbox"/> Attached in separate file: MS_1_E_EEstructure_justif <input type="checkbox"/> Other: Click here to enter text.	Justification of the parameters <input type="checkbox"/> Information included in: MS_1_E_EEstructure <input type="checkbox"/> Attached in separate file: MS_1_E_EEstructure_justif <input type="checkbox"/> Other: Click here to enter text.
Art.26(1)(a)(1) Art.30(1)(a)(v)	[F] Additional technical information about the transmission network, such as: the length and the diameter of pipelines and the power of compressor stations <input type="checkbox"/> Attached in file: MS_1_F_EEotherinfo <input type="checkbox"/> Other: Click here to enter text.	Associated assumptions <input type="checkbox"/> Information included in file: MS_1_F_EEotherinfo <input type="checkbox"/> Attached in separate file:	Justification of the parameters <input type="checkbox"/> Information included in file: MS_1_F_EEotherinfo <input type="checkbox"/> Attached in separate file:

- The cost allocation assessment described in article 5 is one of the main provisions of the Tariff NC. It enters into force in 2017
- It allows assessing the trade-offs between intra-system and cross-system flows and provides a simple result that is comprehensive to stakeholders
- NRAs will have to determine how to carry out this assessment:
 - » What are the cost drivers (most likely distance, capacity, commodity...)?
 - » How to calculate distances for intra-system and cross-system flows?
 - » How to split capacities used by both intra-system and cross-system flows (entry IPs, potentially IP with storages facilities...)?
 - ➔ All these parameters will require assumptions (e.g. flow scenarios).
- The way to implement this assessment is key. It will have a significant impact on the reference price methodology (Chapter 2, which will have to be applied before May 2019).

- TAR NC is last of a series, but ‘clean energy package’ and ‘quo vadis study’ will shape EU internal gas market further
- TAR NC rests on strong founding principles; coordinated implementation is key to deliver expected benefits for consumers
- Regulators have commented ENTSOG’s iDoc
- National consultations remain to be the essential fora to resolve open issues

Thank you for your attention!



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Question and Answer session



2nd Session:

Focus on Implementation and Publication

Scope and implementation timeline

TAR NC Implementation Workshop

Irina Oshchepkova
Tariff Subject Manager, ENTSOG

Agenda

1. TAR NC scope
 - 1.1. Default rule
 - 1.2. Extension
2. TAR NC implementation timeline
 - 2.1. Application dates
 - 2.2. Compliance dates
3. Conclusion





1. TAR NC scope

1.1. Default rule



Default rule: where?

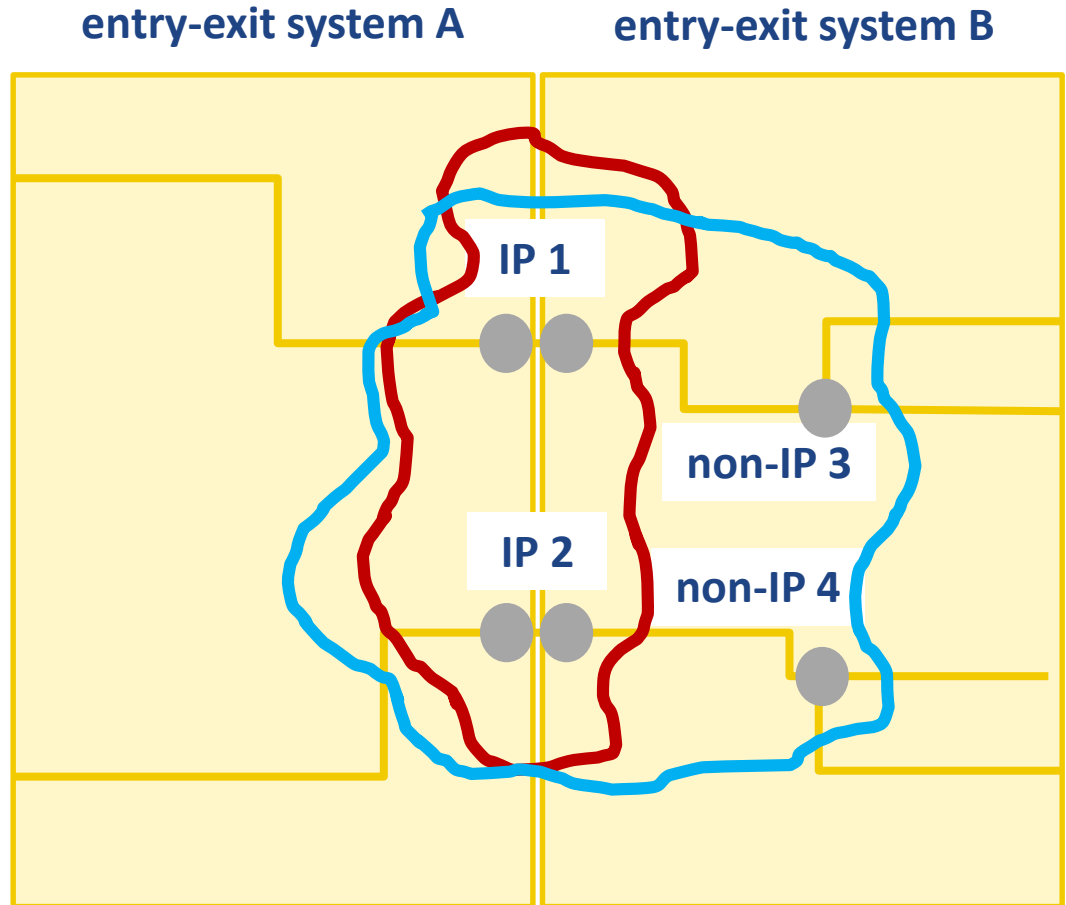
CAM NC

All to IPs

TAR NC

Partly to IPs only –
'limited scope' rules

Partly to IPs and non-IPs –
'broader scope' rules





Default rule: what?

**TAR NC scope >
CAM NC scope**

All points

- Ch. I 'General provisions'
- Ch. II 'Reference price methodologies'
- Ch. IV 'Reconciliation of revenue'
- Ch. VII 'Consultation requirements' (except for Art. 28)
- Ch. VIII 'Publication requirements'
- Ch. X 'Final and transitional provisions'

**TAR NC scope =
CAM NC scope**

IPs only

- Ch. III 'Reserve prices'
- Ch. V 'Pricing of bundled capacity and capacity at VIPs'
- Ch. VI 'Clearing and payable price'
- Ch. VII 'Consultation requirements' (only for Art. 28)
- Ch. IX 'Incremental capacity'

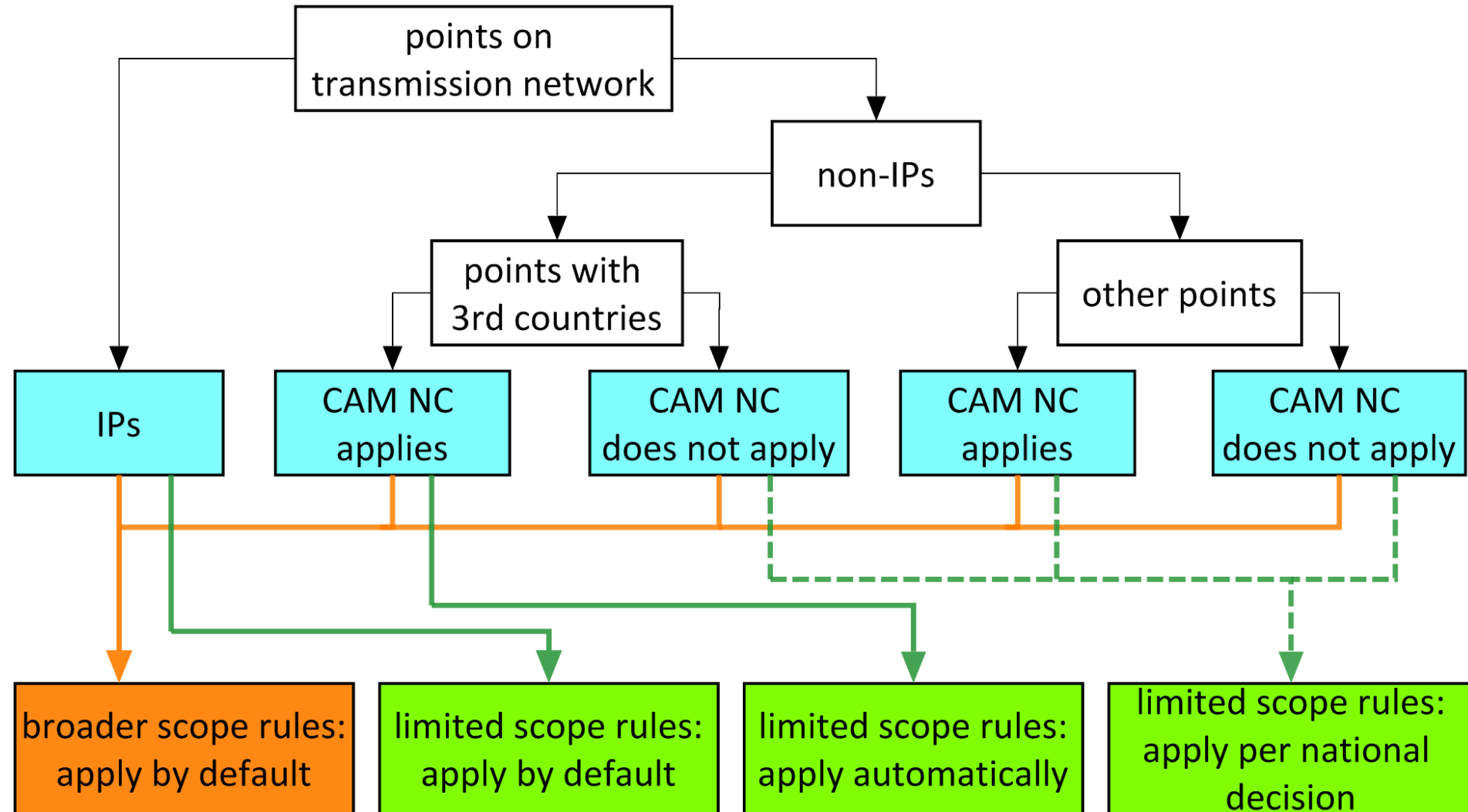


1. TAR NC scope

1.2. Extension



Extension: all non-IPs





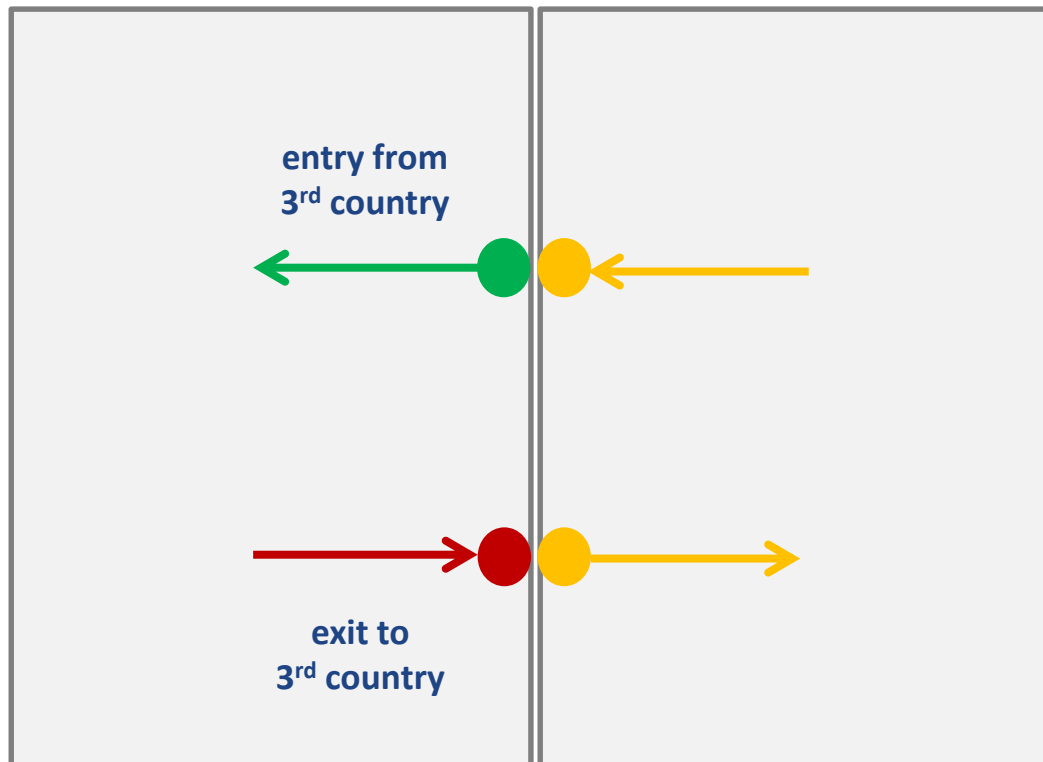
Extension: non-IPs with 3rd countries



Green/red points

'broader scope'
rules apply by
default

'limited scope'
rules apply
automatically if
NRA decided to
apply CAM NC



Yellow points

distinction
between Energy
Community and
other countries



2. TAR NC implementation timeline

2.1. Application dates



Application dates: overview

Entry into force, 6 April 2017

- Ch. I 'General provisions'
- Ch. V 'Pricing of bundled capacity and capacity at VIPs'
- Ch. VII 'Consultation requirements'
- Ch. IX 'Incremental capacity'
- Ch. X 'Final and transitional provisions'

