Technology Collaboration Programme
by iea

International Energy Agency (IEA) Technology Collaboration Partnerships (TCPs) supplier day

23th Feb 2023

Department for Energy Security & Net Zero

Note these slides have been edited to provide the most up to date information related to the invitation to tender to be published on 20th March 2023

Agenda

1) Introduction to the IEA Technology Collaboration Programmes

2) Meet each TCP

3) Explanation of the Alternate Delegate role

4) Application process

5) Questions

The IEA Technology Collaboration Programmes

Multilateral mechanism established by the International Energy Agency (IEA) 47 years ago created with a belief that the future of energy security and sustainability starts with global collaboration

6,000+ experts worldwide, representing nearly 300 public and private organisations located in 55 countries

- **8 themes:**
  Buildings, Electricity, Industry, Transport, Renewable Energy, Fossil Energy, Fusion Power, cross-cutting

- **37 TCPs:**
  UK participates in 20 & SICE has budget for 10, <u>this round of procurement is for 3 only</u>

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

The IEA Technology Collaboration Programmes

Cross-Cutting	End use: Buildings	End use: Electricity	End use: Industry	End use: Transport	Fossil energy	Fusion power	Renewable energy and H$_2$
Energy Technology Systems Analysis (ETSAP)	**Energy in Buildings and Communities (EBC)**	**Smart Grids (ISGAN TCP)**		Advanced Materials for Transportation (AMT TCP)	Enhanced Oil Recovery (EOR TCP)		**Bioenergy (Bioenergy TCP)**
	District Heating and Cooling (DHC)	**User-Centred Energy Systems (Users TCP)**		Clean and Efficient Combustion (Combustion TCP)	Fluidized Bed Conversion (FBC TCP)		**Geothermal Energy (Geothermal TCP)**
	Energy Efficient End-Use Equipment (4E TCP)			Hybrid and Electric Vehicles (HEV TCP)	Greenhouse Gas R&D (GHG TCP)		**Hydrogen (Hydrogen TCP)**
	Energy Storage (ECES TCP)						Ocean Energy Systems (OES TCP)
	Heat Pumping Technologies (HPT TCP)						**Solar Heating and Cooling (SHC TCP)**
							Wind Energy Systems (Wind TCP)
			No UK participation			*No UK participation*	

Benefits of the IEA TCPs

Benefits to BEIS

- Increased knowledge in BEIS about the latest development of new technologies, business cases and policy developments to support low carbon energy technologies.

- Influence of UK in science and energy innovation and technology within an international context.

- Evidence-led policy-making, links to international best practice.

Benefits to UK Academia & Research Organisations:

- Support industry and academia in the UK researching the technology areas.

- Offers a platform for UK stakeholders to undertake joint international projects
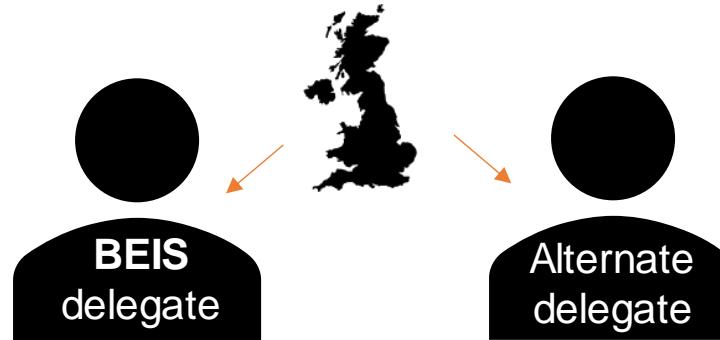
- Disseminate UK research and innovation

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

IEA TCP Jargon

BEIS delegate

Alternate delegate

Participation fees: agreed by each TCPs' ExCo, paid by participating countries annually. NOT part of this procurement

Fund central TCP administration; ExCo secretariat, stakeholder engagement, annual reports etc

Drawn from across SICE/policy teams.

