



Trenutno stanje in razvoj sistemskih storitev v Sloveniji kot priložnost za končne odjemalce – vizija sistema operaterja prenosnega sistema ELES

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Fleksibilnost – nova paradigma

Lastništvo fleksibilnosti

- Končni odjemalci so lastniki fleksibilnosti, ne pa agregatorji ali dobavitelji...
- Nudenje fleksibilnosti agregatorjem s strani lastnikov fleksibilnosti je neodvisno od dobave električne energije (določa CEP)
 - Smiselno pa je urediti posamezne odnose oz. razmerja med akterji



Uporaba fleksibilnosti

- Izravnava odstopanj, upravljanje prezasedenosti (ELES)
- Upravljanje prezasedenosti (SODO)
- Nastop na energijskem trgu (dobavitelji, bilančne skupine)



Ustvariti ustrezne pogoje za sodelovanje

- Nediskriminatornost obravnave (npr. tehnologije)
- Ustrezna konkurenca (doma)
- Enostavnost postopkov
- Kakovostna storitev

Integrirati trge na EU nivoju

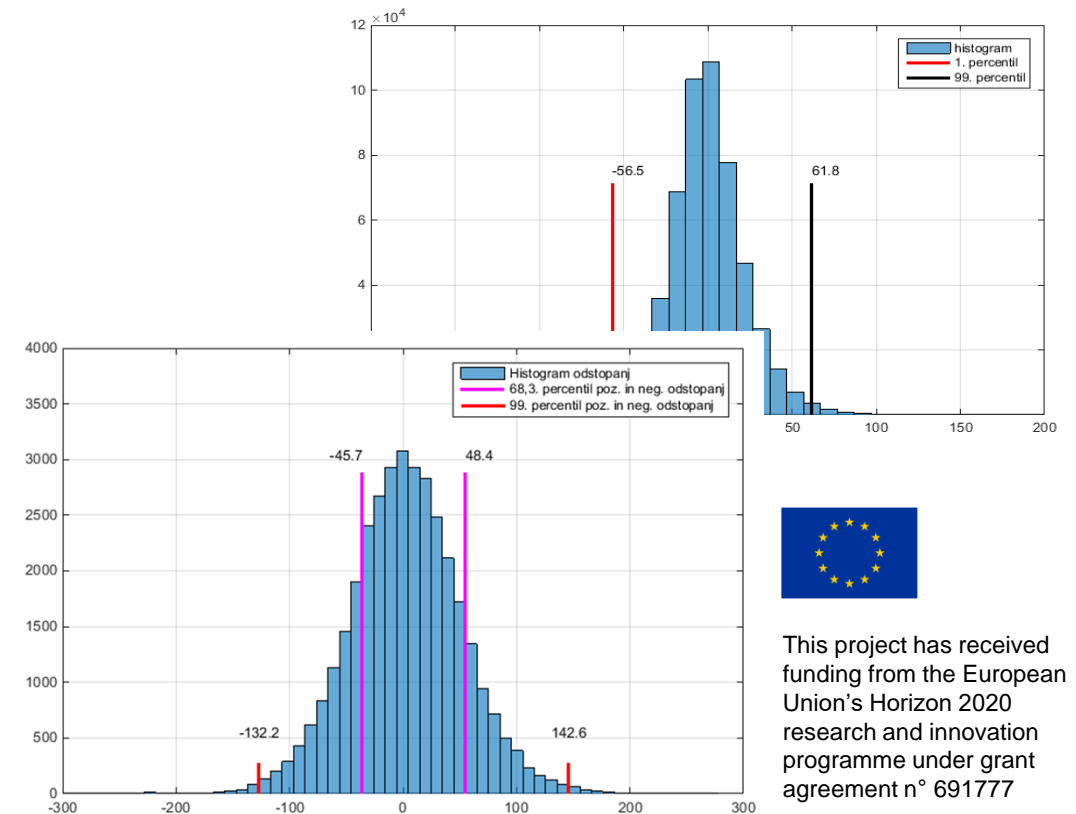
- Priložnosti za lastnike fleksibilnosti => dodaten trg
- Nižji stroški energije



Sistemske storitve v Sloveniji

- Sistemske storitve in rezerve:
 - RVF
 - aRPF
 - rRPF
 - RN (ne zakupujemo izravnalne moči)
 - Izravnalni trg, XBID??
 - Ostale storitve (regulacija napetosti, črni zagon, etc.)
- Dimenzioniranje
- Razvoje trga v Sloveniji
 - Ciljni model
 - Večji mejniki:
 - EU regulativa (EBGL) in 2017
 - Regulator dal soglasje na Pogoje za PSI v 2019
 - Noveliran EZ (EZ-1) v 2019
 - Implementacija Pogojev za PSI do konca 2019
 - Mednarodna integracija (MARI, PICASSO)

FCR and FRR capacity in 2019		
FCR	aFRR	mFRR
• 14-18 MW	• +/- 60 MW	• + 250 MW • - 71 MW

