

Swissgrid experience with netting FRR

19th Implementation Group meeting CSE

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Agenda

1. Background, historical evolution
2. Fundamental principle
3. Operational experience
4. Concluding remarks

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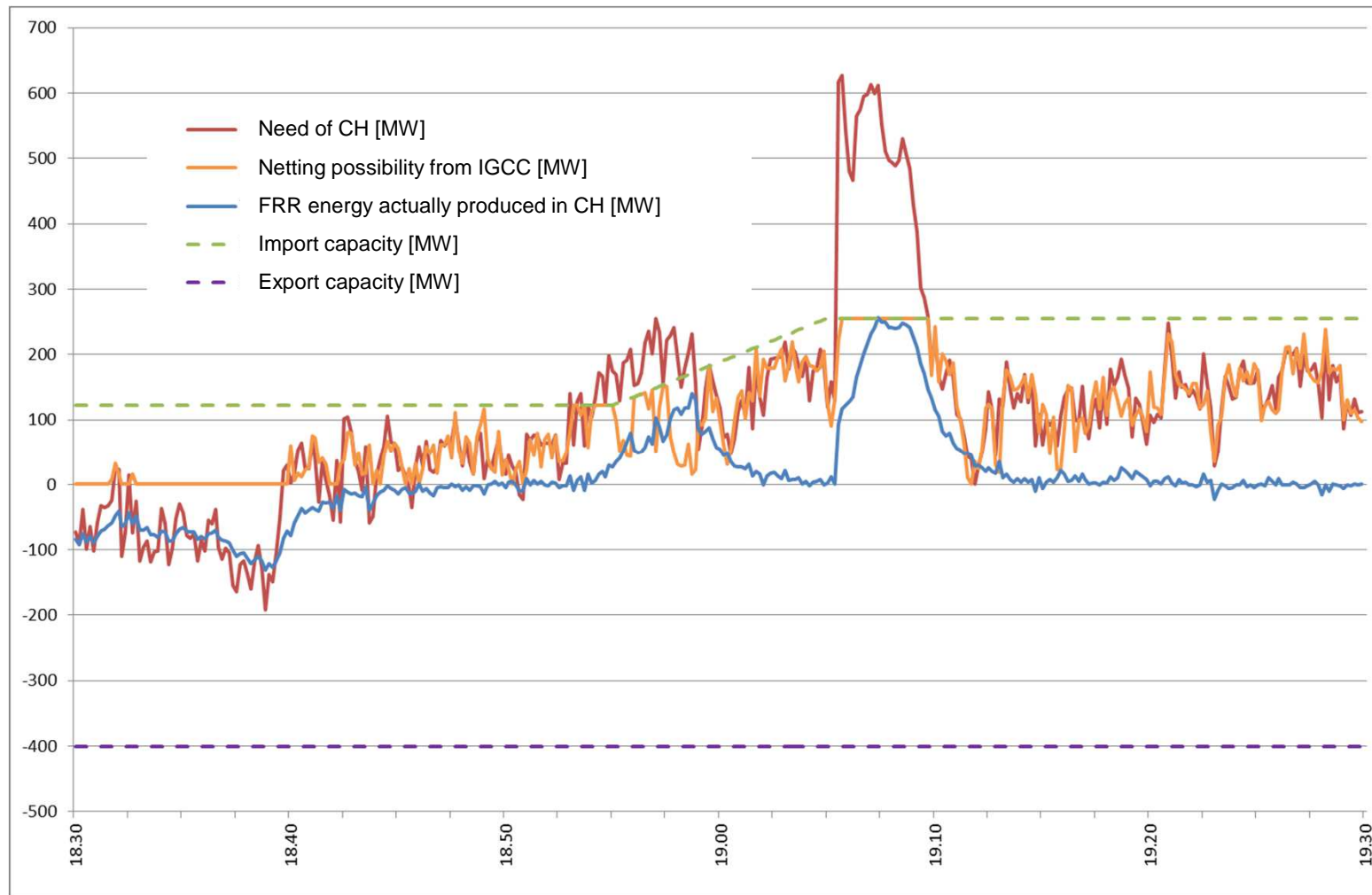
Story of swissgrid and IGCC

- Foundation of GCC Dez. 2008: TransnetBW, TenneT, 50Hz (Module 1)
- The three members wanted to integrate international partners to strengthen the GCC as counterpart to on control area germany
- March 2009 first Swissgrid project to participate in IGCC
- Amprion (and others) fought the GCC in Entso-E
- Delay of Swissgrid membership
- Amprion became member in May 2010 (decree Bundesnetzagentur)
- 2011: ICGG was accepted in Entso-E
- Participation Swissgrid since 01.03.2012, 14:24

