



IEA's Work on Hydrogen for G20

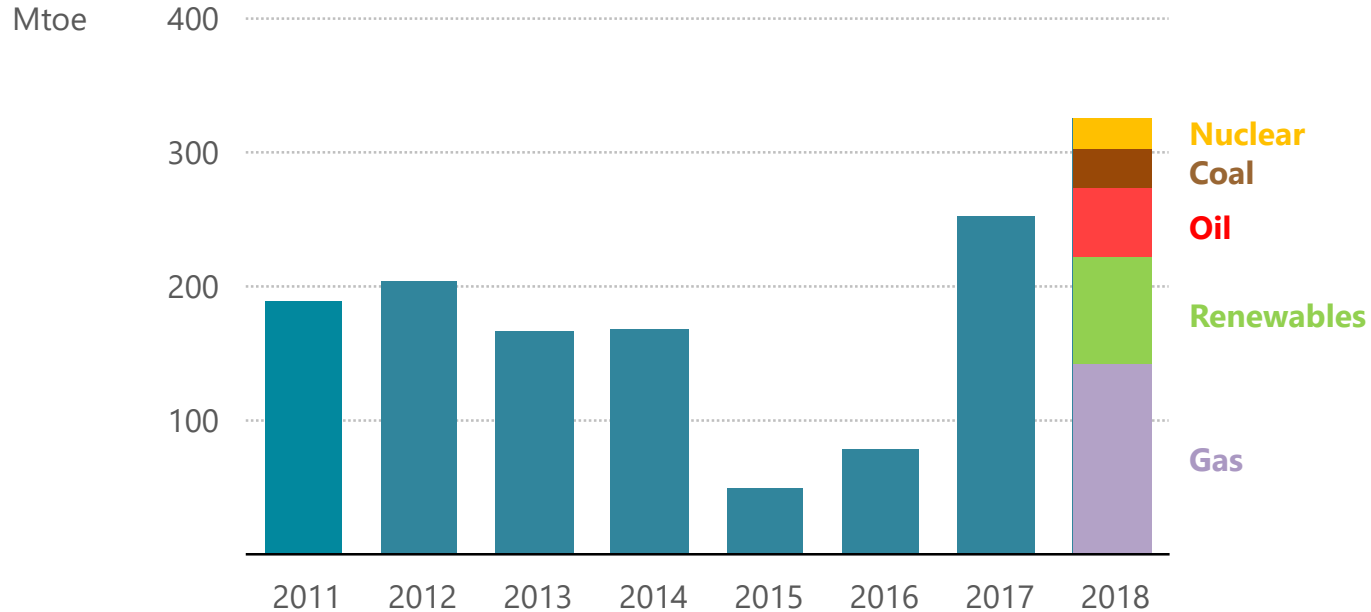
Dr. Timur Gül, Head Energy Technology Policy Division, IEA

IPHE Industry Policy Forum, Vienna, 10 April 2019



2018 – a remarkable year for energy

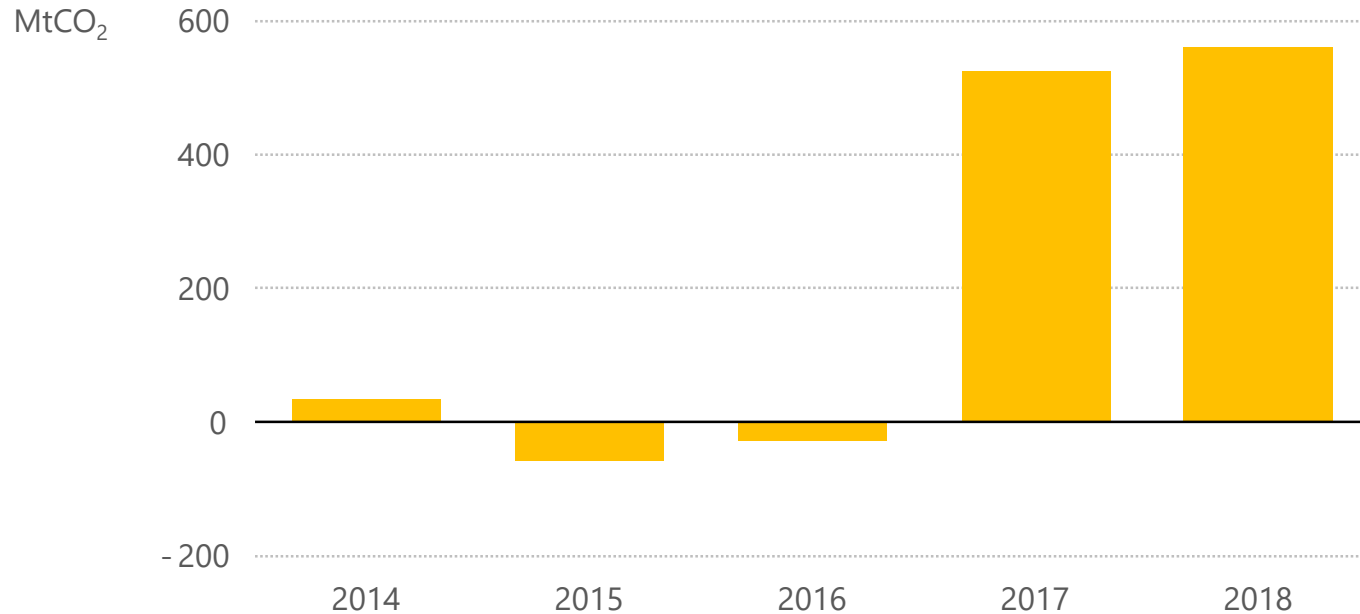
Annual change in global primary energy demand, 2011-18



