



IEA Secretariat Report

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IEA SHC TCP, 92nd ExCo Meeting, 5 December 2022

Core Analysis and Deliverables on Renewables in 2022-H2

1) Global markets & policies

- **Solar PV global supply chain special report (July)**
- **Renewable energy market reports 2022 (6th December)**
- New project on managing seasonal and annual variability of renewables

2) Cross-cutting projects

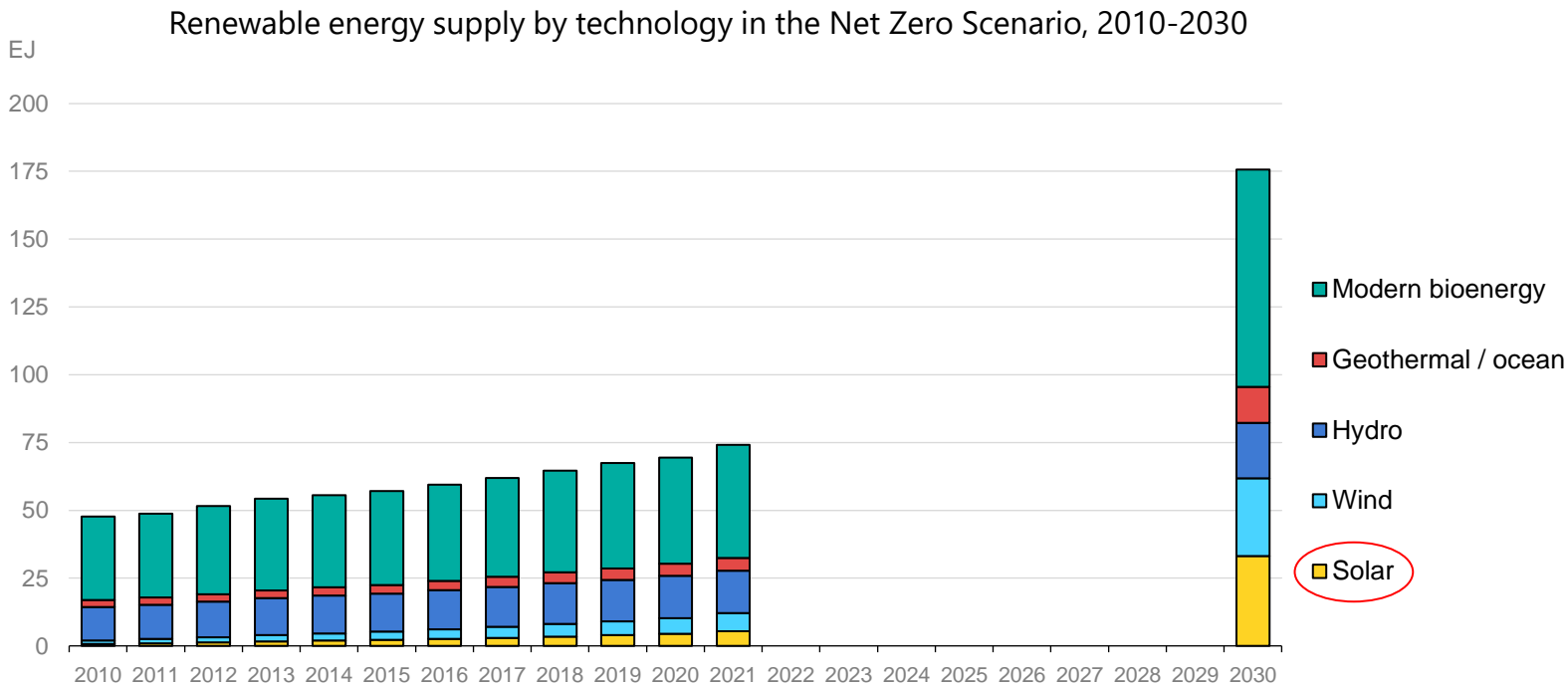
- Tracking Clean Energy Progress (September)
- World Energy Outlook (WEO) (October)

