

Does the carbon pricing have full effectiveness for power sector?

SC5

PS3 – Q1 - Decarbonisation is a focus of many governments.
Is the pricing of carbon the best approach
and what methods are best employed to make the price
effective ?

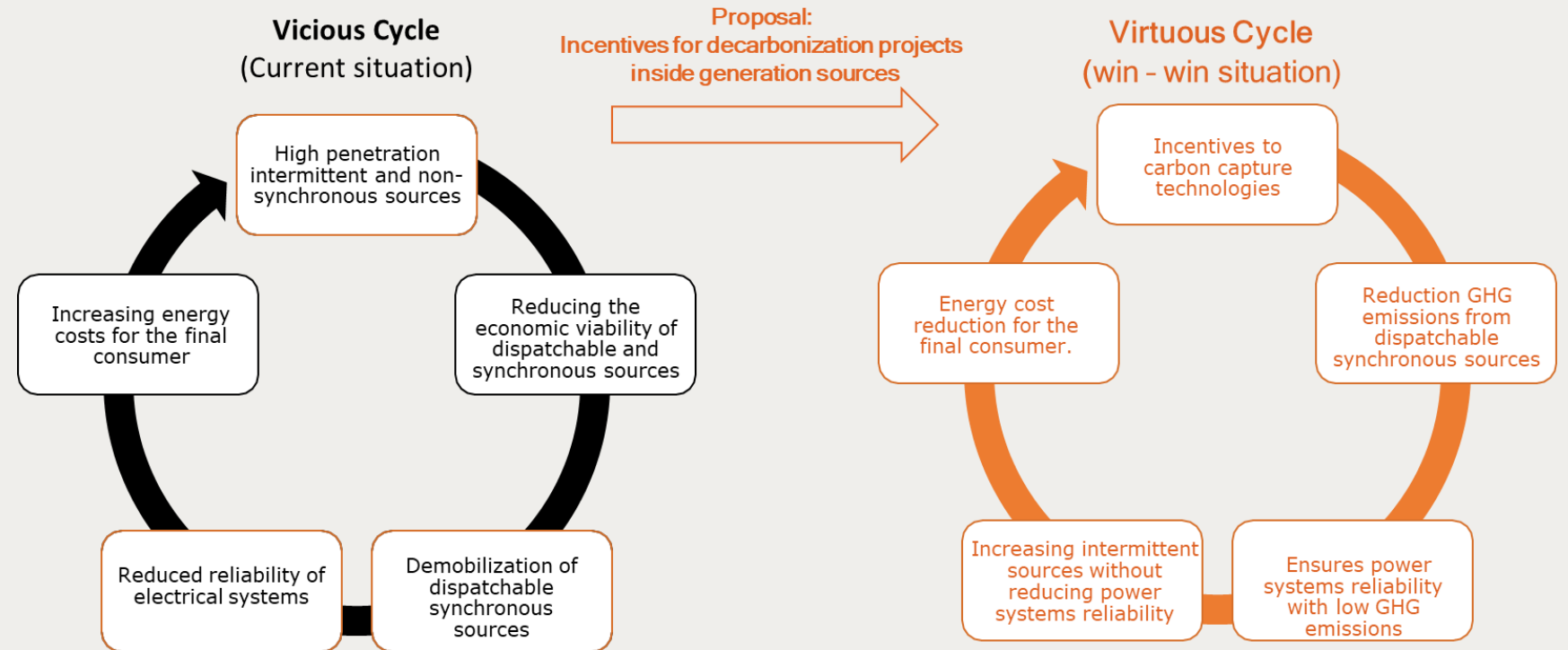
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The decarbonization policies of years past have proven to be misguided from the point of view of power system reliability

The growing participation of non-synchronous intermittent sources in conjunction with the demobilization of dispatchable synchronous sources created a worrying vicious cycle in the power system. Conversely, encouraging carbon capture technologies transforms this vicious cycle into a virtuous circle.



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Takeaways and suggestions

Takeaways

- 1 The decarbonization policies of years past have proven to be misguided from the point of view of power system reliability.
- 2 The post-pandemic disruption of fuel supply chains, as well as recent extreme climate change events, shown the decarbonization based on intermittent and non-synchronous sources is not the unique solution
- 3 Example, USA passed a law increasing subsidies for carbon capture technologies once combined reliability of dispatchable sources with low emissions are proved
- 4 It is a recognition that the carbon market and carbon pricing is not yet fully functional and sufficient to make carbon capture technologies viable to accommodate system reliability

Suggestions

- A The carbon pricing methodology needs to be improved to incorporate reliability concerns of the power systems, given the current methodology does not incentivize carbon capture technologies
- B Decarbonization projects carried out in existing power plants can be more effective for low carbon route together with the reliability of power systems.