

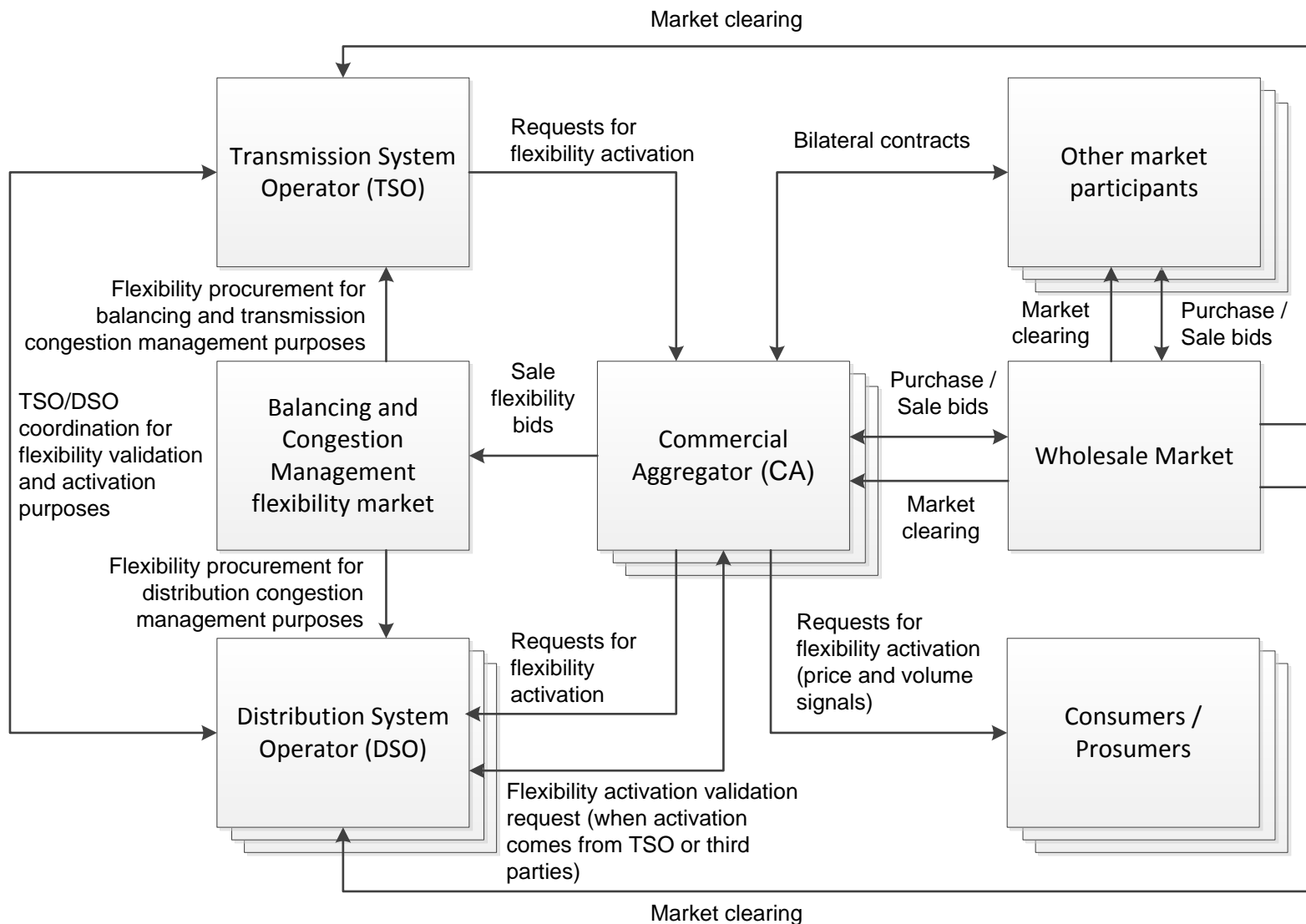


Optimal scheduling in future smart grids



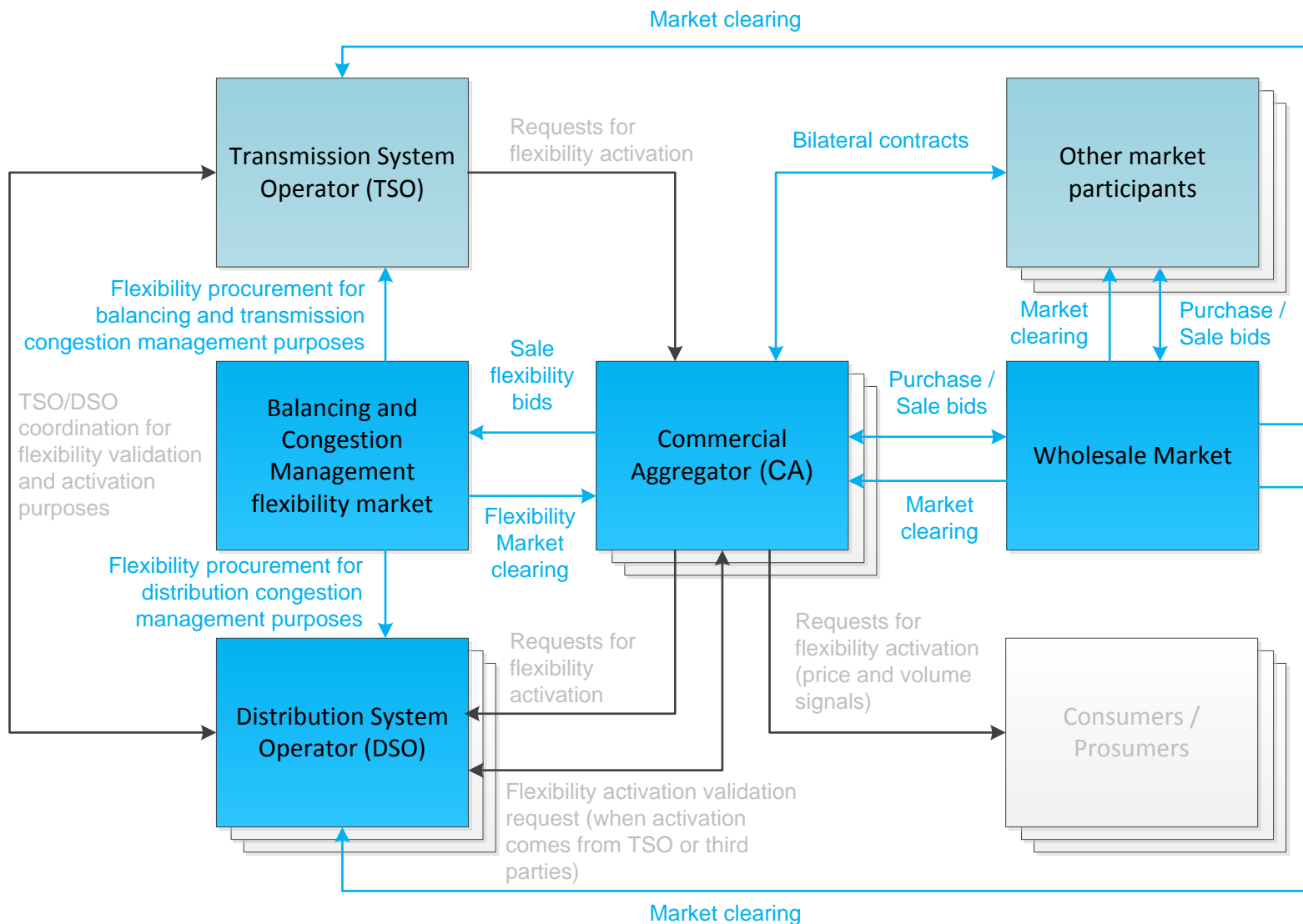


General CA concept and its interactions



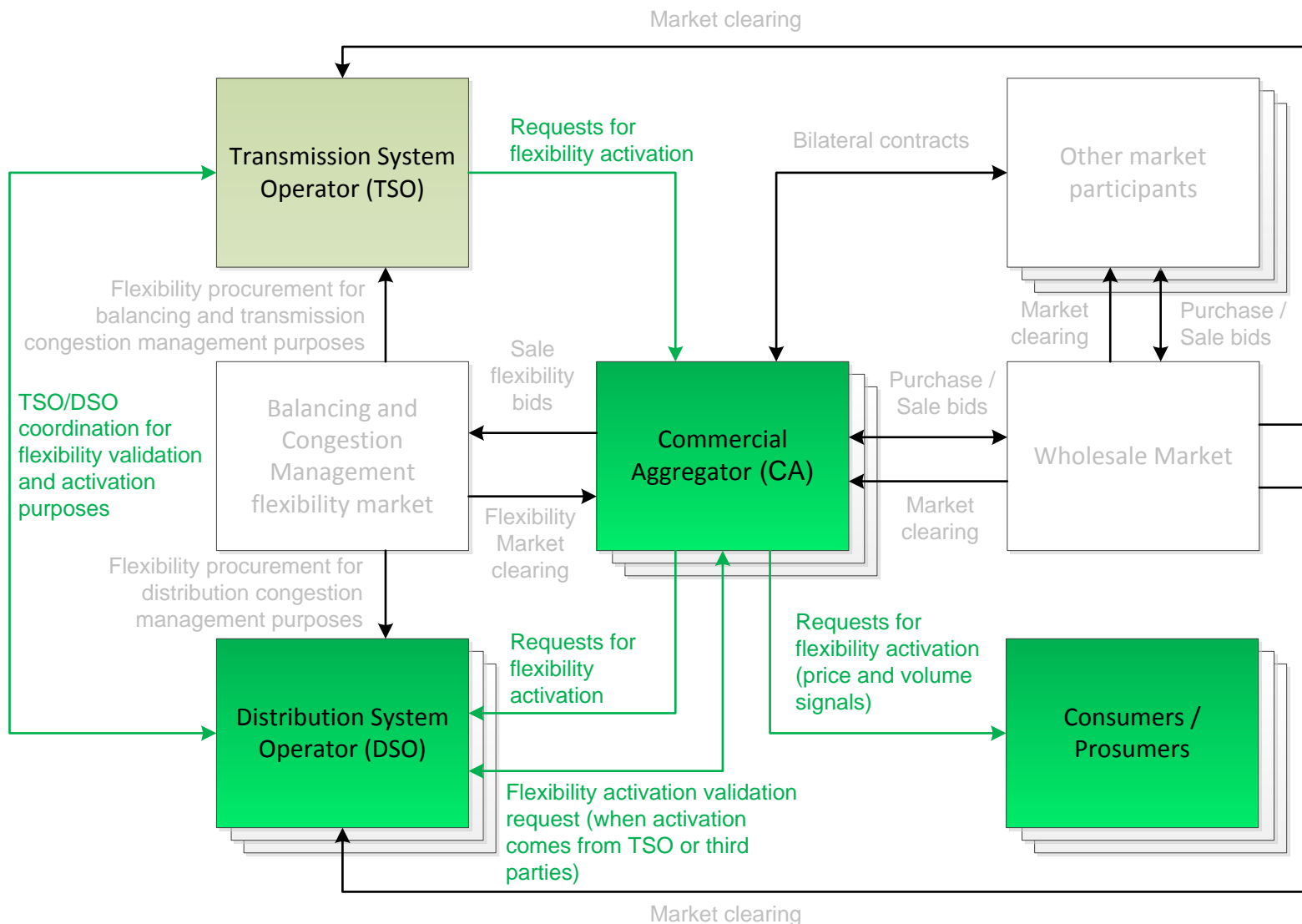


Day-ahead CA algorithm interaction





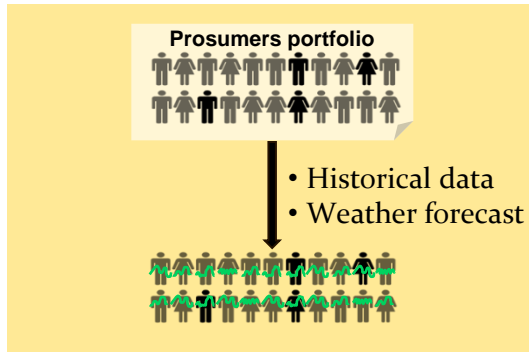
