TCP Universal Meeting, 2021

Fourth biannual meeting of the Technology Collaboration Programme

26 & 28 October 2021

International Energy Agency

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Introduction to the TCP Universal Meeting 2021

Background

Support for reducing CO_2 emissions has never been as strong as today, but more action is needed to bring the world on to a net zero emission pathway. Leaders are gathering at COP26 in Glasgow in November this year with the aim to accelerate action towards the goals of the Paris Agreement. More than 50 countries and the European Union have pledged to meet net zero emissions targets. However, most pledges are not yet underpinned by near-term policies and measures. Moreover, even if successfully fulfilled, the pledges to date would still leave around 22 billion tonnes of CO_2 emissions worldwide in 2050.

More innovation is needed to meet global energy and climate goals. Reaching net zero by 2050 requires further rapid deployment of available technologies as well as widespread use of technologies that are not yet on the market. Major innovation and deployment efforts must occur over this decade in order to bring these new technologies to market in time. Most of the global reductions in CO_2 emissions through 2030 come from technologies readily available today. But in 2050, almost half the reductions come from technologies that are currently at the demonstration or prototype phase.

International co-operation has a critical role to play in developing clean energy technologies. Making net zero emissions a reality hinges on a singular, unwavering commitment from all governments – working together with one another, and with businesses, investors and citizens. There are today several established multilateral platforms that support governments in their efforts to accelerate clean energy transitions. The **Technology Collaboration Programme** (TCP), the **Clean Energy Ministerial** (CEM) and **Mission Innovation** (MI) assist governments in their aim to build global knowledge on policies and technologies, deliver joint projects and knowledge transfers around sectors and technologies.

The TCP Universal Meeting

The IEA has hosted a **Universal Meeting** of all TCPs every two years since 2015 with the support of the Committee on Energy Research and Technology (CERT). These meetings provide an opportunity for the Chairs and Secretaries of all 38 TCPs to interact with each other, with the Secretariat and with CERT and Working Party delegates. The most recent iteration of the Universal Meeting took place in Paris in June 2019, with nearly every TCP represented.

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Objective and key themes for the 2021 edition

The 2021 Universal Meeting will focus on three core themes, selected based on priorities identified by the CERT and TCPs:

- Enhancing **multilateral collaboration** among TCPs and other innovation initiatives.
- Expanding **global outreach** of the TCPs.
- Improving **communication** of TCP outputs to ensure a broader audience.

These themes reflect the focus of the TCP Action Plan approved by CERT in 2018, ongoing discussions among the CERT Task Force on TCP enhancements, and the results of a survey of TCPs carried out in April and June 2021. These themes will also build upon several key IEA outputs designed to enhance TCP work, including two **handbooks for TCPs and other clean energy multilateral initiatives**, to be published in 2021, as well as the IEA initiative "**Today in the Lab – Tomorrow in Energy?**". For all these themes, the focus will be on identifying specific success stories among multilateral collaborations and exploring how these examples can serve as models for TCP collaboration.

Format

All sessions will be held in virtual format and will be designed to maximise interactivity. Feedback from the 2019 Universal Meeting highlighted the need for more opportunities to share experience and hear from other TCPs. Based on this feedback, sessions will incorporate organisational roles for TCP participants and include, where possible, small group breakout sessions.

TCP project videos

[Today in the Lab – Tomorrow in Energy?](link) is an IEA initiative designed to win greater recognition for the work of the TCPs by highlighting research projects which they either manage directly, or contribute to in partnership with other international initiatives. TCPs that submitted projects to this initiative in 2020 and 2021 were invited to forward a short video presentation of these projects. These will be available for viewing on the [IEA event page](link) from 25 October.

Opening Plenary: A call to action to strengthen multilateral clean energy collaboration and alignment

26 October 2021 • 14h30-15h15 (Paris time)

Tuesday 26 October 2021	
14h30	**Welcome and opening** • Amanda Wilson, Natural Resources Canada and Chair of the IEA CERT • Dennis Mesina, US Department of Energy, and member of the CERT Task Force on TCP Enhancements
14h40	**Panel discussion** • Timur Gül, Head of the IEA Energy Technology Policy Division and Secretary to CERT • Dan Dorner, Head of the CEM Secretariat • Jennie Dodson, Head of the MI Secretariat Topics for discussion: • Ongoing multilateral efforts to support governments efforts to reach long-term climate and energy objectives • Key opportunities for collaboration and alignment of international clean energy activities post COP26 • Opening the doors to new member countries and partners in a global transition to clean energy
15h10	**Special Remarks by the IEA Executive Director** • Fatih Birol, Executive Director, IEA
15h15	**Closing**