3) Regional projects

- EU : Workshops to support to reduce EU dependence on Russian fossil fuels (May-July)
- India : High-level event on solar energy (September)



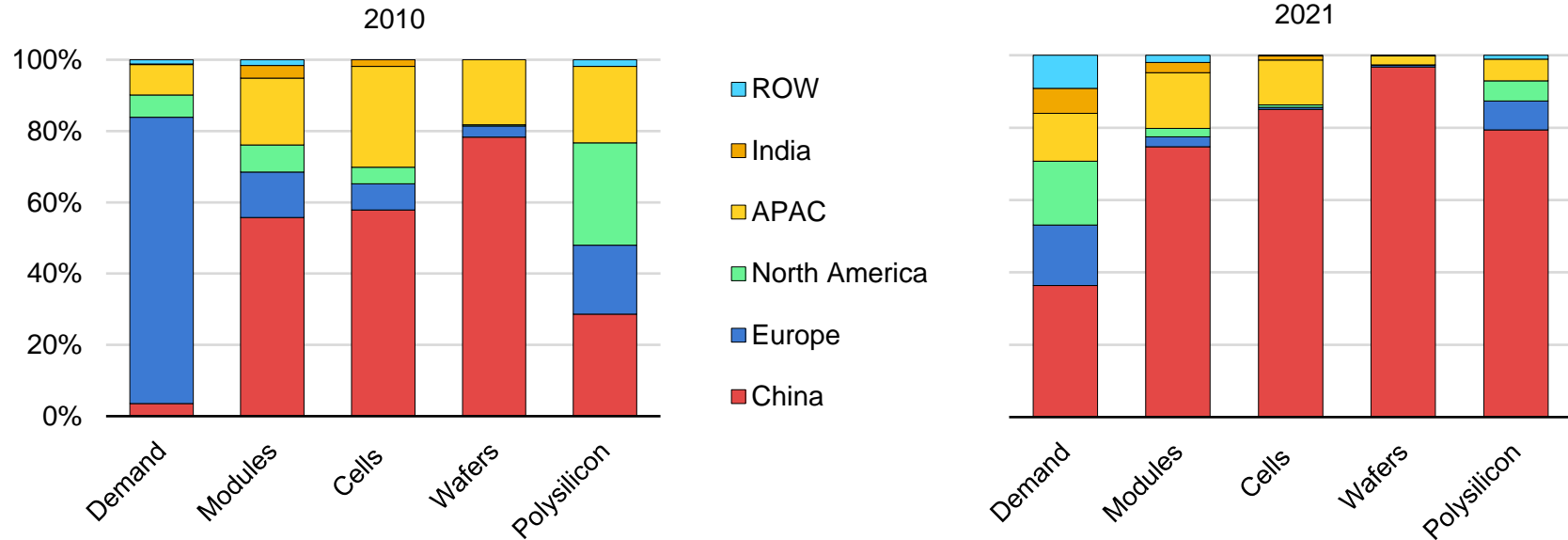
Renewable energy use needs to expand significantly faster to get on track with the Net Zero Scenario



**Renewable energy supply excluding bioenergy rose by 7% in 2021.
Need to increase at an average rate of about 13% during 2022-2030 to get on track with the Net Zero Scenario.**