Global energy demand last year grew by 2.3%, the fastest pace this decade, an exceptional performance driven by a robust global economy, weather conditions and moderate energy prices.

Energy-related CO₂ emissions hit a record high...

Annual change in global energy-related CO₂ emissions, 2014-2018



Higher demand for fossil fuels drove up global CO₂ emissions for a second year after a brief hiatus. Increases in efficiency, renewables, coal-to-gas switching and nuclear avoided 640 Mt of CO₂ emissions.

- Hydrogen can support clean energy transitions, diversify the fuel mix & address energy security concerns
- Hydrogen is already with us, mainly used as feedstocks for chemicals & in the refining industry
- Hydrogen has a wide range of possible applications, but its wider deployment has technological & economic challenges
- Current momentum for hydrogen is unprecedented, supported by technology progress, interest of many countries, and a range of businesses
- The IEA will release a major report for Japan's G20 Presidency on the state of play of hydrogen, its economics & its future potential

“All of IEA” effort on hydrogen in 2019



Reports / new hydrogen web portal



Technology Network



Convening Power / Business Network

Energy Business Council



Events



Joint workshop by the International Energy Agency and the European Commission

Electrofuels

Date: Monday 10 September 2018

Secretariat



IEA has been active on the analysis of hydrogen for many years; our work is expanding further, collaborating closely with our extensive technology and business networks

Mr. Noe van Hulst (Chair)	Hydrogen Envoy, Ministry of Economic Affairs & Climate Policy, Netherlands; former Chair of the IEA Governing Board
The Honourable Elisabeth Köstinger	Minister of Sustainability and Tourism, Austria
Mr. Ahmad O. Al-Khowaiter	Chief Technology Officer, Saudi Aramco
Dr. Alan Finkel	Australia's Chief Scientist, Office of the Chief Scientist
Mr. Mikio Kizaki	Chief Professional Engineer, Toyota Motor Corporation, Japan
Dr. Rebecca Maserumule	Chief Director of Hydrogen and Energy, Dept. of Science and Tech., South Africa
Dr. Ajay Mathur	Director General, TERI (The Energy and Resources Institute), India
Mr. Dominique Ristori	Director General Energy, European Commission
Dr. Sunita Satyapal	Director Fuel Cell Technologies Office, US Department of Energy, United States
Dr. Adnan Shihab-Eldin	Director General of the Kuwait Foundation for the Advancement of Sciences; former Secretary-General of OPEC, Kuwait

- The report intends to assess the state of play and future potential of hydrogen across the entire technology chain
- Review of current momentum – what (if anything) is different from the past, update on policy developments and main projects currently underway
- Assessing the costs of different supply chains – from production to handling to the use in different sectors
- Near-term priority markets – critical value chains to translate long-term visions into concrete real-world applications

- 23 October 2018 Tokyo Hydrogen Ministerial
- 21 November 2018 IEA Energy Business Council session on hydrogen
- 24 January 2019 Hydrogen event at World Economic Forum, Davos
- 11 February 2019 High-level IEA workshop on hydrogen
- **Today!** **Peer review of report & IPHE meeting**
- 16 April IEA Energy Business Council special session on hydrogen
- 27-29 May Launch of CEM Hydrogen Initiative at Canadian CEM/MI Ministerial
- 15/16 June Launch of G20 report in Karuizawa, Japan
- Beyond... Enhanced IEA capabilities, including new hydrogen web portal



www.iea.org

