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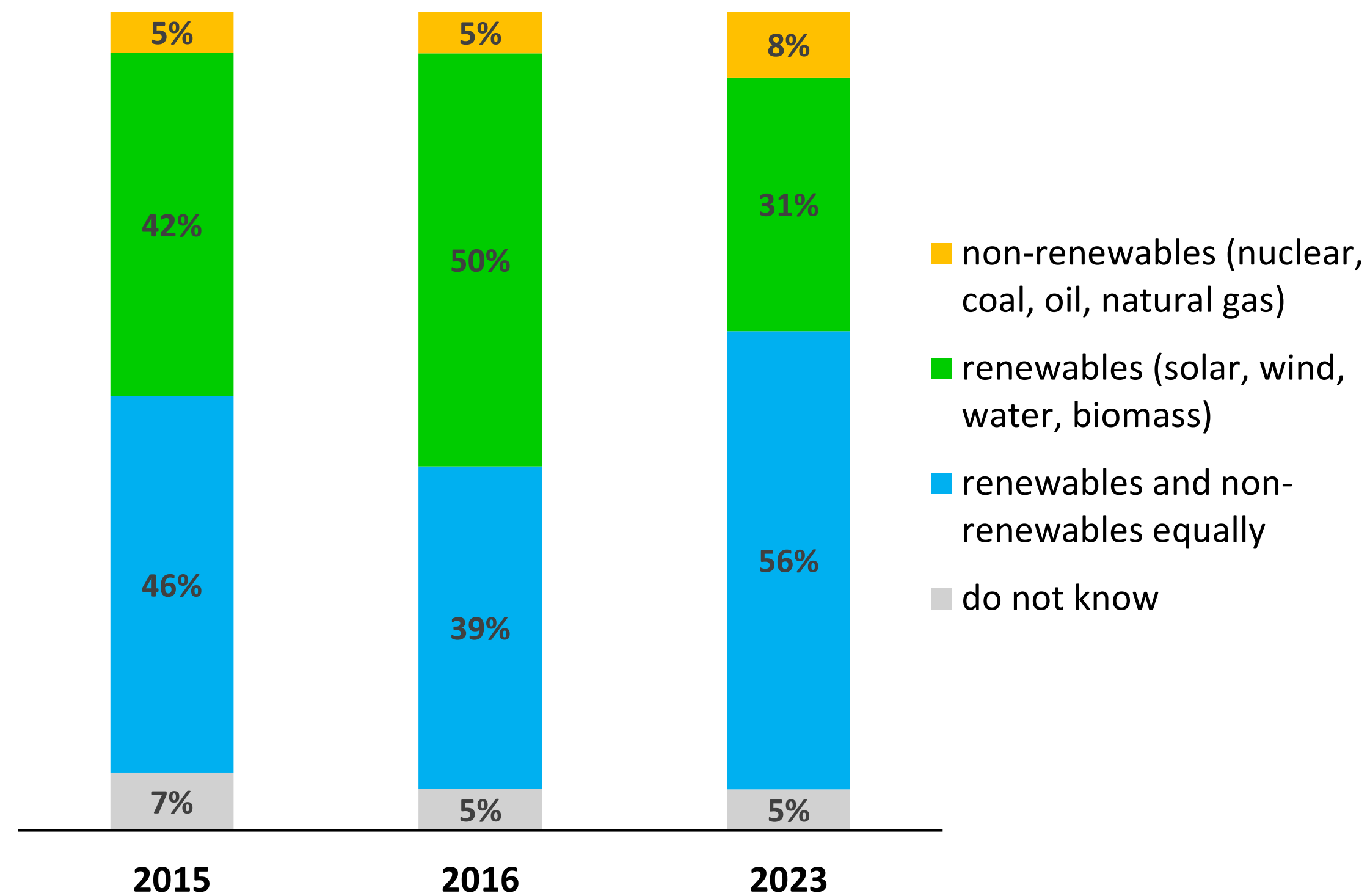
RESEARCH
UNIVERSITY
EXCELLENCE INITIATIVE
Ministry of Science
and Higher Education

Promising energy technologies towards sustainable future

Wojciech Uchman

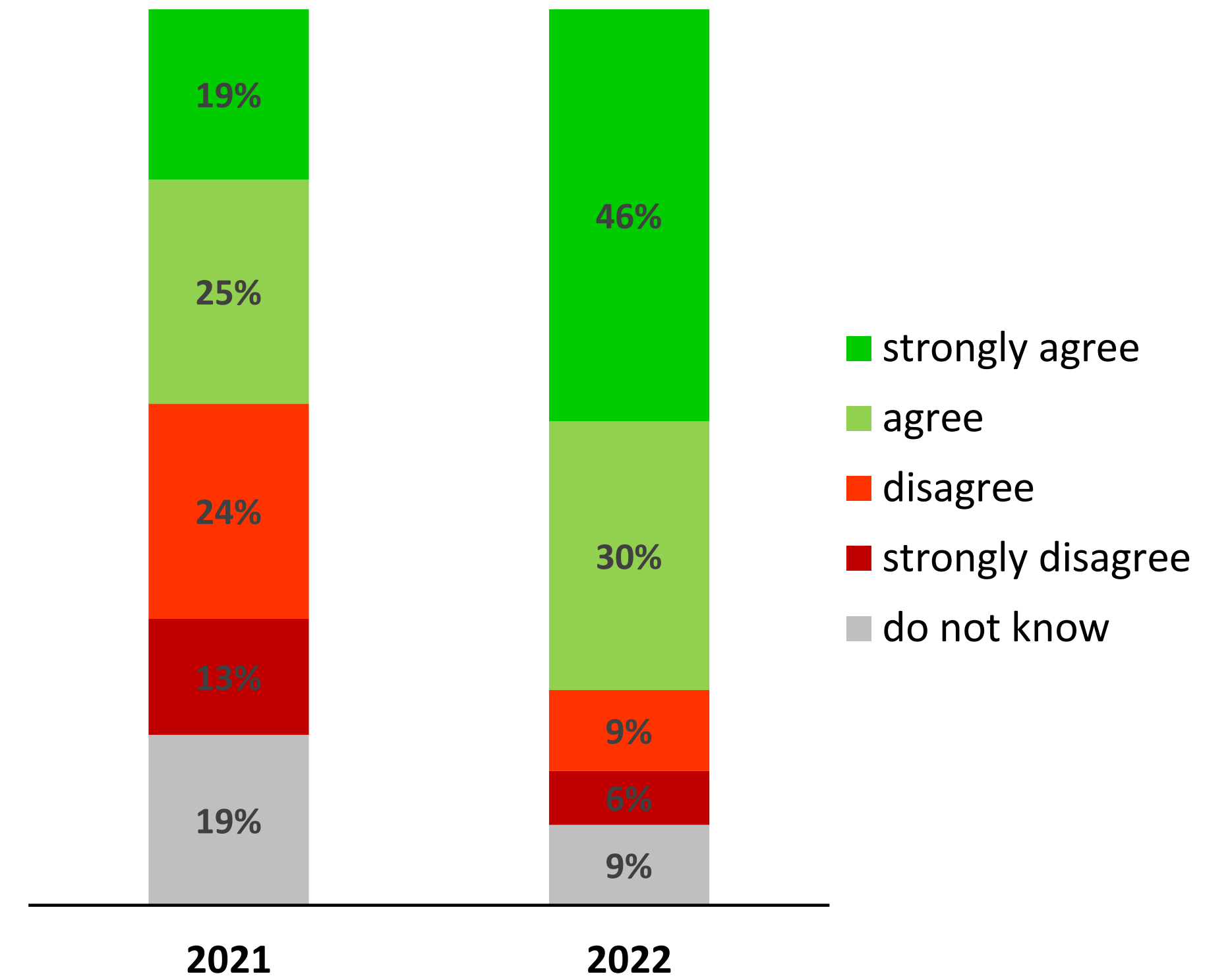
PUBLIC PERCEPTION OF ENERGY TRANSFORMATION IN POLAND

2



Responses to the question about the energy area to focus on; based on the statistical study by CBOS.

Source: Centrum Badania Opinii Społecznej. Postawy wobec transformacji energetycznej. Komunikat z badań, 30, 2023

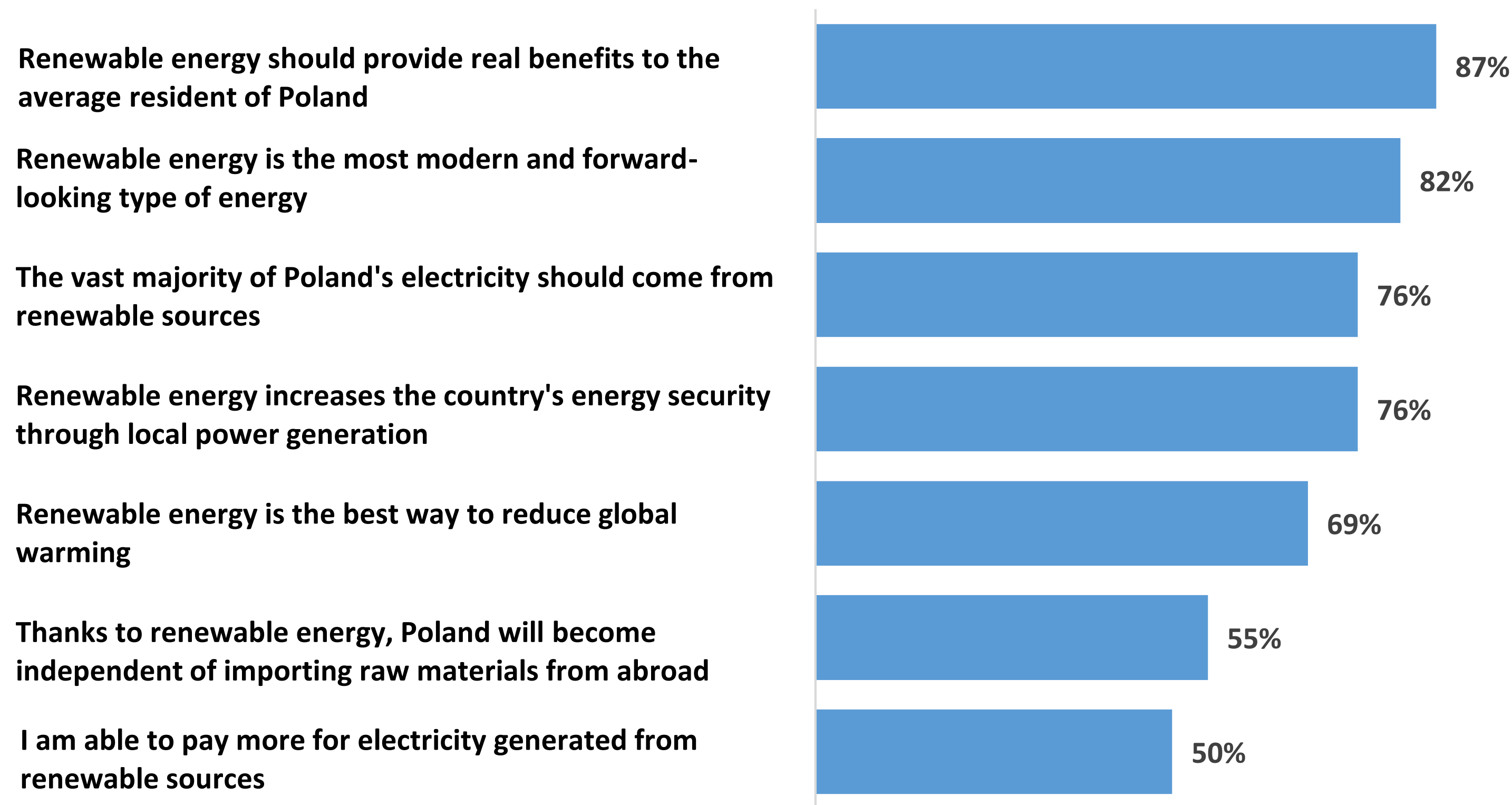


Responses to the question whether you agree with the statement that the development of nuclear power in Poland is necessary if we want to move away from coal-based energy; based on the statistical study by CBOS.

