

Accelerating Hydrogen Deployment



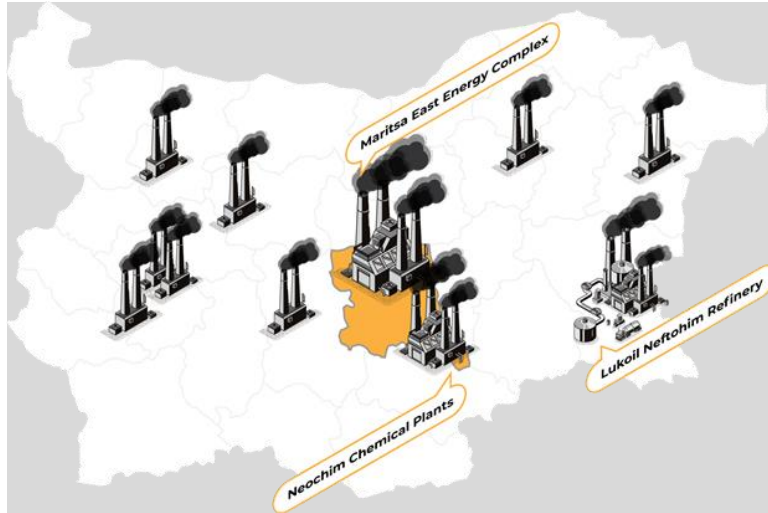
HYDROGEN EUROPE LIGHTHOUSE PROJECT INITIATIVE

bLion (Bulgaria)

30 March 2022



from Carbon-intensive to new sustainable Hydrogen economy



Maritsa East Energy Complex:
coal open-pit mine (>90% lignite in Bulgaria)
3,4 GW TPP
>8000 direct working places

Ammonia plant (9th in EU)

Refinery (biggest in SE Europe)

CO₂: > 4 Mt/y

25,000 ha potential industrial area

1600+ h/year PV @ peak load

TEN-T corridors: **8** IT-AL-MK-BG; **9** FI-RU-UA-MD-RO-BG-GR; **4** DE-AU-HU-RO-BG-TR

Railway & Air

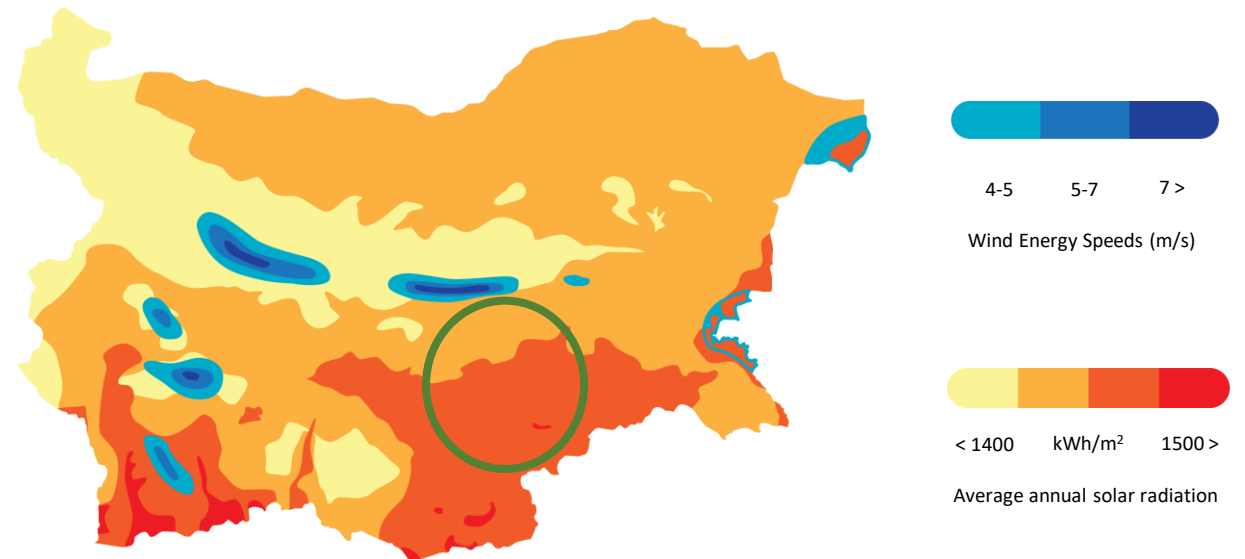
Ports: Bourgas (Black sea) – 180km E; Russe (Danube) – 235km N; Alexandroupolis (Aegean sea) – 300km S