China currently dominates global solar PV supply chains

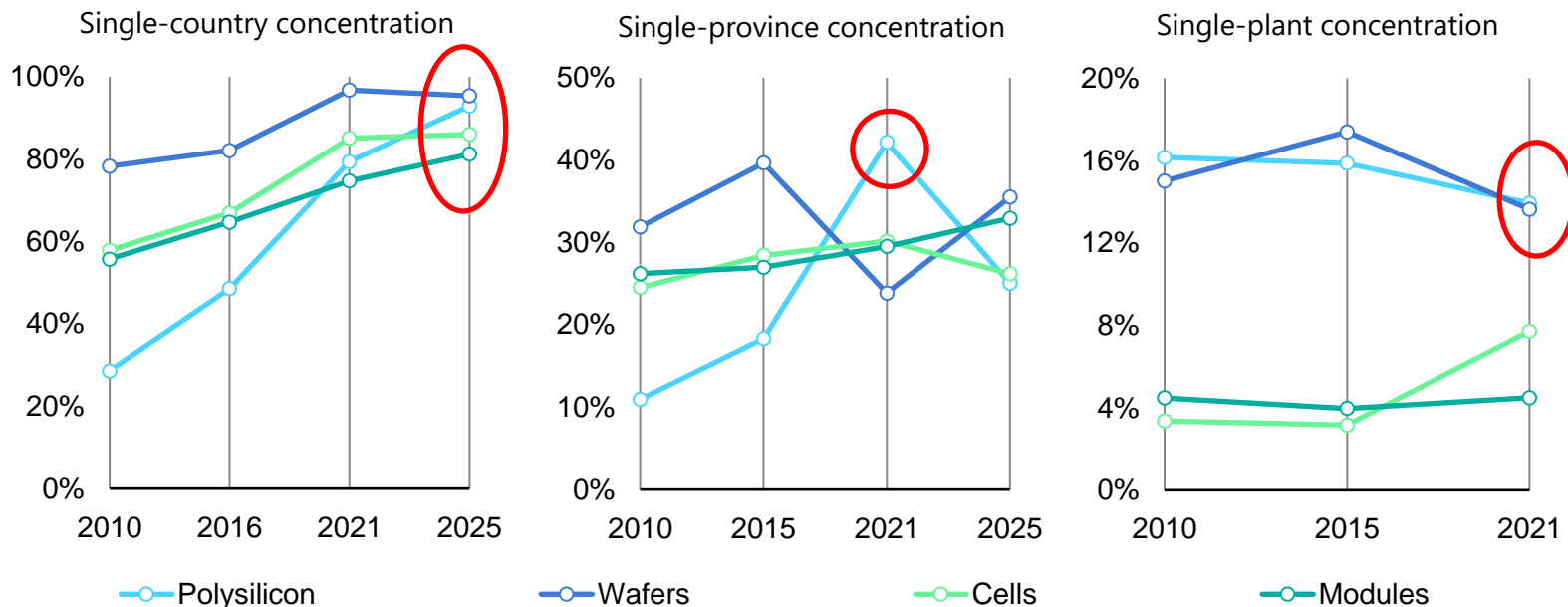
Solar PV manufacturing capacity by country and region, 2010-2021



Chinese policies have enabled economies of scale and supported innovation across the supply chain, resulting in 80% cost declines and helping solar PV to become the cheapest electricity generation source globally.

Solar PV manufacturing concentration risks security of supply

Country, province and single-plant concentration as shares of global manufacturing capacity



High physical concentration make the supply chain vulnerable to single incidents. In 2020 technical issues at just one polysilicon facility cut global production capacity by 8%, reducing supply and increasing costs globally.

The IEA's five key policy action areas to ensure solar PV security of supply

1. Diversify raw material supplies and manufacturing

- Move solar PV supply chain diversification up the policy agenda as an integral part of advancing clean energy transitions.

2. De-risk manufacturing investment

- Facilitate investment in manufacturing, e.g. through finance and tax policies, and other measures to de-risk PV manufacturing investment.