Source: Centrum Badania Opinii Społecznej. Polacy o rozwoju energetyki jądrowej. Komunikat z badań, 151, 2022

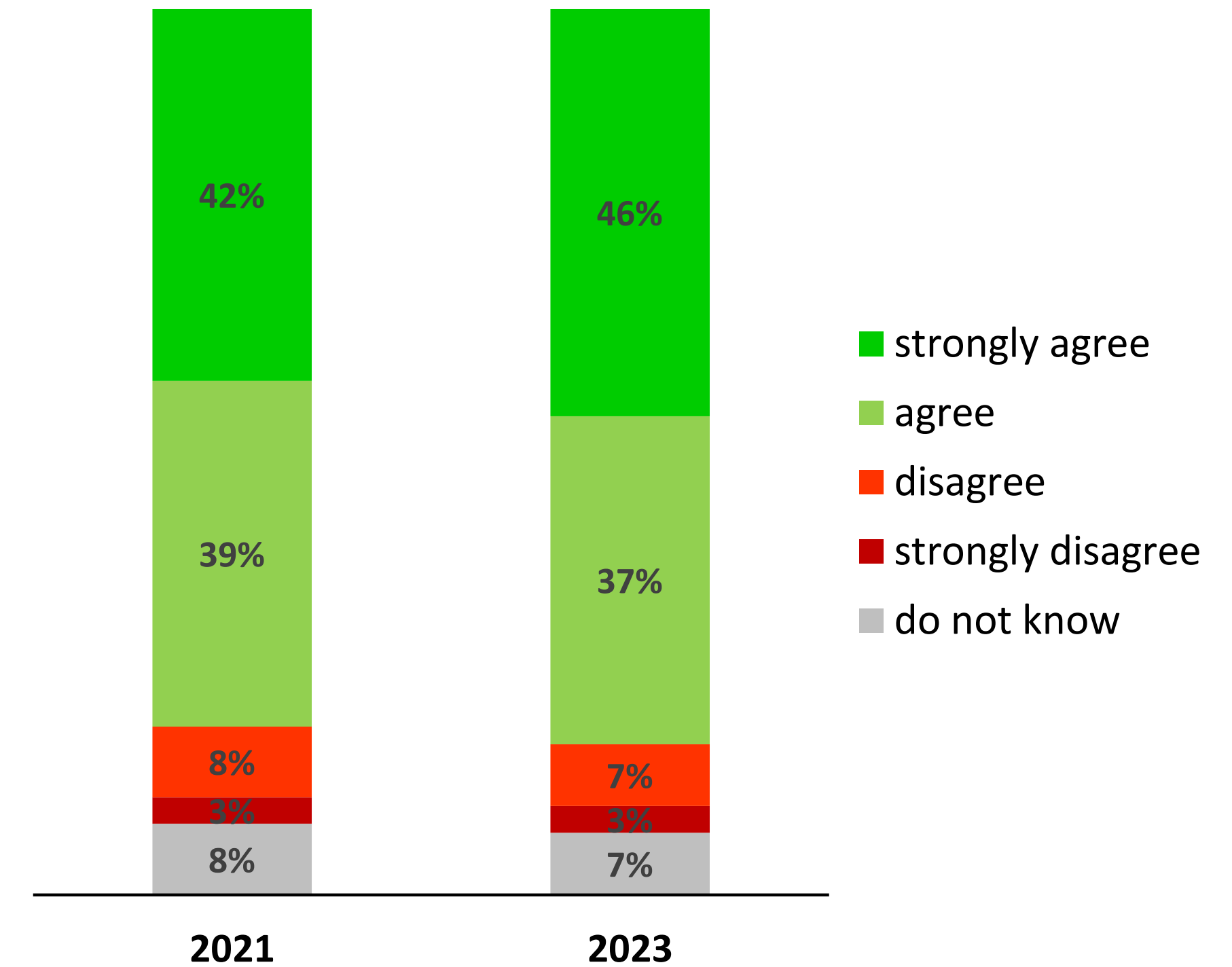
PUBLIC PERCEPTION OF ENERGY TRANSFORMATION IN POLAND

3



Percentage of people supporting given statements regarding renewable energy sources.

Source: Społeczno-kulturowe uwarunkowania rozwoju energetyki rozproszonej w Polsce. KlastER, 2021



Responses to the question regarding support of the development of onshore wind farms in Poland; based on the statistical study by CBOS.

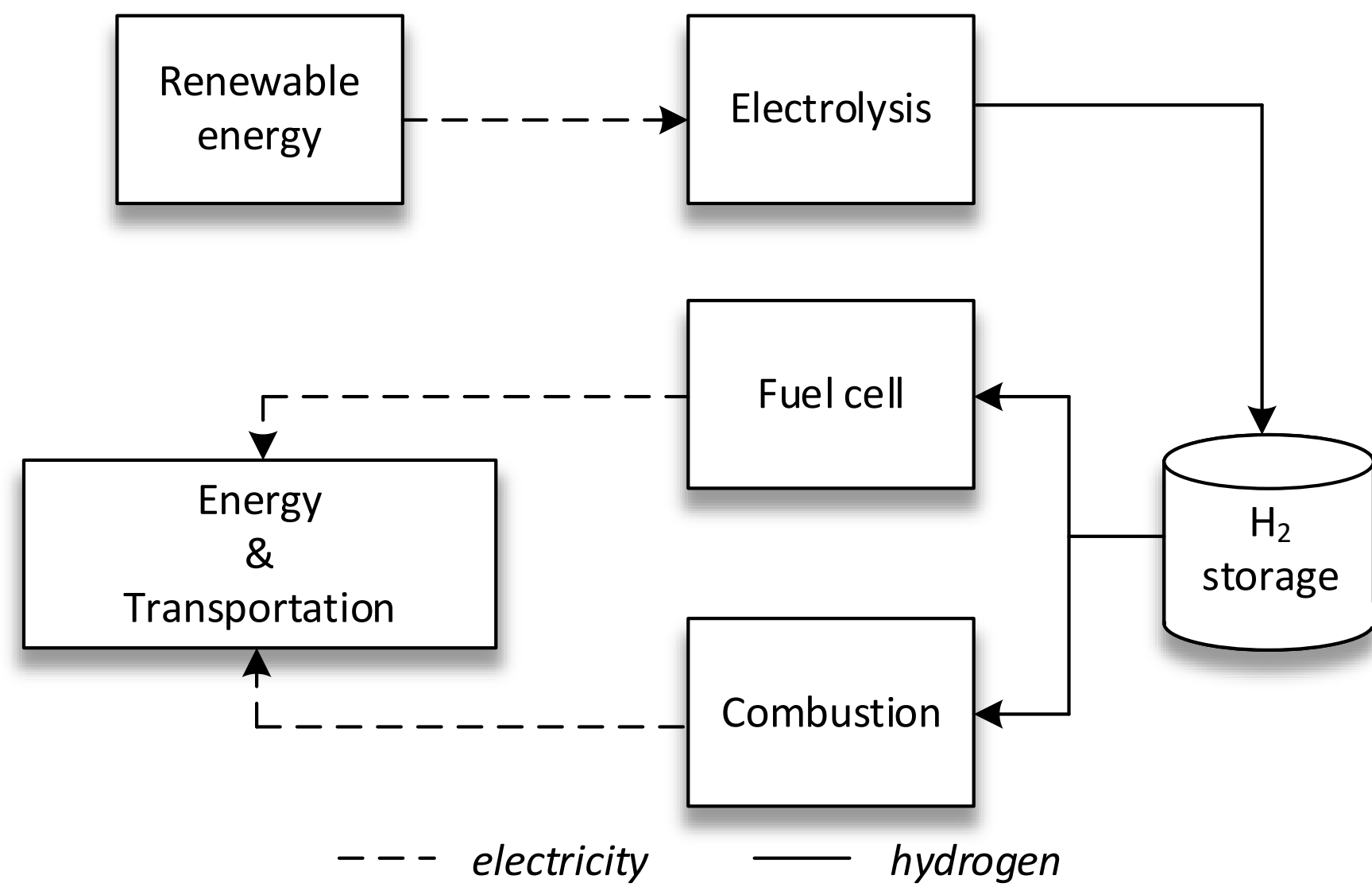
Source: Centrum Badania Opinii Społecznej. Opinie o energetyce wiatrowej. Komunikat z badań, 27, 2023