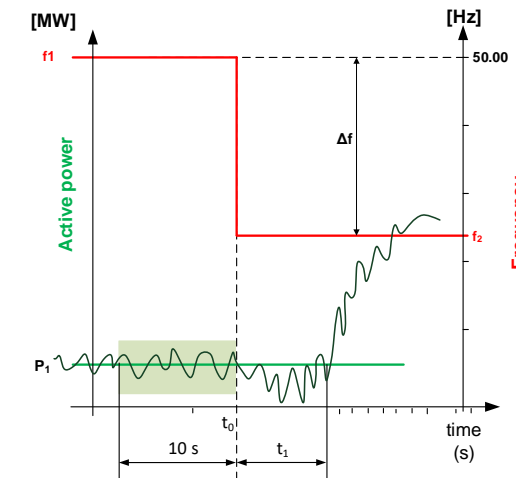
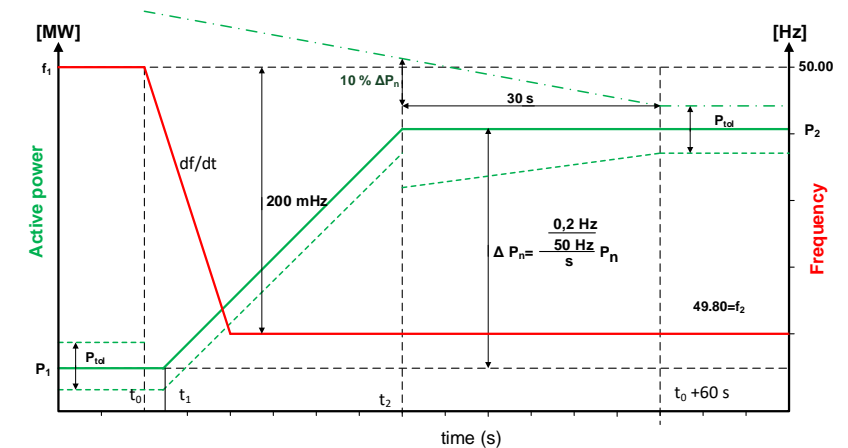


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Razvoj trga v Sloveniji - RVF

- Major change: from obligatory to market based

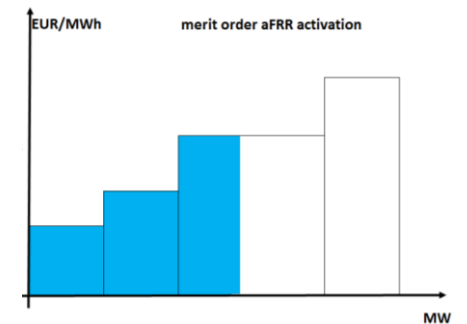
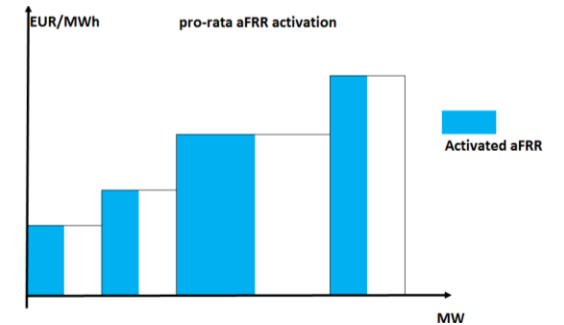
	In 2015	2020	2020+
Procurement of capacity	obligatory for all generators	market based (local market)	market based (FCR cooperation)
Procurement of energy	/	/	/
Payment	none	pay as bid	marginal pricing
Reserve offered by	all available generators	3 already qualified BSPs	inclusion of batteries and DR/DG?
Qualification	during commissioning	every 5 years / after any change	every 5 years / after any change
Monitoring	/	on-line monitoring	on-line monitoring



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Razvoj trga v Sloveniji - aRVF

	In 2015	2020	2020+
Procurement of capacity	2 BSPs, yearly auctions	market based (3-4 BSPs exp.)	market based
Procurement of energy	yearly bid	daily bids	daily bids
Payment	pay as bid (capacity and energy)	pay as bid (capacity and energy)	marginal pricing
Reserve offered by	classical producers	classical producers batteries (exp. 10 %) DR/DG (exp. 5 %)	classical producers ↓ batteries ↑↑↑ DR/DG ↑
Activation	pro-rata (gradient), activation per unit	MOL (FAT 5) portfolio activation	PICASSO MOL (FAT 5) portfolio activation
Qualification	tested only during commissioning	every 5 years / after any change	every 5 years / after any change
Monitoring	basic on-line / post-festum monitoring	on-line / post-festum monitoring	on-line / post-festum monitoring



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Razvoj trga v Sloveniji - rRVF