Real-time CA algorithm interaction



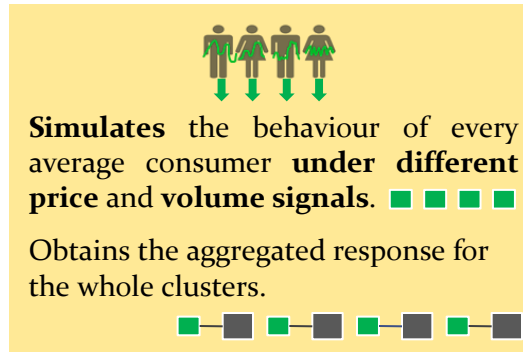


Commercial Aggregator functionalities

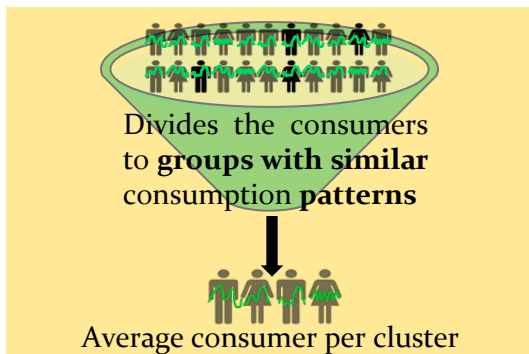
1 Consumption Forecasting



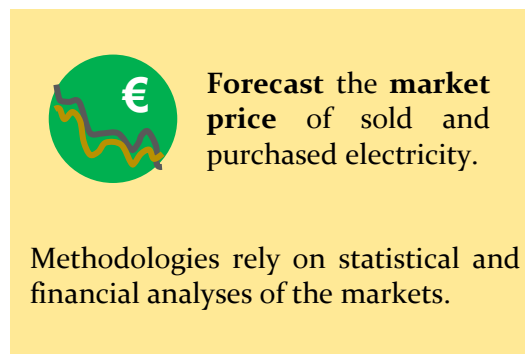
3 Flexibility Forecast Tool