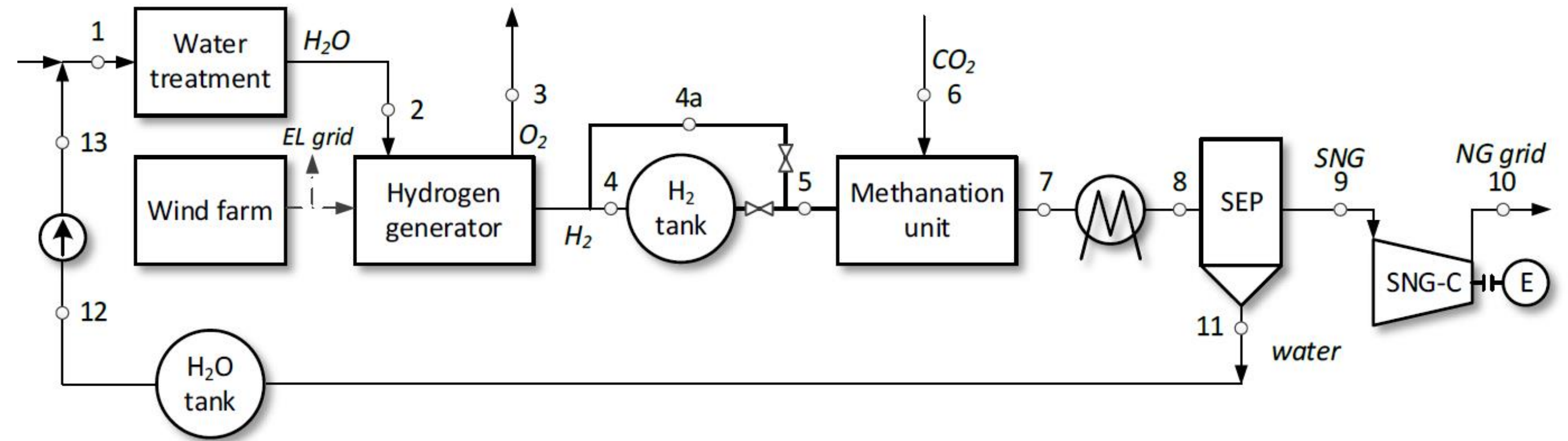
LARGE-SCALE SYSTEM PERSPECTIVE

HYDROGEN ECONOMY

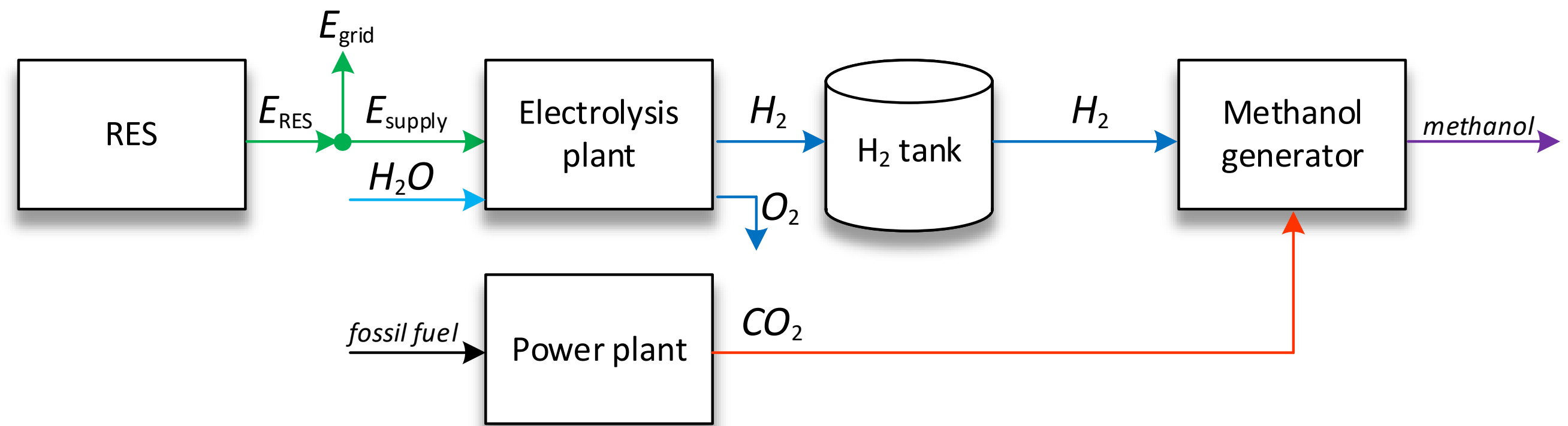
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power-to-SNG

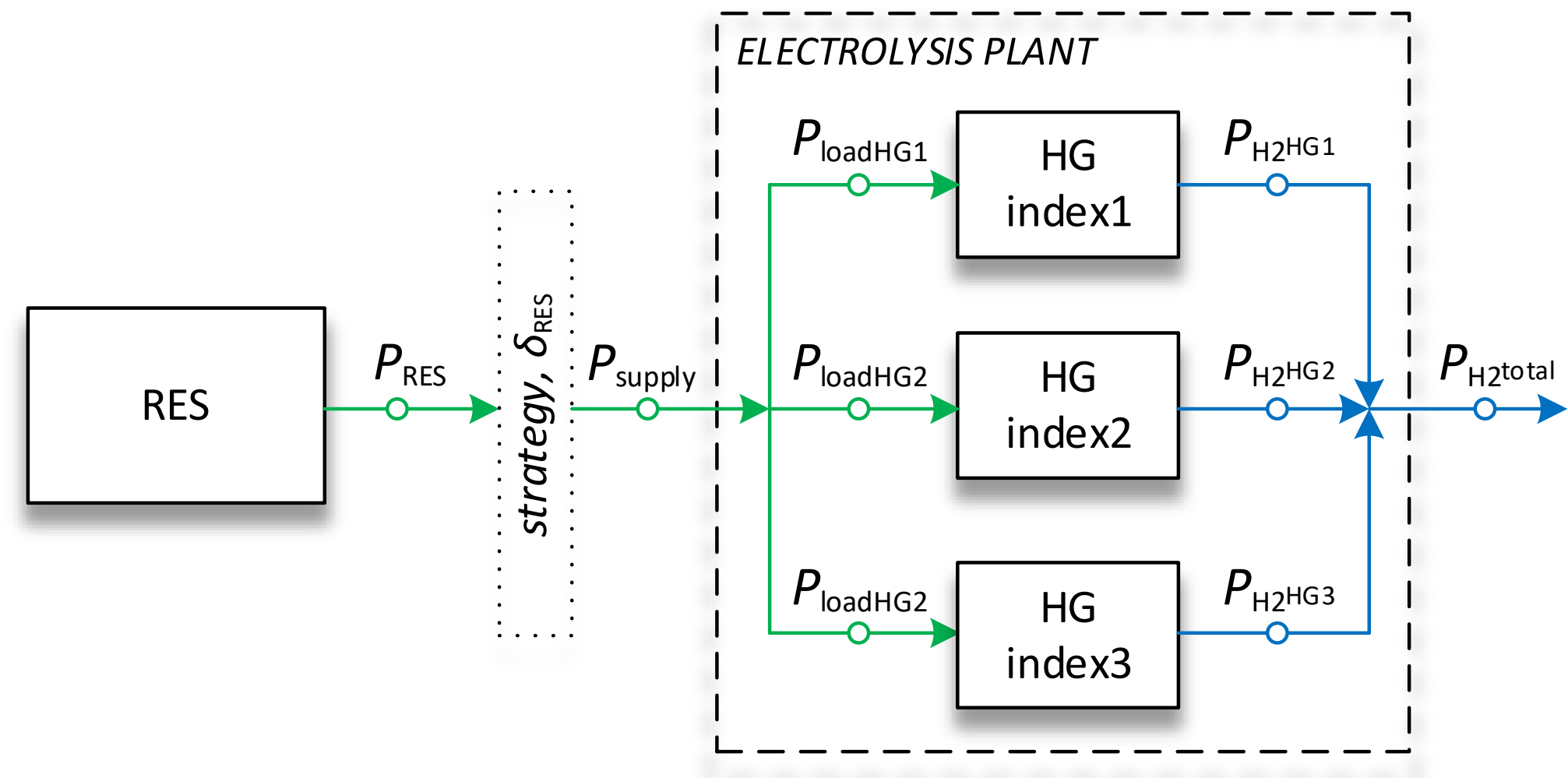
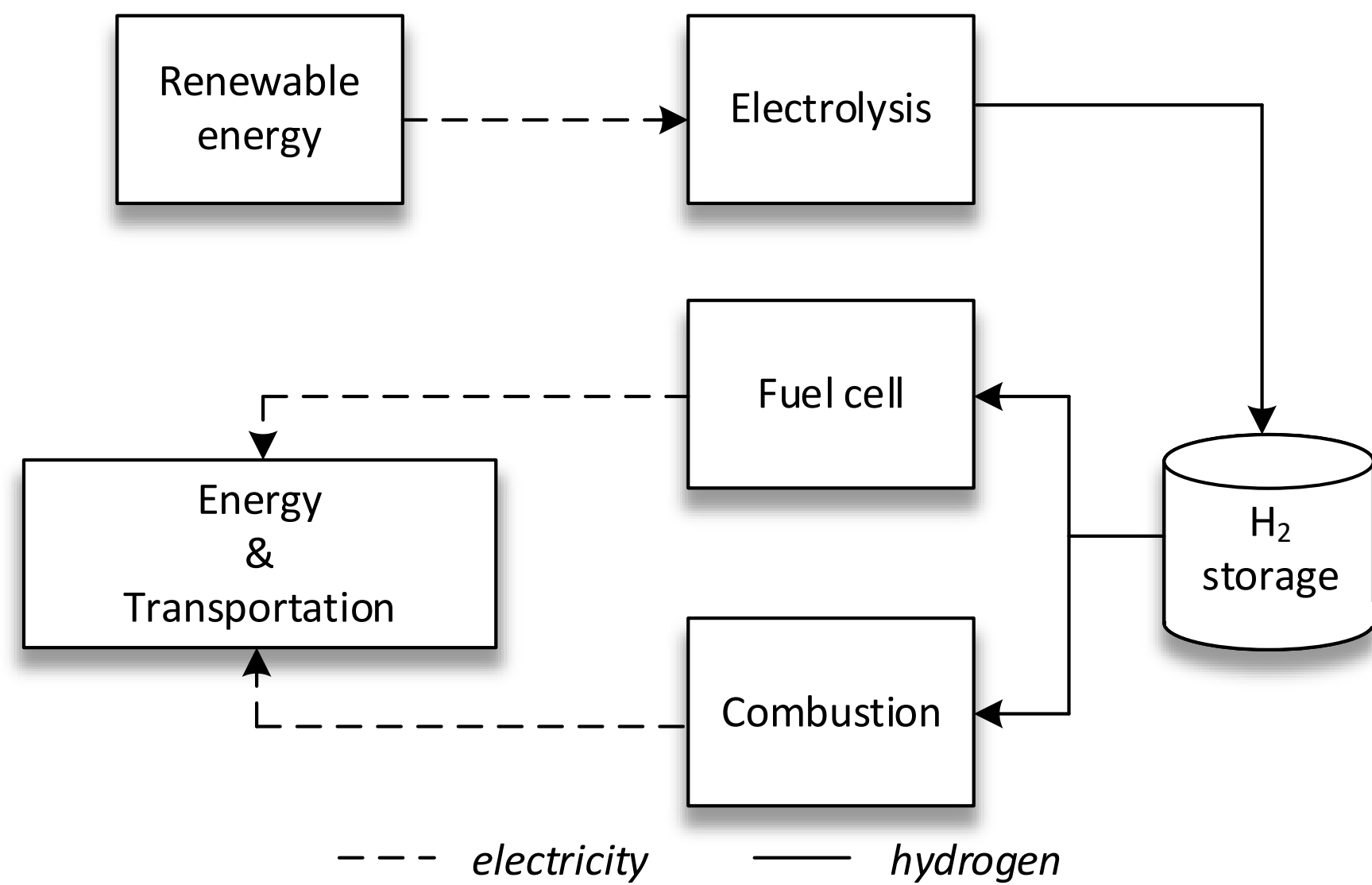