3. Ensure environmental and social sustainability

- Strengthen international cooperation on creating clear and transparent standards, taking into account environmental and social sustainability criteria

4. Continue to foster innovation

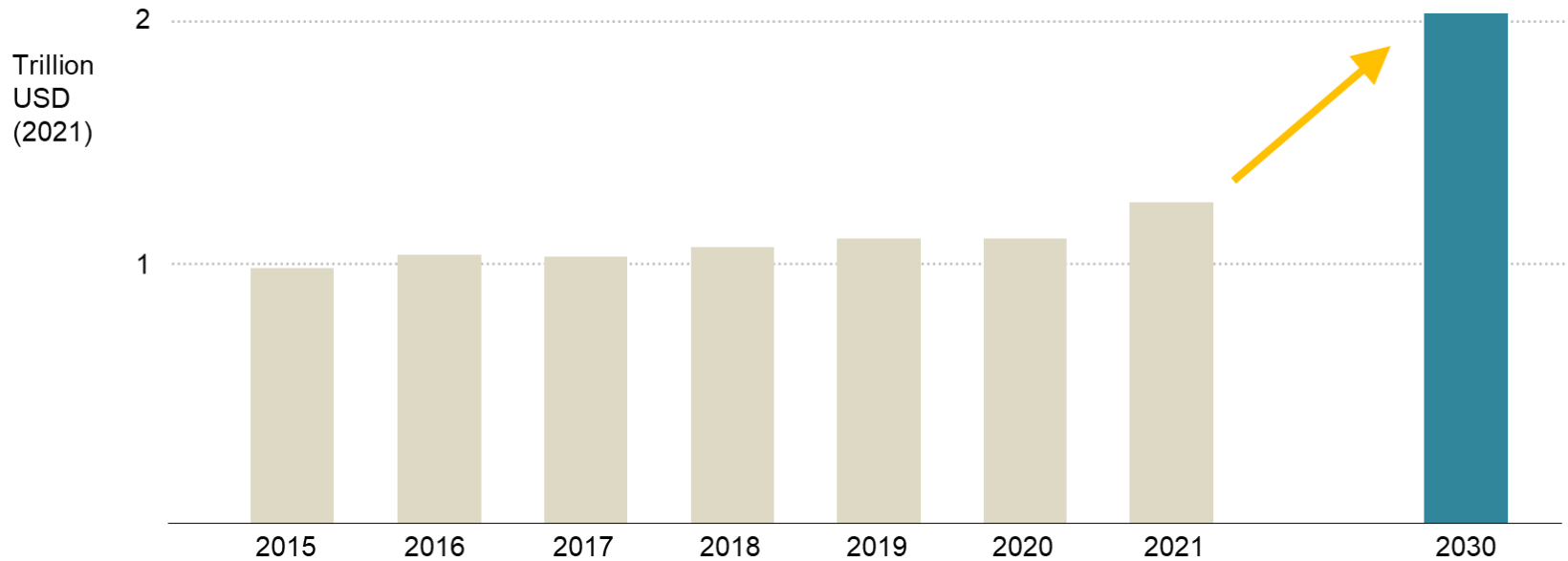
- Expand research and development funds with the aim of further improving solar cell conversion efficiency and reducing raw material use and costs

5. Develop and strengthen recycling capabilities

- Implement comprehensive regulatory frameworks, minimum requirements for collection and recycling