	In 2015	2020	2020+
Procurement of capacity	market based	market based	market based
Procurement of energy	yearly bid	daily bids	daily bids
Payment	pay as bid (capacity and energy)	pay as bid (capacity and energy)	marginal pricing
Reserve offered by	mostly classical producers DR/DG (<5%)	classical producers DR/DG (exp. 20 %) Batteries (<5%)	classical producers ↓ batteries ↑ DR/DG ↑↑ MARI ↑↑
Activation	MOL (FAT 15) activated by phone	MOL (FAT 12.5) automated activation	MARI MOL (FAT 12.5) automated activation
Qualification	certificates by external institution	every 5 years / after any change	every 5 years / after any change
Monitoring	limited post festum monitoring	on line / post festum monitoring	on line / post festum monitoring



Fleksibilnost – priložnosti 2020

Že zakupljena fleksibilnosti (letni ali večletni zakup)

RVF in RPF izravnalna moč v 2020		
RVF	aRPF	rRPF
• 14-18 MW	• +/- 50 MW	• + 230 MW • - 61 MW

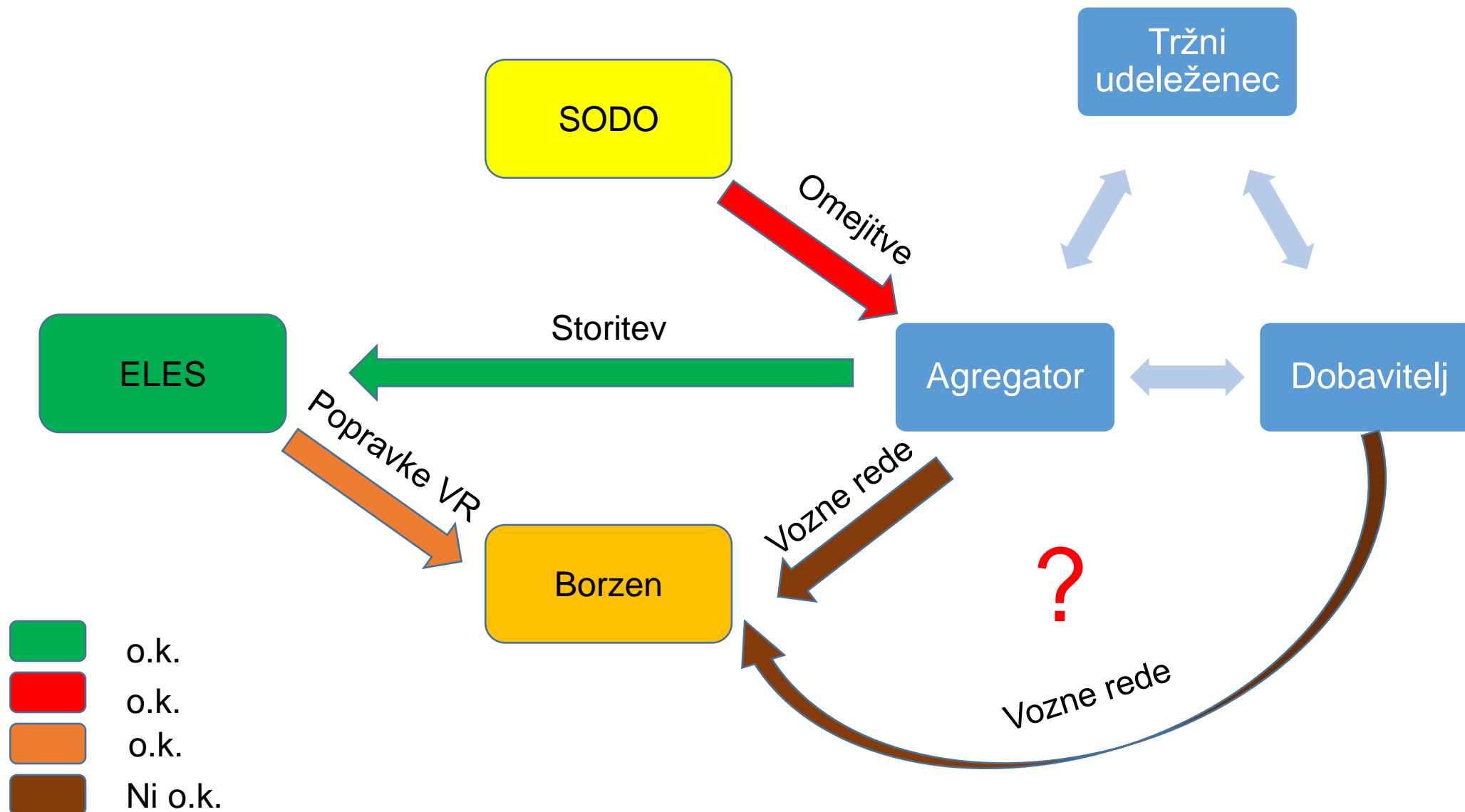
Odprte pozicije (mesečni zakup)

RVF in RPF izravnalna moč v 2020		
RVF	aRPF	rRPF
• 14-18 MW	• +/- 10 MW	• + 20 MW • - 10 MW

„PROSTE“ PONUDBE ZA IZRAVNALNO ENERGIJO SO VEDNO MOGOČE!



Fleksibilnost – okvir nudenja storitve





Hvala.



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