power-to-methanol

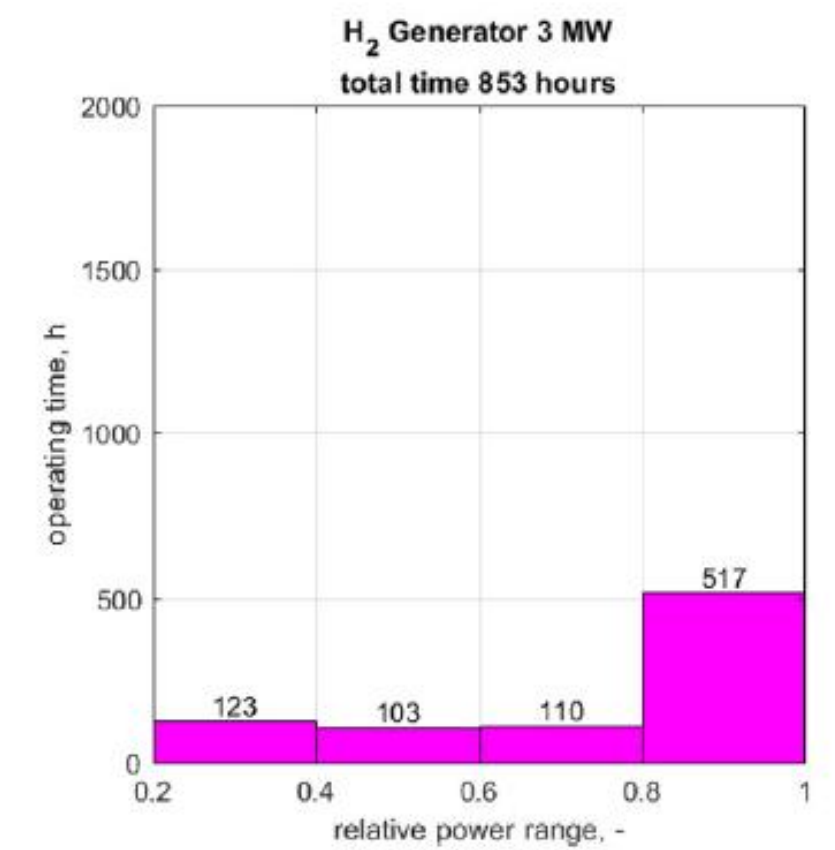
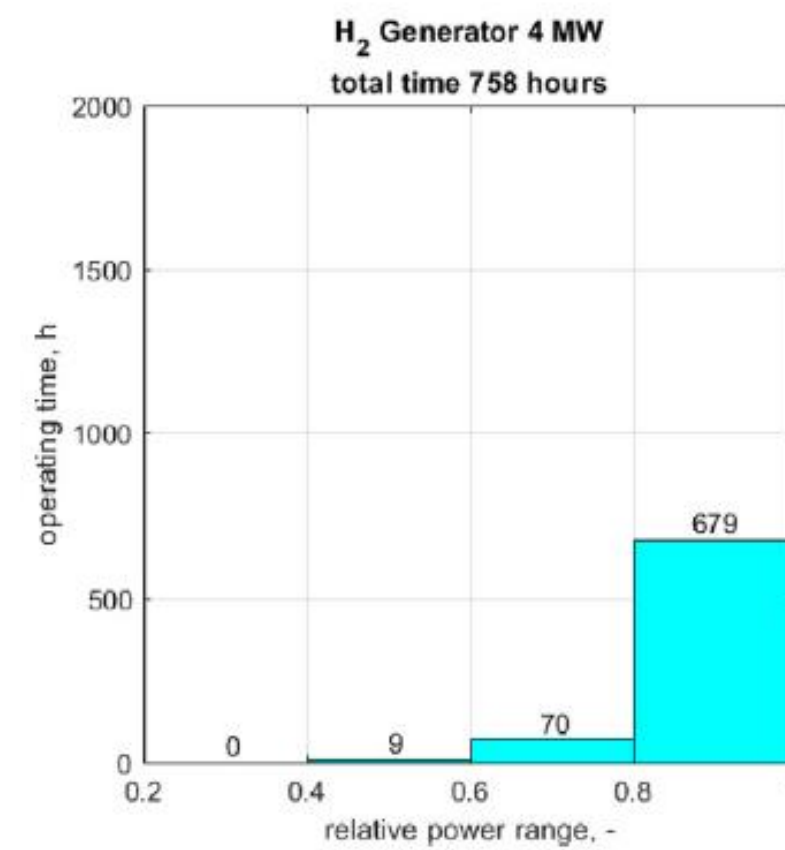
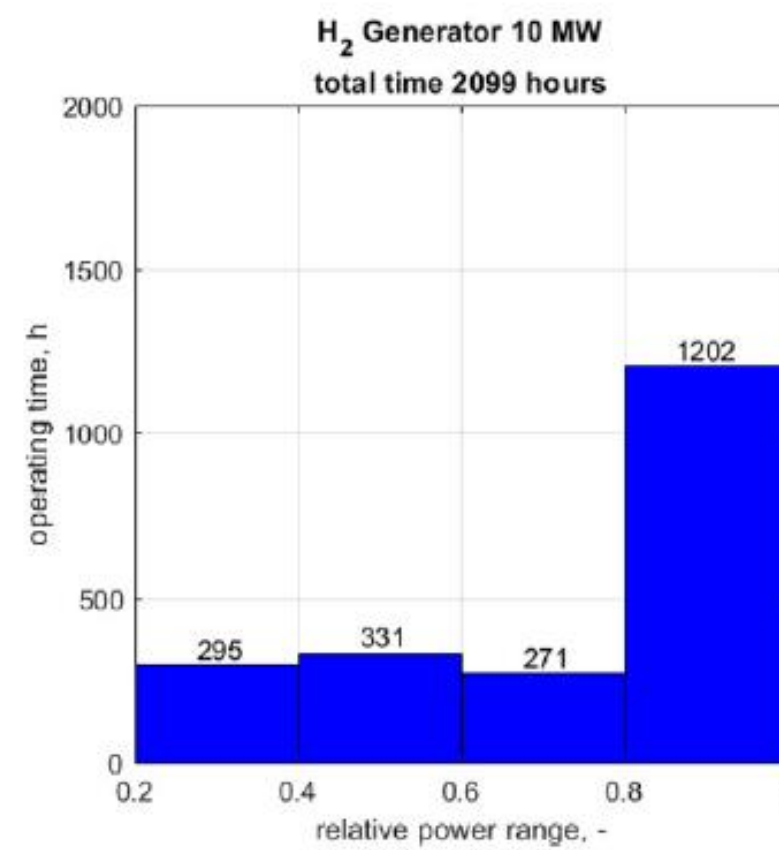


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HYDROGEN ECONOMY



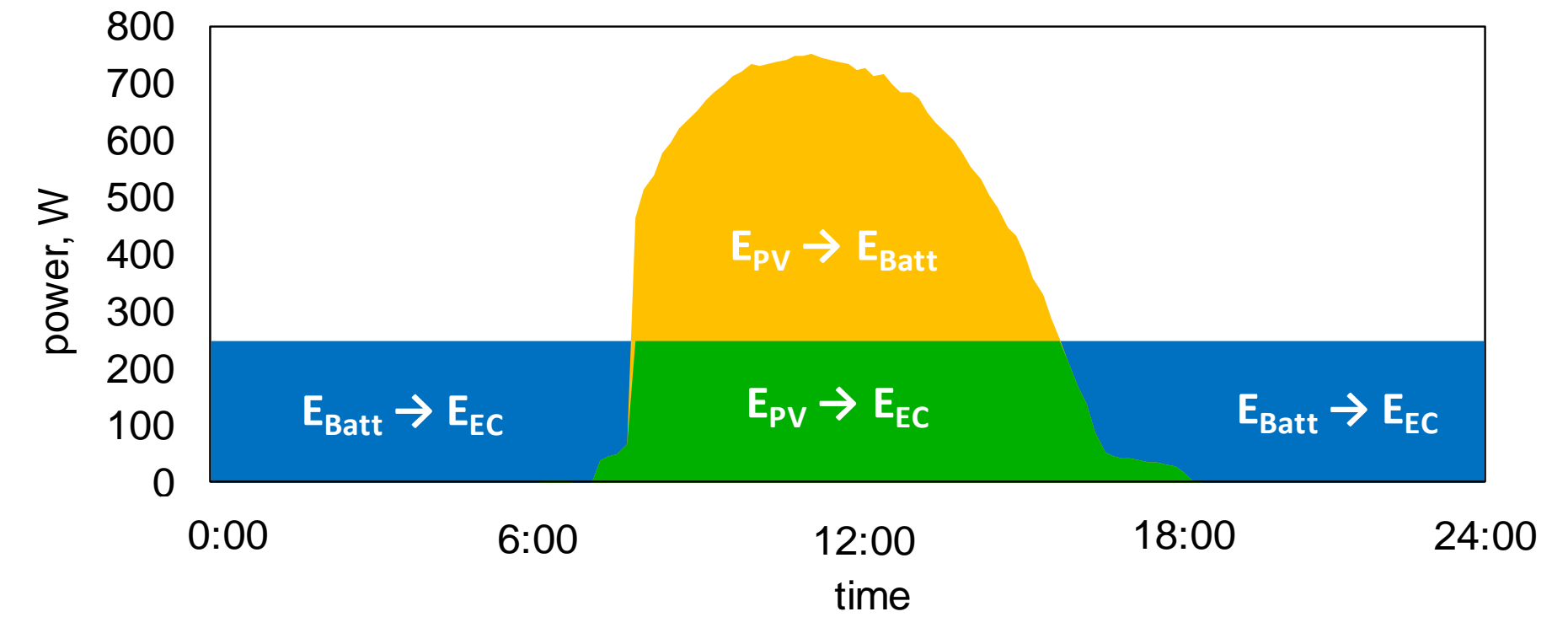
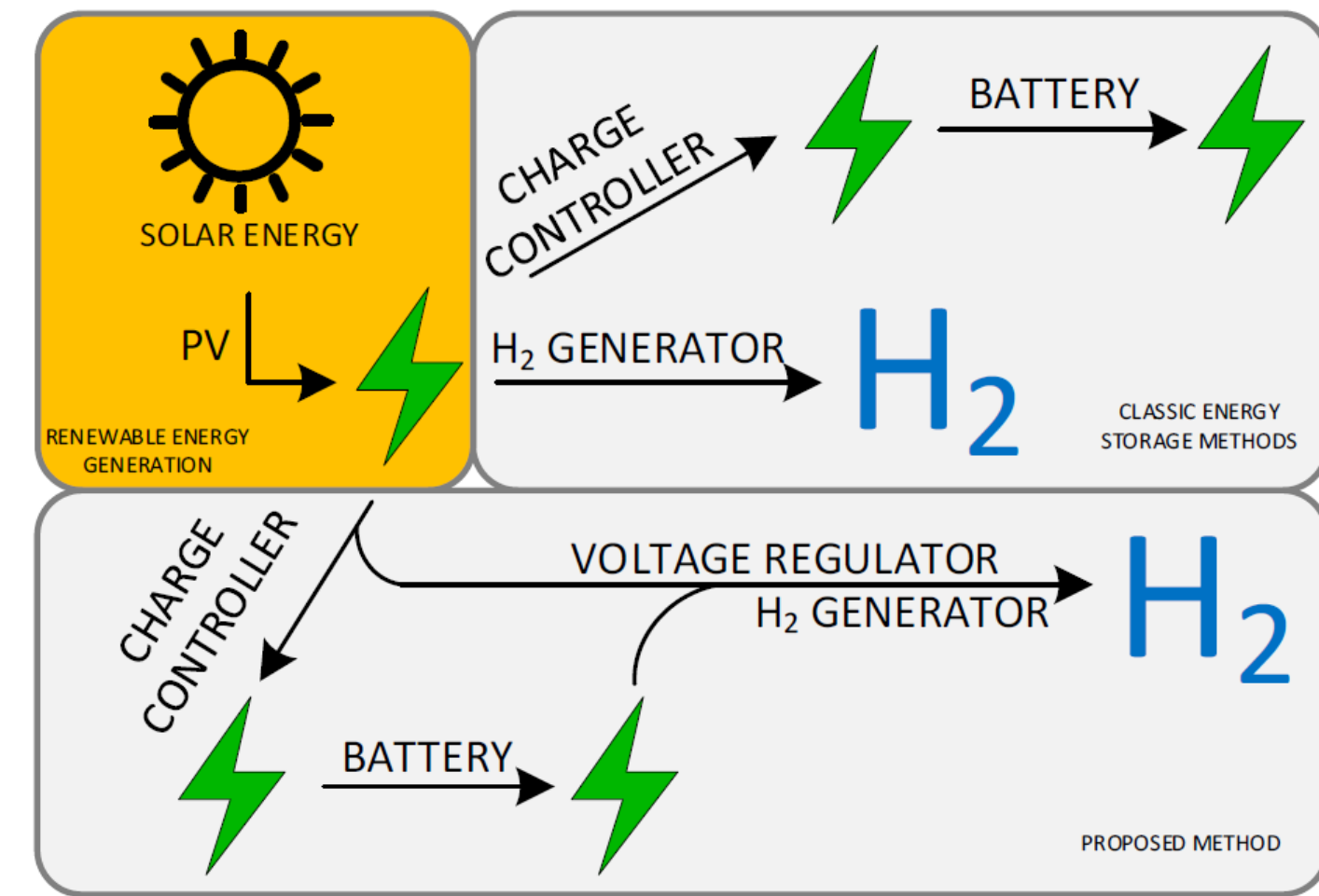
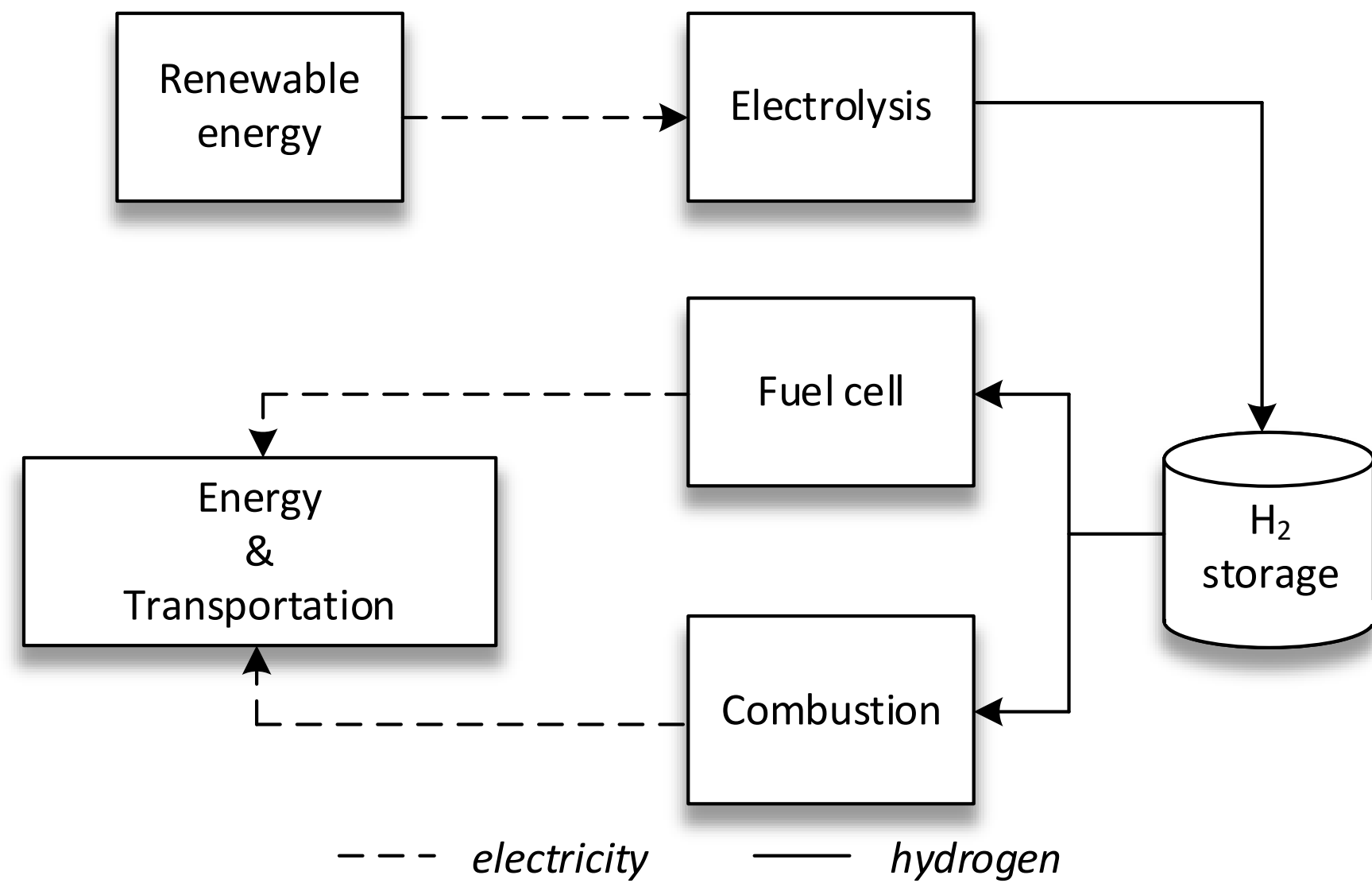
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LARGE-SCALE SYSTEM PERSPECTIVE