1 October 2017

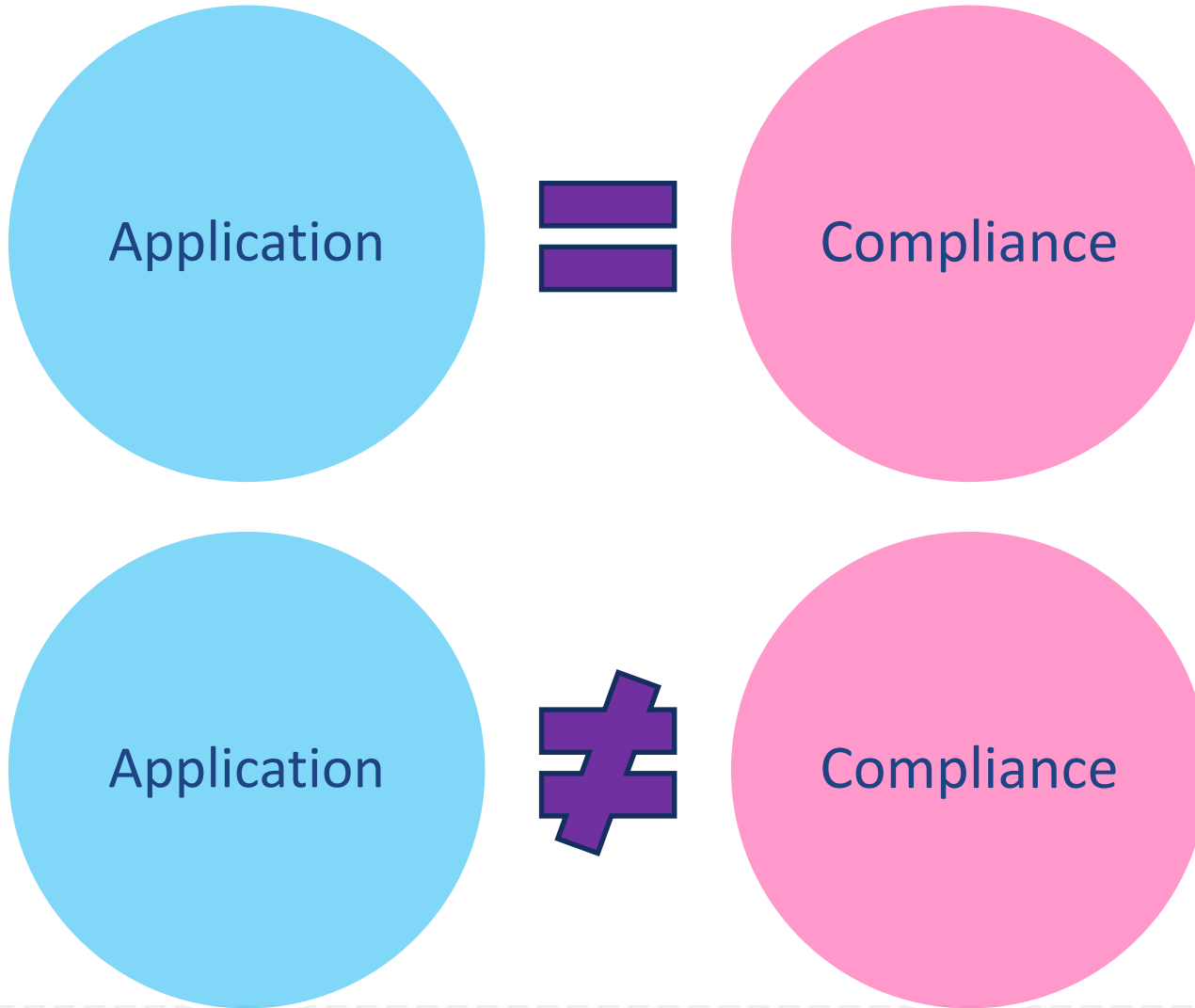
- Ch. VI 'Clearing and payable price'
- Ch. VIII 'Publication requirements'

31 May 2019

- Ch. II 'Reference price methodologies'
- Ch. III 'Reserve prices'
- Ch. IV 'Reconciliation of revenue'



Application dates: consequences





2. TAR NC implementation timeline

2.2. Compliance dates



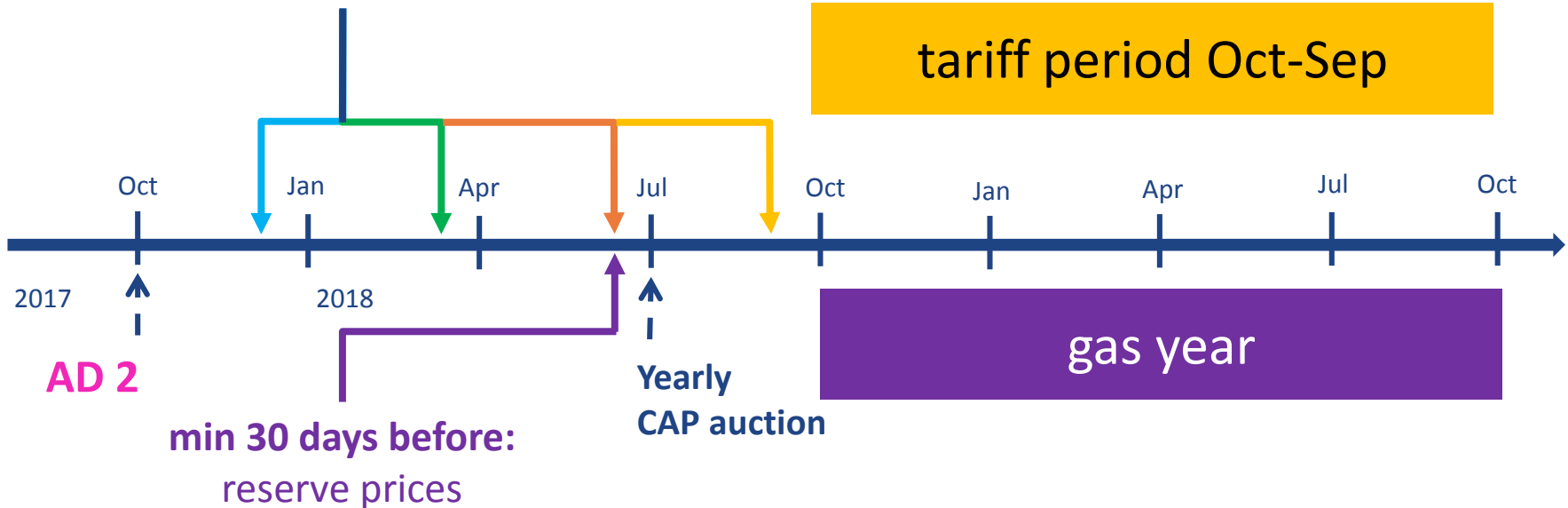
Compliance: example 1

tariff period Jan-Dec

tariff period Apr-Mar

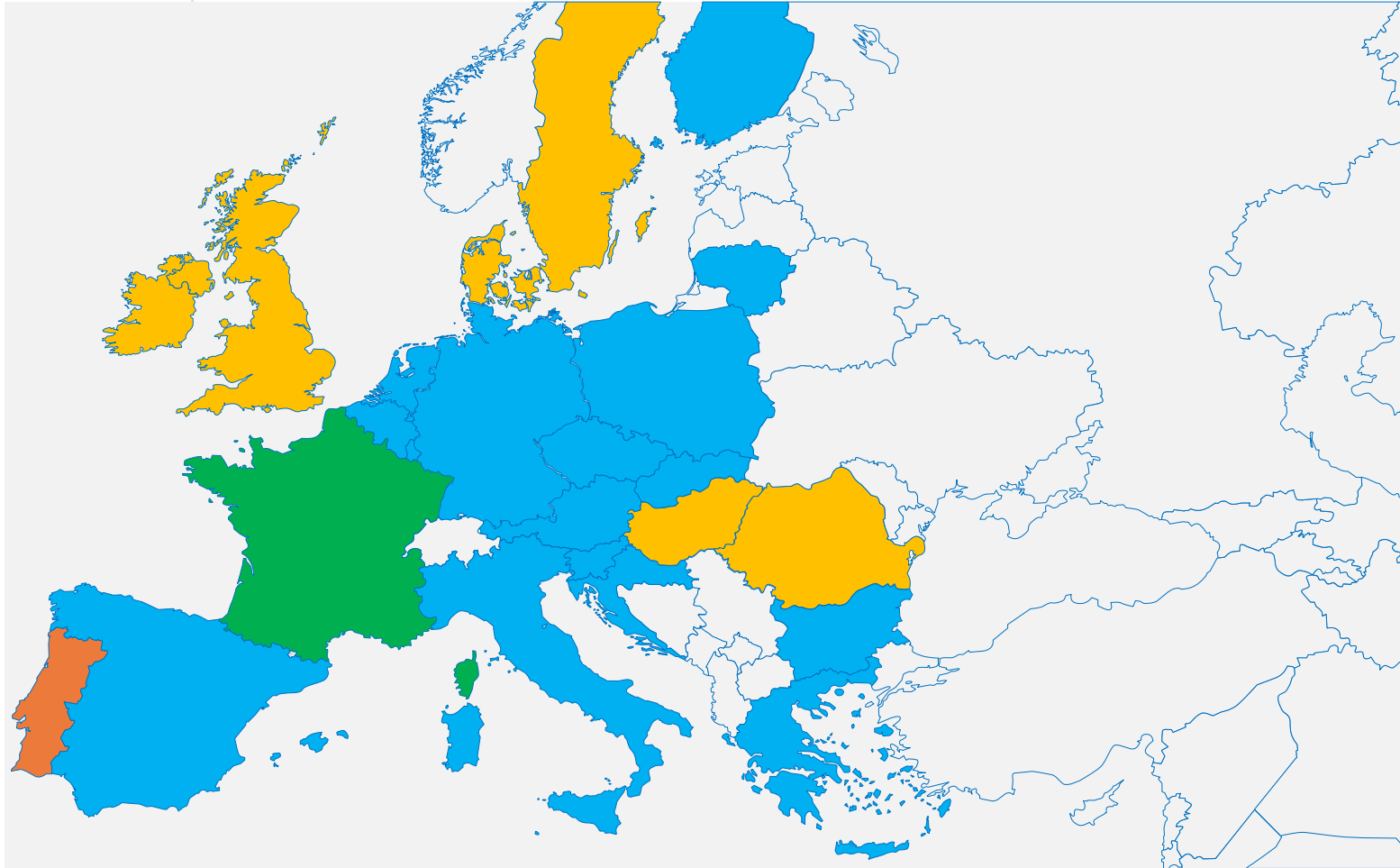
tariff period Jul-Jun

tariff period Oct-Sep





Different tariff periods



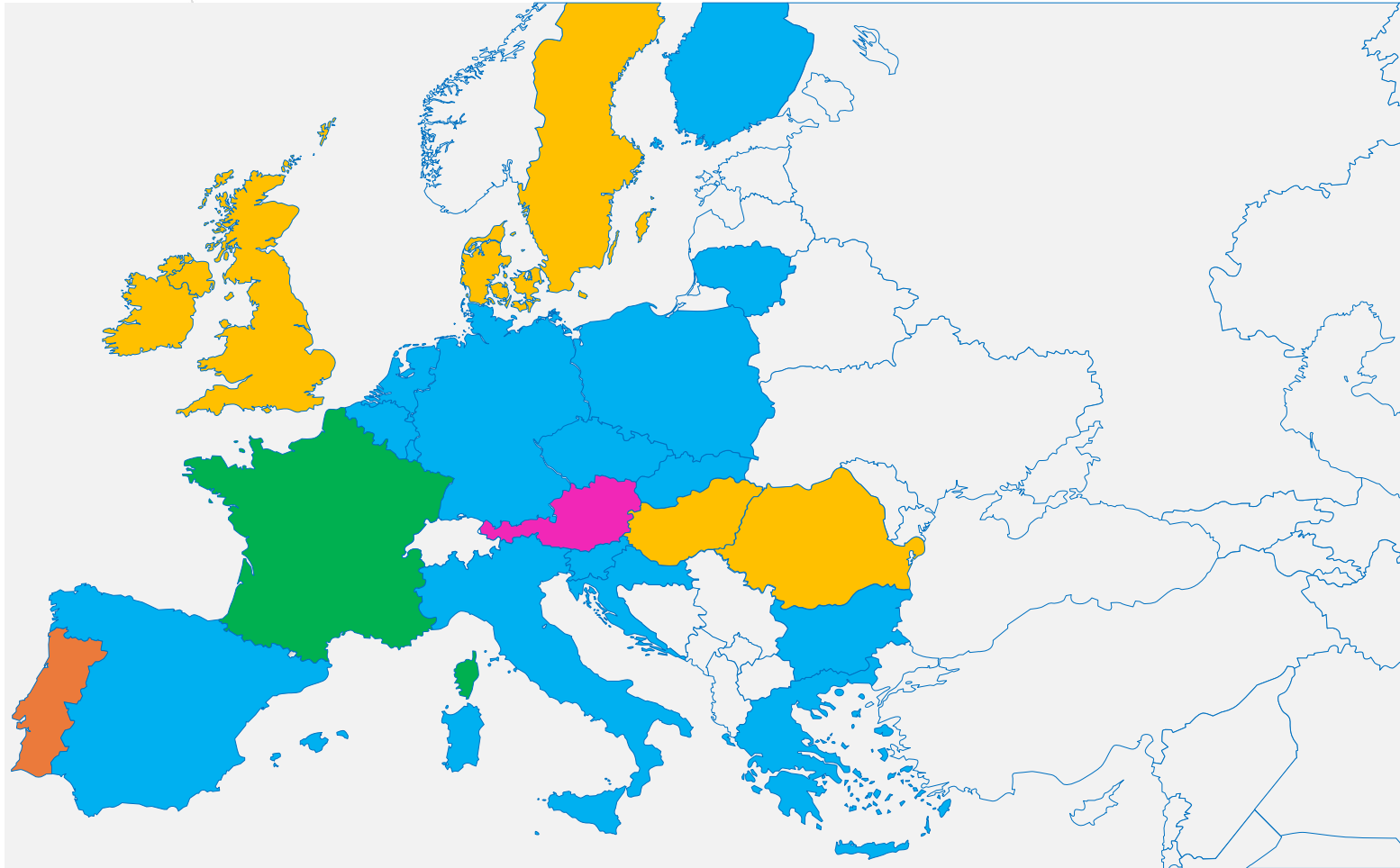


Compliance: example 2





'New' tariffs

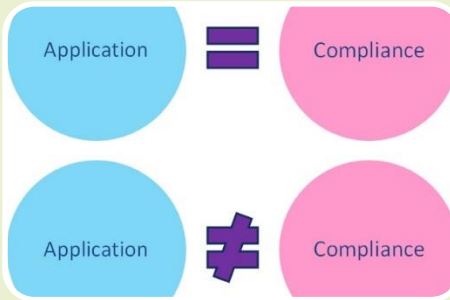
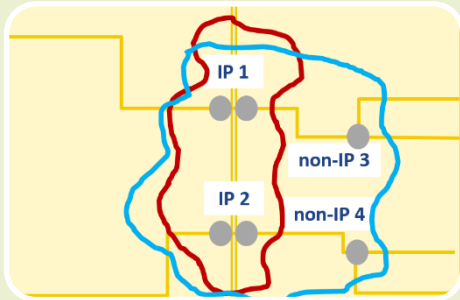




3. Conclusion



Something to take away



**Grasp
logic**

**Manage
compliance**

**Understand
impact**



Thank You for Your Attention

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Publication Requirements

TAR NC Implementation Workshop

Seán Kinsella, ENTSOG Tariff Adviser

Andreas Martens, ENTSOG Tariff Adviser

1. What to publish

- 1.1. Before annual yearly capacity auction / tariff period
- 1.2. Tariff changes, trends, model

2. When to publish

- 2.1. Deadlines and 'separate' reserve prices

3. How to publish

- 3.1. Standardised section of TSO/NRA Website
- 3.2. ENTSOG Transparency Platform