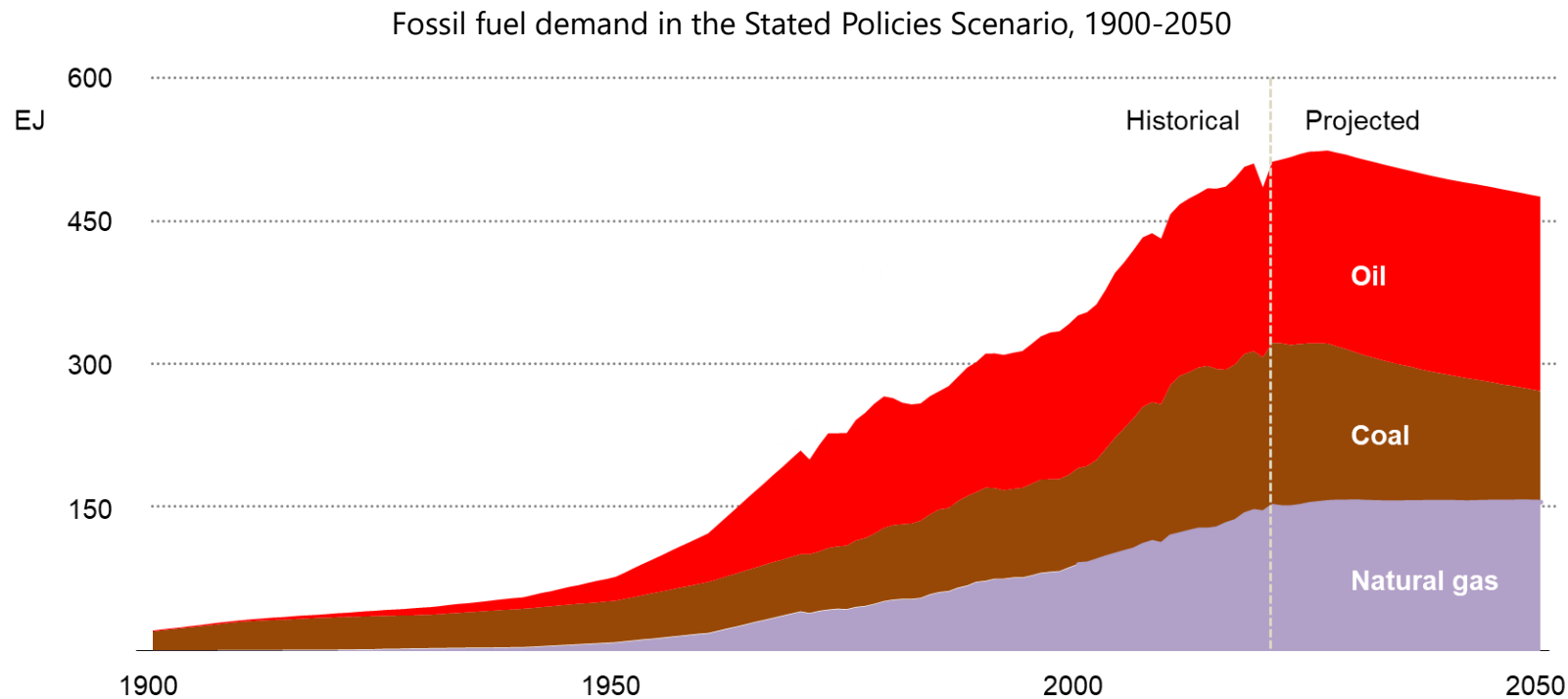
Government responses are fast-tracking the clean energy economy