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Thematic Session 1: Enhancing multilateral collaboration among TCPs and other initiatives

26 October 2021 • 15h30-17h00 (Paris time)

Background

There is an opportunity for multilateral initiatives for clean energy innovation to work closer together. In the last two decades, there has been a proliferation of new platforms for countries to address common clean energy challenges. A co-ordinated approach between these platforms can help increase their respective value added and impact, including by sharing good practice for collaboration, exploring areas for joint work and avoiding duplication. Despite strong interest from TCPs and other existing and new multilateral initiatives to strengthen collaboration with each other, this remains challenging in many instances and systematic collaboration remains elusive.

Key objective of the thematic session

This session aims to bring together key actors from the TCPs and other multilateral initiatives to share experiences and lessons learned on cross-initiative collaboration.

Enhancing collaboration between multilateral initiatives – A handbook for TCPs and other clean energy multilateral initiatives

As an input to this discussion, the IEA will introduce and present the findings of a new handbook on '**Enhancing collaboration between multilateral initiatives**' scheduled for release in 2021. The handbook is based on interviews with country delegates and representatives from TCPs, CEM Initiatives, MI Missions, and other multilateral platforms. It collects good practice approaches on collaboration between and among multilateral initiatives in order to accelerate, facilitate and streamline future collaborations amongst them.

The handbook identifies several characteristics that are commonly shared by successful collaborations and **six recommendations for action** to facilitate inter-initiative collaboration:

1. Integrate collaboration into decision-making processes
2. Create meaningful opportunities for exchanges between initiatives
3. Adopt flexible approaches to project development
4. Streamline legal mechanisms used for collaboration
5. Consider existing landscape before developing new initiatives
6. Adopt a whole-of-government approach to collaboration

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Format

The session will include two rounds of rotating breakout groups to spark discussions on several of these recommendations. **Participants will be invited to select two out of four topics they wish to join and actively contribute to.** Participants invited to this session will include representatives from TCPs, CERT, Working Parties, CEM Initiatives, MI Missions and other external initiatives. Each breakout session will include moderators and notetakers. A written summary of each session will be shared with all participants after the Meeting.

Sectoral discussions in addition to Thematic Session 1

In an effort to implement the recommendations for action suggested in the handbook on collaboration, TCPs will be invited to organise short **co-ordination sessions** throughout the week. These co-ordination sessions will have a sectoral/thematic focus as an opportunity for relevant TCPs and key multilateral initiatives to find mutual areas of collaboration. The sectoral co-ordination sessions will be led by representatives of TCPs and other initiatives, but they will be facilitated by the IEA and attended by TCP Desk Officers and other IEA colleagues.

Agenda of Thematic Session 1

Tuesday 26 October 2021	
15h30	**Welcome**
	• Michele de Nigris, Ricerca sul Sistema Energetico, Italy, Vice-Chair of CERT and Vice-Chair of EUWP
	• Alejandro Moreno, US Department of Energy and Chair of REWP
	Outline and recommendations of the new TCP Collaboration Handbook
	• Jean-Baptiste Le Marois and K.C. Michaels, International Energy Agency
15h50	**Breakout Groups • Rotation 1**
	• Discussion on the viability, strengths and weaknesses, and applicability of each recommendation; participants may discuss examples of collaborations when implementing these recommendations and determine best practices.
	Breakout Group 1 • Integrate collaboration into decision-making processes
	• Co-moderators: Helen Fairclough, Mission Innovation Secretariat and Rachael Briggs, Clean Energy Ministerial Secretariat
	• How can multilateral initiatives build collaboration into their norms and procedures? Is their value in incorporating collaboration into official mission statements, high-level collaboration policies, or other documents? What advantages does this bring over ad hoc processes?

Breakout Group 2 • Create meaningful opportunities for exchanges between initiatives

• Moderator: Monica Axell, Heat Pumping Technologies (HPT) TCP

• What mechanisms exist to ensure exchange between multilateral initiatives? What are the strengths and weaknesses of these examples? Are these discussions focussed on collaboration, co-ordination or project development? Some notable examples among the TCPs include the Co-ordination Groups organised under the EUWP and FPCC.

