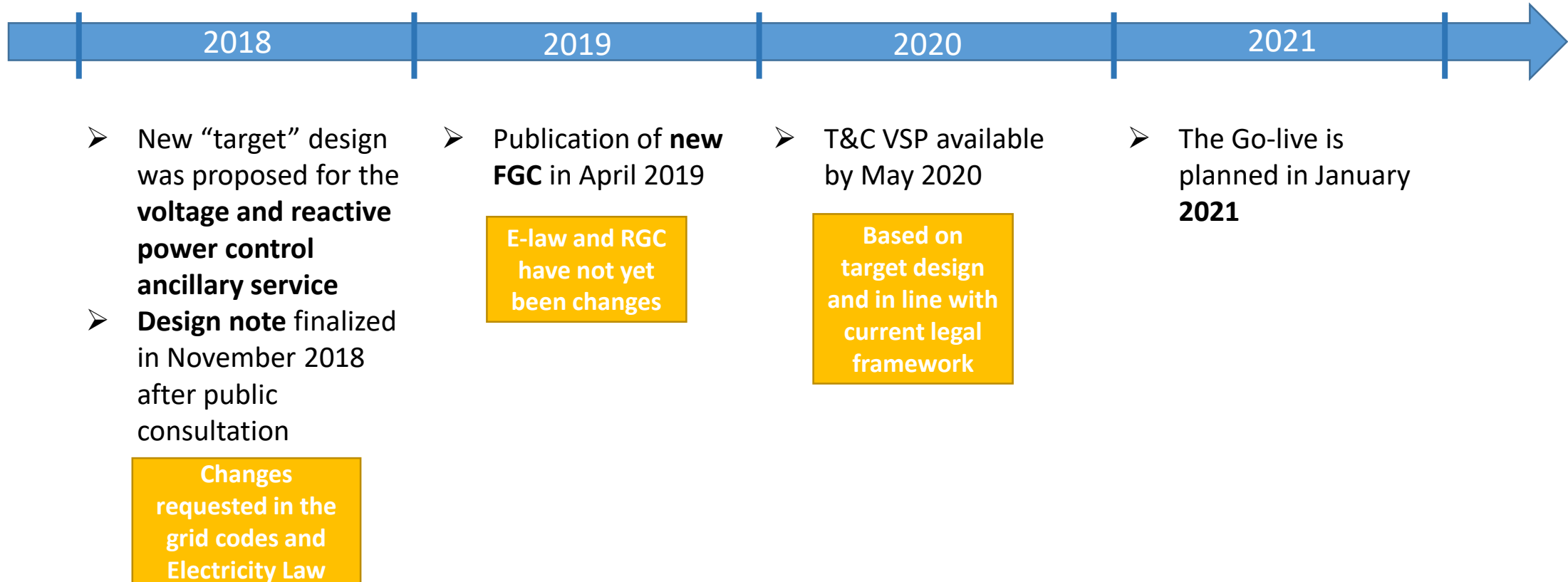


# T&C Voltage Service Provider (VSP)

WG Belgian Grid 14/11/2019

# Voltage and reactive Power Ancillary Service - Context and timelines



# Voltage and reactive Power Ancillary Service – Status of the New design

➤ **Main changes** introduced in the new design are (// design note 2018):

1. In the Federal Grid Code and Regional Grid Codes:

- Service provision
- Contract
- VSP role

✓ (FGC)    ✗ (RGC)

2. In the Electricity Law:

- Price
- Contracting process

✗

3. Additionally

- Link with the MVAR tariff
- Remuneration

✓

# Voltage and reactive Power Ancillary Service – Status of the New design

- The new **Federal Grid Code and general requirements** are available
- **Electricity Law (Art. 12 quinquies) and Regional Grid Code did not change**

<span style="background-color: green; color: white; padding: 2px;">✓</span> Subject – New grid codes			<span style="background-color: red; color: white; padding: 2px;">✗</span> Subject – E-law		
	AS IS	TO BE		AS IS	TO BE
Contracting process	Tender	Not specified	Contracting process	Tender	Tender or standard contract
Role	/	Voltage Service Provider	Prices	Free prices with possibility of Royal Decree	Regulated price(s)
Contract	Non Regulated	Regulated	<span style="background-color: green; color: white; padding: 2px;">✓</span> Subject - Others	AS IS	TO BE
Service provision	Voluntary	Mandatory for some generation and storage assets (see next slide)	Remuneration	Delivered MVAR	Requested MVAR*
			Relation with MVAR tariff	/	Access point holder pays tariff + correction in case of activation of the service → Mutual agreement between ACH and VSP behind a same Access Point*
Volume to be provided	No obliged volume	“Technical capacity”	Penalty	Proportional to non delivered MVARs	Administrative penalties if the service is not correctly delivered
Voluntary participants	All participants voluntary	Open to demand facilities, DSO and CDS (see next slide)			

