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# HYDROGEN & BIOMETHANE: CURRENT SITUATION & PROSPECTS

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## Green Hydrogen: Current & Future Situation in Greece

Let me start by stating that Greece's NECP projections are in line with the EU Hydrogen Strategy targets for 40 GWe installed capacity and 10 million tonnes of hydrogen production from renewable sources by 2030.

1. Up to now, is not significant the market for renewable H<sub>2</sub>.
2. Investors and consumers confidence remains low.
3. Lack of substantial financial support for production of green H<sub>2</sub>.
4. Only two (out of the 4 renewable hydrogen production technologies) appear to be the most mature for the production of hydrogen at competitive prices.
5. Not drafted yet the National Hydrogen Strategy.
6. Very limited Industrial uses of green hydrogen in our country.
7. Very complex the introduction of hydrogen in the transport sector.
8. Restricted the maximum percentage of blend with natural gas.
9. Extremely high is projected the cost for the compression and/or liquefaction of hydrogen.
10. Noncompetitive the fuel price for FCEV in comparison to the BEV.
11. Country has no suitable underground hydrogen storage site



## Biomethane: Current & Future Situation in Greece

1. No bio-methane production plants currently exist in the country.
2. No legislation in place for the licensing and financial support of new bio-methane production plants.
3. There are a number of biogas plants for electricity production.

Biogas Plants	Number	Installed Capacity (in MW)
In operation	75 (61 close to gas distribution grids)	115 (70)
In licensing procedure	71	69
Waiting for connection contracts to the electric grid	232	170



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## Biomethane: Current Situation in Greece

4. The existing biogas plants have an important contribution for maintaining the balance of the electricity system.
5. Biomass supply is the biggest problem for biogas and future biomethane plants.
6. Available quantities of biomass not sufficient to develop large-scale biomethane production.
7. Residual sludge disposal is a major problem to face.

The relative legislation, when developed, should include

- Simplified licensing procedures for the establishment of biomethane plants
- Provision for biomethane plants to operate as hybrid plants using the heat of the CHP unit.
- Biomass systematic collection and disposal of from all economic sectors.
- Allowing reverse flow (from distribution to transport networks)



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## Conclusions

- None of the two renewable fuels has a direct positive effect on the added value of the country's economy
- Energy sectors with high added value to the Greek economy are:
  - Buildings Energy Efficiency Sector
  - Pumped Storage Hydropower
- Thus country's Strategic Energy Planning should be based on the following 3 pillars:
  - - The above mentioned sectors and
  - - Improvement of mobility (improvement of public transport, electrification of vehicles, facilitation of micro-mobility)



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Thank you for your attention