Clean energy investment in the Stated Policies Scenario



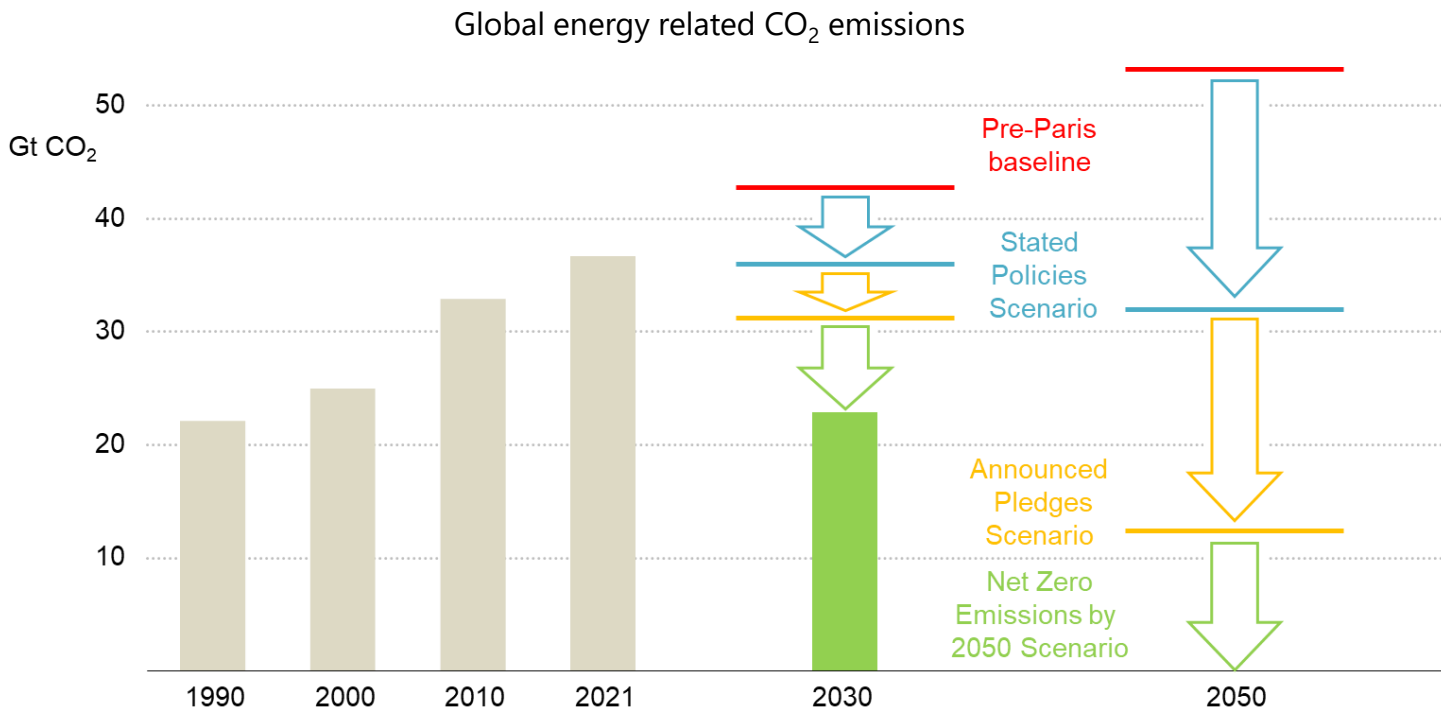
The US Inflation Reduction Act, the EU's Fit for 55 package, Japan's GX, China's new clean energy targets and India's solar revolution propel clean energy investment to new highs, but \$4 trillion is needed by 2030 to be on track for 1.5 °C.

Peak fossil fuel demand is coming this decade



Today's policy settings are now sufficiently strong that they produce a distinct peak in fossil fuel use before 2030.

Keeping the door to 1.5 °C open



Policy and technology progress since 2015 has shaved 1 °C off projected warming, a step in the right direction; but much more needs to be done in order to avoid severe climate disruptions.

REWP Meetings

- **82nd REWP**

17th - 18th October 2022 (virtual meeting)

- **Strategic discussion :**

- **Contribution of renewables to strengthening energy security in the short term during the energy crisis**

- Country update : United States

- TCP Request for Extension (RfE) : PVPS TCP, Geothermal TCP

- TCP annual brief :

- Wind TCP, Bioenergy TCP, OES TCP, SolarPACES TCP, Hydrogen TCP, Hydropower TCP

- **83rd REWP**

Date and format TBD

Joint IEA-TCP report

- **Technology and innovation pathways for zero-carbon-ready buildings by 2030** (1 Sep 2022)
- Series of articles written by TCPs offering recommendations, innovation strategies and policy instruments for the next decade to achieve zero-carbon buildings by 2050
- Based on milestones for the buildings sector in the [IEA Net Zero Emissions by 2050 Roadmap](#)
- Collaborative effort developed over several months between IEA analysts and experts from 11 TCPs
- Facilitated by EUWP (End-Use Working Party) Buildings Co-ordination Group



