

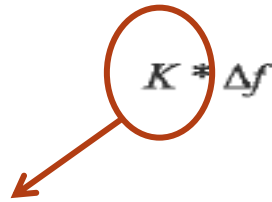
Abandon of ARP perimeter correction – Results of financial simulations

25/02/2016

How does Elia correct BRP perimeter for R1 delivered by BSP?

AS IS principle

- Only concerns symmetrical products (R1 100 & 200 mHz)
- Formula to calculate volume to be corrected for one QH:


$$K * \Delta f$$

- K = parameter * volume of **R1 made available** for this QH
- R1 made available = comparison between D-1 nomination program and reserve nomination in D-1

GFA R1 prod

CIPU process

2 limits of existing mechanism

- Approximation of R1 corrected volumes due to the use of nominations
 - Current availability mechanism uses **D-1 nomination** from **CIPU process**
- Not aligned with Elia's vision on R1 product evolution

What solution for ARP perimeter correction ?

□ Possible solutions are:

- option 1: Abandon the ARP perimeter correction
- Option 2: Use measurements to approximate R1 activated energy (via R1 made available formula)
- Option 3: Implement nomination processes to approximate R1 activated energy (via R1 made available formula)

	Agregation possible?	Accuracy	Harmonised rules in future CoBA	Implementation time	Robustness new technology	financial impact for BRP
Option 1 No perimeter correction	+++	N/A	+++	+++	+++	neutral
Option 2 measurements	+++	-/+	---	---	---	neutral
Option 3 Nominations	---	--	---	---	---	bad nominations may impact BRP's settlement

Elia recommends the abandon of ARP perimeter correction for R1 100 & 200 mHz.

What would be the financial impact (1 Mwh) for ARP to abandon perimeter correction (for R1) ?

Scenario 1

ARP is perfectly balanced. Its imbalance is only caused by R1 activated energy (ex: batteries)

→ The **direction of R1 activation** determines the imbalance price (positive or negative) and the financial impact (benefit or loss)

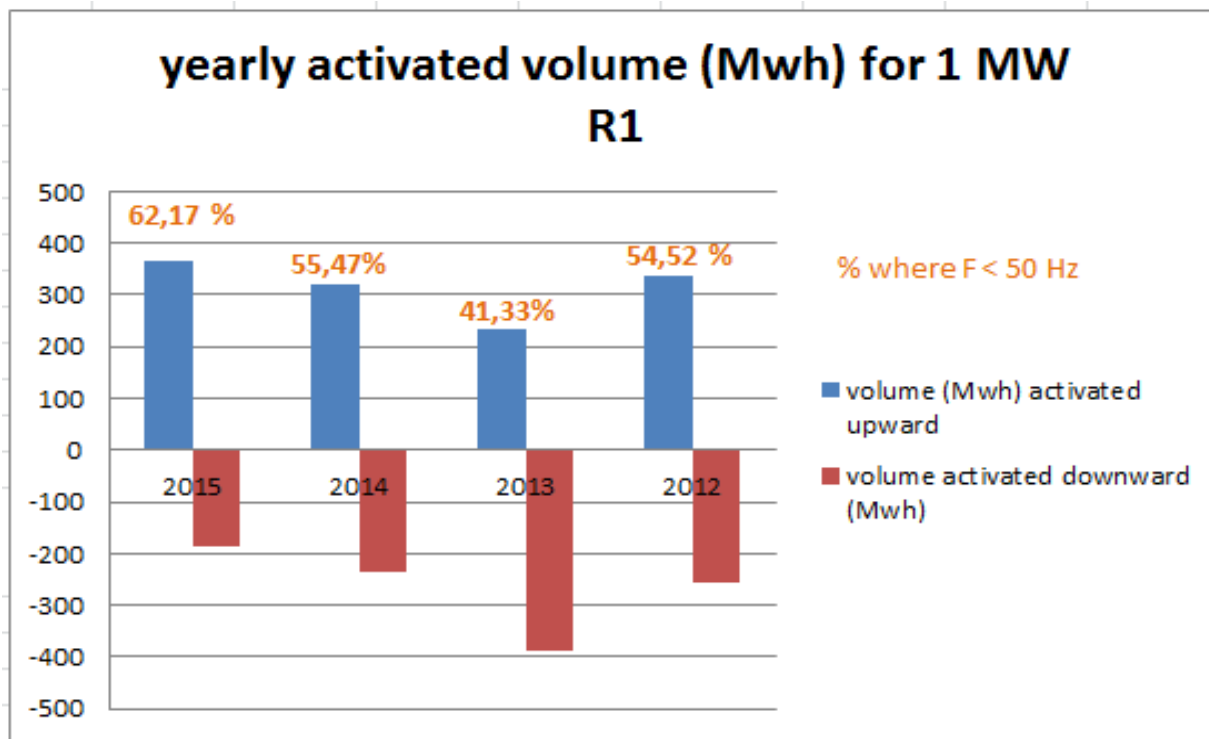
Year	Impact (+ benefit, - loss)
2015	10.087 €
2014	5428 €
2013	- 4120 €

Year	Impact (+ benefit; - loss)		
	ARP 1	ARP2	ARP3
2015	-3573€	-2982 €	- 3139 €
2014	-5762€	711€	-2336€
2013	819 €	- 5337 €	-3851 €

Scenario 2

ARP is in imbalance without considering R1 activated energy. **This imbalance** determines the imbalance price (positive or negative) and the financial impact (benefit or loss)