HYDROGEN ECONOMY

6



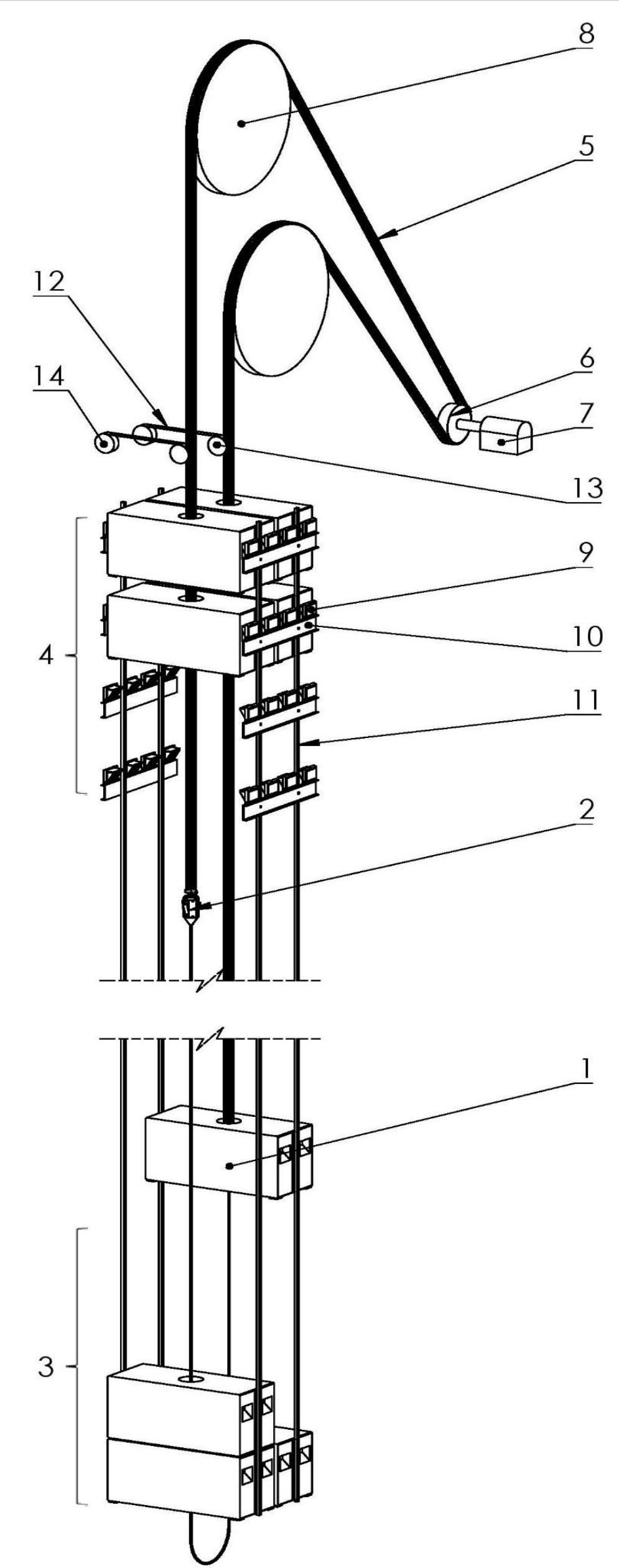
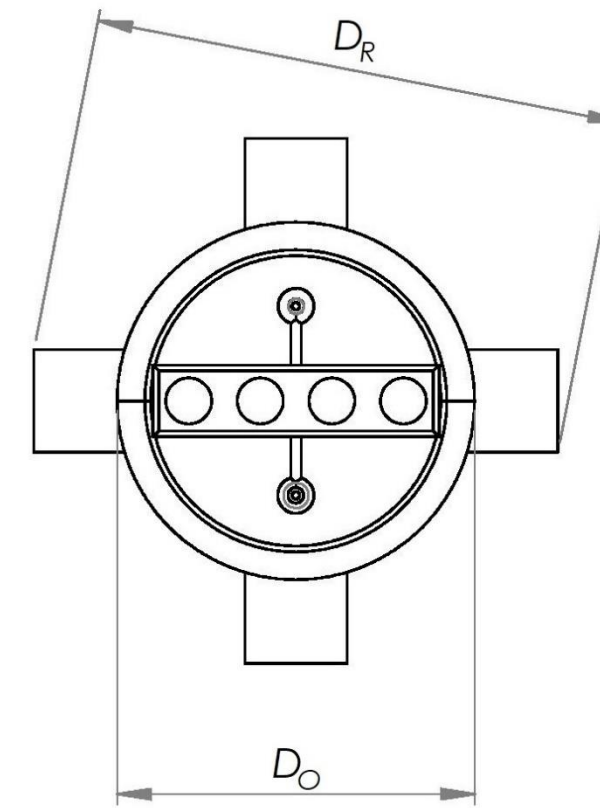
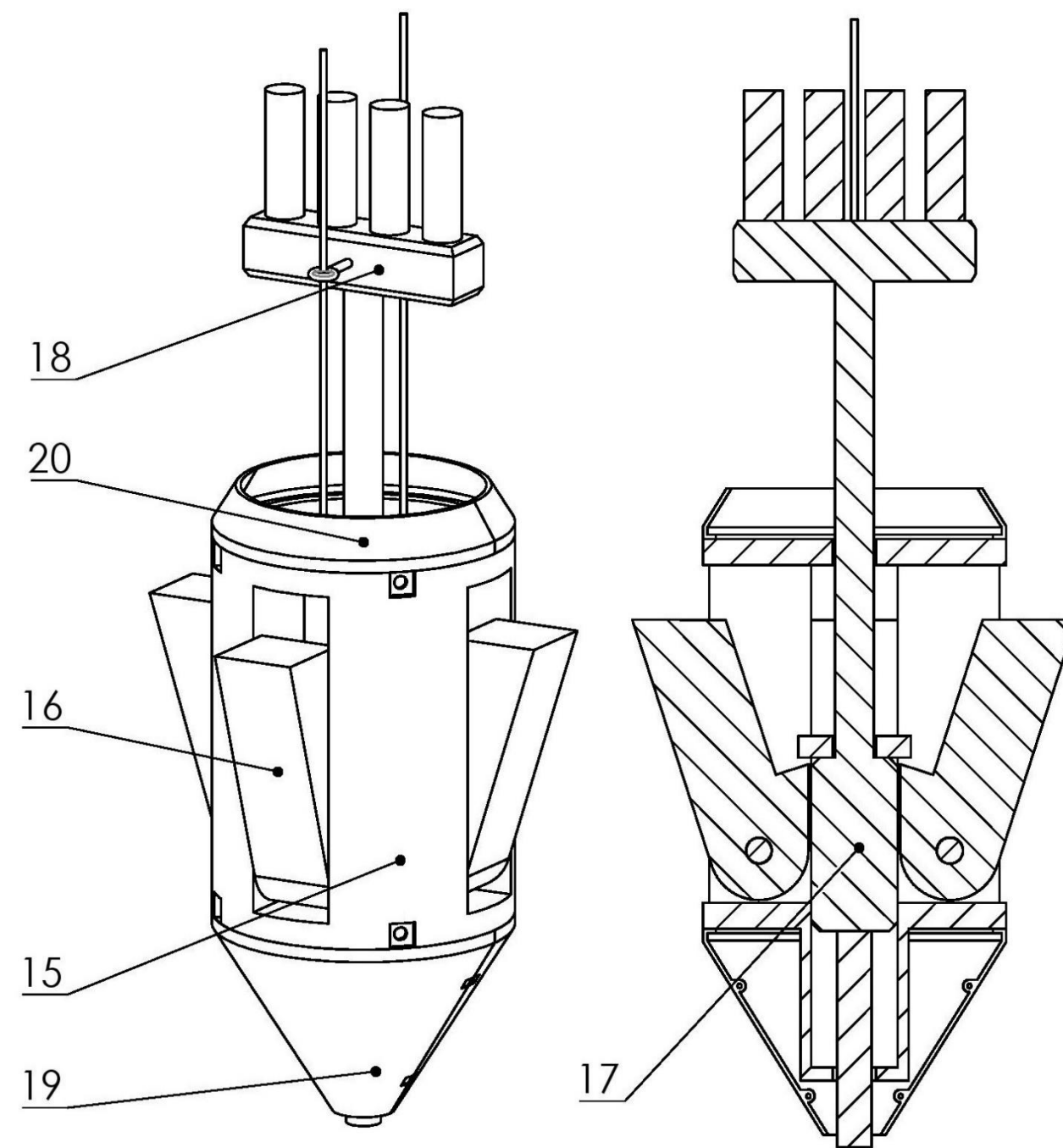
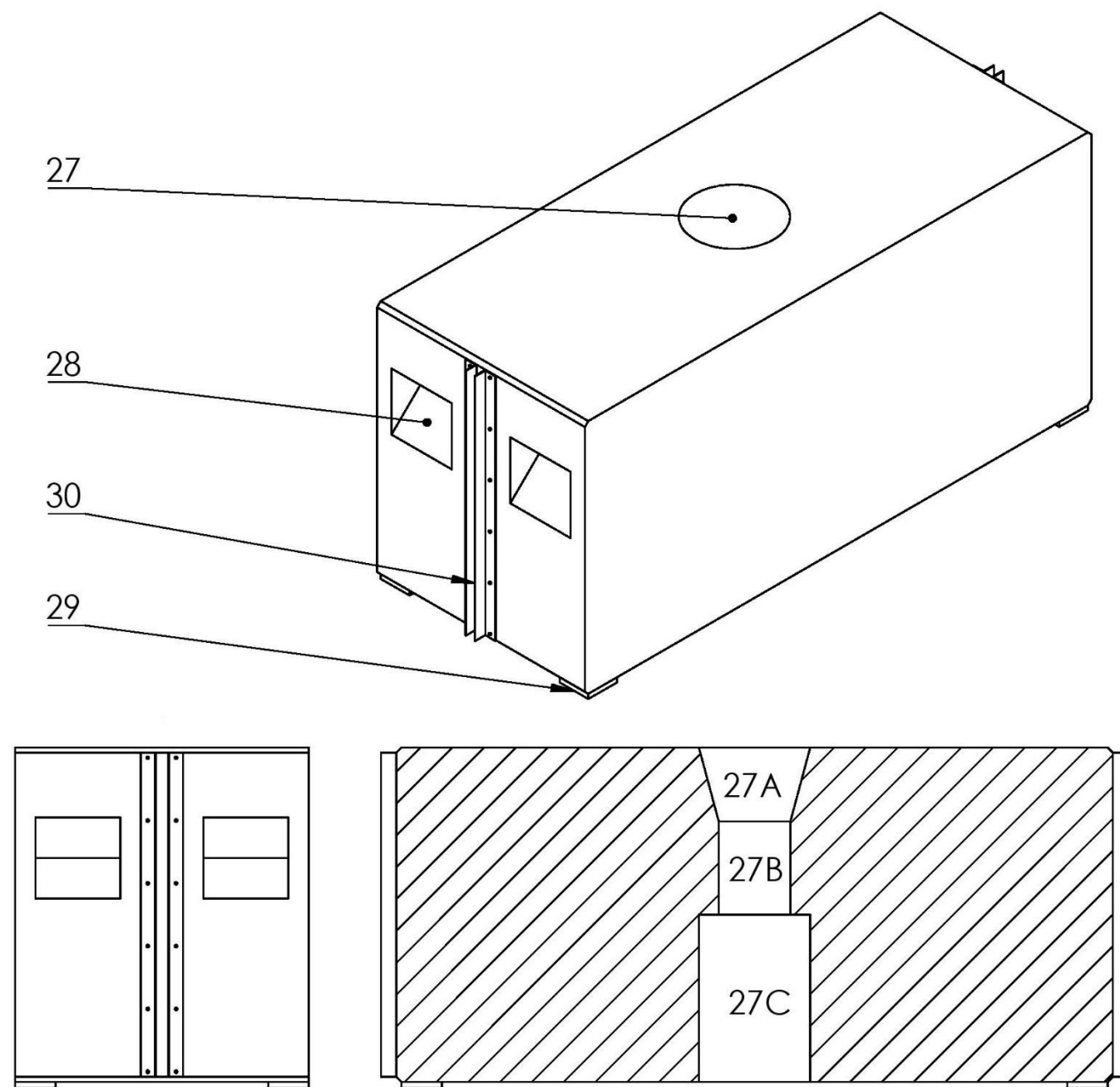
	PV energy, kWh	Hydrogen energy, kWh
Hydrogen generator	3.69	1.69
Hydrogen generator + battery	4.18	1.94