4. Conclusion

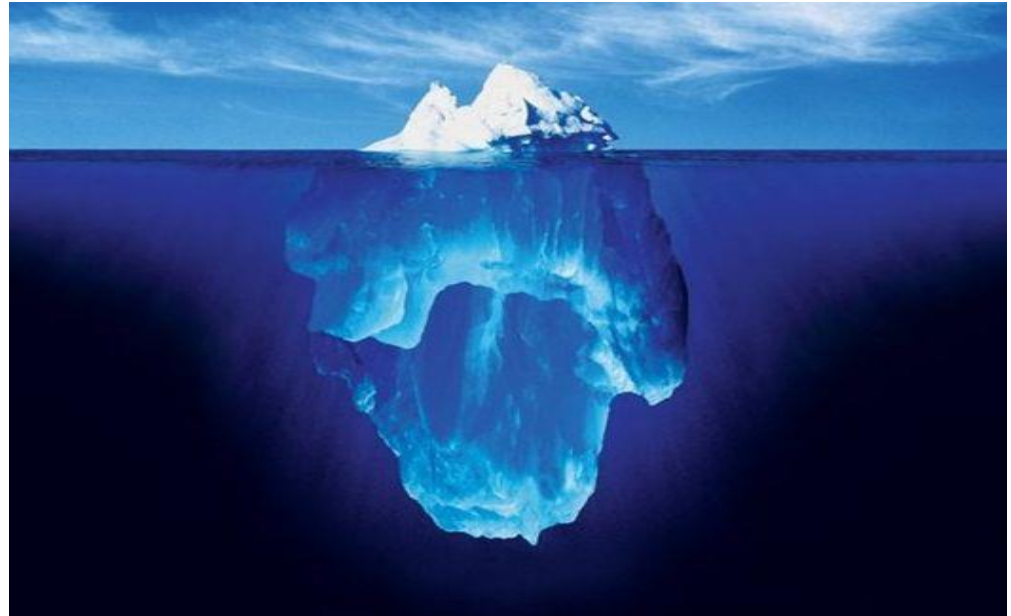




1. 'What' to publish

Transparency

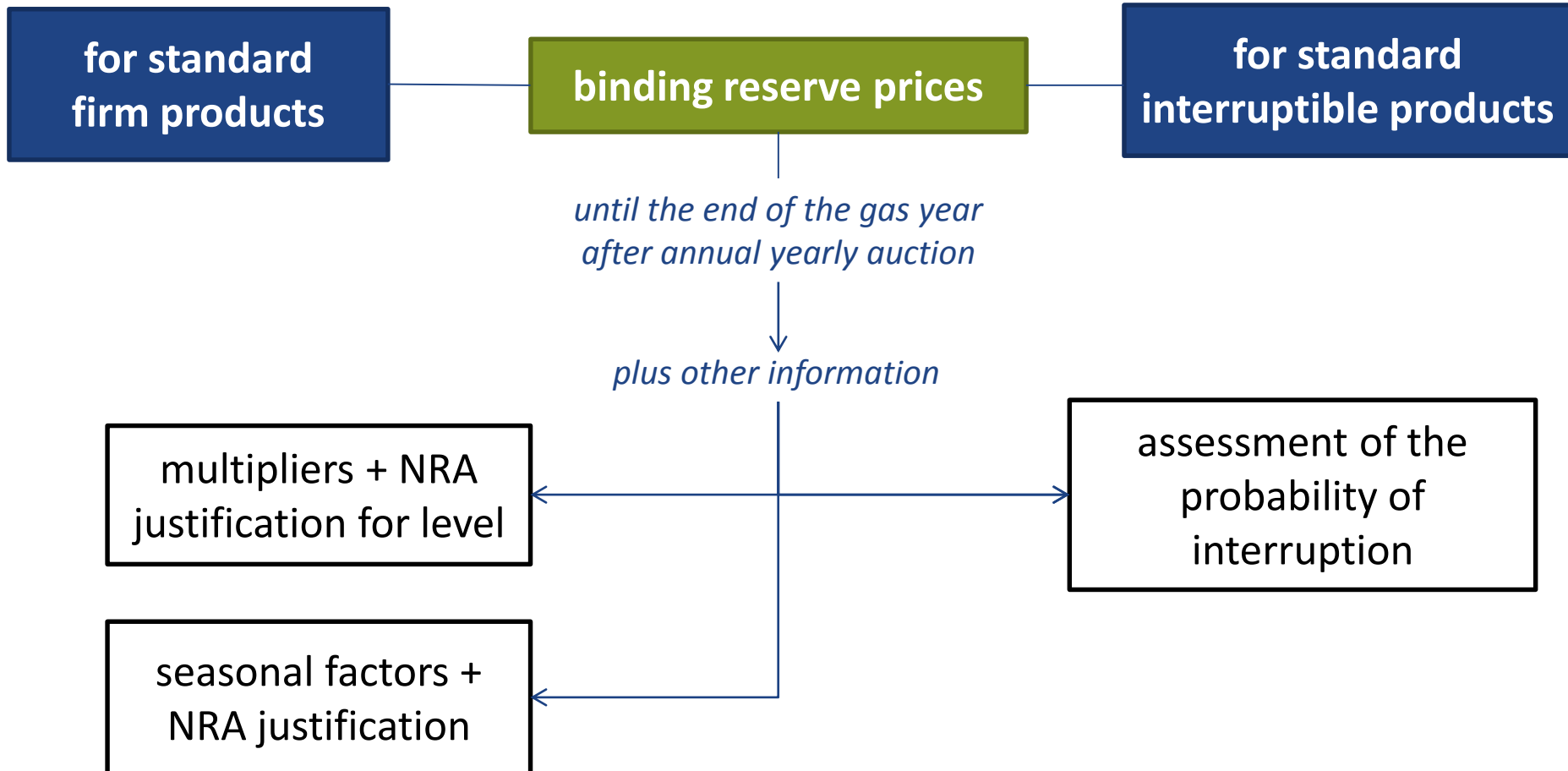
- Transparent
- Objective
- Non-discriminatory
- Predictability
- Comprehensibility



➤ **Transparency is a key achievement of TAR NC**

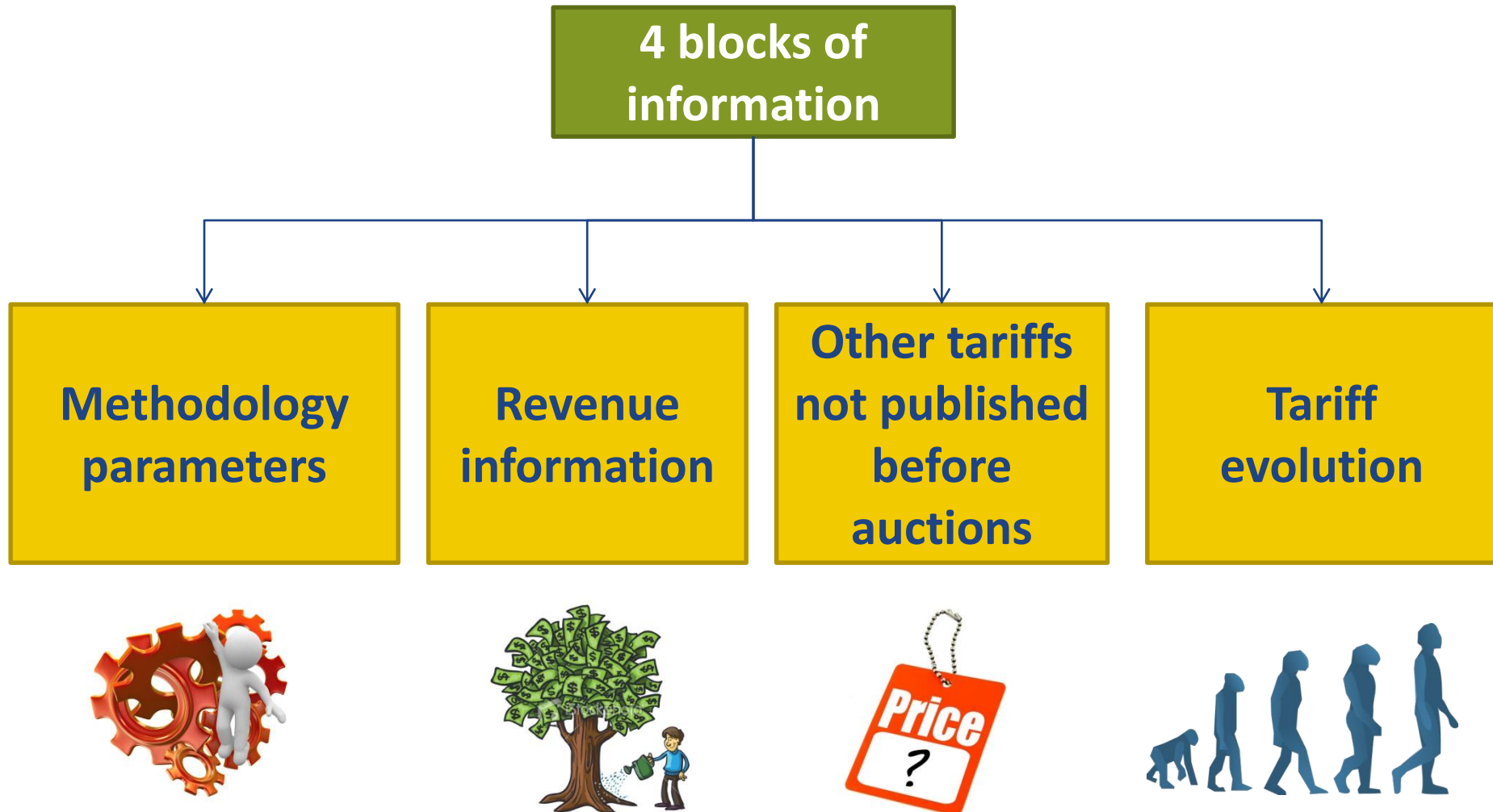


What to publish before annual yearly capacity auctions



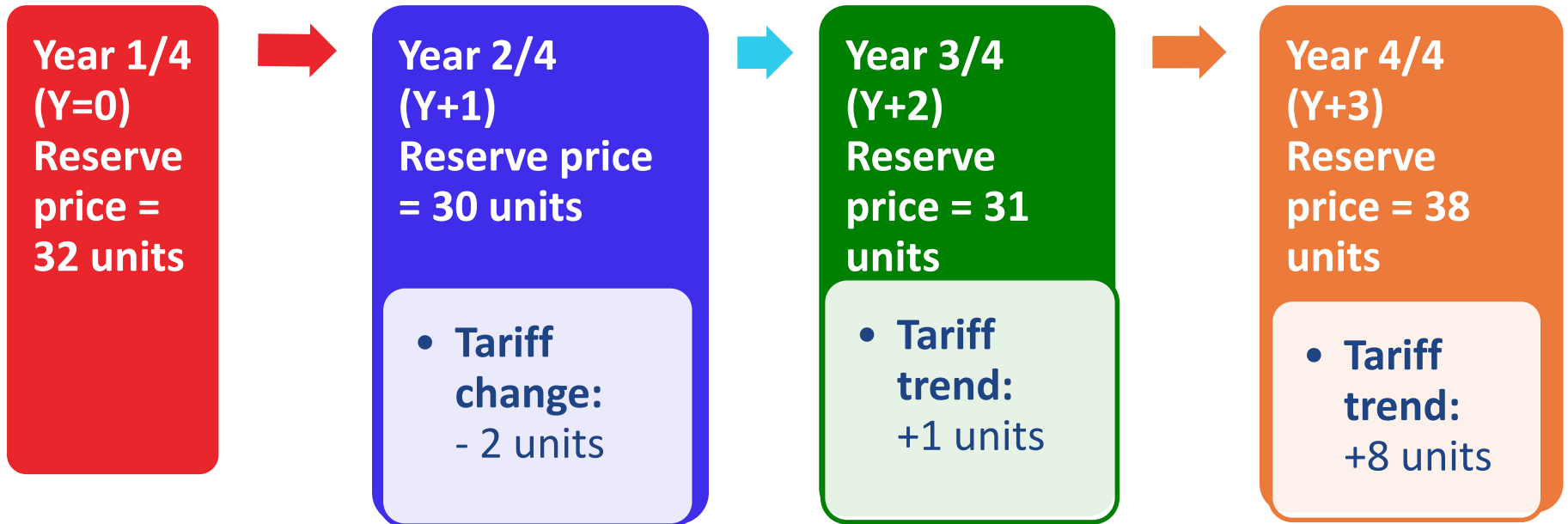


What to publish before tariff period





Tariff changes, trends and model



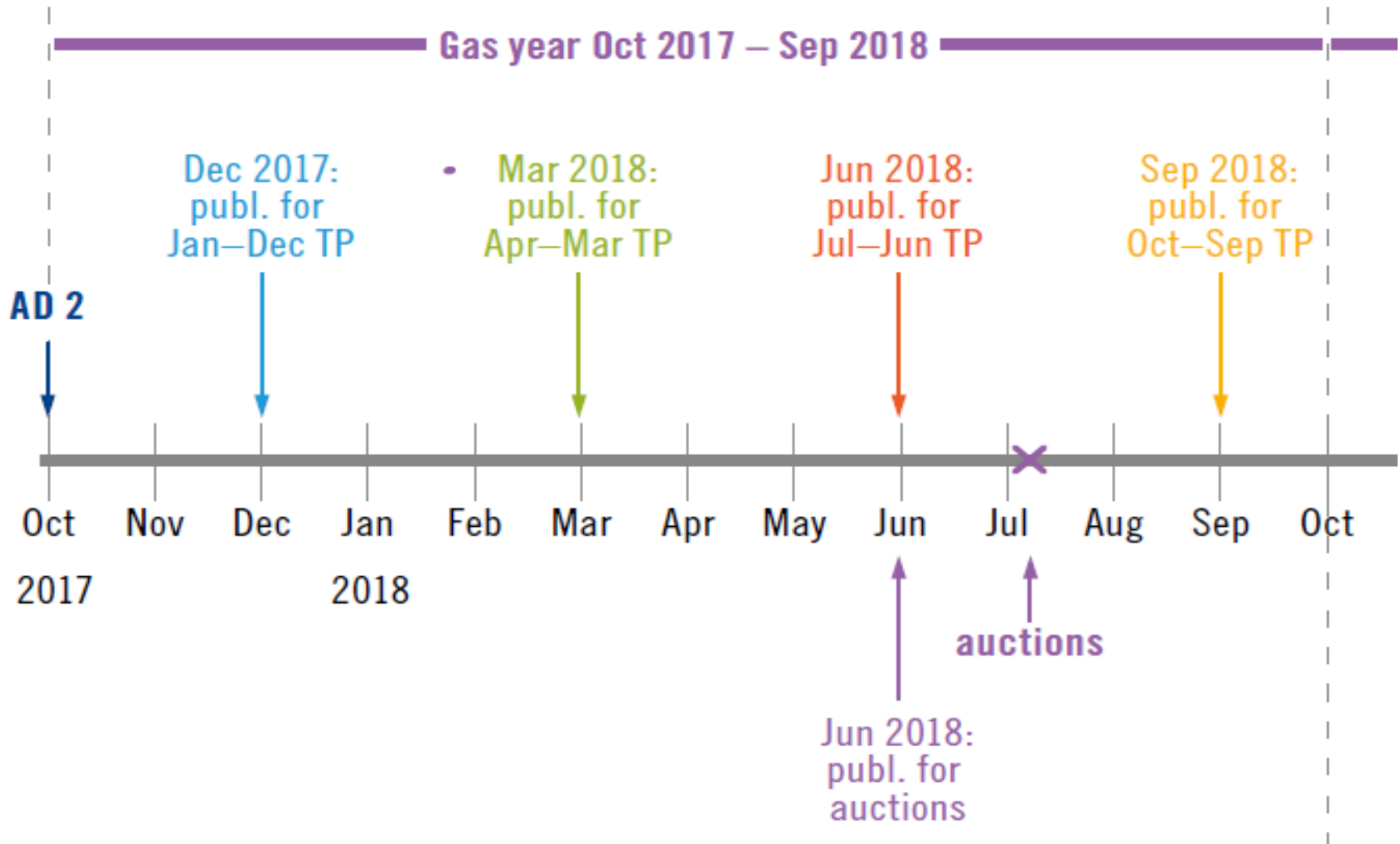
Tentative information, however third parties can make reasonable estimation



