

Representation of the European Commission in Germany 11.3.2014

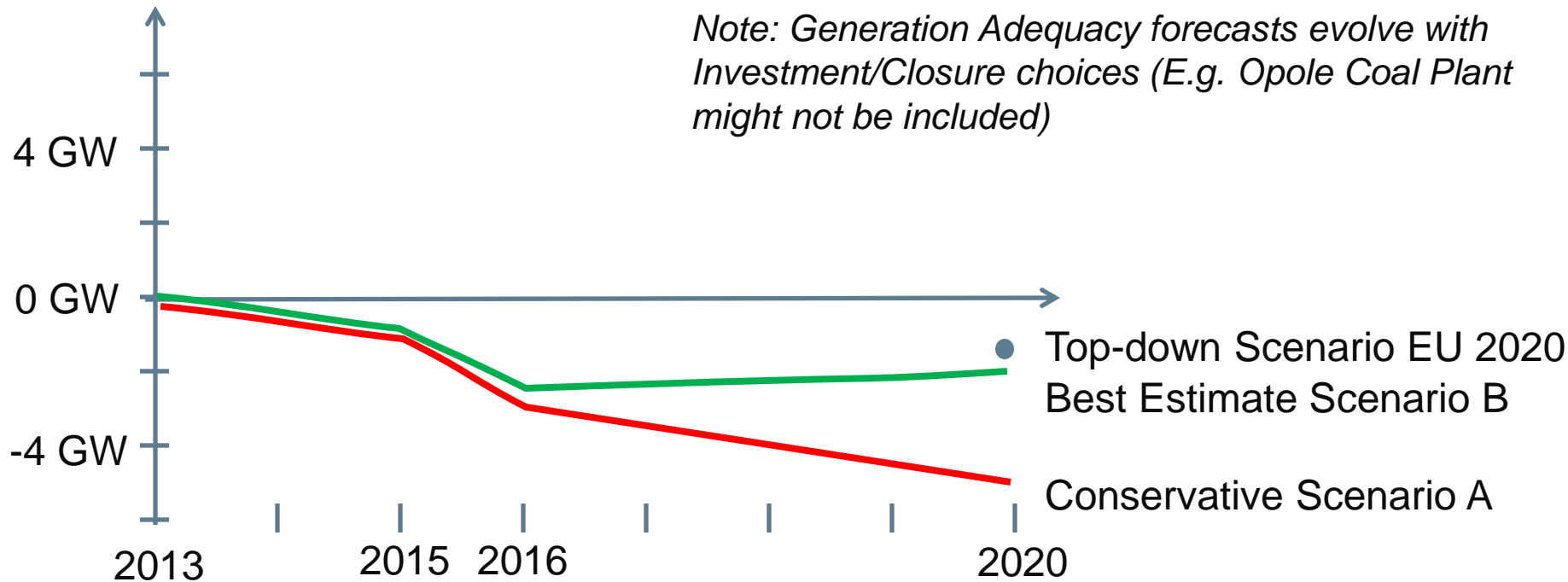
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# German-Polish Energy Relations: Opportunities for co-operation in the electricity sector