LARGE-SCALE SYSTEM PERSPECTIVE

EXISTING INFRASTRUCTURE – POST-MINING SHAFTS

7



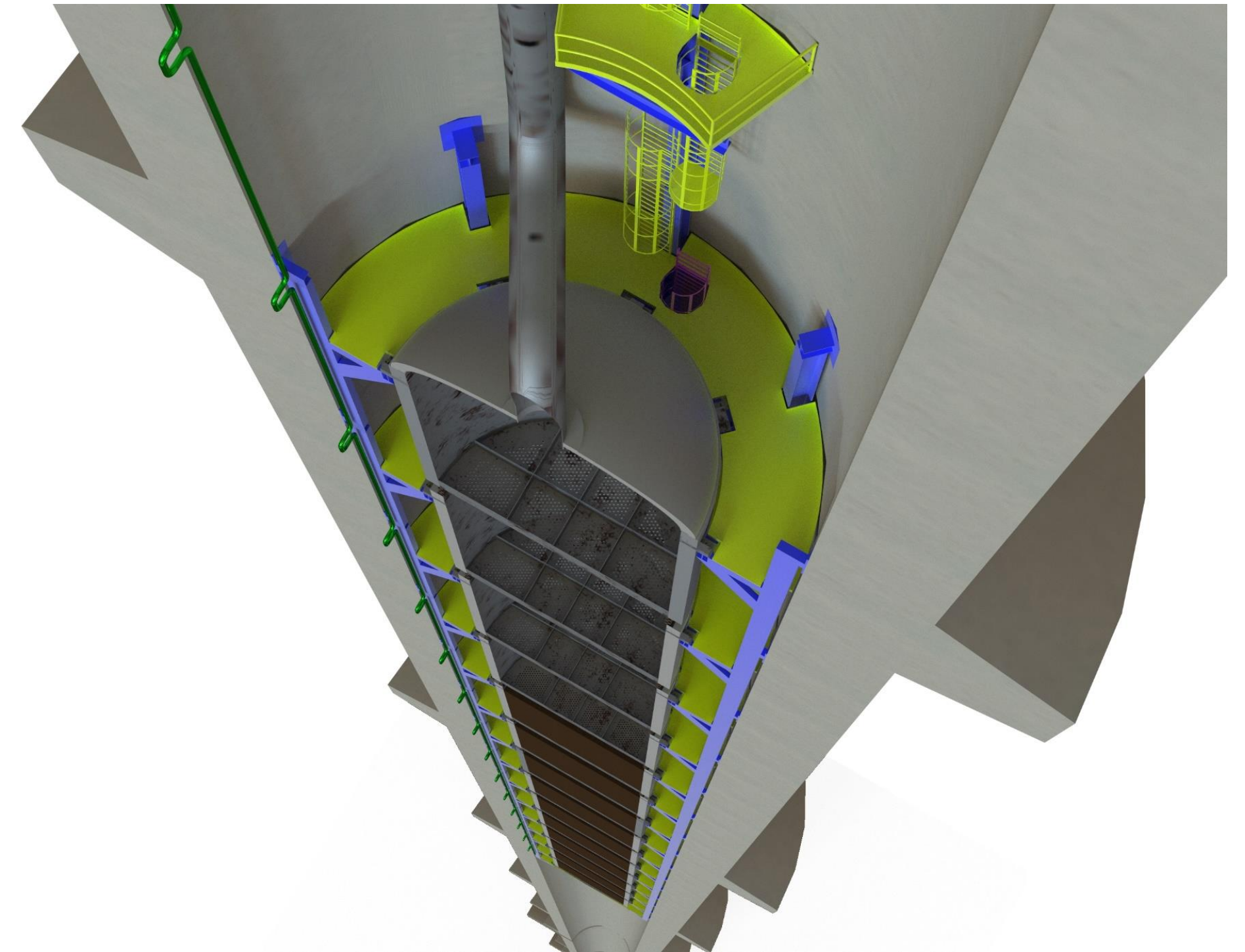
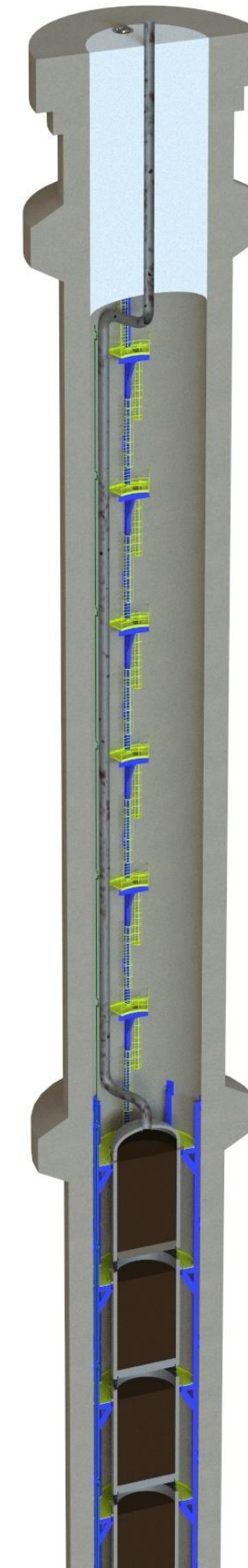
Polish patent application: P.442507