2. 'When' to publish

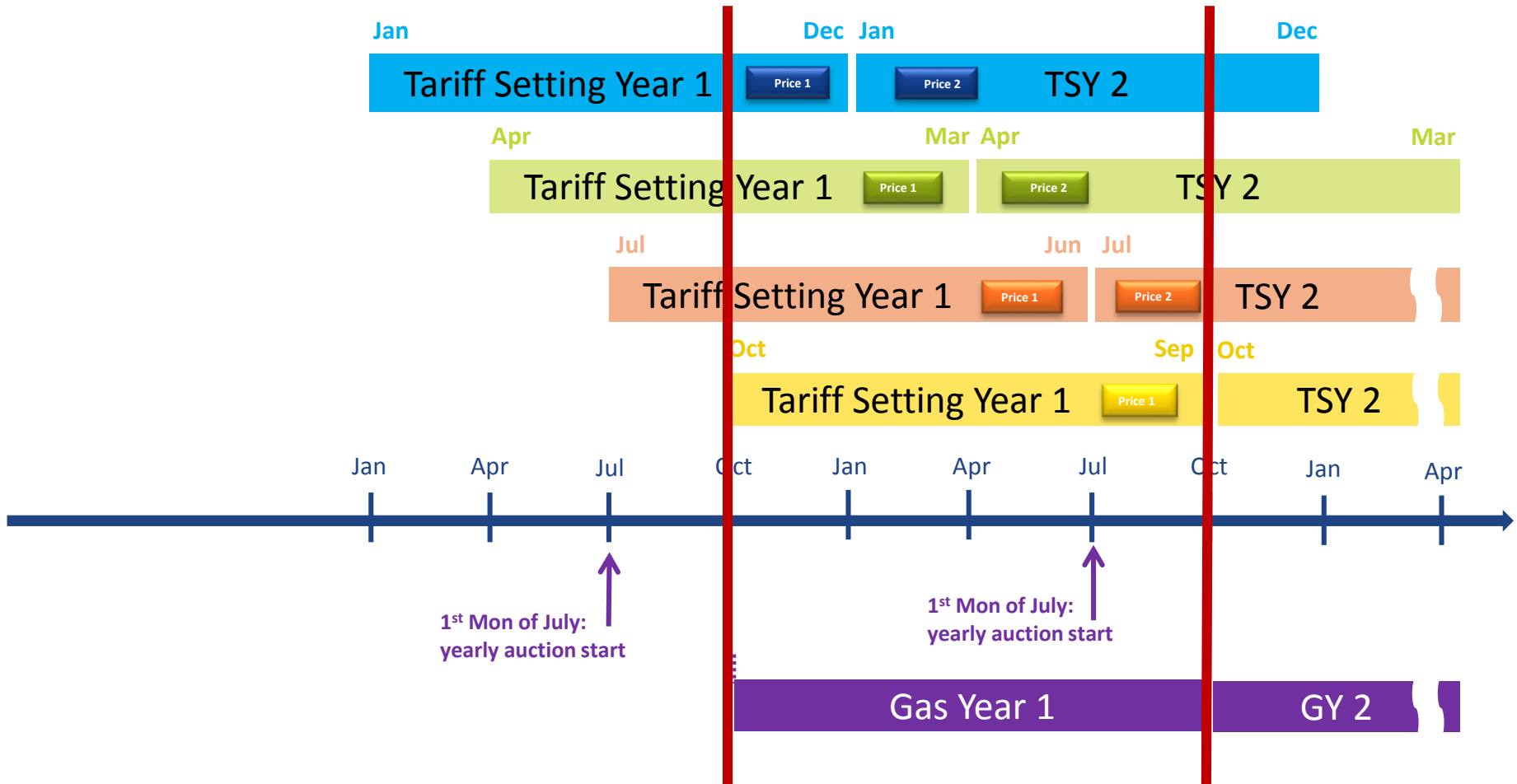


When to publish





Yearly product reserve prices...



...Can be more than one



IDoc – ‘when to publish what’

Example

Tariff period	When to publish	What to publish on TSO/NRA website	What to publish on ENTSG's TP
Jan '19 – Dec '19	Before tariff period: Dec '18	<ul style="list-style-type: none"> Set of info before the tariff period 	<ul style="list-style-type: none"> Link to the set of info before the tariff period In a standardised table, flow-based charge and simulation of all the costs for flowing 1 GWh/d/year
	Before auctions: Jun '19	<ul style="list-style-type: none"> Set of info before the auction, including separate binding reserve prices for: <ul style="list-style-type: none"> (1) Oct '19-Dec '19 (old tariffs) (2) Jan '20-Sep '20 (new tariffs) 	<ul style="list-style-type: none"> Link to the set of info before the auction In a standardised table, reserve prices at IPs
Apr '19 – Mar '20	Before tariff period: Mar '19	<ul style="list-style-type: none"> Set of info before the tariff period 	<ul style="list-style-type: none"> Link to the set of info before the tariff period In a standardised table, flow-based charge and simulation of all the costs for flowing 1 GWh/d/year
	Before auctions: Jun '19	<ul style="list-style-type: none"> Set of info before the auction, including separate binding reserve prices for: <ul style="list-style-type: none"> (1) Oct '19-Mar '20 (old tariffs) (2) Apr '20-Sep '20 (new tariffs) 	<ul style="list-style-type: none"> Link to the set of info before the auction In a standardised table, reserve prices at IPs
Jul '19 – Jun '20	Before tariff period and before	<ul style="list-style-type: none"> Set of info before the tariff period Set of info before the auction, including separate binding reserve prices for: 	<ul style="list-style-type: none"> Link to the set of info before the tariff period and before the auction In a standardised table, flow-based charge, simulation of all the costs



3. 'How' to publish

Two sources of tariff information

1.

Standardised website of the TSO/NRA

2.

Directly on ENTSOG Transparency Platform



Similarities

When?

Before auctions

Before tariff period

How?

Clear, easily
accessible way

On a non-
discriminatory basis

Downloadable
format

Differences

TSO/NRA
Website

What	For which points	language	Additional
All tariff information	All points on the system	In official language(s) of MS + in English, to the extent possible	Plus a link on ENTSOG TRA Platform
Some tariff information: <ul style="list-style-type: none"> • Reserve prices for firm freely allocable and interruptible capacity • Flow-based charge • Simulation of all costs for flowing 1 GWh/day/year 	IPs only	In English only	In a standardised table



Website of the TSO/NRA: *Draft* Standardised section

Voluntary task
Approach similar to publication
for Transparency Guidelines

- Column A states the publication requirement in the TAR NC
- Column B provides a more detailed description
- Column C provides the direct link to the corresponding section of the TSO individual website
- Column D is dedicated to give further individual information about the requirements

TAR NC	Description	Link	Further information
Information to be published before the annual yearly capacity auction			
TAR NC 1	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
TAR NC 2	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
Information to be published before the the tariff period			
TAR NC 3	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
TAR NC 4	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
TAR NC 5	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website
	Information for the capacity market	Link to the information of the TSO individual website	Link to the information of the TSO individual website



Standardised table on ENTSOG's TP [1]

Obligatory task per Article 31 of the TAR NC

- TSO's name, point name, gas flow direction, capacity type
- Validity period of the product v. run-time
- The indication of the standard capacity product (firm and interruptible)
- The applicable tariff per kWh/h and per kWh/d in the local currency
- Local currency and euro → comparability



Standardised table on ENTSOG's TP [2]

Product	Rows for run-time		Rows for validity period	
Y	4	TP <> Oct-Sep	4	TP <> Oct-Sep
Q	8		8	
M	24		24	
DA	730	365 rows are needed for firm and 365 rows for interruptible	2	Firm and interruptible
WID	16790	365*23 rows are needed	2	
	17556		40	

Note: Assumption based on the minimum number and having 1 interruptible product per standard capacity product; no seasonal factor applied



Standardised table on ENTSOG's TP [3]

Validity period v. run-time

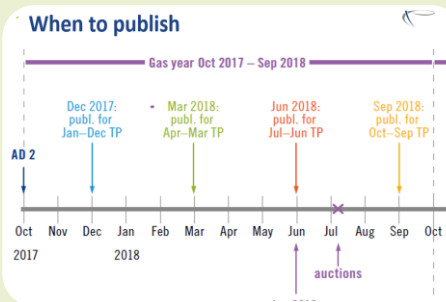
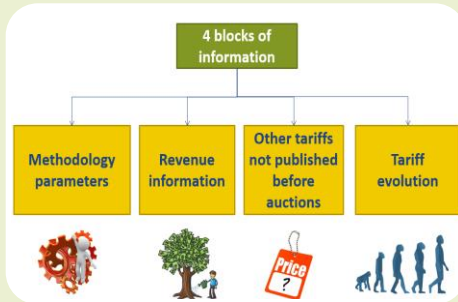
- Approach: the **validity period** is the longest duration for a given type of product (quarterly, monthly, daily, within-day) for which the tariff doesn't change
- To reduce the number of rows with repetitive information significantly (40 instead of 17554)
- Much more user-friendly



4. Conclusion



Something to take away



What

When

How



Thank You for Your Attention

Tariff Brussels Team

ENTSOG -- European Network of Transmission System Operators for Gas
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Regulatory Account

TAR NC Implementation Workshop

Emmanuel Bouquillion, TIGF, on behalf of ENTSG

Agenda

1. Regulatory account
 - 1.1. Concept
 - 1.2. Components
 - 1.3. Principles
2. Reconciliation
3. Conclusion

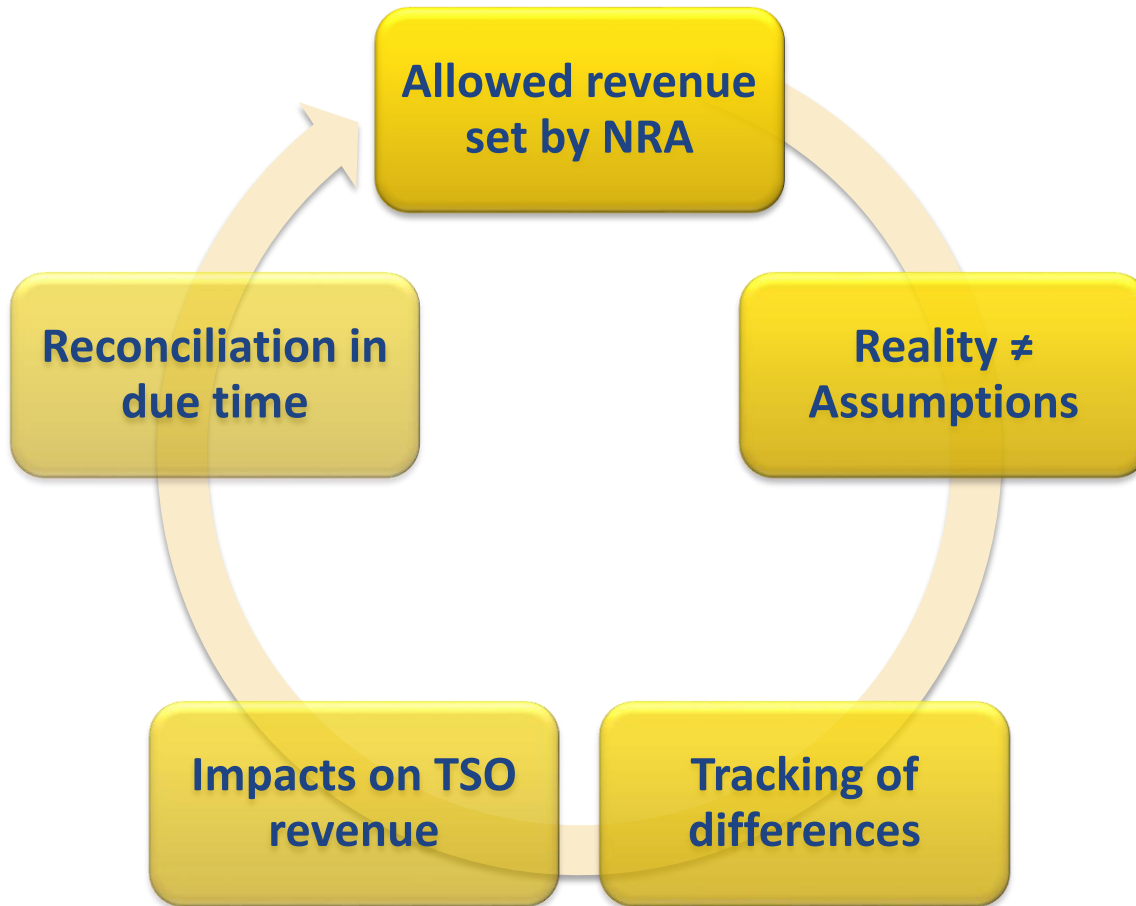




1. Regulatory account



Why a regulatory account

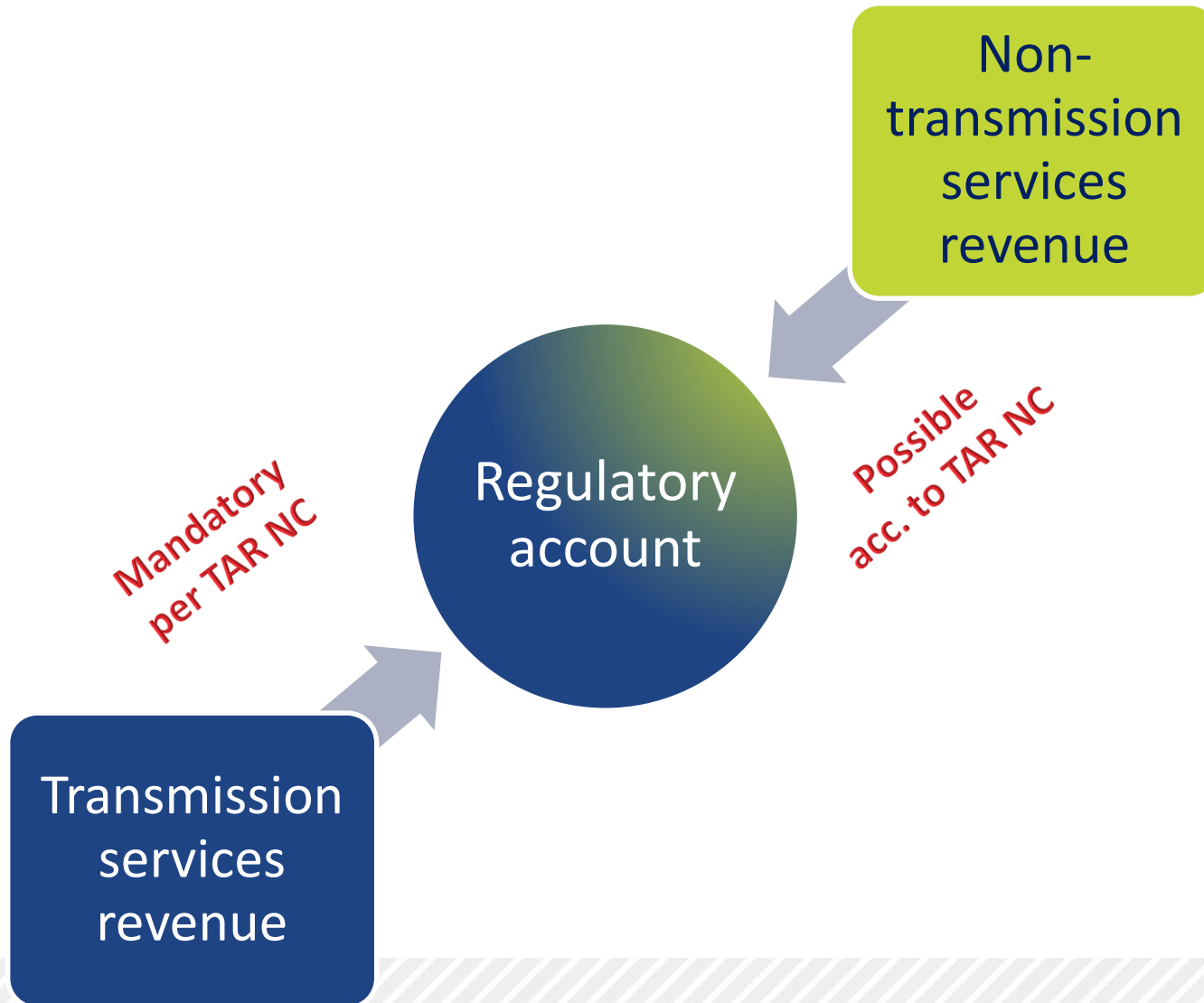


The purpose of the regulatory account is to compensate under- and over-recovery for a more stable and predictable TSO tariff from one period to the next, for the benefits of network users