A tender will be launched for 2021 but with mandatory bidding at free prices and the possibility of royal decree

# Voltage and reactive Power Ancillary Service – Participation

Grid user	Federal level		Regional level		
	Participation	FGC articles	Participation	General requirements rFG	
Elia grid	New Type B,C,D SPGM	Obliged	Art. 89 +234	Obliged	Art. 4.3.1/5.5.1/-
	New Type B,C,D PPM	Obliged	Art. 93 & 99 +234	Obliged	Art. 4.4.2/5.6.2/-
	New Type B, C, D SPM	Obliged	Art. 93 & 99 +234	Voluntary	No RGC yet
	New HVDC interconnector	Obliged	Art. 104 +234	n.a.	
	New generators connected on a HVDC link	Obliged	Art. 106 + 234		
	New HVDC conversion stations at isolated extremity	Obliged	Art. 107 +234		
	New offshore generators with onshore connection points	Obliged	Art. 117 & 118 +234		
	New offshore generators with offshore connection points	Obliged	Art. 130 & 131 +234		
Existing generator type C,D	Obliged	Art. 62 to 68 +234	Voluntary	No RGC yet	
	Existing generator type B <b>that have already provided the service</b>	Obliged	Art. 62 to 68 (To be agreed with system operator) +234		Voluntary
	Direct clients demand facilities	Voluntary	Art. 234		Voluntary
Non- Elia grid	DSO	Voluntary	Art. 234		
	CDSO	Voluntary	Art. 234		

# Voltage and reactive Power Ancillary Service – Voltage Service Provider

- The VSP should be the de facto provider of the MVAR service towards Elia
- According to **Art. 234 of the FGC**, the VSP is
  - The grid user
  - Any third party designated buy the Grid User following a designation procedure

## VSP role

**Technically:** help Elia regulate voltage by managing third party assets

**Contractually:** Be the contractual counterpart for delivery of AS v-à-v Elia

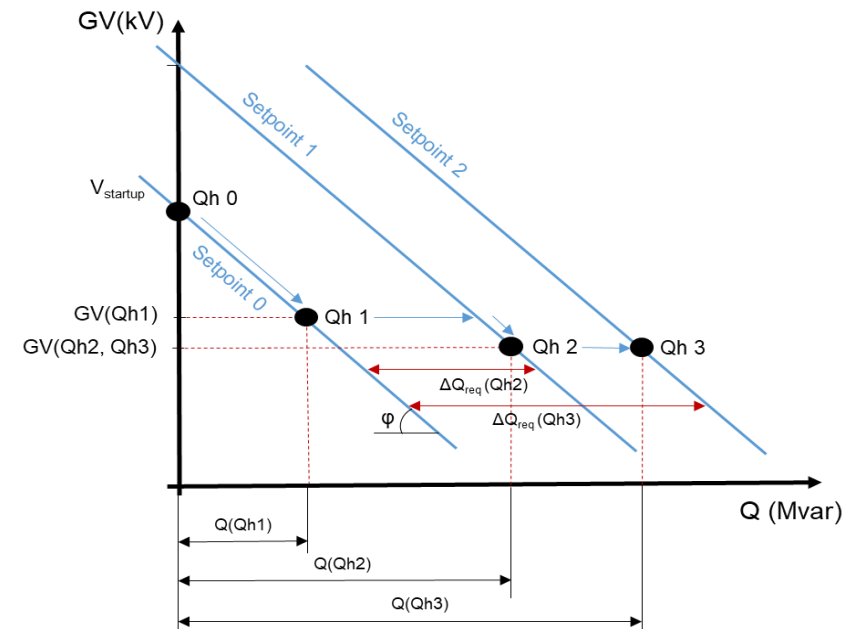
**Operationally:** operate assets to provide the service