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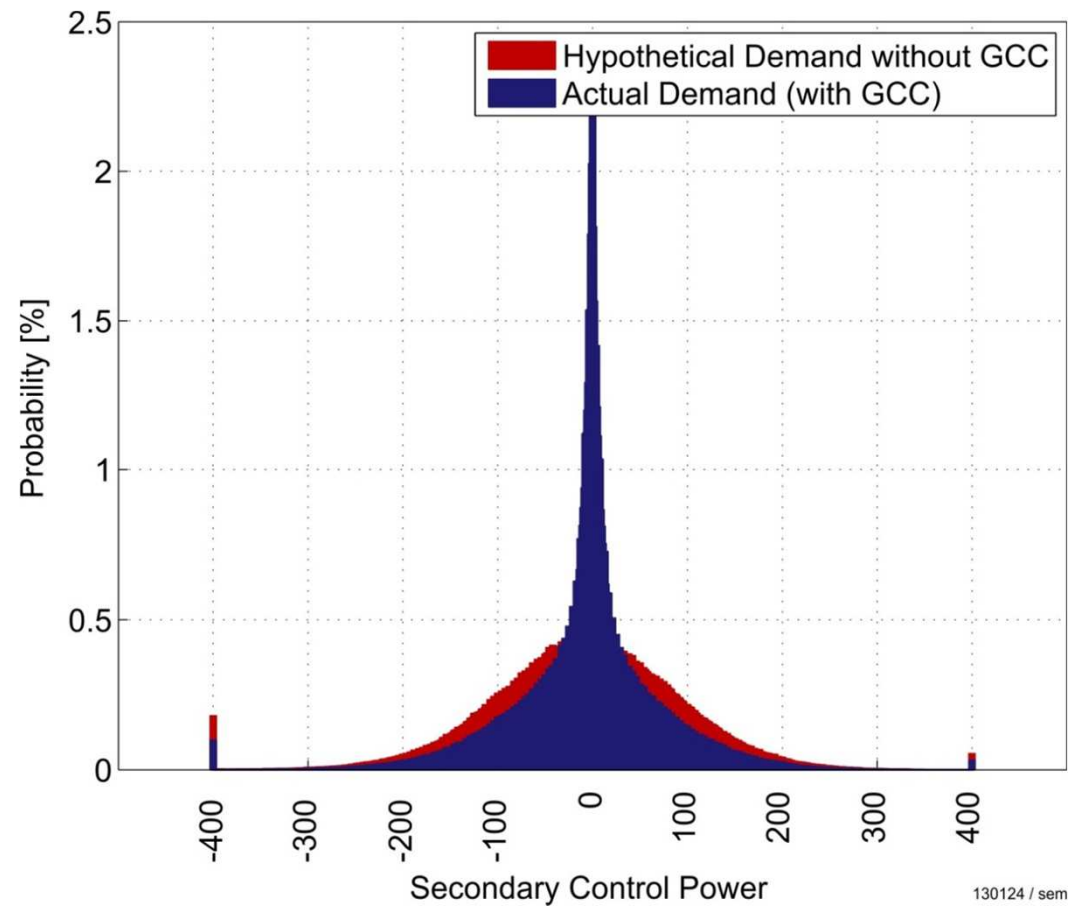
Principle



