

REPORT FROM THE IEA SECRETARIAT H2 2019

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The IEA Secretariat report provides an overview of recent developments within the network and the IEA Secretariat that are of interest to all Technology Collaboration Programmes (TCPs). This report is designed to complement the information provided by your Desk Officer related to IEA analysis and projects (current and planned) of relevance to individual TCPs. If you have comments or questions, please forward to TCP@iea.org.

1. IEA SECRETARIAT



Collaborating on energy technology innovation

The recently published paper on [Energy Technology Innovation Partnerships](#) provides an overview of the global landscape of multilateral efforts relevant to energy technology innovation. The report examines four collaborative partnerships including the IEA Technology Collaboration Programmes.



Three reasons why the IEA report on hydrogen is a game-changer

In this [IEA commentary](#), former IEA Governing Board Chair and Hydrogen Envoy at the Ministry of Economic Affairs & Climate Policy of the Netherlands, Mr. Noé van Hulst explains why the IEA's recent report [The Future of Hydrogen](#) is a game-changer.



Nuclear power in a clean energy system

With its mission to cover all fuels and technologies, the IEA's first report addressing nuclear power in nearly two decades, [Nuclear Power in a Clean Energy System](#), brings this important topic back into the global energy debate.



IEA unveils global high-level commission for urgent action on energy efficiency

The IEA has established an [independent global commission](#) to examine how progress on energy efficiency can be accelerated through new and stronger policy action. The focus of the new panel will be on key policy actions and will produce a concise list of clear, actionable recommendations next year.



Tracking methane emissions

The [IEA has launched](#) a new "methane tracker", offering the most comprehensive global picture of methane emissions, covering eight industry areas across more than seventy countries. This [new and unique tool](#) provides up-to-date estimates of current oil and gas methane emissions drawing on the best available data.



Energy efficiency indicators database

The recently released 2019 edition of the [IEA energy efficiency indicators database](#), features detailed energy end use and activity data from 2018 for the residential, services, industry and transport sectors.

Recent [IEA commentaries](#)

- Three priorities for [energy technology innovation partnerships](#)
- Helping a warming world to [keep cool](#)
- Global patent applications for [climate change mitigation](#) technology – a key measure of innovation – are trending down
- The who and how of [power system flexibility](#)
- [Carbon market negotiations](#) under the Paris Agreement
- [Bitcoin energy use](#) –mined the gap
- [Addressing the diversity challenge](#) in energy sector recruitment
- [Fossil fuel consumption subsidies](#) bounced back strongly in 2018
- [District heating](#) needs flexibility to navigate the energy transition
- Frontier [electric technologies in industry](#)
- Can [CO₂-EOR](#) really provide carbon-negative oil?
- Shared, automated... and [electric](#)?

2. IEA PUBLICATIONS



The Future of Hydrogen: seizing today's opportunities. This [free report](#) finds that clean hydrogen is currently enjoying unprecedented political and business momentum, with the number of policies and projects around the world expanding rapidly. It concludes that now is the time to scale up technologies and bring down costs to allow hydrogen to become widely used. The pragmatic and actionable recommendations to governments and industry that are provided will make it possible to take full advantage of this increasing momentum.



Exploring Clean Energy Pathways: the role of CO₂ storage

This [report](#) analyses the implications for the global energy system of CO₂ storage facilities not being developed at the scale and pace needed to follow the optimised pathway of the IEA Clean Technology Scenario (CTS).



Clean Energy Investment Trends 2019: evolving risk perceptions for India's grid-connected renewable power projects. This [report](#) maps out the evolution in the renewable power industry and investment landscape through tracking the risk perceptions of debt financiers towards solar photovoltaic and wind projects over the period from 2014-2018 and recent developments impacting the pace of capacity addition.



Global EV Outlook 2019: scaling up the transition to electric mobility. This year's [edition](#) of this annual publication features a specific analysis of the performance of electric cars and competing powertrain options in terms of greenhouse gas emissions over their life cycle. It includes policy recommendations that incorporate learning from frontrunner markets to inform policy makers and stakeholders that consider policy frameworks and market systems for electric vehicle adoption.



Nuclear Power in a Clean Energy System. This [report](#) focuses on the role of nuclear power in advanced economies and the factors that put nuclear power at risk of future decline. It is shown that without action, nuclear power in advanced economies could fall by two-thirds by 2040. The implications of such a "Nuclear Fade Case" for costs, emissions and electricity security using two WEO scenarios are examined.