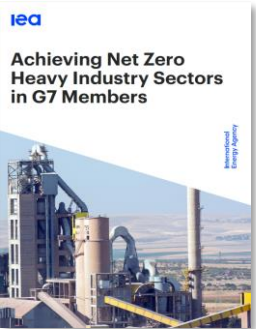
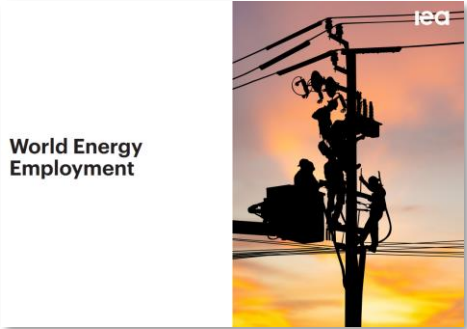
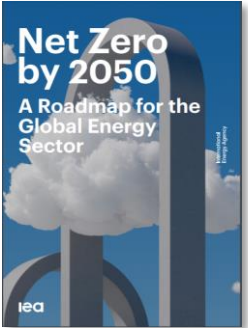
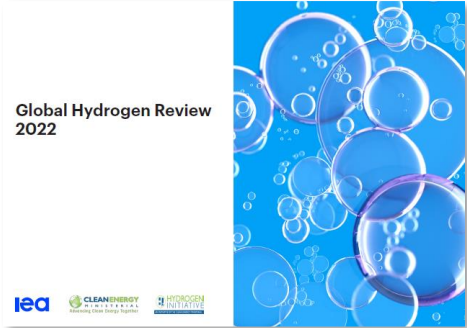
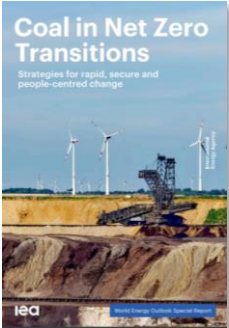
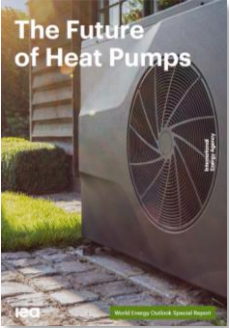
New co-ordination group on critical minerals

- **Convened by the CERT** to bring together **TCP representatives** and **other relevant initiatives** to exchange information on critical minerals technology RD&D
- **Inaugural meeting: Thursday 8 December** from 13h00 – 15h00 (CET), virtual format
- The 1st meeting aims to **share experiences** from the existing work of TCPs and to **brainstorm ideas for future**
- Contact: TCP.Legal@iea.org

TCP Forum

- The TCP Forum has migrated to [SharePoint](#)
- Access to the site requires individual registration to receive a password
- TCP Chairs and Operating Agents/Secretaries received an email on 14 June with the invitation link
- **For TCP ExCo members who would like to access the site, please contact Zachary.Egan@iea.org and Salvatore.Carluccio@iea.org for assistance**

Recent IEA publications



Recent IEA commentaries & articles

- [For the first time in decades, the number of people without access to electricity is set to increase in 2022](#) (3 Nov)
- [Accelerating energy diversification in Central and Eastern Europe](#) (14 Sep)
- [Why is ESG so important to critical mineral supplies, and what can we do about it?](#) (9 Sep)
- [IEA contribution to the G20 in 2022](#) (7 Sep)
- [Understanding gender gaps in wages, employment and career trajectories in the energy sector](#) (19 Aug)
- [Methodology to assess the system value of different corporate procurement strategies in developing economies](#) (27 Jul)
- [Coordinated actions across Europe are essential to prevent a major gas crunch: Here are 5 immediate measures](#) (18 Jul)
- [Empowering people to act: How awareness and behaviour campaigns can enable citizens to save energy during and beyond today's energy crisis](#) (13 Jul)
- [How the energy crisis is exacerbating the food crisis](#) (14 Jun)

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