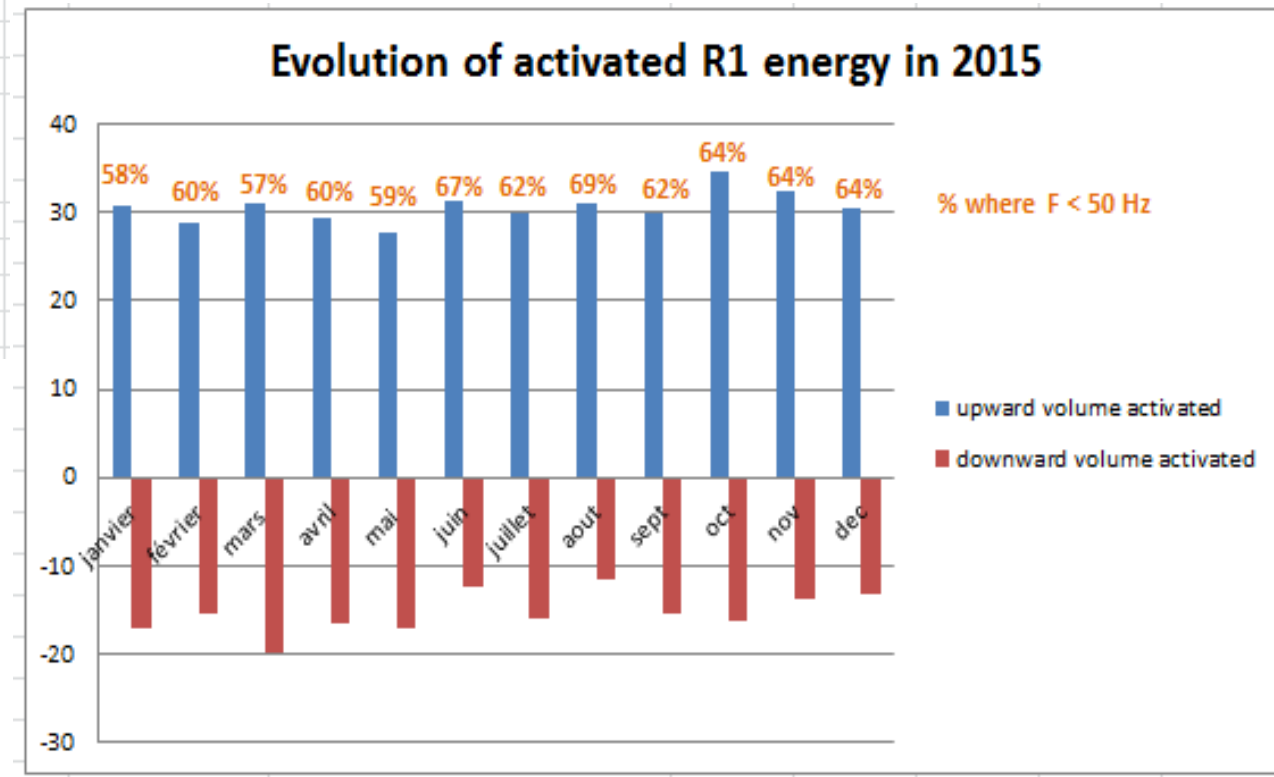
Evolution of the frequency & activated R1 energy between 2012 - 2015



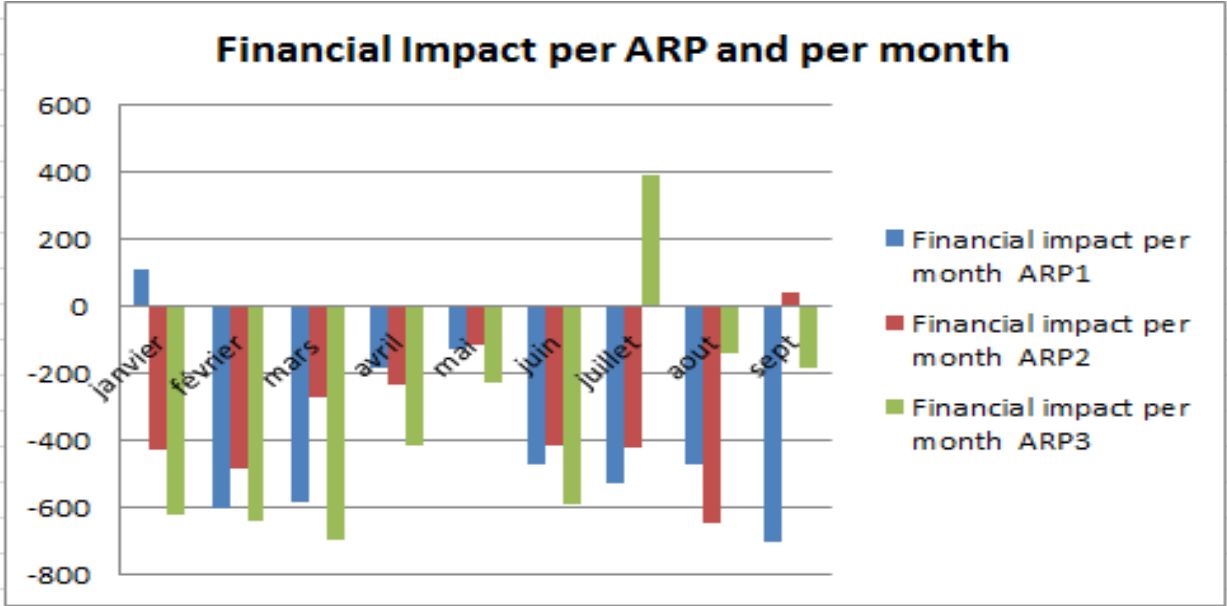
More upward activations ($F < 50$ Hz)

Frequency is slightly more often below 50 Hz in summer time

Activated volume of R1 remain stable through the year



Evolution of the financial impact per month in 2015



- No strong correlation between financial impact & period of the year
- Apr – may : reduction of financial flux in both scenarios (less losses or less benefits)