Primarily responsible for admin, but can get more involved - time/priorities allowing

Experts in their field appointed through open competition

In charge of running TCP activities in UK and producing main outputs

'Alternate' a misnomer…

Annexes are tasks produced by TCPs, where members create working groups to produce reports, gather international data, on technologies/policies/ business models

National Team: a team of UK experts from industry, third sector and academia convened by the UK delegate.

ExCo: Executive committee meeting with all member countries' delegates which typically occurs twice a year

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Lot 1: Energy storage

- **What does the Energy Conservation and Energy Storage (ECES) TCP do?**

Mission: to facilitate integral research, development, implementation and integration of energy-storage technologies to optimise the energy efficiency of all kinds of energy system and to enable the increasing use of renewable energy instead of fossil fuels.

- **Publications:** Annual report and quarterly newsletters

- **Meetings:** Every year 2x ExCo meetings
  - Recently (June 2022) current UK AD attended in Rome and presented latest iteration of our task proposal on **"Large scale, medium duration energy storage."** .

- UK is leading Task 42 "System flexibility from Medium-Duration Energy Storage" which aligns closely with BEIS funded LODES (Longer Duration Energy Storage) programme

- **Members:** Austria, Belgium, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Israel, Italy, Japan, South-Korea, Netherlands, Norway, Slovenia, Sweden, Switzerland, Turkey, United Kingdom, USA.

- **Sponsors:** BVES – Bundesverband Energiespeicher e.V. (German Energy Storage Association) and University of Seville, Spain.

- **For more information:** https://iea-es.org/

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

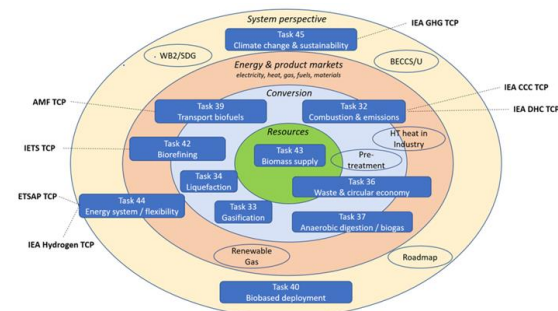# Lot 2: Solar heating and cooling

- The IEA SHC deals with the design, performance and operation of Solar Heating and Cooling systems from domestic to district levels and beyond.

- Technologies in scope include Solar Thermal (Plate, evacuated tube etc), Concentrators and Photovoltaics among many others

- Activities in the IEA SHC are organized into a series of Tasks.
  - Task 68 - Efficient Solar District Heating Systems (April 2022 — March 2025)
  - Task 67 - Compact Thermal Energy Storage Materials within Components within Systems (October 2021 — September 2024)
  - Task 66 - Solar Energy Buildings (July 2021 — June 2024)
  - Task 65 - Solar Cooling for the Sunbelt Region (July 2020 — June 2024)
  - Task 64 - Solar Process Heat (January 2020 — December 2023)
  - Task 63 - Solar Neighborhood Planning (September 2019 — October 2023)
  - Task 62 - Solar Energy in Industrial Water & Wastewater Management (October 2018 — September 2022)

  - **UK is leading Task 69 Sub tack C on Smart Solar Hot Water heating**

- Co organised Eurosun Conference www.eurosun2022.org

- 2 ExCo meetings per year (Switzerland and South Africa in 2022)

- IEA SHC has currently thirteen full members: **Australia, Austria, Belgium, Canada, China, Denmark, Germany, France, Italy, Netherlands, Norway, Portugal, Slovakia, South Africa, Spain, Sweden Switzerland, Turkey** and the **United Kingdom**

- More info https://www.iea-shc.org/

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Lot 3: Bioenergy

What does the Bioenergy TCP do?