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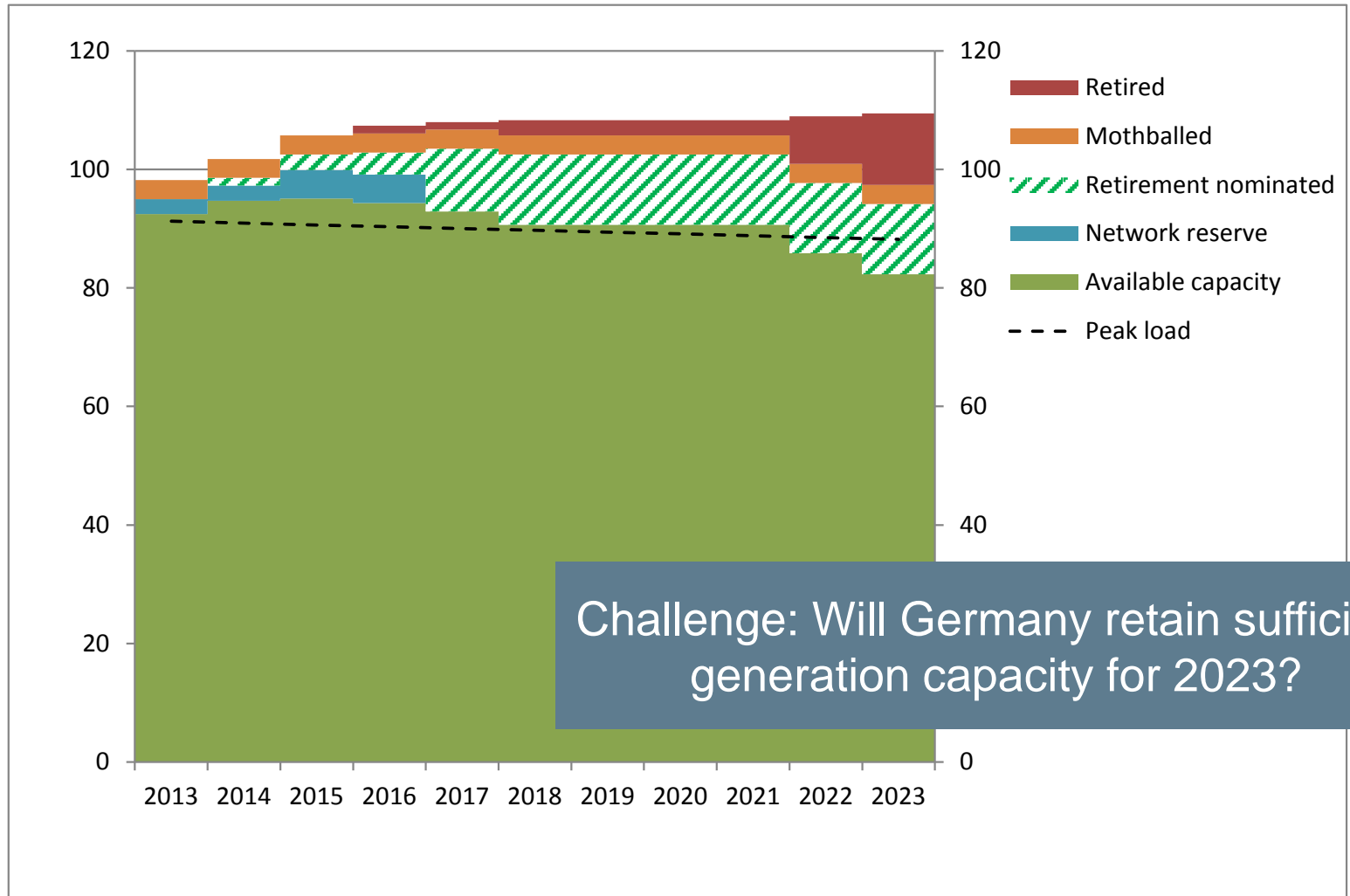
German Institute for Economic Research (DIW Berlin) and Technical University Berlin

- 1 What are the challenges and opportunities in this particular relationship?
- 2 Where do we need more integration and investments, and what are the preconditions?
- 3 What are the expectations towards national and European policy makers?



