

invites you to

## U.S. - TURKEY HYDROGEN ENERGY & FUEL CELL TECHNOLOGIES FORUM



### Hydrogen - the future for a Clean World!

- Hydrogen, is the simplest and most abundant element in the universe, is found within water, fossil fuels, and all living matter, but it rarely exists as a gas on Earth – it must be separated from other elements.
- Various domestic resources that can be used to produce hydrogen, including renewables (wind, solar, hydropower, biomass, and geothermal energy), nuclear power, and fossil fuels (e.g. as natural gas and coal - with carbon capture and sequestration).
- The United States currently produces more than 10 million metric tons of hydrogen per year, about one-seventh of the global supply.
- The U.S. Department of Energy's (DOE's) Hydrogen and Fuel Cell Technologies Office launched the H2@Scale initiative to identify new and emerging markets where hydrogen technologies can add value to economic, environmental, and energy resilience fronts.
- H2@Scale can integrate sectors like steel manufacturing, data centers, ports, and medium- and heavy-duty trucks.
- Turkish Minister of Energy and Natural Resources Mr. Fatih Dönmez announced that Turkey will prepare its 2021 Hydrogen Strategy by the end of the year by also including the views of the sector representatives.
- Turkey implemented a pilot project by mixing different amounts of hydrogen with natural gas distribution pipelines, with the support of GAZBIR-GAZMER in Konya.
- Turkey plans to blend hydrogen with natural gas at power plants, in natural gas pipelines and underground gas storage facilities, and use it in the transportation sector including railways.

### Event Dates

**Day 1 - June 15, 2021**

09:00 & 12:15 EDT

16:00 & 19:15 TRT

[Register](#)

**Day 2 - June 16, 2021**

09:00 & 12:45 EDT

16:00 & 19:45 TRT

[Register](#)

### Location

**Virtual** - event link provided upon registration. \*\*Please register for each day separately at the links provided above.

### Cost

Participation is free of charge upon registration.

### Content

Presentations are in **English** only. See the detailed program on the following page.

### For your questions:

**Serdar Cetinkaya**

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**June 15, 2021**

*Master of Ceremonies: Heather Byrnes, Minister Counselor for Commercial Affairs in Turkey and Regional Senior Commercial Officer, Eurasia (U.S. Commercial Service Turkey)*

- 09:00 EDT/16:00 TRT **Welcome & Keynote:**  
 David S. De Falco, Deputy Assistant Secretary, Office of Europe and Eurasia, Global Markets, Commercial Service, International Trade Administration, U.S. Department of Commerce
- Andrew Light, Assistant Secretary for International Affairs, U.S. Department of Energy
- Dr. Alparslan Bayraktar, Deputy Minister, Ministry of Energy and Natural Resources, Republic of Turkey
- 09:30 EDT/16:30 TRT **Clean Hydrogen Generation & Storage:**  
 Introduction, Hydrogen Collaborative Efforts
- Hydrogen & Fuel Cell RD&D
- Development and Scale-up of Electrolyzers for Green H<sub>2</sub>
  - Development of Materials-based H<sub>2</sub> Storage Technologies
  - RD&D of H<sub>2</sub> & Fuel Cell Technologies for Transportation (*primary focus on heavy-duty end-uses*):
    - Performance and durability of fuel cells for vehicles
    - Refueling station components, systems and siting
    - Composite tanks for onboard storage
- 10:30 EDT/17:30 TRT **Hydrogen & Fuel Cell R&D**
- Hydrogen Production from local coal resources
  - Dissemination of local fuel cell technologies
  - Use of hydrogen in natural gas systems
- 11:15 EDT/18:15 TRT **Turkey's Hydrogen Energy Strategy & Technological Developments**
- 12:00 EDT/19:00 TRT **Closing Remarks**  
 David M. Satterfield, U.S. Ambassador to Turkey

**June 16, 2021**

*Master of Ceremonies: Serdar Cetinkaya, Energy Leader and Deputy Commercial Attaché (U.S. Commercial Service Turkey)*

- 09:00 EDT/16:00 TRT **Fuel Cell Technologies and Hydrogen Fuel Stations**
- Hydrogen Pipelines and Use of Hydrogen in Natural Gas Pipelines and NG Storage Facilities
- 10:00 EDT/17:00 TRT **Use of Boron-based Compounds as Hydrogen Carrier and its implementation in Fuel Cells**
- 11:00 EDT/18:00 TRT **Industry Perspectives by U.S. and Turkish Companies on Utilization of Clean Hydrogen**
- 12:30 EDT/19:30 TRT **Closing Remarks**