Gas network & Energy **infrastructure**

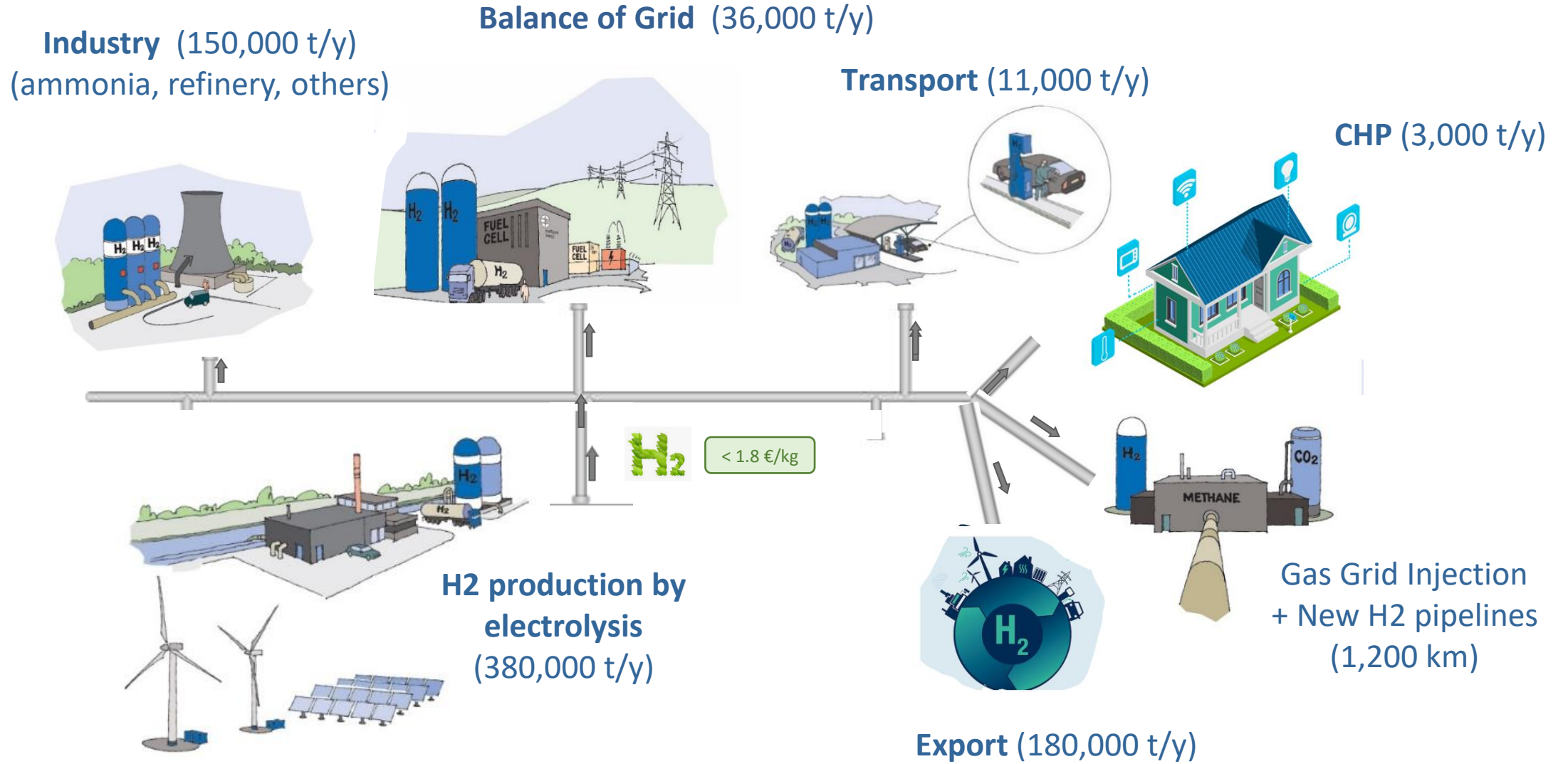
Industry: Machinery, Chemicals (ammonia), Technology & Materials

Expertise in PV design, installations and operations

Potential for production of electrolyzers, fuel cells and HRS



bLion: H₂ Production / Transport / Deployment (2033)



bLion: key figures



2028 :	5,5 GWp	3,8 GW	500 MW	6,150 direct 14,000 indirect	8,9 bnEUR
2033 :	10 GWp	8 GW	750 MW	7,500 direct 18,000 indirect	14,8 bnEUR

bLion – partners



Leading partner, co-ordinator and co-investor



TSO, core group member and co-investor



Industry, electrolysers, FC, HRS



H2 national association, public



Industry, core group member and co-investor



Power, core group member and co-investor



Industry, Ammonia



Business organisation, public



Technology, core group member and developer



Power, core group member and co-investor



Industry, testing, compliance



R&D, labour qualification, public



EPC, PV production

Bulgarian energy holding & affiliates: TPP ME 2 (power), Maritsa-east mine (coal), NEC (power), Bulgartransgaz (transmission, network, storage)
Hydrogen valley Stara Zagora affiliates, regional industry and services companies, transport companies
EDIH Zagore members, municipalities of Stara Zagora, Radnevo, Galabovo, Nova Zagora, Dimitrovgrad
Industrial partners – chemicals, refinery, materials, technology developers, equipment producers, systems integrators
Financial partners

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