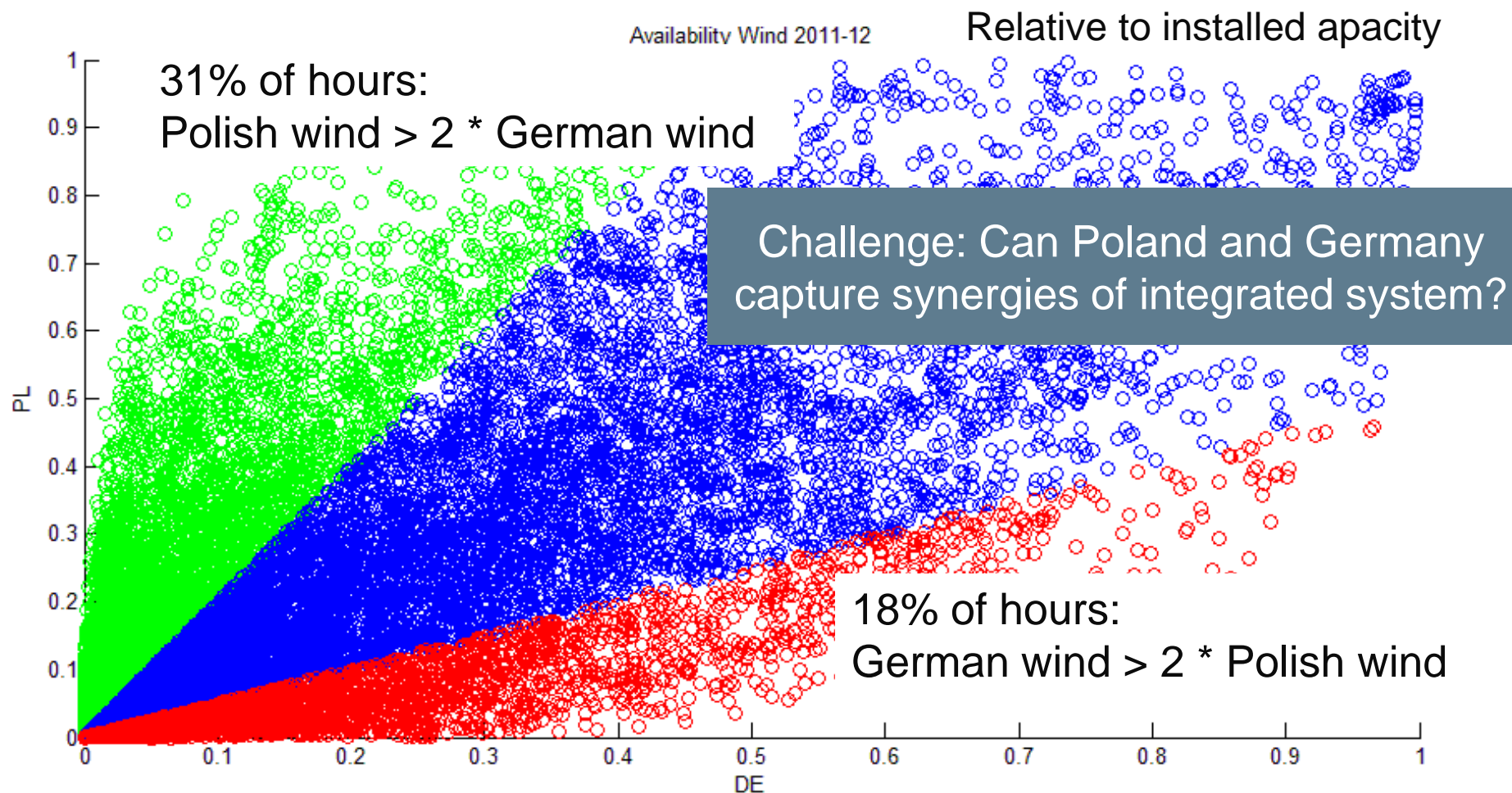
Challenge: Can Poland replace retiring coal-power stations by 2016?

SCENARIO OUTLOOK AND ADEQUACY FORECAST 2013/2030, ENTSO E . P93 (January 7pm reliability calculation)



Challenge: Will Germany retain sufficient generation capacity for 2023?

Assumptions: ----



Based on time series of wind speeds processed by Clemens Gerbaulet

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# 2-1 Average Realised Schedules and Measured Load Flow (I)