Breakout Group 3 • Adopt flexible approaches to project development

• Moderator: David Shipworth, User-centred Energy Systems (Users) TCP

• How are commonalities between initiatives exploited to avoid implications of structural mismatches? Are there other approaches apart from the hybrid funding model, the flexible project timing, and adopting flexible regulations and procedures? Notable examples among the TCPs include a recent [report on the role of usability](#) from the Users and 4E TCPs and the [Comfort and Climate Box](#) (CCB) joint Task between HPT and Energy Storage TCPs).

Breakout Group 4 • Consider existing landscape before developing new initiatives

• Moderator: Helmut Strasser, proposed TCP on Decarbonisation of Cities and Communities (Cities TCP)

• What are the benefits of considering the full landscape at the beginning of developing new projects? How can initiatives best avoid overlap and duplication? How have participants identified the 'gap' that a new initiative/project is trying to fill?

16h20	**Breakout Groups • Rotation 2** • Participants will be invited to move to the second breakout group by selecting one of the three options on their screen after the first break session. Moderators will remain in the same thematic breakout group to ensure continuity and potentially build on discussions from the first rotation.
16h45	**Reactions from moderators and participants** • Moderators will be invited to share a short summary of TCP perspectives from the breakout groups, with a focus on good practice approaches, outstanding challenges, and possibly next steps. This oral summary will be complemented with a written summary by IEA based on the notes from the breakout groups, to be circulated with participants following the TCP Universal Meeting.
17h00	**Closing**

Thematic Session 2: Expanding the global reach of TCPs

28 October 2021 • 13h00-14h30 (Paris time)

Background

Emerging markets are central to the world's energy and climate challenge and technology solutions. They are expected to account for much of future energy demand growth and have become large markets for new technologies in recent decades. The number of innovative energy concepts and products developed there is also steadily growing as governments ramp up efforts to strengthen innovation capacity. International collaboration can support these efforts and help accelerate energy technology innovation globally.

Many emerging economies are already active participants across the TCP network, and there is strong interest from TCPs to expand their participation more broadly. However, despite this strong interest from TCPs and from many countries around the world to get involved, most TCPs are still predominantly made up of IEA members.

Key objective of the thematic session

This session aims to bring together key actors from the TCPs to share experiences and good practice approaches to foster new memberships. In particular, participants may discuss ways and opportunities to further engage with emerging and developing economies – focus regions under the IEA [Clean Energy Transitions Programme](#).

Expanding the global reach of the TCPs – A handbook for TCPs and other clean energy multilateral initiatives

As an input to this discussion, the IEA will introduce and present the findings of a new handbook on '**Expanding the global reach of the TCPs**', scheduled for release in 2021. The handbook is based on interviews from TCPs and collects TCP good practice, as well as guidance on what TCPs are and how they function for prospective member countries.

The Handbook identifies **three core themes** where TCPs may exchange learnings and suggestions to foster enhanced participation looking forward:

1. Expand outreach and increase awareness of TCP activities and impact;
2. Address concerns over resources and costs of participation in TCP activities; and
3. Set up TCP activities aligned with prospective member country priorities.

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Format

The session is designed to maximise interactivity amongst participants. In that, it will include two rounds of rotating breakout groups to spark discussions on each of the three themes listed above. **Participants will be invited to select two out of three topics they wish to join and actively contribute to.** Participants invited to this session will include representatives from all TCPs, including ExCo representatives from IEA non-member countries. Each breakout group will include moderators and notetakers. A written summary of each session will be shared with all participants after the Meeting.

Agenda of Thematic Session 2

Thursday 28 October 2021	
13h00	**Welcome** • Toshiyuki Sakamato, Institute of Energy Economics, Japan, and Vice-Chair of the IEA CERT **Outline and findings of the new TCP Global Outreach Handbook** • Jean-Baptiste Le Marois and K.C. Michaels, International Energy Agency
13h15	**Breakout Groups • Rotation 1** • Discussion on the relevance of each theme, key underpinning challenges, possible solutions or good practice approaches based on TCP experience, and possible next steps the IEA Secretariat could focus on from the TCP perspective. Participants will be invited to move to the first breakout group by selecting one of the three options on their screen.
	Breakout Group 1 • Expand outreach and increase awareness of TCP activities and impact • Moderation: Marina Holgado, Hydrogen TCP • TCPs should ensure that decision makers in potential member countries are aware of what TCPs do, how they operate, and what benefits they bring. • Participants may share strategies to help increase awareness about TCP activities and their impact, and to strengthen outreach in potential member countries. **Breakout Group 2 • Address concerns over resources and costs of participation in TCP activities** • Moderation: Andrej Jentsch, District Heating and Cooling (DHC) TCP • Despite the numerous benefits of TCP membership, the costs associated with participation can sometimes be a challenge for prospective member countries. • Participants may share strategies to help address concerns over costs of participation, such as adjustments to TCP fees, a progressive membership track, and collaboration with development agencies to cover part of the fees.