Other recent publications

- [The Future of Cooling in China](#)
- [Technology Innovation to Accelerate Energy Transitions](#)
- [LNG Market Trends and Their Implications](#)
- [Securing Investments in Low-Carbon Power Generation Sources](#)
- [Perspectives for the Clean Energy Transition](#)
- [Transforming Industry through CCUS](#)
- [Tracking SDG7: the Energy Progress Report](#)
- [Status of Power System Transformation 2019: power system flexibility](#)

3. COMMITTEE ON ENERGY RESEARCH AND TECHNOLOGY (CERT)

CERT Chair

The second and final term of the CERT Chair, Alicia Mignone, will draw to a close after the next CERT meeting in November. Part of the CERT landscape for more than twenty years, Ms. Mignone first served as Italian delegate from 1997-2002, as Vice-Chair from 2002-2013 and as Chair from 2014-2019. At the CERT June 2019 meeting delegates approved the nomination of Amanda Wilson of Canada as her successor.

Update on CERT Task Forces

Task Force #1 on Partnerships, created to consider the landscape of multilateral technology initiatives has completed the first phase of a comparative analysis of four collaborative energy technology mechanisms: Technology Collaboration Programmes, Mission Innovation, the Clean Energy Ministerial, and European Technology and Innovation Platforms.

<https://www.iea.org/publications/reports/EnergyTechnologyInnovationPartnerships/>

Future efforts could seek to further support policy makers in identifying strategic synergies between existing multilateral initiatives, and effective co-ordination processes to initiate or strengthen the interactions between ongoing activities. As a starting point, the Secretariat may conduct further research on a select number of technology areas followed by interviews with relevant actors, including TCPs. Please direct any questions or suggestions on the next phases of this work to TCP@iea.org.

Task Force #2 on CERT operations, created to reflect on ways to make CERT meetings more dynamic in terms of processes and operations has completed its activities.

Task Force #3 on TCP Enhancement, created to oversee implementation of the Action Plan for TCP Enhancement will continue its work for the time being. In addition to working with the Secretariat on the implementation of the Action Plan, Task Force 3 will be working with the IEA Legal Office on the proposed modernisation of the legal mechanisms (see below) and on exploring improvements to TCP communications.

Today in the Lab – Tomorrow in Energy?

This new *ETP 2020* initiative aims to highlight to decision makers and the broader public the importance of RD&D for the global energy future and, specifically, the ground-breaking research being carried out by the wider TCP network.

TCPs are invited to submit before 7 October, information on current research projects via a simple template. With input from CERT delegates a number of these projects will be showcased by the IEA through social media. TCPs are invited to take part in a conference call at 14h30 (Paris time) on 19 September for further information. In the meantime any questions may be sent to etp@iea.org.

Next meeting

The next meeting of the CERT will take place at the IEA in Paris on 19 and 20 November 2019. Items on the agenda will include thematic discussions on hydrogen and *ETP 2020*.

4. WORKING PARTIES AND EXPERTS' GROUPS

Working Party on Energy End-Use Technologies (EUWP)

The **76th meeting of the EUWP** will take place at the IEA on 16-18 September 2019. It will include a discussion with the EEWP on the role of technology and policy in promoting innovation in the building sector. The aim of this joint discussion is to promote increased collaboration and knowledge sharing between the two working parties. Three TCPs will present their request for extension at the EUWP meeting: Advanced Motor Fuels (AMF TCP); Demand-Side Management (DSM TCP) and Hybrid and Electric Vehicles (HEV TCP).

Fusion Power Co-ordinating Committee (FPCC)

The **48th meeting of the FPCC** took place in Paris on 14-15 February 2019. It was preceded by a strategic session on Developments in Materials Research for Fusion which provided an opportunity to review the strategies, recent developments and remaining challenges of research on fusion materials among key research programmes worldwide. The next meeting of the FPCC will take place on 12-13 February 2020.

Working Party on Renewable Energy Technologies (REWP)

The **76th meeting of the REWP** will take place in Helsinki, Finland on 10-11 September 2019, and will include a strategic discussion on sustainable bioenergy.