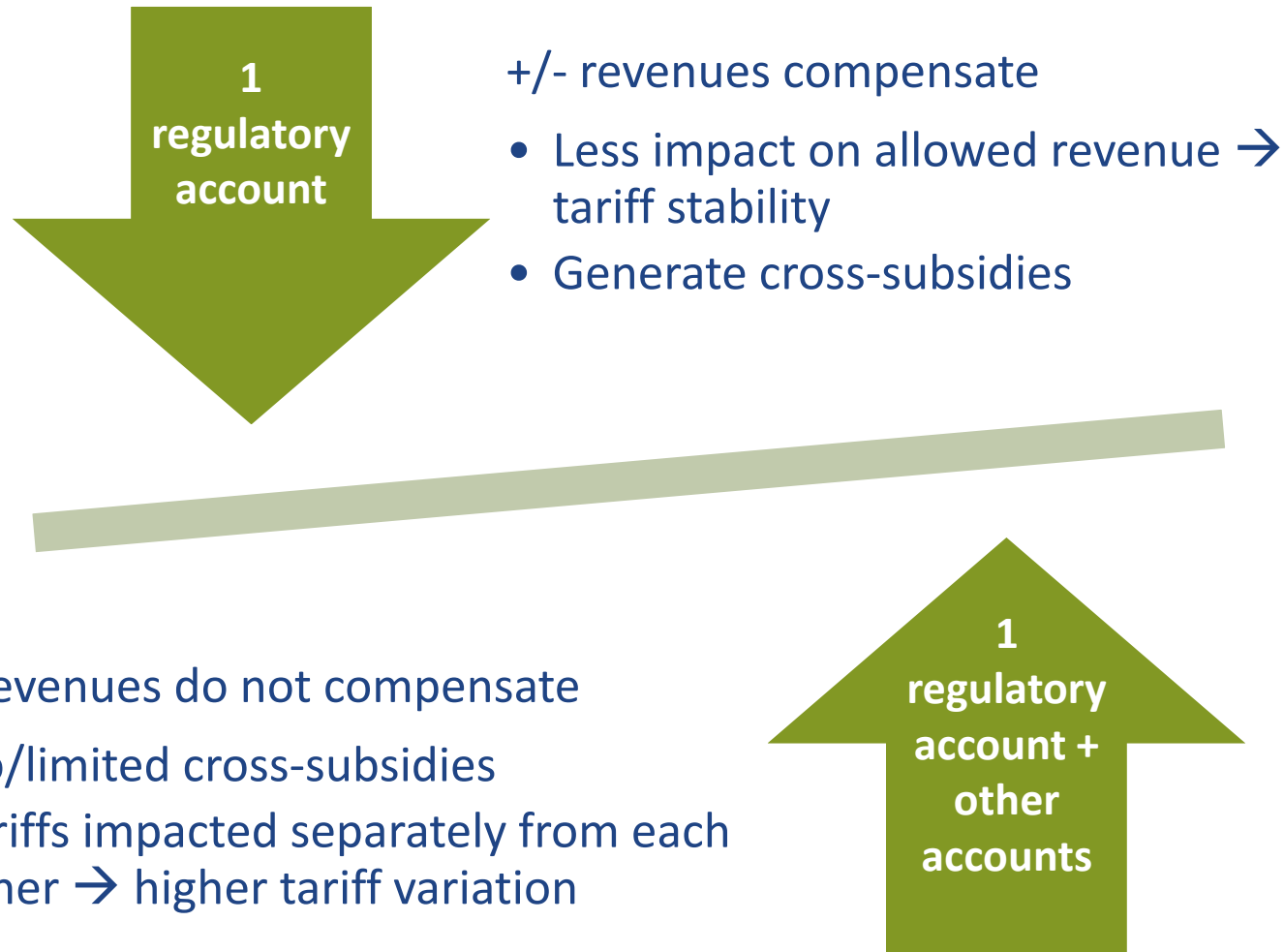
Under-recovery and over-recovery trigger the need for tariff adjustments



Regulatory account: components



Regulatory account: principles

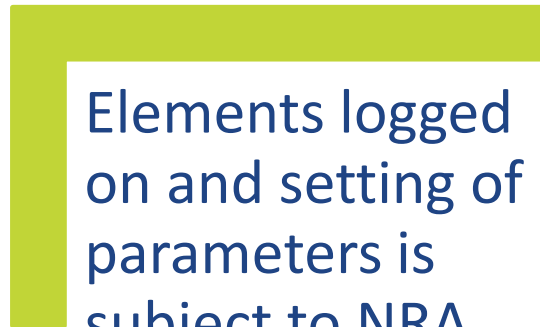




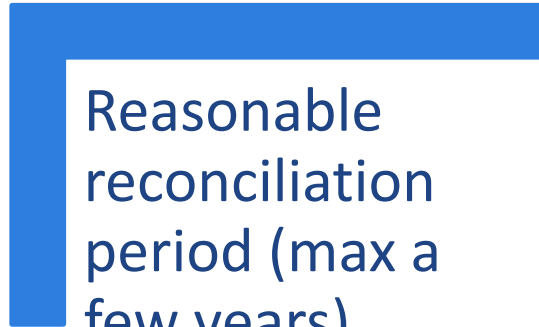
2. Reconciliation



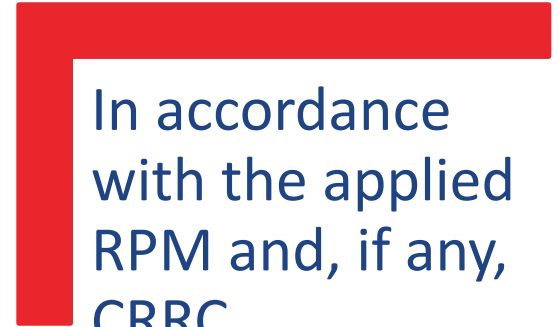
Reconciliation of the regulatory account



Elements logged on and setting of parameters is subject to NRA approval



Reasonable reconciliation period (max a few years)



In accordance with the applied RPM and, if any, CRRC



3. Conclusion



Something to take away



**Sub-accounts
for tracking**



**Tariff
stability vs.
cost
reflectivity**



**Non-price
cap regime**



Thank You for Your Attention

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Question and Answer session



3rd Session:

Focus on Consultation

Consultation Requirements

TAR NC Implementation Workshop

Laurent Percebois, ENTSOG Tariff Adviser

Niels Krap, ONTRAS, on behalf of ENTSOG

Colin Hamilton, National Grid, on behalf of ENTSOG



Agenda

1. Consultation requirements: content overview

- 1.1. Periodic consultation (PC)
- 1.2. Consultation every tariff period (CETP)
- 1.3. Similarities and differences

2. Consultation requirements: some aspects

- 2.1. Capacity weighted distance (CWD) methodology
- 2.2. How to calculate CWD-methodology?
- 2.3. Cost allocation assessments (CAA)
- 2.4. How to calculate CAA?

3. Consultation requirements: process

- 3.1. Consultation process: full timeline
- 3.2. Consultation process: some details
- 3.3. Ongoing process

4. Conclusion





1. Consultation requirements: content overview



Periodic consultation (PC)



At least every 5 years from 1st iteration to be completed by 31 May 2019

By TSO or NRA

**Description of
Reference Price
Methodology
(RPM)**

**Cost Allocation
Assessments
(CAA)**
(2 types)

**Comparison of
RPM- and
CWD-tariffs**

**Discounts from/to
Storage**

**Discounts from
LNG facilities**

**Discounts from/to
infrastructure for SoS
to end isolation of MSs**

**Information on
revenue, commodity
and non-transmission
tariffs**

**Tariff changes and
trends with model**

**Fixed payable price in
price cap regimes for
existing capacity**



Consultation every tariff period (CETP)

Every Tariff Period (typically every year) from 1st iteration to be completed by 31 May 2019

Case of a January-to-December tariff period (TP)