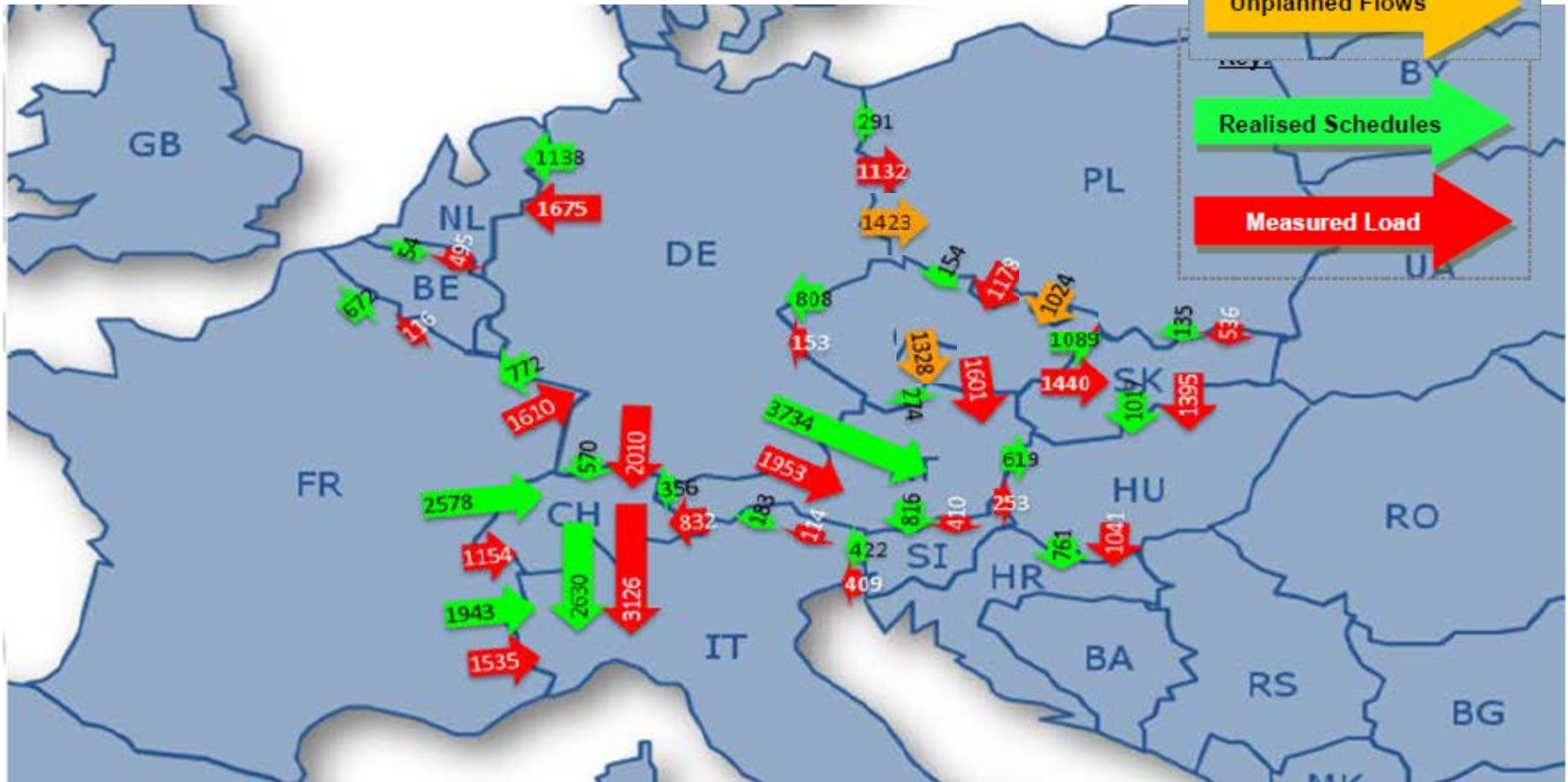
When Realised Schedules DE→AT smaller than 500 MW (01.2011–12.2012)



Why is no commercial capacity for imports to Poland available?

Source: Joint study by ČEPS, MAVIR, PSE and SEPS regarding the issue of Unplanned flows in the CEE region in relation to the common market area Germany – Austria, January 2013

When Realised Schedules DE→AT are bigger than 3000 MW (01.2011–12.2012)