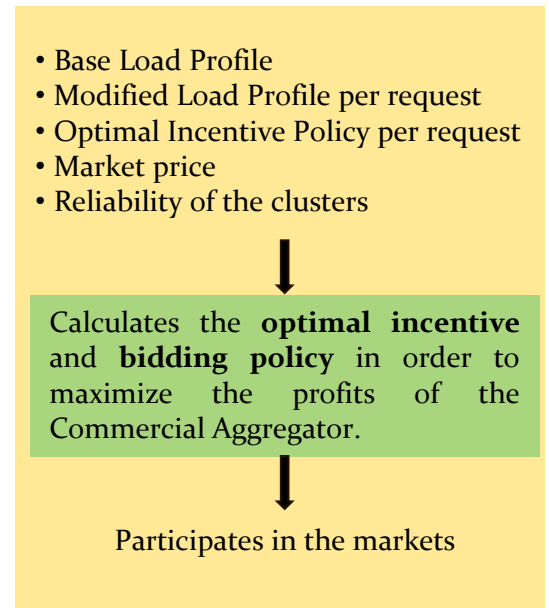
2 Consumer Segmentation



4 Market forecasting



5 The Commercial Optimal Planning Tool



CA Algorithms – some results

Scenario characteristics

Kind of area	Urban
Number of nodes	40
Number of substation	1
Area size	0,043 km ²
Penetration rate of	
Domestic Users	100%
Solar Generation	20%
Wind Generation	5%
Electric Vehicles	15%
Flexible load profiles	70%

2.1	10	21	0,17	1,2075
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Example of applied Incentive Requests

Daily profit for the CA per cluster