**Financially:** Receive remuneration & pay penalties

# Voltage and reactive Power Ancillary Service – Remuneration

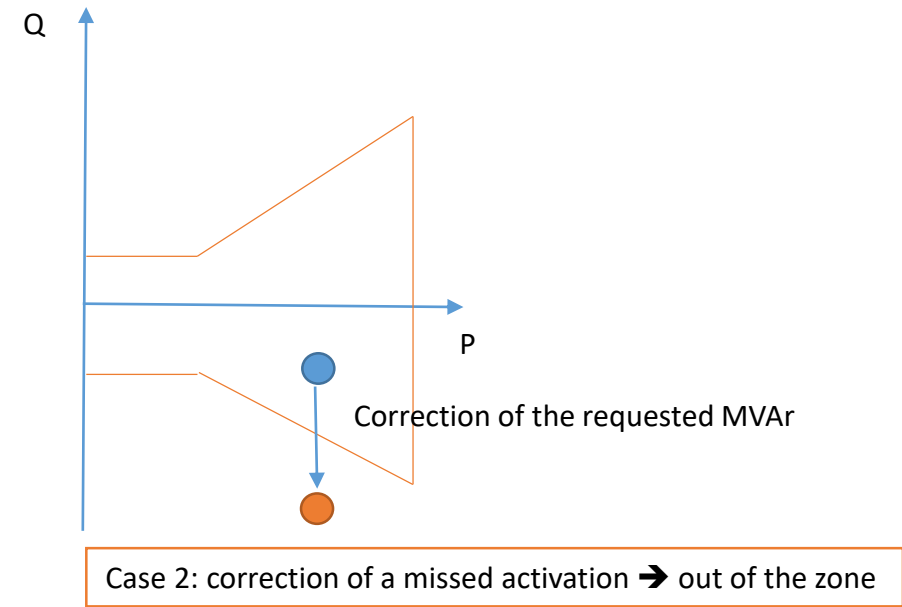
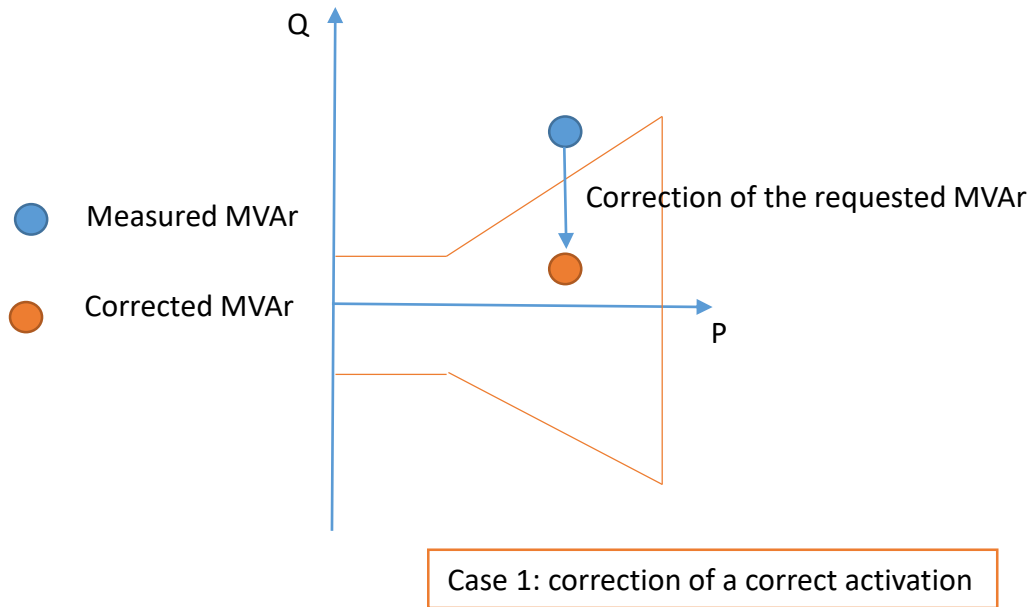
Subject - Others	AS IS	TO BE
Remuneration	Delivered MVar	Requested MVar

- New remuneration principle based on the **requested MVARs**
- Computation of **requested MVARs** based on:
  - Measurement of the voltage at Access point
  - Technical characteristics of the Technical unit delivering the service (droop curve with coefficient  $\alpha_{eq}$  as defined in the FGC)
  - Manual activation requested by Elia



# Voltage and reactive Power Ancillary Service – Link with MVar tariff

Subject - Others	AS IS	TO BE
Relation with MVar tariff	/	Access point holder pays tariff + correction in case of activation of the service → Mutual agreement between ACH and VSP behind a same Access Point



## Relation with MVar tariff

- Specific case when a ACH and a VSP are behind the same access point (e.g. CDS with a local production)
- A mutual agreement between ACH and VSP behind a same Access Point is necessary in case of incorrect activation