Working Party on Fossil Fuels (WPFF)

The **76th meeting of the WPFF** was hosted by the Chinese Ministry of Science and Technology (MOST) in Beijing, China on 26-27 June 2019. The meeting provided an opportunity for detailed presentations and discussions on the role of fossil energy in China, including advances in highly efficient coal-fired power generation. A dedicated session on carbon capture, utilisation and storage (CCUS) highlighted the significant progress and activity underway in China on this key technology, including the publication of a new CCUS technology roadmap in May 2019. The meeting also discussed the new WPFF mandate and strategy (for 2020-2023) and recommended a further 5-year extension for the Fluidised Bed Conversion TCP. While in Beijing, the WPFF delegates visited the Guohau Beijing gas-fired cogeneration plant, a highly efficient facility that can operate with fewer than 30 employees due to significant digitalisation. The next meeting of the WPFF will be in Paris on 10-11 December 2019.

Experts' Group on R&D Priority-Setting and Evaluation (EGRD)

The EGRD held a workshop on system resiliency and flexibility, hosted by the Austrian Ministry for Transport, Innovation and Technology in Vienna on 13-14 May. Presentations are available on the [workshop page](#). The next EGRD workshop, on the topic of alternative fuels, will take place at the IEA on 21-22 October 2019. The EGRD is currently also preparing its request for extension for the CERT November meeting.

5. TECHNOLOGY COLLABORATION PROGRAMME (TCP)

3rd TCP Universal Meeting

Leading energy experts from the public and private sector gathered in Paris on 18 and 19 June 2019 for the third TCP Universal Meeting. “2019 is a key year for innovation at the IEA,” said Dr Fatih Birol, the IEA’s Executive Director. “A more integrated and holistic approach to energy technology innovation is required to reach a sustainable energy future, which means even more partnerships among those in this room.”

The first day of this event was jointly hosted by the CERT and the IEA Standing Group on Long-Term Co-operation (SLT). It brought together policy and decision makers to share experiences on disruptive innovation, technology trends, and partnerships between governments, the private sector and other energy stakeholders. The meeting provided an opportunity for innovators and strategic thinkers to discuss key trends, which will help to inform future IEA activities related to energy technology, research and innovation. That includes the preparations for the 2019 IEA Ministerial and the 2020 edition of *Energy Technology Perspectives*, one of the IEA’s major publications.

At the meeting, the IEA unveiled a new TCP logo as well as new tools and online resources available under its [energy innovation web portal](#), including [a study mapping international partnerships relevant to energy technology innovation](#) in order to identify synergies and foster strategic engagement across initiatives. The IEA Secretariat also outlined plans for a major effort to modernise the TCP legal mechanism, further explore how the IEA can make better use of TCP work and improve communication across the TCP network.

Speaker presentations, a summary of break-out group discussions, and the new TCP video are available for download from the IEA [event website](#).

New TCP logo and webpage

Following the unveiling of the new IEA brand and logo, the Agency released a new Technology Collaboration Programme (TCP) logo at the Universal Meeting in June 2019. TCPs are one of IEA’s longest-standing programmes, and their new logo seeks to clarify the relation between the agency and TCPs, and provide a link with our new digital identity.

The logo comes in two formats. One is for use by TCPs themselves, and comes as a banner to be applied on their public content.

Your TCP logo

- Banner should span the **full width** of the **first slide** at either the **top** or the **bottom**.
- Please do not alter the banner.
- The blue color of the Banner should not be used elsewhere in the slide deck.
- Please discontinue use of the blue ETN logo.

Presentation Title

Name of presenter, affiliation

Location & date of presentation

Technology Collaboration Programme
by IEA

i. Example slide presentation template using TCP Banner

The second is a badge which the IEA will use when communicating about TCPs, as used in the header to this document. Note that the TCP Badge is intended for the use of the IEA Secretariat *only*.

The new TCP logos are expected to be rolled out over the next six months. A new online guide will be made available in mid-September to advise on how TCPs should use this banner in a variety of formats including publications, power point presentations. Templates for common TCP documents will also be available on this webpage. An IEA webinar on **communication matters relating to the TCP logo and online resources** is scheduled for **13 September** at 16h00 CET.

In line with the IEA digital strategy, the [IEA TCP webpage](#) has also been updated and a new webpage created for each individual TCP. The 2-page TCP brochures are also available for download on the individual TCP pages. Please contact the IEA Secretariat at TCP@iea.org if you have any feedback regarding the brochure or individual webpage for your TCP.

