



Bu proje Avrupa Birliği ve Türkiye Cumhuriyeti tarafından finanse edilmektedir
This project is co-funded by the European Union and the Republic of Türkiye



International Brokerage Event on Clean Hydrogen Partnership 2024 Call



Online

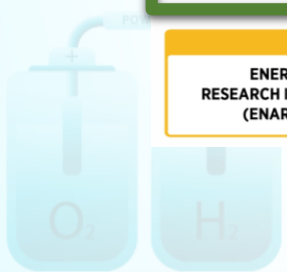
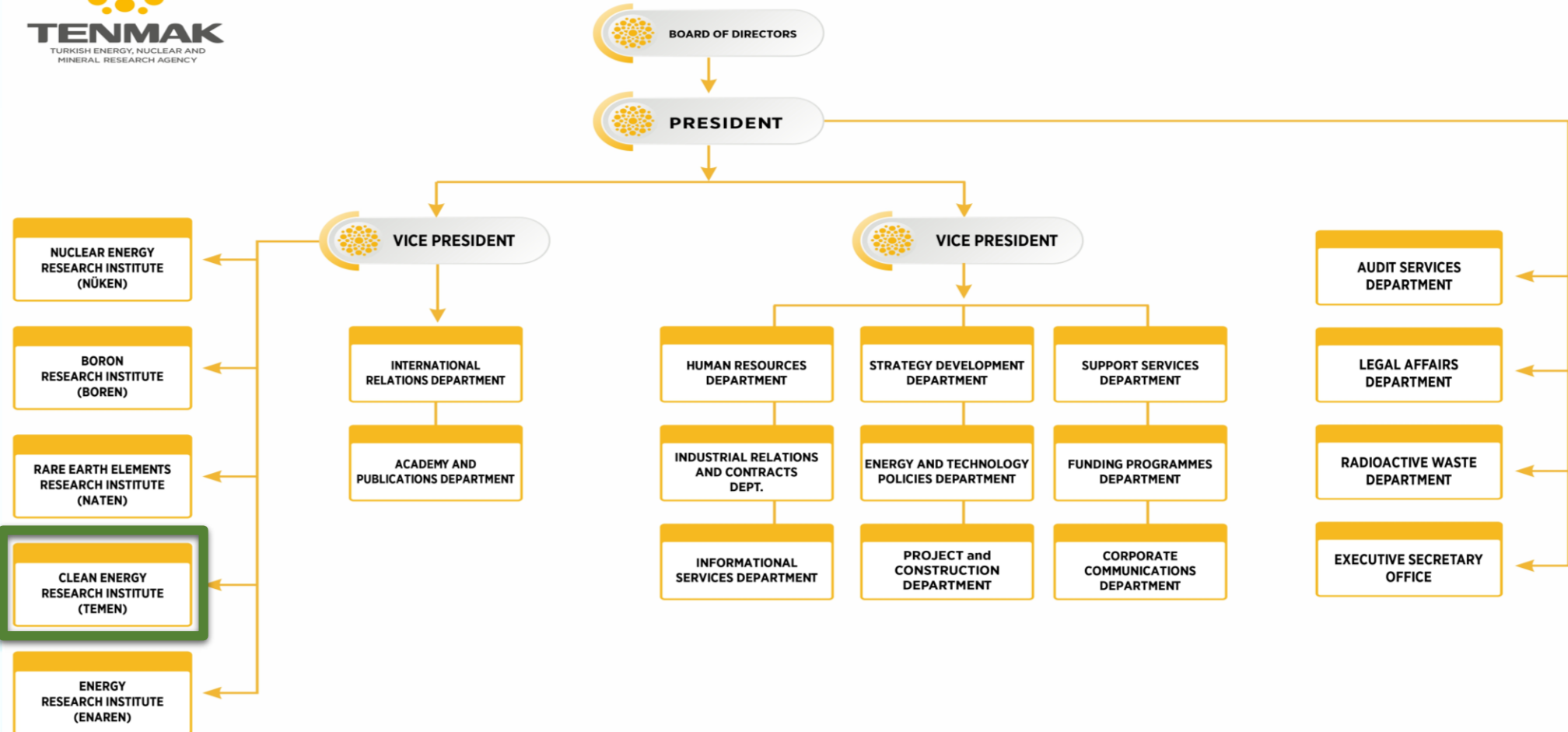
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Description of the Organization



TURKISH ENERGY, NUCLEAR AND MINERAL RESEARCH AGENCY



The research interest can be defined as following: HORIZON-JTI-CLEANH2-2024-04-01:
Portable fuel cells for backup power during natural disasters to power critical infrastructures

Developing an Innovative System for the Effective Use of Ammonia Borane as a Chemical Hydrogen Storage Material (KIMH2DEP)

Ammonia borane has become prominent among hydrogen storage materials in recent years due to its high mass (19.6%) and high volumetric (146 g H₂/L) hydrogen content.

The aim of the project is to develop a hydrogen storage system based on ammonia borane (NH₃BH₃).

A dehydrogenation reactor will be produced using the data obtained from ammonia borane dehydrogenation studies. A prototype will be developed that can provide an off-grid energy storage system by integrating with fuel cells and power systems (DC/DC converter, DC/AC converter).



- TENMAK EKOKARAVAN is equipped with wind turbine (1000 W), photovoltaic cell array (1710 W) and hydrogen fuel cell (1000 W).
- It can meet the energy requirement to operate all equipment in the living space without needing any external power source.



- The energy required by the hybrid golf vehicle modernized by our institute is provided independently of the grid, thanks to the solar panels (360 W) and fuel cell (1000 W) on the vehicle.





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