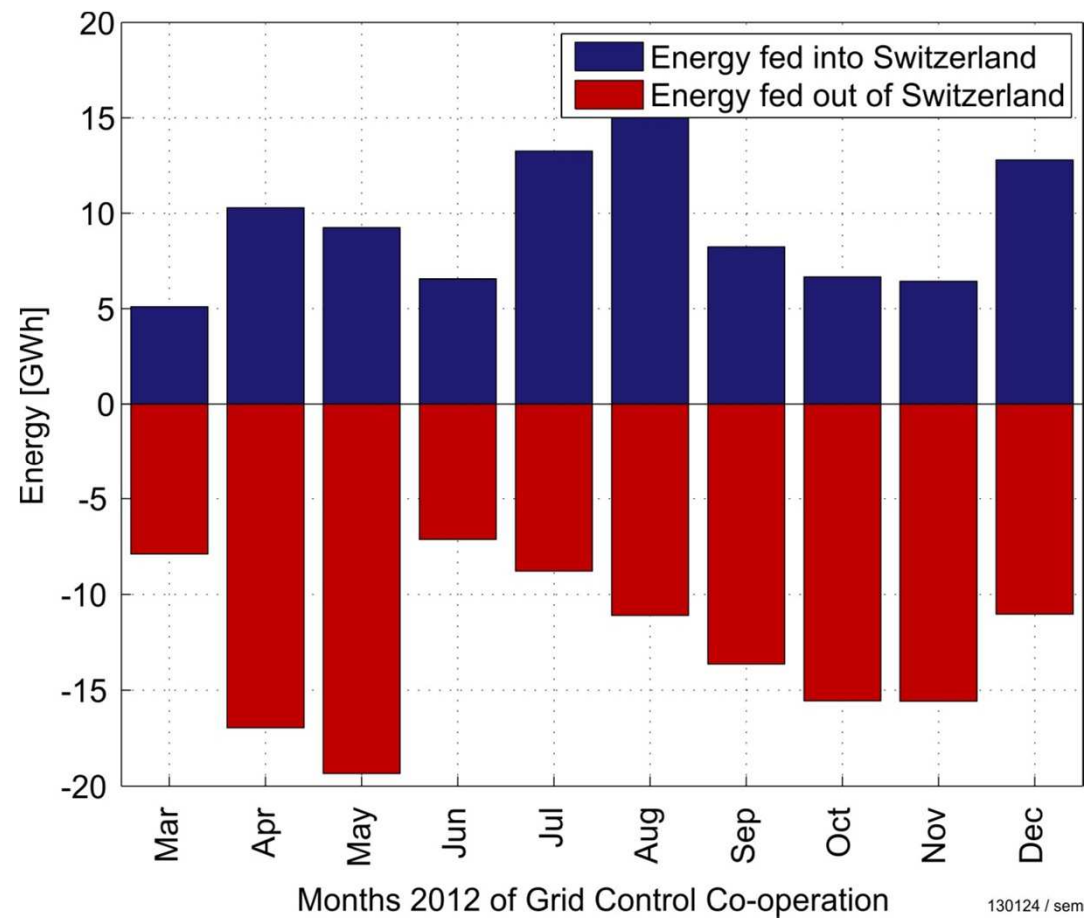
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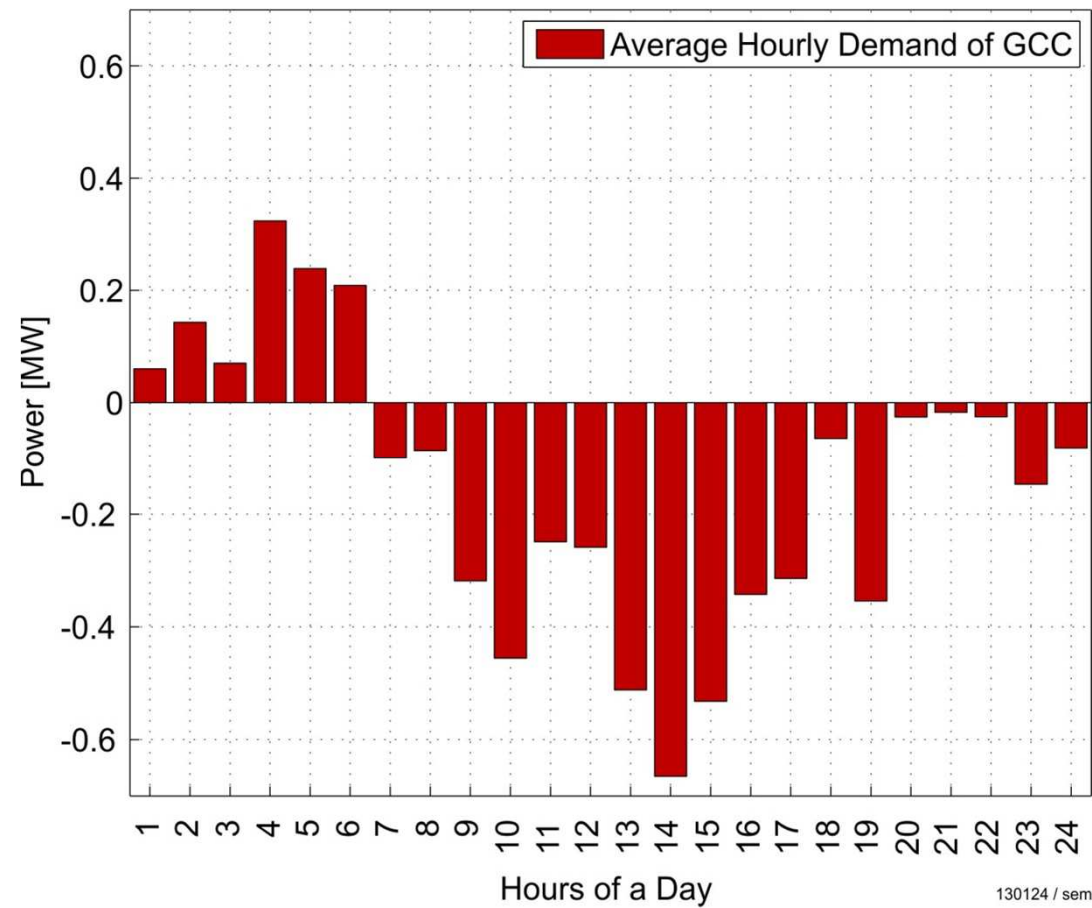
FRR power demand



Monthly energy exchange



Imbalance netting effect



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Concluding Remarks 1/2

- Operation experience
 - Generally trouble-free reliable operation
 - Amount of control energy has been indeed reduced
- Settlement experience
 - Several corrections of initial settlements had to be performed
 - Many dependancies in the price determination, trend is increasing with the number of new members

Concluding Remarks 2/2

- We see advantages of regionalization within IGCC
 - Technical and operational
 - Settlement
 - Organizational
- Thus Swissgrid intends to create a pre-netting with APG and ELES and to connect to the IGCC as one region