TCP Survey

34 out of 38 TCPs responded to the IEA Secretariat's April 2019 TCP Survey. A summary presentation of the results is available on the Forum (<https://www.iea.org/tcp/forum/> login: forum password: network).

Modernisation of the TCP legal mechanisms


The Legal Office is currently working with delegates to propose an update to the TCP legal framework. As discussed at the TCP Universal Meeting, these updates will focus on the following overarching priorities, identified with input from TCP representatives, CERT and WP delegates, and other stakeholders.

- Increase **collaboration** with external partners
- Deepen **integration** of TCP inputs into IEA work
- Stronger engagement with **emerging economies**
- **Streamline** administrative processes and procedures

Over the past several months, the Legal Office has held a number of discussions with TCP representatives to gather input on specific proposals that will be included as part of the modernisation proposal. We will host a webinar for all TCPs at 16h00 on October 16 to present the proposal and what it means for TCPs. Please contact [K.C. Michaels](#) if you would like additional information.

Recent new TCP participations

Contracting Parties

 The **Netherlands Enterprise Agency (RVO)** joined the **GHG TCP** as a Contracting Party on 29 August 2019.



The **Swiss Federal Office of Energy (SFOE)** joined the Hydropower TCP as a Contracting Party on 26 August 2019.



ENEA of Italy joined the **IETS TCP** as a Contracting Party on 11 July 2019.



The **European Commission** joined the **4E TCP** as a Contracting Party on 26 June 2019 and the **C3E TCP** on 4 July 2019.



The **China Academy of Building Research (CABR)** joined the **HPT TCP** as a Contracting Party on 10 May 2019.



The **Energy Efficiency and Conservation Authority (EECA)** of New Zealand joined the **4E TCP** as a Contracting Party on 10 April 2019.

Sponsors

- The **Institute Teknologi Bandung (Indonesia)** joined the **GHG TCP** as a Sponsor on 30 July 2019.
- **Sotacarbo (Italy)** joined the **GHG TCP** as a Sponsor on 3 July 2019.

IEA Secretariat – points of contact

Technology Collaboration Programme		
Uwe Remme	ETSAP TCP	Cross-cutting
Per-Anders Widell	C3E TCP	Cross-cutting
Chiara Delmastro	DHC TCP	End-use: Buildings
Thibaut Abergel	ECES TCP, HPT TCP	End-use: Buildings
Luis Munuera	HTS TCP, ISGAN TCP	End-use: Electricity
Kevin Lane	4E TCP	End-use: Electricity
Jeremy Sung	DSM TCP	End-use: Electricity
Peter Levi	IETS TCP	End-use: Industry
Marine Gorner	HEV TCP	End-use: Transport
Jacopo Tattini	AMF TCP, Combustion TCP	End-use: Transport
Jacob Teter	AFC TCP, AMT TCP,	End-use: Transport
Raimund Malischek	CCC TCP, EOR TCP, FBC TCP, GOTCP	Fossil fuels
Samantha McCulloch	GHG TCP	Fossil fuels
Diana Louis	CTP TCP, ESEFP TCP, FM TCP, NTFR TCP, PWI TCP, RFP TCP, ST TCP, SH TCP	Fusion power
Hideki Kamitataru	Bioenergy TCP, Geothermal TCP, Hydrogen TCP, Hydropower TCP, Ocean TCP, PVPS TCP, SHC TCP, SolarPACES TCP, Wind TCP	Renewables & hydrogen
CERT, Working Parties, Experts' Groups, legal advice		
Timur Gül Per-Anders Widell Diana Louis	Committee on Energy Research and Technology	CERT
Per-Anders Widell Diana Louis	Working Party on Energy End-Use Technologies	EUWP
Paolo Frankl	Fusion Power Co-ordinating Committee	FPCC
Samantha McCulloch	Working Party on Renewable Energy Technologies	REWP
Per-Anders Widell	Working Party on Fossil Fuels	WPFF
Per-Anders Widell	Experts' Group on R&D Priority Setting and Evaluation	EGRD
Simone Landolina Claire Hilton	Cross-agency efforts on energy innovation, including TCPs and other partnerships	TCPs
Diana Louis	Co-ordinating information on TCPs	TCPs
KC Michaels Claire Hilton	Legal advice (incl. modernisation of the TCPs' legal mechanisms)	TCPs