CETP by NRA

Value of
**multipliers
and
seasonal
factors**

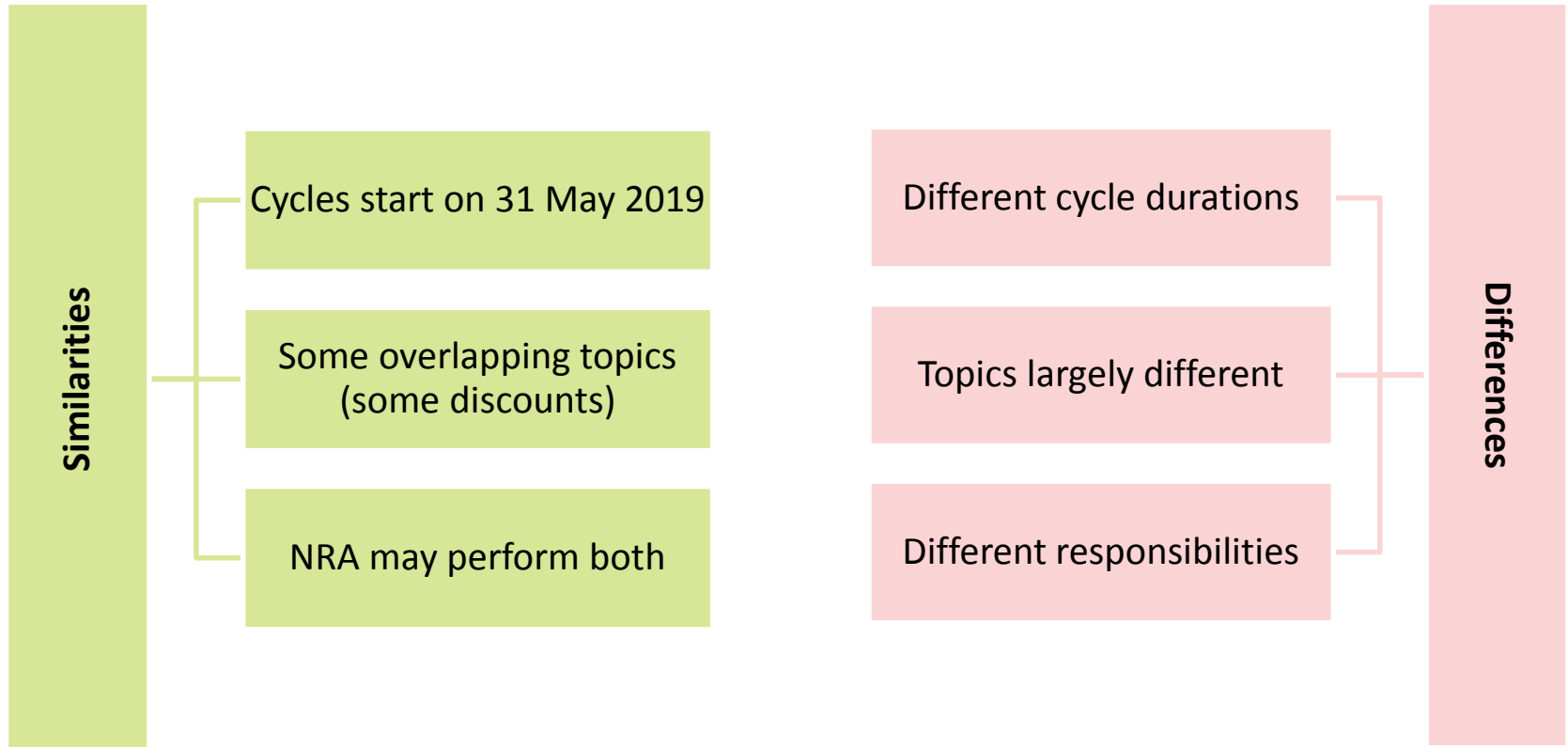
**Discounts
from LNG
facilities**

**Discounts from/to
infrastructure for
SoS to end
isolation of MSs**

Discounts for
**interruptible
products**



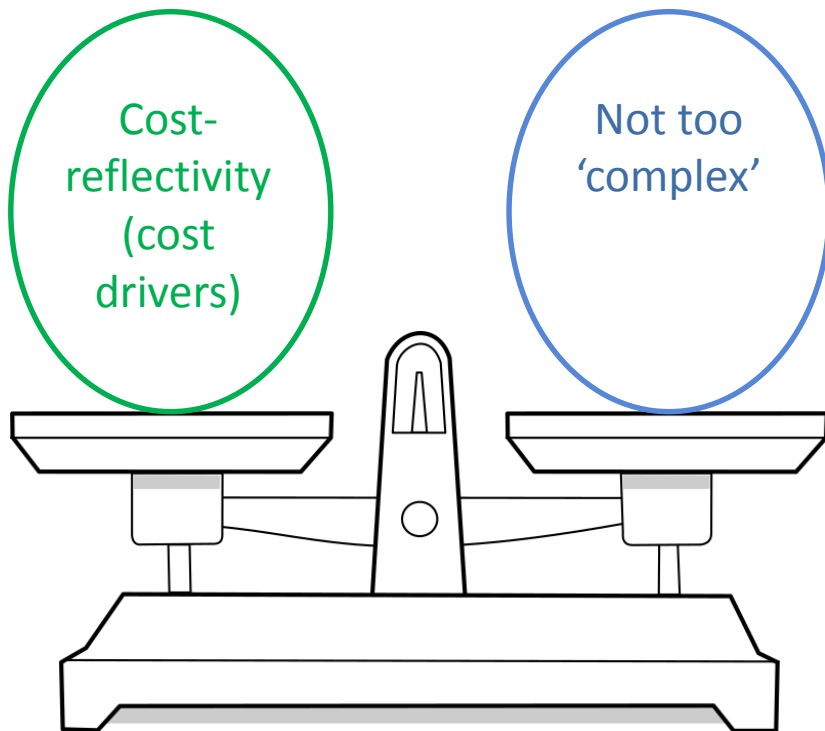
Similarities and differences





2. Consultation requirements: some aspects

Capacity weighted distance (CWD) methodology



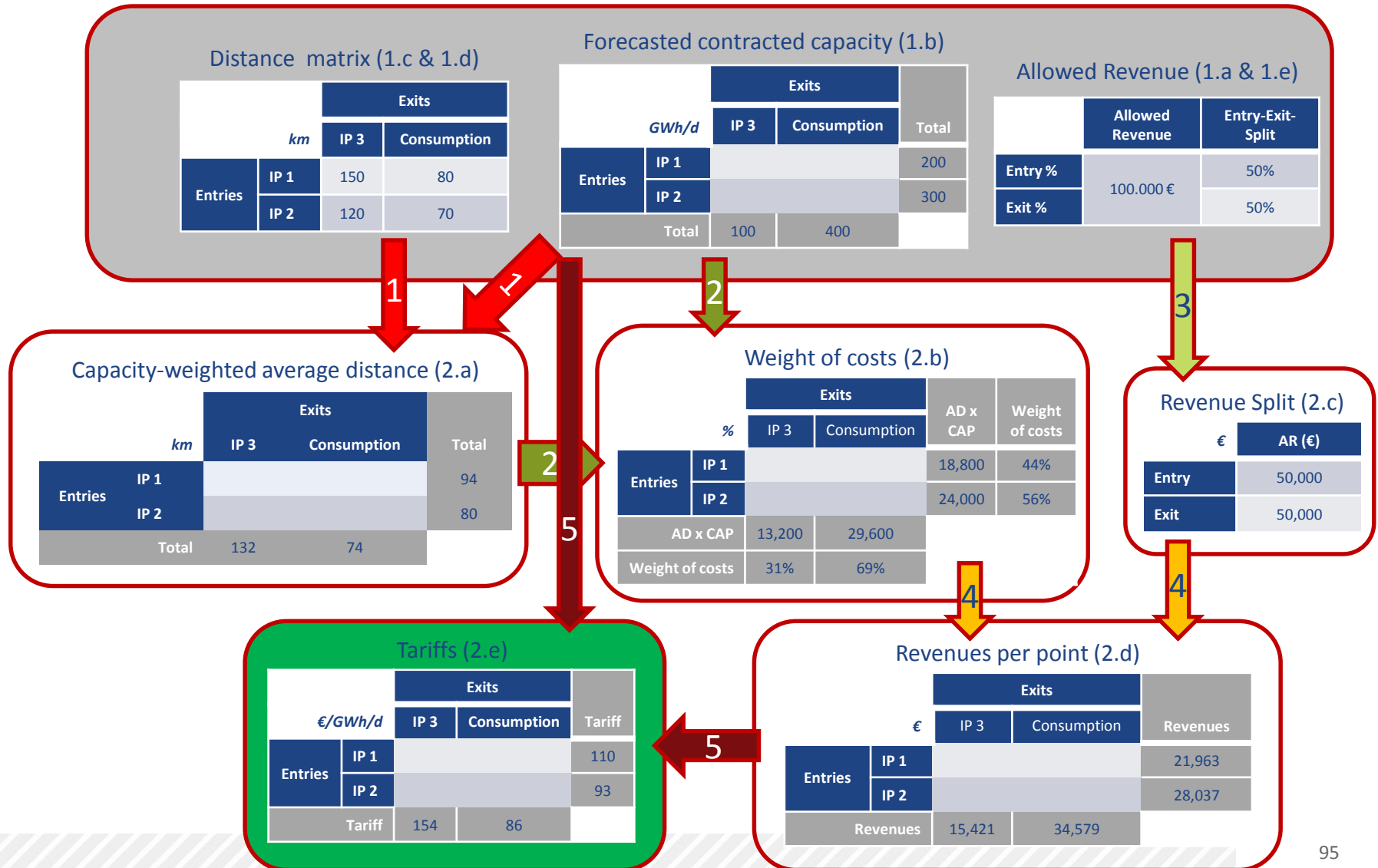
CWD strikes a balance between conflicting objectives

General principle: longer distances lead to higher tariffs

CWD is the 'counterfactual', but all TSOs or NRAs are free to choose their methodology

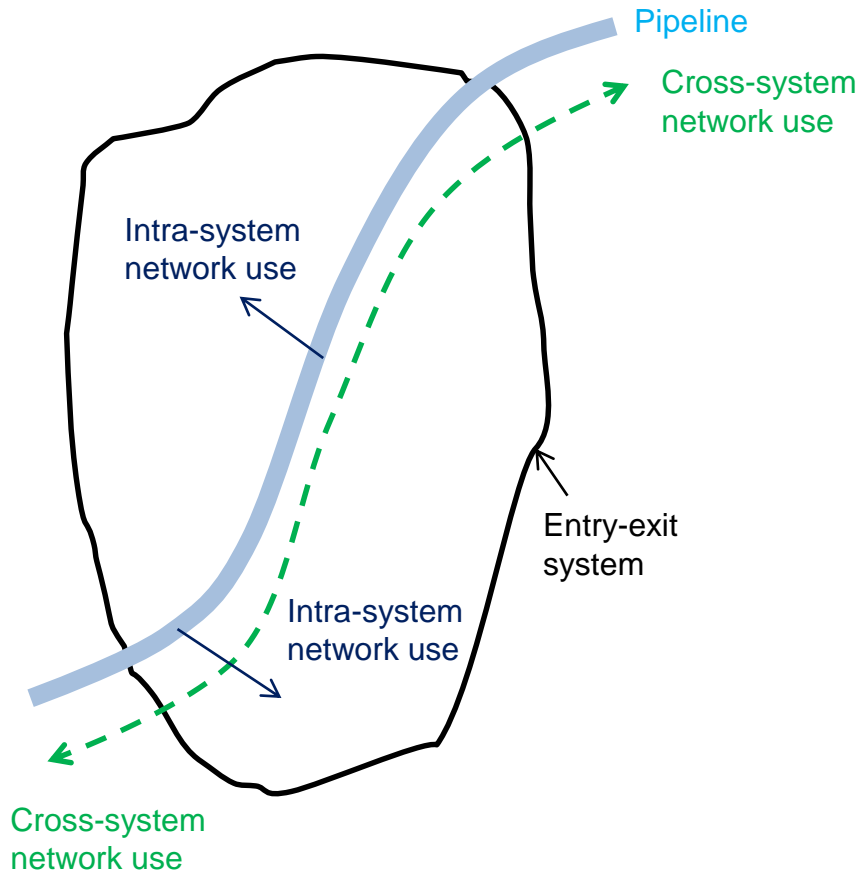
CWD: the counterfactual for all TSOs and NRAs, for harmonisation purposes

How to calculate CWD-methodology?





Cost allocation assessments



Question: Is there any cross-subsidisation between transit (cross-system) and domestic (intra-system) usage?

Answer: I don't know. Let's do an assessment and compare cost drivers and revenues.

2 tests:

- Ratios on capacity
- Ratios on commodity

Assessments:

- No strict rule, but need for justification, if assessment fails

Goal: to minimise cross-subsidies in tariffs between intra-system and cross-system network uses



How to calculate CAA?

Distance matrix

		Exits	
		IP 3	Consumption
Entries	IP 1	150	80
	IP 2	120	70

Forecasted contracted capacity

		Exits		Total
		IP 3	Consumption	
Entries	IP 1			200
	IP 2			300
Total		100	400	

Forecasted Revenue

		Exits		Revenues
		IP 3	Consumption	
Entries	IP 1			21,963
	IP 2			28,037
Revenues		15,421	34,579	

1

1

2

3

Capacity-weighted average distance

	km	i-s AD	c-s AD
Exit IP 3	-	-	132
Exit Consumption	74	74	-
Entry IP 1	80	80	150
Entry IP 2	70	70	120

2

Cost driver (example: AD x CAP)

	i-s CAP	c-s CAP	i-s CD	c-s CD
Exit IP 3	-	100	-	13,200
Exit Consumption	400	-	29,600	-
Entry IP 1	160	40	12,800	6,000
Entry IP 2	240	60	16,800	7,200
Sum	800	200	59,200	26,400

Revenue Allocation

	€	i-s Rev	c-s Rev
Exit IP 3	-	-	15,421
Exit Consumption	34,579	34,579	-
Entry IP 1	17,570	17,570	4,393
Entry IP 2	22,430	22,430	5,607
Sum	74,579	74,579	25,421

4

4

Assessment

27.0 %
Justification required

5

Ratio calculation

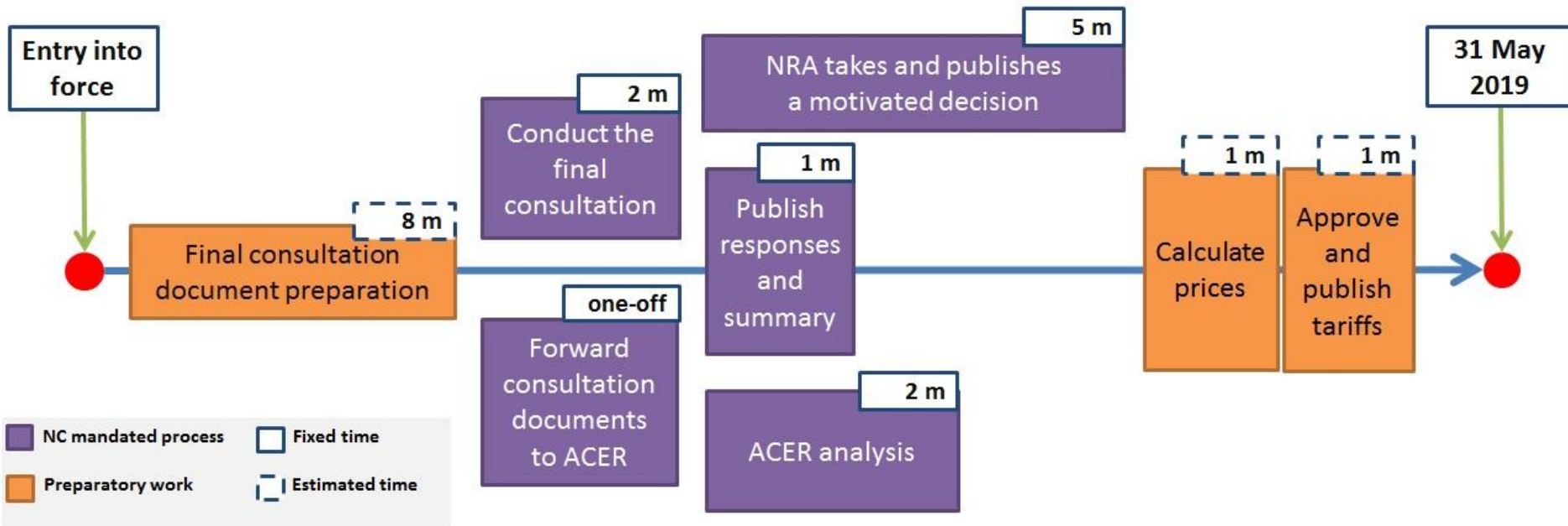
	i-s	c-s
Ratio	1.26	0.96



3. Consultation requirements: process



Consultation process: full timeline





Consultation process: some details

8 Months for the preparation of the final consultation	What happens after the 2-month final consultation	When NRA has to make a final decision after TSO/NRA update
<ul style="list-style-type: none">• Develop RPM• Check CWD• Prepare ITC• Draw up consultation document• Internal approval• Agree on it with NRA• In English if possible	<ul style="list-style-type: none">• Publish responses and summary (TSO/NRA, 1 month)• Analyse consultation and send results to the TSO/NRA and EC (ACER, 2 months)• Take and publish a motivated decision (NRA, 5 months)• After NRA decision, update results and prepare publication (TSO/NRA, 1 month)	<ul style="list-style-type: none">• NRA to approve final tariffs and ensure that publication by TSO or NRA is effective <i>no later than 31 May 2019</i>• For future iterations of the PC, NRA to ensure that final decision on consultation process is effective no later than 5 years later



Ongoing process

2 Consultations (PC+CETP)

Year 1

Consult on multipliers,
seasonal factors and
some discounts
(LNG, 'isolation',
interruptible)

Consult on RPM
(including storage
discounts)

June - publish
reserve prices
for CAM points

July - capacity auctions

December - publish
tariffs
for non-CAM points

1 Consultation (CETP)

Years 2, 3, 4, 5

Consult on multipliers,
seasonal factors and
some discounts
(LNG, 'isolation',
interruptible)

June - publish
reserve prices
for CAM points

July - capacity auctions

December - publish
tariffs
for non-CAM points

2 Consultations (PC+CETP)

Year 6

Consult on multipliers,
seasonal factors and
some discounts
(LNG, 'isolation',
interruptible)

Consult on RPM
(including storage
discounts)

June - publish
reserve prices
for CAM points

July - capacity auctions

December - publish
tariffs
for non-CAM points

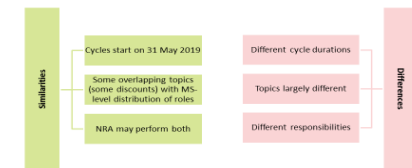


4. Conclusion

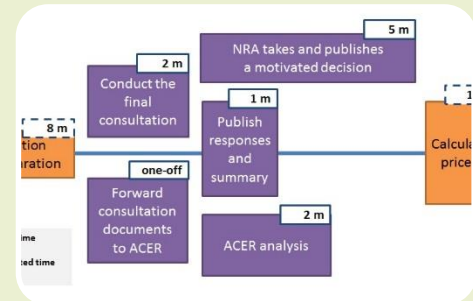
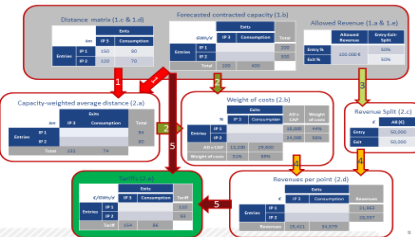


Something to take away

1.3 Similarities and differences



2.2 How to calculate CWD-methodology?



Regular reviews

Technical topics

A detailed process



Thank You for Your Attention

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Interruptible capacity pricing