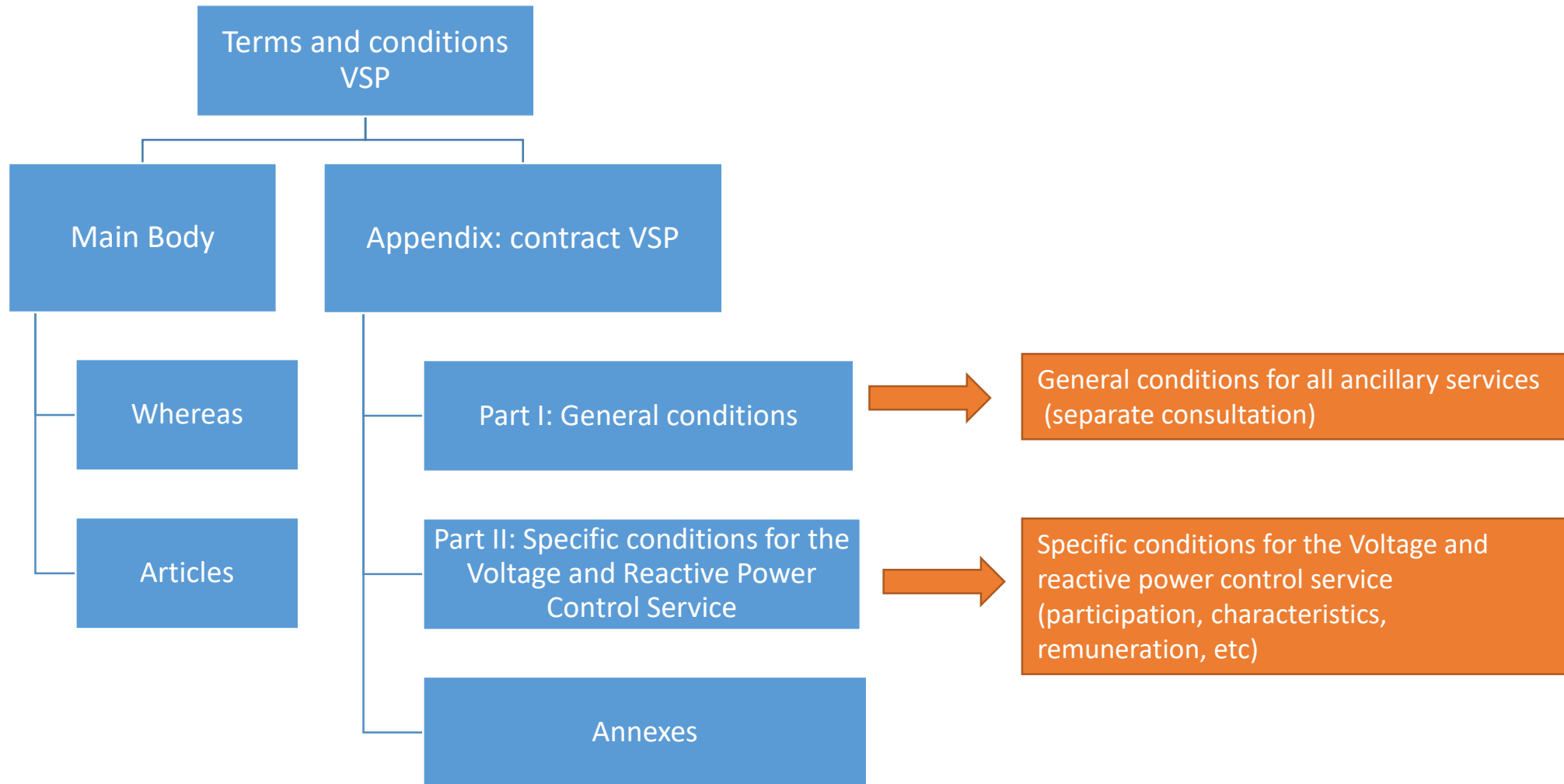
# Voltage and reactive Power Ancillary Service – Link with MVAR tariff

Subject - Others	AS IS	TO BE
Penalty	Proportional to non delivered MVARs	Administrative penalties if the service is not correctly delivered

## Penalty mechanism

- The tariff will be applied to access points with offtake **and** injection of active power including access point providing the Voltage and Reactive power control service
- A party could face to a **double penalty** if it is subject to tariff and activation control penalty for the Voltage and Reactive power control service
- Design proposal: The penalty of the activation control of the MVAR ancillary service will be adapted. Administrative penalties will be applied in case of non-respect of the MVAR service specifications.

# T&C Voltage Service Providers – Structure



# T&C VSP: indicative Planning

- ✓ T&C VSP will include the new design for the voltage and reactive power control ancillary service
- ✓ Public consultation of the T&C VSP is planned in January 2020 (at least 4 weeks)
- ✓ Tender for 2021 will take place in May 2020

## T&C VSP proposed timing

