Green Hydrogen Production: The Future of Large-scale Power Plants

Our focus on reducing and eliminating carbon emissions of large-scale power plants with solar panels on roofs is driven by our strategy of green hydrogen production. With EU grant support, we are expanding our focus to meet needs in Turkey, Africa, and Europe. The objective is clear: reduce carbon emissions.

Our most important goal: Reducing carbon emissions and increasing environmental sustainability.





Why Green Hydrogen?



Renewable Energy Sources

Green hydrogen is produced using renewable energy sources such as wind, solar or hydropower, making it a clean and environmentally friendly energy source.



Decreasing Dependence on Fossil Fuels

Green hydrogen can be used as an alternative to fossil fuels in power generation, transportation and industry, significantly reducing our dependence on non-renewable energy sources.



Reducing Carbon Emissions

Green hydrogen production offers a way to reduce and ultimately eliminate carbon emissions from large-scale power plants, which will have a significant positive impact on the environment.

Hydrogen Fuel of the Future

H2 Use in Industry

Green hydrogen can be used as feedstock for chemicals and materials such as steel, cement and ammonia, which account for more than 70% of global emissions.

Proje Plan-1

- ✓ Placement of solar power plants and installation
 of infrastructure
- ✓ Providing infrastructure and installation of green hydrogen production by electrolysis using solar energy
- ✓ Green hydrogen production by electrolysis using solar energy.
- Creation of hydrogen storage and distribution networks.
- ✓ Certification of the Green Hydrogen System facility

Proje Plan-2

- Managing the Green Hydrogen Quality and Quantity determination process.
- ✓ Preparation of Carbon Reduction Projects and allocation of Carbon Credits.
- ✓ Expanding the use of green hydrogen and marketing.

Aims

- ✓ Ensuring green hydrogen production with solar-generated electricity.
- ✓ Improving environmental impact by reducing and eliminating carbon emissions.
- Adoption and dissemination of sustainable energy production models in Turkey and Europe.
- Encouraging the transition to environmentally friendly technologies in society and industry.



Yeşil Hidrojen Üretim Süreci

1 Energy Generation

Electricity from a renewable source, such as solar panels or wind turbines, is used to power an electrolyzer that splits water into hydrogen and oxygen.

Hydrogen Compression and Storage

The hydrogen produced is compressed and stored in tanks for later use in fuel cells or transportation. Our project focus is on on-site production and utilization.

Hydrogen Management of the Project

This process includes security, quality control and verification steps, as well as continuous improvement and operational management steps. In particular, issues such as security and technical compliance are critical components of this process and must be carefully managed.

We are focused on the challenges and solutions for hydrogen production and a consortium will draw up an overarching plan with Africa, Asia and Turkey.







Consortium and Stakeholders

The 3-year HyAfrica project is already underway, with Getech participating in geophysical research to contribute its unique and market-leading subsurface resource estimation capabilities in the search for natural hydrogen. The long-term nature of this collaboration not only enables Getech to expand its understanding of natural hydrogen, but also strengthens the company's position as a key player in this emerging low-carbon energy source.

Renewable Energy Availability

Renewable energy sources such as solar and wind are intermittent and therefore hydrogen production is not a continuous process, but new techniques such as Power-to-Gas can help alleviate this problem. All installations using panel systems or ready for installation can be serviced.

Production Cost Management

Green hydrogen production has historically been costly, but technological advances have reduced production costs and economies of scale will reduce costs further. We will reach our customers with an awareness of this advantage

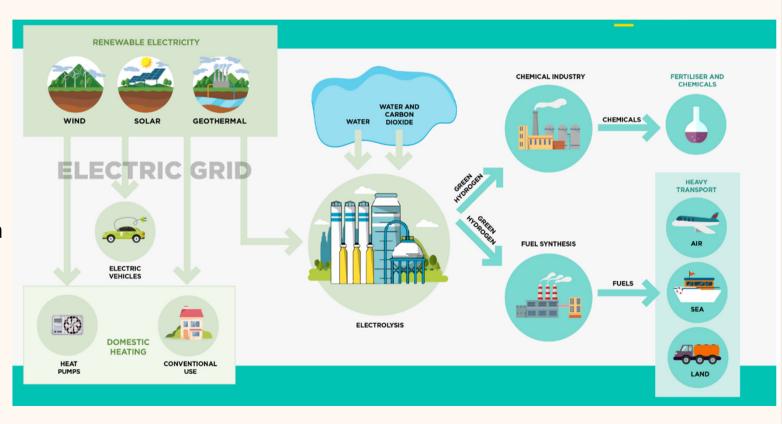
Green Hydrogen Applications

Electricity Generation

Green hydrogen can be used to generate electricity in fuel cells with significantly lower carbon emissions compared to conventional methods.

Industry and Green Hydrogen

Green hydrogen can be used as an input in the production of various chemicals and renewable fuels with significantly lower carbon emissions.



Conclusion

We focus on Green Hydrogen because there is no such project and project-oriented work and institutions in Turkey yet.

Our Certification, Installation, technical services and connections have the capacity to accelerate the process.



Our system completed and a grant programmed EU presentation should be made. We will be open to demand with presentations to our customer portfolio.

The hydrogen market is promising and with this project, we will be the only organization providing services in many areas in Asia, Africa and Europe.