TAR NC Implementation Workshop

Felix Uftring, ENTSOG



Agenda

1. Overview of possible approaches
2. Ex-ante and ex-post
3. Conclusion



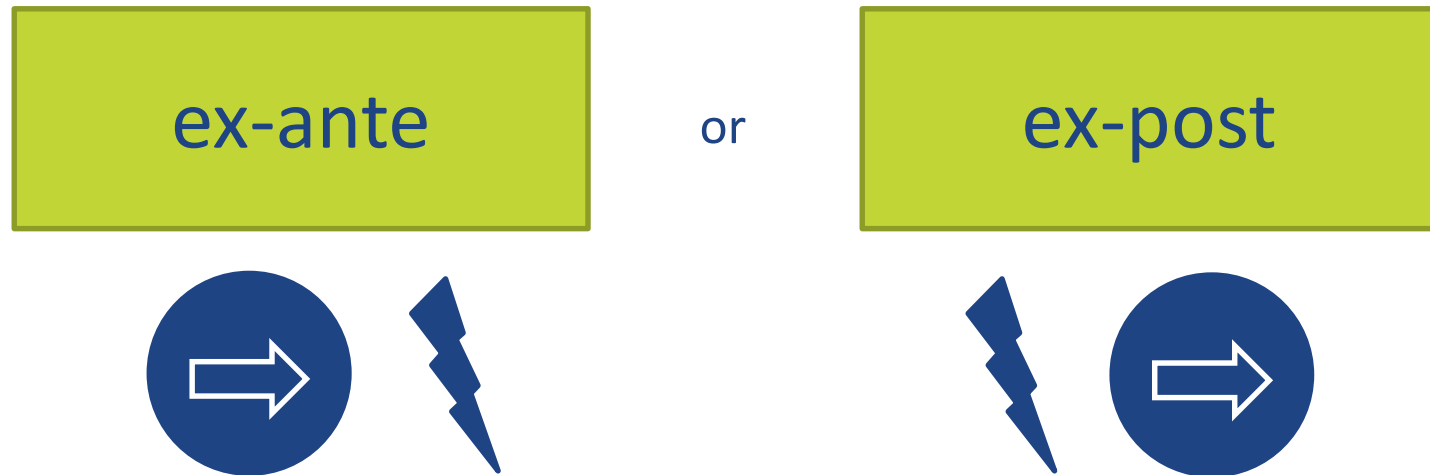


1. Overview of possible approaches



Interruptible Capacity

Discount or compensation for standard capacity products



- Ex-ante is more elaborated in TAR NC
- Sales will change on 1 January 2018
- Same discount at a given IP for the same standard capacity product
- As decided by NRA, ex-post may be applied if no interruptions occurred in the preceding gas year



2. Ex-ante and ex-post

Determination of ex-ante discount

$$Di_{\text{ex ante}} = \text{Pro} * A * 100\%$$

$Di_{\text{ex-ante}}$ = discount

A = adjustment factor to reflect estimated economic value of the product

$$\text{Pro} = \frac{N * D_{\text{int}}}{D} * \frac{CAP_{\text{av int}}}{CAP}$$

Pro = probability of interruption

D = duration of the product

CAP = capacity of the product

N = number of expected interruptions

D_{int} = expected duration of interruption

$CAP_{\text{av.int}}$ = expected amount of interrupted capacity

Ex-ante calculation

Standard capacity product

- $D = 720$ h
- $CAP = 1,000,000$ kWh

Expected scale of interruption

- $N = 6$ interruptions
- $D_{int} = 12$ h
- $CAP_{av.int} = 100,000$ kWh

⇒ Probability factor

$$Pro = \frac{6 * 12}{720} * \frac{100,000}{1,000,000} = 0.01$$

Adjustment factor

- $A = 20$

⇒ Discount

$$Di_{ex\ ante} = 0.01 * 20 * 100\% = 20\%$$

‘The ex-post compensation paid for each day on which an interruption occurred shall be equal to three times the reserve price for daily standard capacity products for firm capacity.’

If approved by NRA, ex-post can be applied



Compensation for each day of an interruption



Three times the daily reserve price



Option to reimburse the network user for an interruption in the aftermath of the occurrence



3. Conclusion



Something to take away



NRA

**In advance
vs.
as a follow up**

**Ex-post is
an alternative
to ex-ante**

**Subject to
consultation
every tariff
period**



Thank You for Your Attention

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Question and Answer session



Implementation Workshop for the Tariff Network Code – 29 Mar 2017

Steve Rose – Prime Mover



Chapter VII and VIII

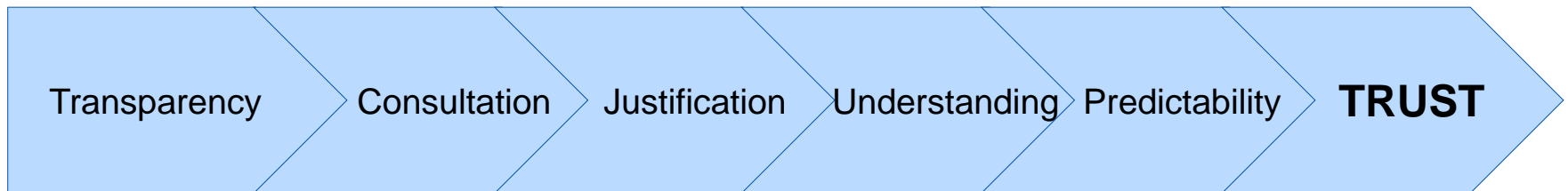
Consultation and transparency

- > Creating trust in tariff setting
- > Information must be provided in English
- > Examples of best practice
- > Tariff model
- > IDoc
- > Closing remarks

Creating trust in tariff setting



- > Tariff setting is currently a “black box” in much of Europe
- > The key benefit of the Tariff Network Code must be to create trust in the tariff setting process



Information must be provided in English

Consultation and information publication should “to the extent possible” be in English – Articles 26.1, 26.3 and 31.1(d)

- > Unwelcome change during comitology – previously said “shall”
- > No excuses – with foresight and planning this should be possible
- > ACER has to analyse the consultation and publish its view in 2 months
- > 2 month consultation period to start once English translation is published
- > Consultation responses should be admissible in English
- > ACER/ENTSOG templates for consultation/information publication will be in English and should be adopted by all Member States
- > Ancillary documentation may be published just in the national language

Examples of best practice (1)

NTS Charging Methodology Forum (NTSCMF) - UK

NTS Charging Methodology Forum

The NTS Charging Methodology Forum (NTSCMF) is a UNC Workgroup that debates and develops modifications to the transmission charging methodologies in TPD Section Y of the UNC.

Main Meeting Date: As required

Meeting Location: London and Solihull

Chair: Les Jenkins/Chris Shanley

Secretary: Lorna Dupont

- [06 December 2017](#)
- [06 November 2017](#)
- [04 October 2017](#)
- [05 September 2017](#)
- [02 August 2017](#)
- [07 July 2017](#)
- [05 June 2017](#)
- [08 May 2017](#)
- [24 April 2017](#)
- [05 April 2017](#)
- [06 March 2017](#)
- [01 February 2017](#)
- [11 January 2017](#)
- ▷ [2011 - 2016 Meetings](#)
- ▷ [NTS CMF Document Library](#)

◀ 13 April 2011

[up](#)

[06 December 2017](#) ▶

Attachment

- [02 March 2017 Policy Update Open Letter \(Provided by Ofgem\)](#)
- [15 February 2017 Gas Charging Review Survey Questions](#)
- [12 September 2016 NTS Charging Review Objectives \(as at September 2016\)](#)
- [29 April 2016 Terms of Reference - Gas Charging Review](#)

> Monthly forum of 25-35 stakeholders debating and developing GB transmission charging – NRAs, TSO, DSOs, SSOs, LSOs, shippers, associations & consultants

> Sub group of about 15 stakeholders developing position papers for the NTSCMF to achieve compliance with the TAR NC by May 2019

> 9 meetings since Oct 2016

> 8 position papers completed / 7 position papers awaiting final agreement

> Functioning CWD tariff model expected to be released in April 2017

> NTSCMF to facilitate draft GB network code mods to be issued in Spring 2017

> GB network codes mods further developed over 2017 – finalised Spring 2018

> Ofgem consultation under articles 26 and 28 TAR NC – Spring 2018

> <http://www.gasgovernance.co.uk/ntscmf>

> <http://www.gasgovernance.co.uk/ntscmf/subg>

Examples of best practice (2)

France



PUBLIC CONSULTATION

Public consultation of 27 July 2016 by the French Energy Regulatory Commission on the next tariff for use of the GRTgaz and TIGF natural gas transmission networks



DELIBERATION

Deliberation of the French Energy Regulatory Commission of 15 December 2016 forming a decision on the tariff for the use of GRTgaz and TIGF natural gas transmission networks

- > 58 page consultation by CRE in English on the tariff regulatory framework, structure and levels applicable in France from April 2017 (ATRT6)
- > 101 page deliberation by CRE in English explaining its ATRT6 decisions
- > 30+ non-confidential stakeholder responses including some in English
- > Similar consultation and deliberation on LNG transmission tariffs
- > Concertation Gaz established as a forum for TSO & stakeholders discussion

Denmark



Shippers in the Danish gas transmission system and other stakeholders

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7000 Fredericia
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Fax +45 70 10 31 80
info@energinet.dk
www.energinet.dk
cvs-ur, 28 okt 06 71

For Public Consultation: Tariff principles and market design in a Baltic Pipe¹ Open Season

2nd November 2016
FSK/3FS

- > 19 page consultation by Energinet in English on tariff principles and levels associated with the Baltic Pipe OS
- > Financial model and guidance in English enabling stakeholders to simulate the cost and tariffs based on different project scenarios

Tariff model

Capacity Weighted Distance Reference Price Model			
Reset Model	Please click on the Reset button before the initial iteration of the model	Reset Model Parameters	
Gas Year	Please select relevant Gas Year from drop down list	Gas Year 01-Oct-2015 to 30-Sep-2016	Number of Days in Gas Year 366
Revenue Split	Entry/Exit Split: Percentage of Revenue associated to capacity-based transmission tariffs at entry points (note: Exit percentage will automatically calculate)	Entry 50	Exit 50
Revenue Reconciliation	Please enter the relevant Entry or Exit 'X' adjustment figure from year t-2 (€)	Entry 0	Exit 0
Forecast Contracted Capacity	Select scenario from drop down list	Entry Obligated Entry Capacity	Exit Obligated Exit Capacity
Exclude Existing Contracts	Removes Revenue and Capacity levels associated with Existing Contracts from the Target Revenue and Forecast Contracted Capacity respectively	Entry Yes	Exit Not Applicable
Non-IP Multipliers	Quarterly standard capacity products Monthly standard capacity products Daily standard capacity products Within-day standard capacity products	Entry 1 1 1 1	Exit 1 1 1 1
IP Multipliers	Quarterly standard capacity products Monthly standard capacity products Daily standard capacity products Within-day standard capacity products	Entry 1 1 1 1	Exit 1 1 1 1
Storage Discount	Percentage Discount	Entry 50	Exit 50
Calculate Prices	Please click on the 'Calculate Prices' button once your inputs have been selected and before proceeding to view the outputs in the following tabs	CALCULATE PRICES	

Front Sheet / Model Assumptions / Tariff Network Code Calculation / Chart2 / Chart1 / User Inputs / Entry 1

> Tariff model should enable network users to replicate transmission tariffs for the prevailing tariff period and to forecast them for at least the remainder of the current regulatory period

- > all entry and exit points
- > capacity and commodity (where used) tariffs
- > firm and interruptible capacity
- > yearly/quarterly/daily/within-day capacity

> In order to forecast tariffs all the relevant parameters of the tariff model should be set as input variables:

- Forecast/technical capacity
- Ratios - e.g. entry/exit split
- > Transmission services revenue
- > Storage and interruptible discounts
- > Multipliers and seasonal factors

> Relevant model parameters should be updated regularly e.g. with quarterly updates of revenue under/over recovery

IDoc

- > Tariff Network Code is a complex document over 5 years in the making
- > Welcome ENTSOG's initiative to provide upfront implementation guidance
- > Non binding but should result in greater consistency of implementation
- > Relevant for both TSOs and NRAs

BUT

- > IDoc is over 200 pages long and is based on ENTSOG's interpretation
- > Stakeholders should be given time to comment on IDoc and question or challenge the guidance prior to it being finalised
- > Stakeholders should also be given the opportunity to comment on ACER's consultation template (Article 26.5) prior to it being finalised

Closing remarks

- > EU transmission tariff setting will always be a contentious subject due to:
 - winners and losers
 - regulated monopoly services
 - differing network characteristics/topology and TSO efficiency
- > Network users may not like the tariffs they are forced to pay but if they:
 - understand how they have been determined
 - are able to express their views and are not just paid “lip service” to
 - know when tariffs will change and can reasonably predict their evolution

The market will be more accepting of the outcome and come to trust the tariff setting process

Thanks for listening



Implementation workshop for the Network Code on Harmonised Tariffs Structures for Gas (TAR NC)

CEFIC-IFIEC

RESPONSE FROM A CONSUMER PERSPECTIVE

Brussels, 29 March 2017

Dirk Jan Meuzelaar

The proof of the pudding is in the eating

Will the TAR NC deliver the objectives of Regulation 715/2009 ?

- deliver real choices for all gas consumers
- contribute to security of supply and sustainability
- create new business opportunities and improve cross-border trade

Goal: achieve efficiency gains, competitive prices and higher standards of service



Recipe to keep the pudding fit for use is to recover **efficient** costs only

TSOs need clear incentives to improve their efficiencies

- Regulated Asset Base (RAB)
 - in many cases, grid users pay twice for the same steel;
 - TSO's high risk investments outside the regulated tasks;
 - revalidation of assets (also for commercial reasons);
- Weighted Average Cost of capital (WACC)
 - double digit return on equity is still common practice;
 - too high premiums for debt capital;
 - excessive high returns on equity;

Benchmarking is a proven recipe

- we compliment CEER with their benchmark study;
- the agreed implementation will lead to substantial reductions of tariffs in The Netherlands.



To understand our share of the cost of the pudding we have to know the conditions

According to Article 7 it shall:

- enable network users to reproduce the calculation of reference prices;
- take into account the actual costs incurred for the transmission services;
- ensure non-discrimination and prevent undue cross-subsidisation;
- volume risk related to transports between entry-exit systems may not be assigned to final customers within an entry-exit system;
- ensure that the reference prices do not distort cross-border trade.



Ingredients should be transparent and easy to understand

It will be challenging to reproduce and compare the prices:

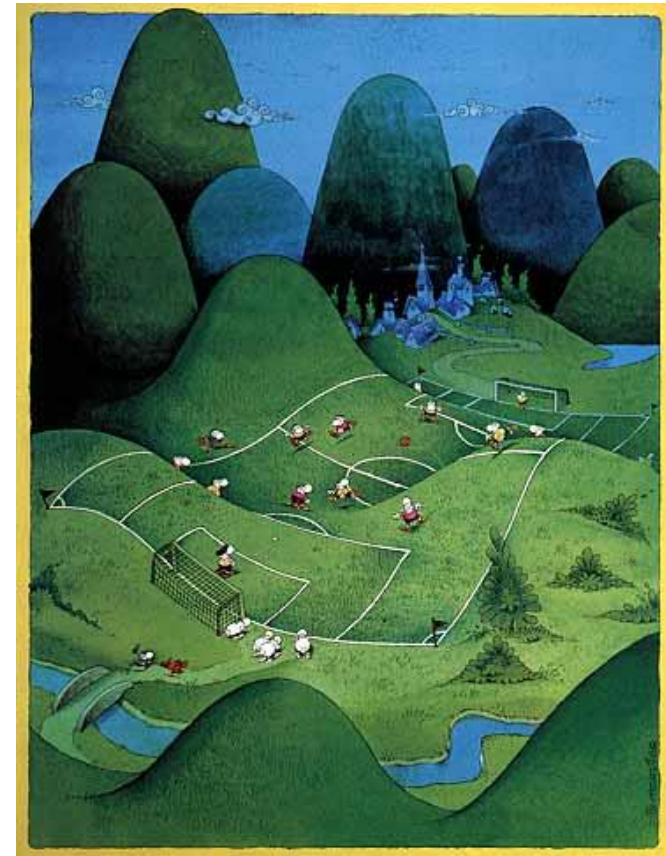
- there are various **reference** price methodologies, although the CWD is the standard and should serve as the counterfactual method;
- **reserve** prices for standard and non-standard products can be adjusted to seasonal factors and multiplies and/or discounts for interruptability for non-firm capacity;
- for IP's we have fixed or floating **payable prices** that can deviate from clearing prices, leading to auction premiums.