	Breakout Group 3 • Set up TCP activities aligned with the needs of potential member countries • Moderation: Daniel Mugnier, Photovoltaic Power Systems (PVPS) TCP • While TCPs currently cover a wide range of possible research topics, these may not always align with the specific context of potential member countries. • Participants may share strategies to tailor activities to the needs of potential member countries, such as including their perspectives when setting up new tasks or annexes, or even co-designing activities with them ahead of membership.
13h45	**Breakout Groups • Rotation 2** • Participants will be invited to move to the second breakout group by selecting one of the three options on their screen after the first break session. Moderators will remain in the same thematic breakout group to ensure continuity and potentially build on discussions from the first rotation.
14h15	**Open reactions from moderators and participants** • Moderators will be invited to share a short summary of TCP perspectives from the breakout groups, with a focus on good practice approaches, outstanding challenges, and possibly next steps. This oral summary will be complemented with a written summary by the IEA based on the notes from the breakout groups, to be circulated following the TCP Universal Meeting.
14h30	**Closing**

Thematic Session 3: Improving communication of TCP outputs to reach a broader audience

28 October 2021 • 15h00-16h30 (Paris time)

Background

In recent years, the CERT, the Working Parties and the IEA Secretariat have made concerted efforts to enhance awareness, communication and visibility of the TCPs. Recent efforts have included a new logo for the TCPs introduced in 2019, a set of 2-page brochures for each TCP in connection with the 2019 TCP Universal Meeting, and the [Today in the Lab: Tomorrow in Energy?](#) initiative, which showcases TCP projects throughout the technology innovation sector.

Even with these successes, there is an opportunity to better tailor the results of these collaborative efforts to reach the right audiences. Earlier this year, the IEA conducted a survey of TCPs to solicit input on ways to improve communication of TCP outputs. TCP respondents expressed a strong desire for more support for external communications and with translating TCP research into concrete policy recommendations. However, there remains an initial step of ensuring that there is a clear definition for who those audiences are. Understanding who the primary audiences are – and how these audiences may differ between TCPs – can provide insights into how to craft messages that resonate effectively.

Key objective of the thematic session

This session is designed to provide TCPs with an opportunity to exchange on communication strategies and guidelines with a goal of outlining a new approach to communicating TCP outputs. This may include defining the key audiences, considering how to craft messages to reach that audience and discussing whether an overarching communications strategy could benefit the TCPs. The IEA will also share some insights on how IEA outputs are designed and crafted to maximise impact.

Format

The session will include breakout groups to discuss important questions for guiding TCP communication strategy. **Participants will be assigned to a breakout group, and each group will be given a set of discussion questions to guide the debate.** Participants invited to this session will include representatives from TCPs, CERT and the Working Parties. Each breakout session will include moderators and notetakers. A written summary of the session will be shared with all participants after the Meeting.

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Thursday 28 October	
15h00	**Welcome**
	• Amanda Wilson, Natural Resources Canada and Chair of the IEA CERT
15h05	**Perspectives from the IEA Communications and Digital Office**
	• Jad Mouawad, Head of Communication and Digital Office
15h20	**Breakout Groups**
	• Participants will be invited to jointly discuss the communications strategy for the TCPs. Participants will be invited to move to the first breakout group by selecting one of the three options on their screen. Each group will be given a set of discussion questions to guide participants as they seek common ground on the following issues:
	◦ Who are the TCPs' primary audiences?
	◦ How might these audiences differ between TCPs?
	◦ How can TCPs ensure their messages reach that audience?
	◦ How can messages be crafted to maximise impact?
	◦ Is there a need for an integrated communications strategy for the TCPs?
	Moderators:
	• Pamela Murphy, Solar Heating and Cooling (SHC) TCP
	• Tim Dixon, Greenhouse Gas R&D Programme (GHG) TCP
	• Peter Kurz, Stellarators and Heliotrons (SH) TCP
	• Dina Bacovsky, Advanced Motor Fuels (AMF) TCP
16h15	**A new communications strategy for the TCPs?**
	• Moderators will be invited to summarise the key points of their discussion with a view towards identifying strategies to expand the reach and impact of TCP outputs. This oral summary will be complemented with a written summary by the IEA based on the notes from the breakout groups, to be circulated following the TCP Universal Meeting.
16h30	**Closing**