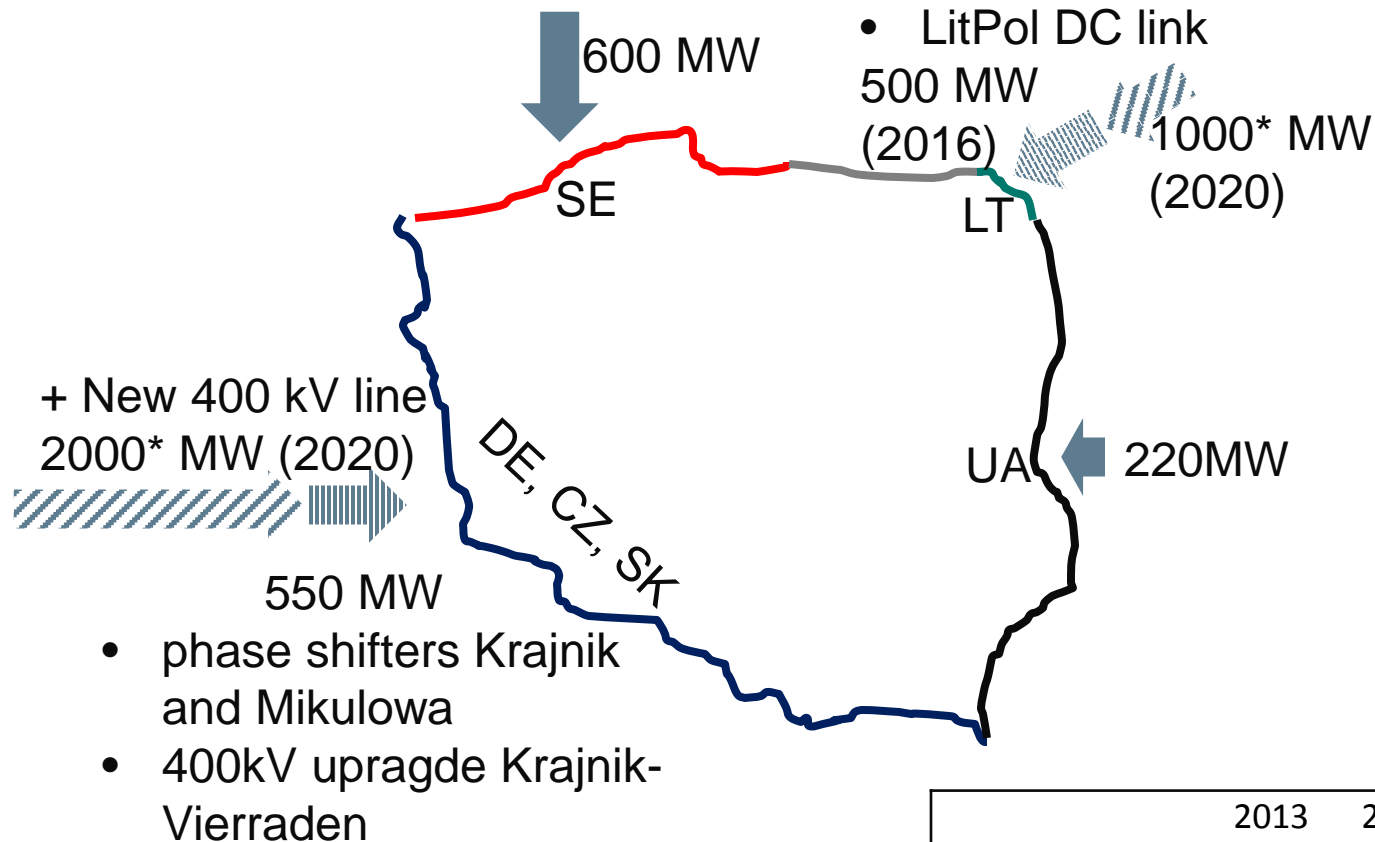


Transmission capacity has to be reserved for loop flows & security margins.

Source: Joint study by ČEPS, MAVIR, PSE and SEPS regarding the issue of Unplanned flows in the CEE region in relation to the common market area Germany – Austria, January 2013



# Increasing Polish import capacity with investments



Based on SCENARIO OUTLOOK AND ADEQUACY FORECAST 2013/2030, ENTSO-E

\* Total figure projected by 2020

- **Allocate transmission capacity to most valuable use**
  - Allocate D-PI capacity to Polish imports when needed
  - Requires flow based transmission allocation (based on real network)
  - Requires bidding zones that match relevance for flow patterns
- **Reduce uncertainty from dispatch of conventional plants**
  - Direct marketing of RE in Germany: Intraday adjustment bilateral
  - Results in uncertainty about locations of conventional generation:  
Uncertain flow / loop-flow patterns & high reliability margins
  - Requires control through TSO of intraday adjustments (auction ?)

- Win-win situation from sharing generation resources 2016 and 2023
  - Win-win situation from pooling intermittent resources
  - Win-win situation from sharing flexibility across system
- > Avoid unilateral capacity mechanism
- > Consider coordinated implementation of strategic reserve
- coordinate strike price for dispatch of strategic reserve
  - coordinate dispatch rule for times of unconstrained transmission

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- Ensure that Central West Europe (CWE) Market Integration address system requirements and time-frame of Poland
- Address system security risks from uncertainty about dispatch of conventional generation
- Develop shared responsibility for system/energy security to realize synergies of power system integration
- Unlock win-win situations from energy cooperation on generation adequacy, pooling of renewables & flexibility