TAR NC does not always do what it promised ensuring non-discrimination and cross-subsidisation

- According to Article 9, storages benefit from a discount of at least 50% and a discount may also be applied to one or several entry point to an entry-exit system to increase the Security of Supply.

This threatens the transparency, causer-pay principle and lead to cross-subsidisation. It also conflicts with the non-discrimination principle because Demand Side Response of end-users is providing the same service as storages and LNG and pipeline gas are equally contributing to Security of Supply.



Its now to the NRAs and the TSOs to prepare the pudding based on harmonised ingredients

- NRAs should be strict, independent and professional
 - single focus on the ultimate objectives of the Gas Regulation;
 - only approving efficient and effective tariffs;
 - safeguarding fair and equal sharing of the cost;
 - fostering regional cooperation.

NRAs should ensure that TSOs act as service providers instead of profit centers



The proof of the pudding is in the eating

- We will share our comments in our contribution to the consultation (Chapter VII, Consultations Requirements);
- moreover, Chapter VIII 'Publication Consultations' creates high expectations and opportunities for:
 - increase of transparency;
 - proper incentives for challenging benchmarks;
 - non-discriminatory distribution of efficient costs;
 - predictability and simplicity.

Encouraging dialogues to share our visions and comments in the future

Harmonized Tariff Structures = Key Success Factor for IEM
Only Performance Indicators can prove its success



Gas Infrastructure Europe

GIE as a Prime Mover at ENTSOG Workshop on implementation of NC TAR

Perizat Ybrayeva, GIE
29 March 2017

GIE welcomes a lean and efficient implementation of NC TAR

- **Harmonisation in the TSO tariff calculation across Europe**
 - Harmonisation of TSO tariff calculation fosters the European Gas Market and increases cross-border gas flows
- **Implementation of NC TAR to be lean and efficient**
 - Avoidance of bureaucratic barriers
 - Timely implementation
 - National specifics to be considered in implementation of NC TAR
 - Freedom of choice about reference price methodology (as long as benchmark against CWD is positive)
 - Granted discounts for storages avoid double payment and shall consider positive contribution to the gas transmission networks
 - NRAs to be granted decision power on national specifics in implementation
- **Consultation and Transparency**
 - NC TAR provides high transparency on tariff calculation for stakeholders
 - Consultation of reference price methodology to be lean and efficient by a harmonized consultation process
 - Close collaboration with NRAs and ACER essential

Article 9: Special rules for Storage, LNG and insulated infrastructure

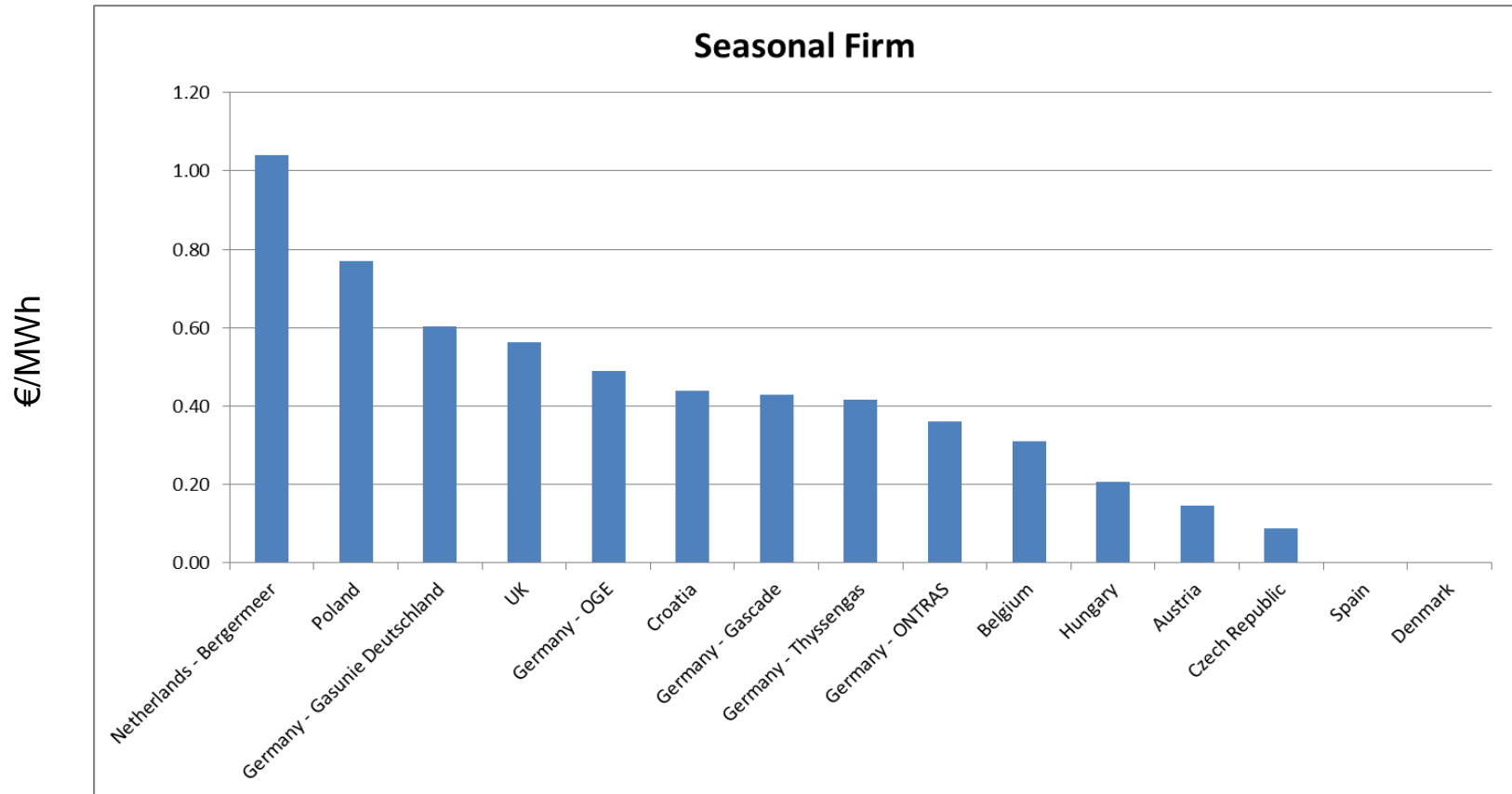
Article 9

Adjustments of tariffs at entry points from and exit points to storage facilities and at entry points from LNG facilities and infrastructure ending isolation

1. A discount of at least 50% shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, unless and to the extent a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point.
2. At entry points from LNG facilities, and at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States in respect of their gas transmission systems, a discount may be applied to the respective capacity-based transmission tariffs for the purposes of increasing security of supply.

Wide range of transmission tariffs at Storage Connection Points (SCP)

❖ Seasonal Storage Use (Injection/Withdrawal 100/100 days), 1 January 2017



The methodology how discounts are calculated should be harmonised, but the results could be different from SCP to SCP.

How does GIE see the implementation of Article 9? (1)

- **Transparent and harmonised methodology in fixing TSO tariffs structures**
 - The methodology should take into consideration advantages of infrastructures for the proper functioning of the transmission networks and of the EU gas market
 - For SCPs, a discount between 50% - 100% shall result from a proper consideration of the net benefits of storages for the transmission networks. Direct and indirect benefits of storages for transmission systems such as:
 - ✓ Efficient investment
 - ✓ Reduced operating costs
 - ✓ Network stability
 - ✓ Security of Supply (availability of gas, facing peak demand)
 - For LNG connection points (LCP), a discount can be granted if demonstrated that (1) the security of supply of the Member State (MS) needs to be improved and (2) the discount effectively contributes to fulfil this objective
 - For LNG, there should not be any difference between the entry tariffs from different LNG terminals within the same MS to promote non-discrimination and equal treatment

How does GIE see the implementation of Article 9? (2)

- **For shippers using storages, double payment must be avoided**
 - Shippers using storages have already paid the entry/exit tariff of the market zone
- **Ensuring a level playing field across borders**
 - no additional fees shall be applied that effectively reduce or compensate discounts granted at LCPs or SCPs
 - according to NC TAR, multipliers apply only at IPs
 - applicable for gas quantities that are transferred via the storage facility between market zones and compete with IPs should be priced with a higher tariff to avoid a price discrimination
- **How to define cross border use and competition between IP's / storage?**
 - Discrimination should be avoided in both directions

Gas Naturally

GN is a campaign to showcase the essential role of natural gas in the forthcoming energy revolution. The mitigation of climate change has become one of the most important issues for the gas industry.

**Thank you
for your kind attention.**

GIE - Gas Infrastructure Europe
www.gie.eu





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Tariff NC implementation

ENTSOG workshop on TAR NC
implementation

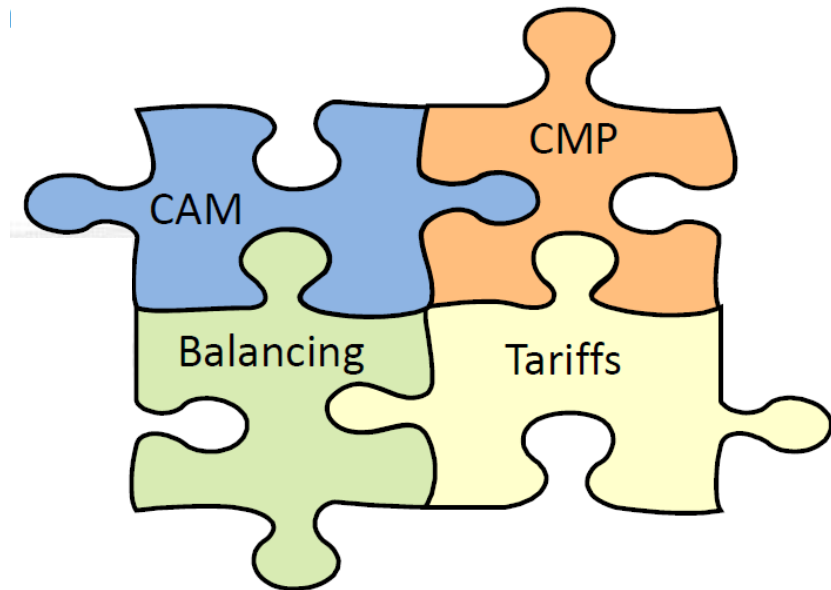
Brussels, 29 March 2017

Kees Bouwens, ExxonMobil, Chair EMSC



Network code development

- IOGP has supported development of network codes as instruments to promote market integration and facilitate cross-border trade
 - Official ENTSOG process started back in January 2011
 - Stakeholder engagement was important/essential
- Tariff NC is to work together with CAM, CMP, Balancing (+ Interoperability)
- Implementation effort is essential to achieve NC objectives
 - NC compliance alone may not be sufficient



Tariff NC

- IOGP welcomes Regulation (EU) 2017/460 of 16 March 2017
 - Provides transparency on tariff methodology;
 - Consultation on cost allocation decisions and
 - Publication of tariffs in a timely manner
- Harmonisation of tariff methodology is limited; code provides flexibility for national methods where this is justified
 - There is also flexibility to adjust the entry-exit-split and the short-term multipliers to promote competition and cross-border trade
 - This could be used to address cross border tariff issues
- Implementation of the Tariff NC should be used to facilitate market integration and remove barriers to cross-border trade

Tariff NC – Consultation

- IOGP supports consultation provisions of Article 26 Tariff NC
- Timing of paragraph 5 (template) may prove to be challenging
 - ACER to develop template after consulting ENTSOG and make this available to NRAs and TSOs before 5 July 2017
- Consultation by NRAs under Article 28 is of particular importance as it recognizes tariff decisions may impact on directly connected MSs
- Tariff NC should not prevent NRAs and TSOs to consult frequently with relevant stakeholders on tariff related issues
 - Both formal consultations and informative sessions are essential to develop and maintain a well functioning wholesale market

Tariff NC – Interruptible capacity

- Article 4, paragraph 2, provides flexibility to set tariffs in a manner that takes into account the conditions for firm capacity
 - Facilitates conditional firm capacity and short haul capacity products
- Article 16 discounts apply to both yearly and non-yearly standard capacity products for interruptible capacity
 - However, NC CAM amendment limits the offer of interruptible services to situations where firm product was sold at an auction premium, was sold out or was not offered (Article 32)
- Whether ex-ante or ex-post discounts are applied, the reserve price is unlikely to reflect the true economic value of interruptible capacity
- Offer of interruptible capacity should not discharge TSOs of the obligation to maximize the offer of firm capacity products



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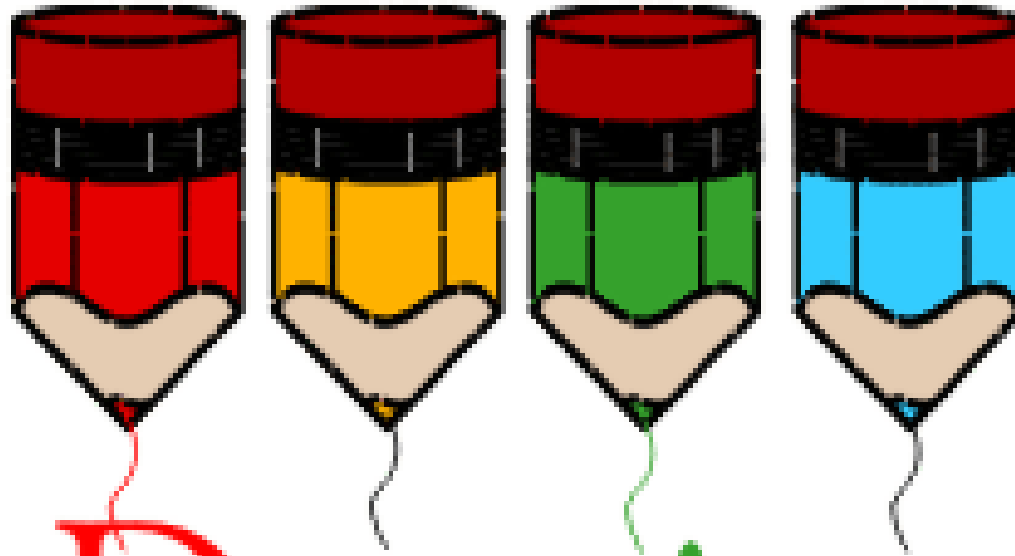
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Question and Answer session





Drawing conclusions



Something to take away



**IDoc:
please read
and
comment**

**30 June 2017
TAR-NC@
entsog.eu**

**Next
Workshop**



Thank You for Your Attention

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