LARGE-SCALE SYSTEM PERSPECTIVE

EXISTING INFRASTRUCTURE – POST-MINING SHAFTS

8



European patent EP3792467

Polish patent PL242184

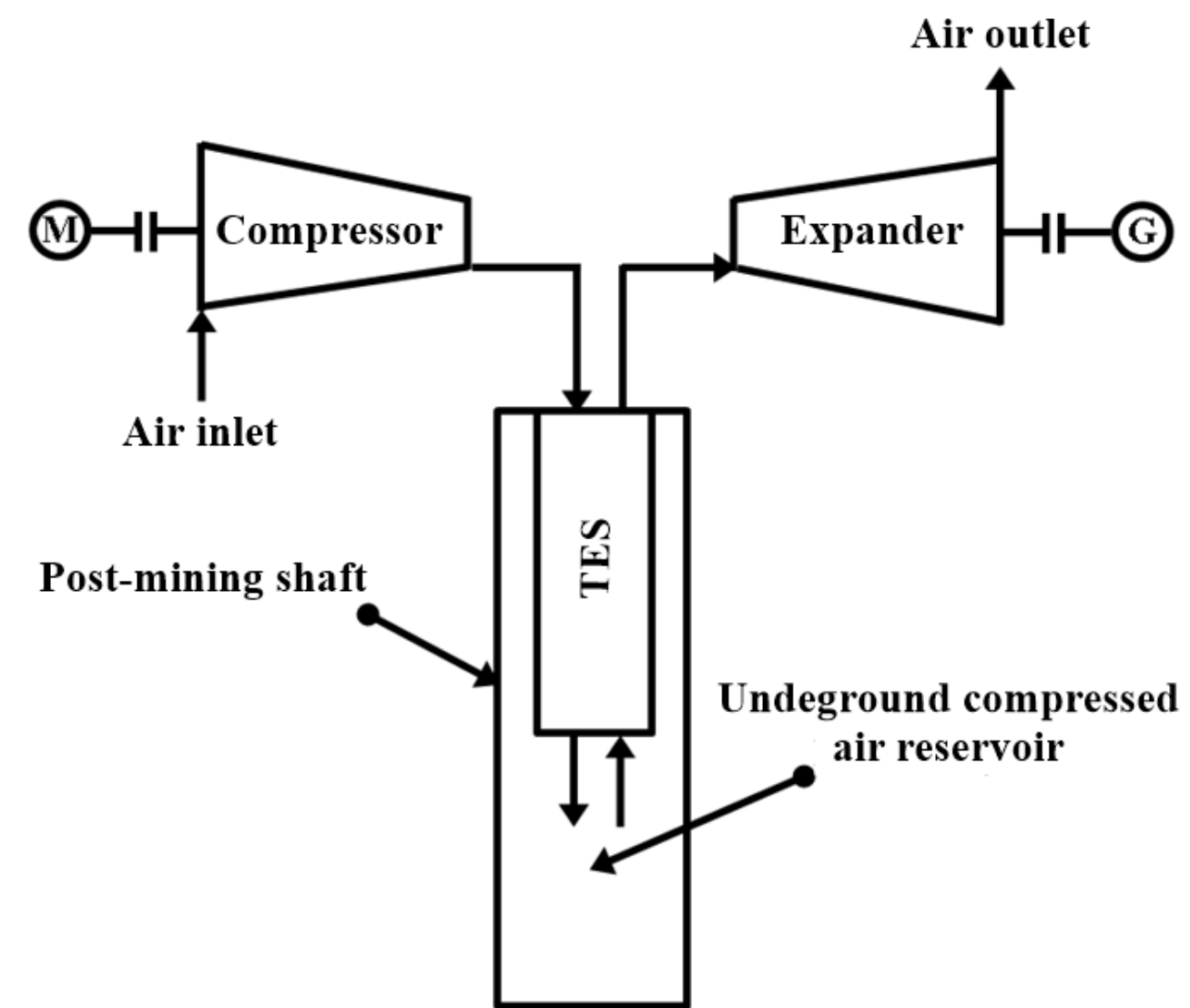


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LARGE-SCALE SYSTEM PERSPECTIVE

EXISTING INFRASTRUCTURE – POST-MINING SHAFTS

9



European patent EP3792467

Polish patent PL242184

PROSUMER PERSPECTIVE

SELF - SUFFICIENCY

*„Distributed energy is energy generation sources and **energy storage** intended for local use, connected directly or indirectly (using household installations, industrial networks, etc.) to the distribution system.”*

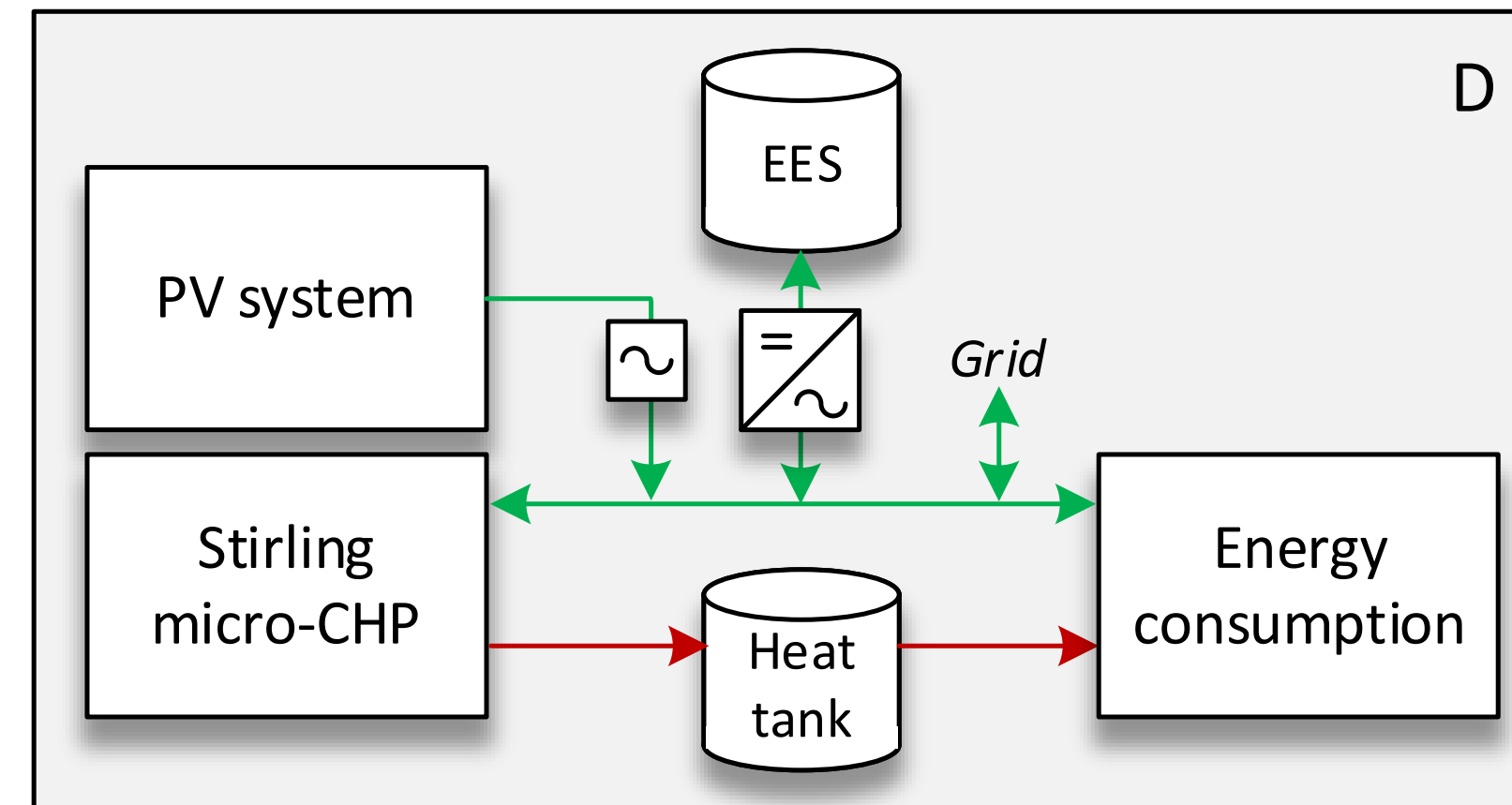
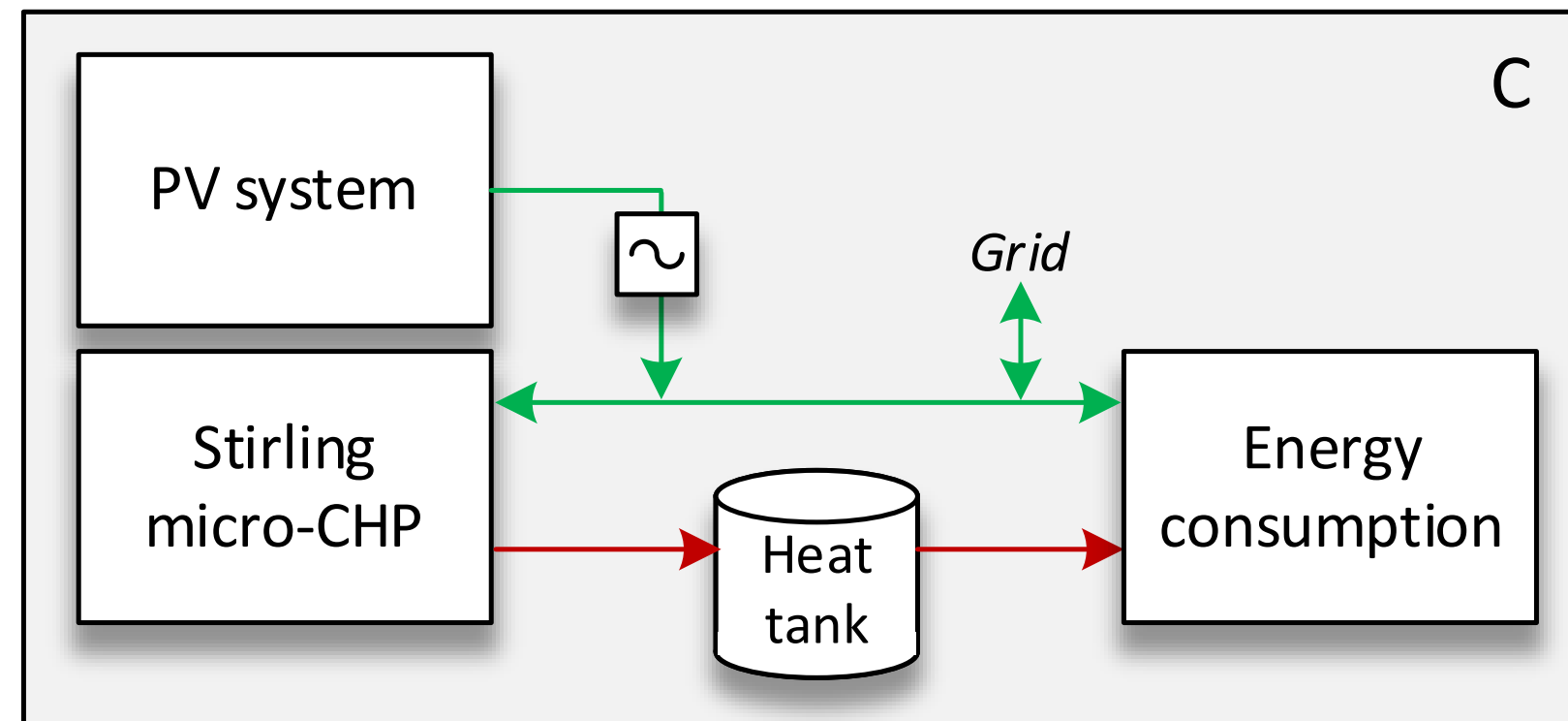
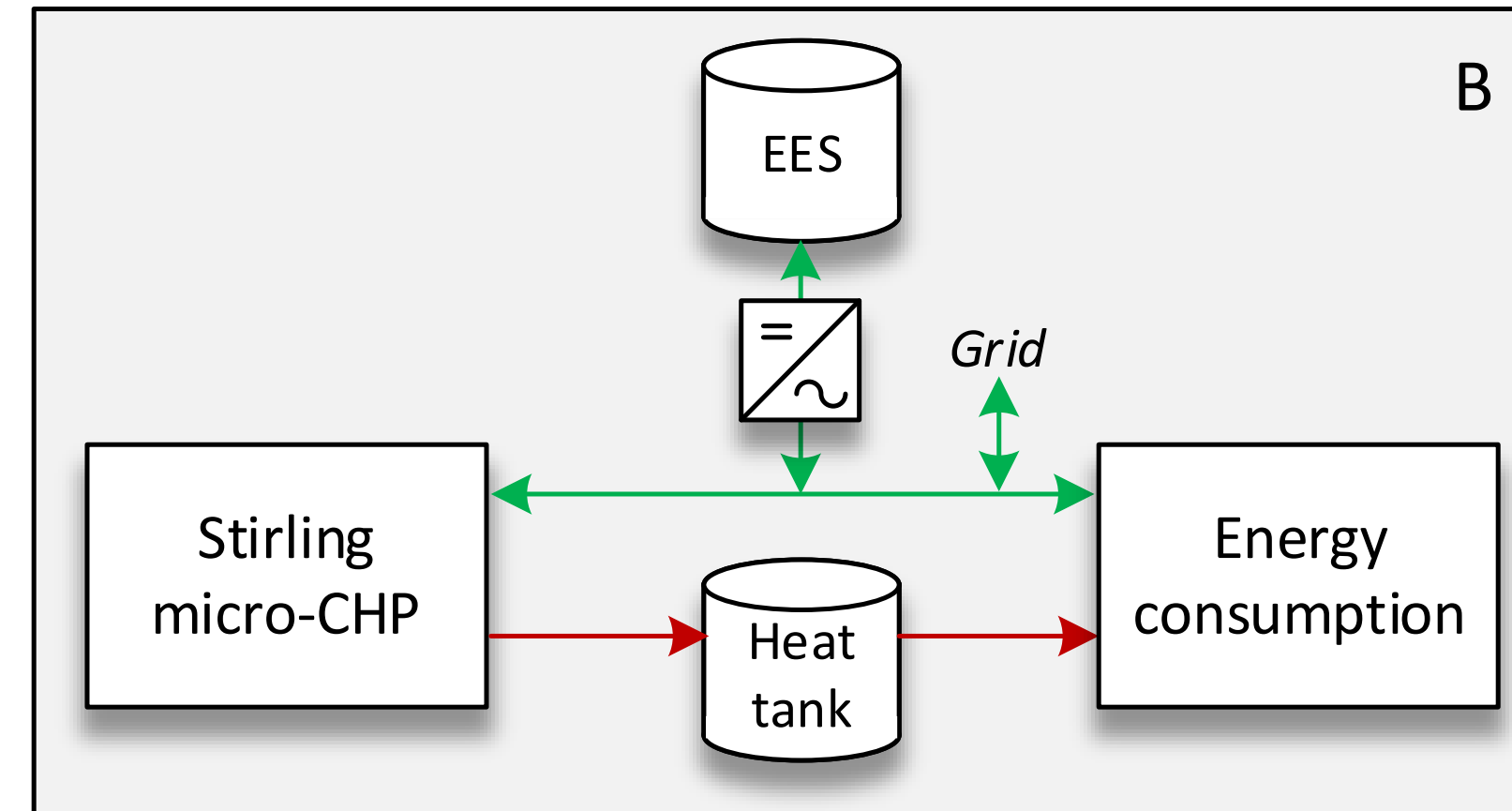
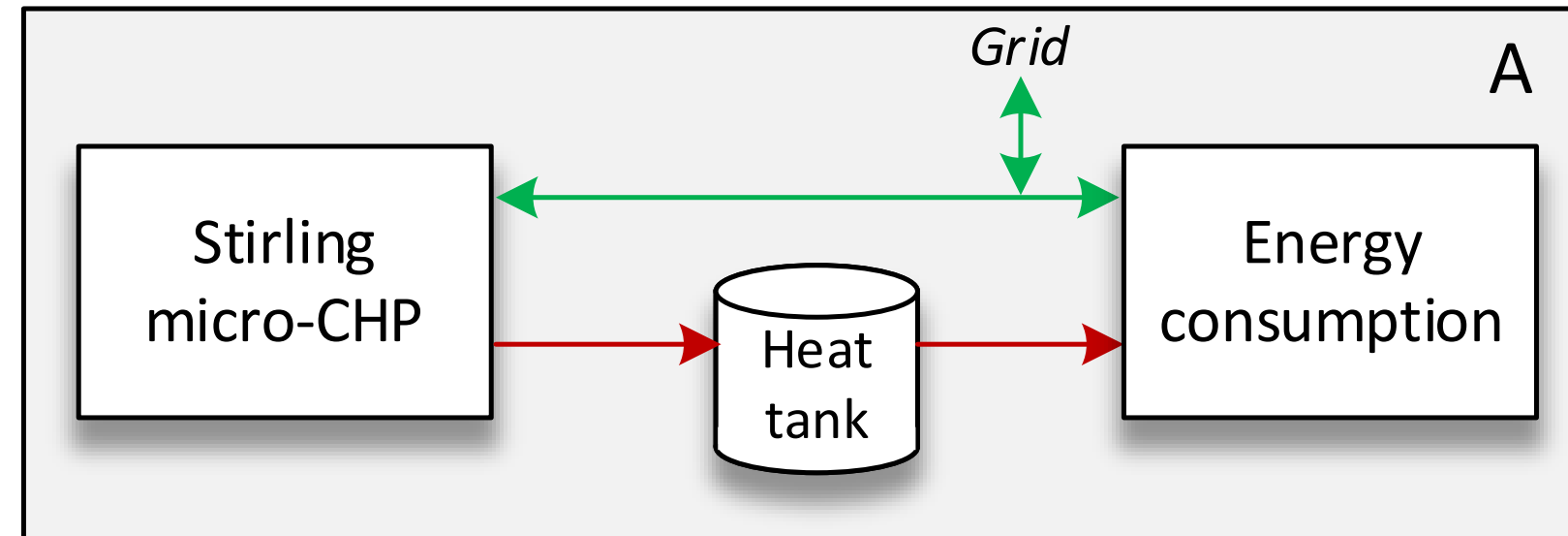
10

Source: „Strategy for the Development of Distributed Energy in Poland until 2040” draft



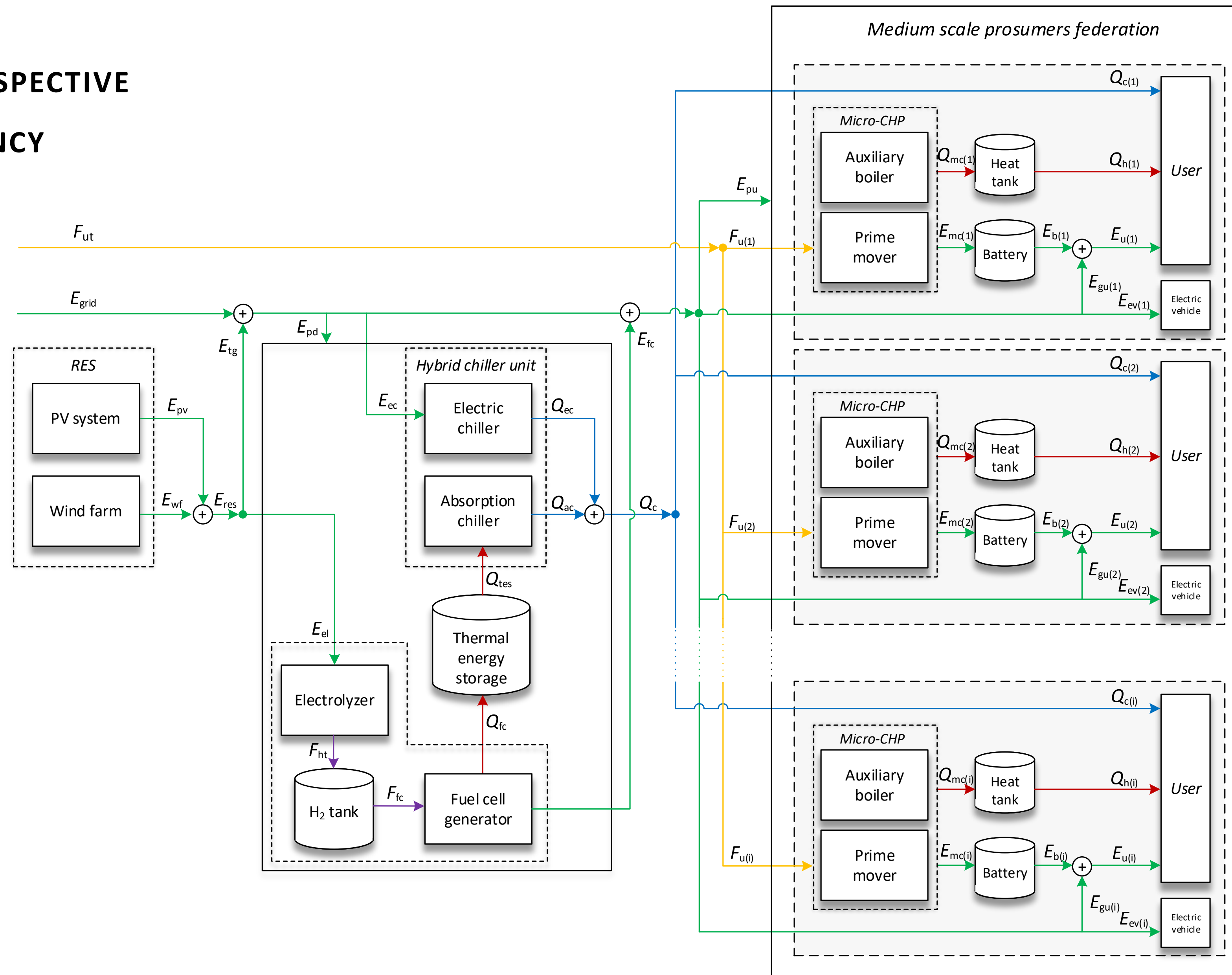
PROSUMER PERSPECTIVE

SELF - SUFFICIENCY



PROSUMER PERSPECTIVE

SELF - SUFFICIENCY



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THANK YOU

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