- Research Annexes ('Tasks') 11 currently operating. Work programmes developed for a 3 year cycle. Currently in year 1. Tasks cover everything from feedstock to technology and systems. UK is currently a member of 3 Tasks.

- Intertask projects / Special Reports cover cross cutting and strategic issues

- Scientific reports – High quality scientific reports on research carried out by members through Research Annexes and Working Groups.

- Collaboration with other TCPs and relevant international bodies

- Newsletters & Webinars – The TCP has an occasional newsletter as do some of the tasks. Open access webinars organised on Task reports.

- Triennual conference to present the findings of the Tasks and TCP to a wider audience. Contribute towards related conferences such as on BECCS.

- No current UK National Team

- UK has had longstanding involvement in this TCP covers a breadth of UK policy science and industrial interests

- 26 Country Members: Australia, Austria, Belgium, Brazil, Canada, China, Croatia, Denmark, European Commission, Finland, France, Germany, India, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Republic of Korea, South Africa, Sweden, Switzerland, UK and USA.

- For more information: https://www.ieabioenergy.com/

Alternate delegate role

- Represent the UK in Executive Committee (ExCo) Meetings.

- Act as the primary liaison between the UK industry and the TCP

- Prepare national annual reports for the IEA on the state of research, technology deployment, policy support and projects

- Manage and develop the National Team of interested experts, to coordinate tasks and knowledge dissemination

- Participate and propose TCP tasks or annexes, which are working groups aimed at delivering a specific task or output, which will advance the knowledge base of the relevant TCP area.

- Knowledge transfer to BEIS through the BEIS delegate

Alternate delegate role breakdown of tasks

- **General tasks (minimum requirement of 11 days)**
    - Participation in Executive Committee and associated tasks (Total time 6-10 days). This includes (but is not limited to):
        - Attending ExCo meetings
        - Participation in tasks, dissemination, adhoc meetings Providing feedback on TCP documents
        - Investigate opportunities for cross-TCP collaboration
        - Provide expert review and comment on TCP documents
    - National Team (2-5 days)
        - Maintain or establish the team if not established
        - Act as the Primary liaison between TCP, BEIS and the National Team

- **TCP specific tasks**
    - Active participation in annexes or working groups (up to 10 days) This includes (but is not limited to):
        - Design new research projects
        - Contribute to annexes led by other countries

- **Operating agent for an Annex/Tasks (only lots 1 and 2)**

Lot 1 (Energy Storage): Operating agent for Task 42

- coordinate delivery of the Task 42 Programme of Work.
- Regular attendance and chairing of Task 42 meetings, sharing responsibilities working closely with the ES Secretariat on administrative tasks

Lot 2 (Solar Heat): Operating Agent for sub - task on Smart hot water heating (part of Task 69)

- Leading sub task on smart solar heating
- Regular attendance of Task 69 meetings
- Coordinating the work in the Task 69 sub task

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Application process

- As the scope of work is likely to vary year-on-year and by TCP, the budget and scope of work would be agreed at the start each year at a kick-off meeting, and signed off by the BEIS TCP Coordinator.

- The minimum time requirement for each contract is 11 days for the general tasks.

- Bidders for lots 1-3 are expected to demonstrate ability for all tasks, and active participation in annexes.

- In addition, bidders for lots 1 and 2 are also expected to demonstrate expertise to lead the annex work.

- A pricing scenario has been developed for the application, which will be used to assess the Service Delivery Plan, and Total Cost.

- The evaluation criteria for lot 3 is slightly different as bidders for lots 1 and 2 are also expected to be operating agents of an annex.

Application process
– draft evaluation criteria

1 – Technical experience in the TCP area (35%)

a) Understanding of the sector in the UK and internationally (20%)

b) Developing research tasks and leading working groups (15%)

2 – Links with community in the technology area (20%)

3 – Knowledge transfer plan (10%)

4 – Service delivery (20%)

5 – Pricing (15%)

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Question 1 (35%)
– draft evaluation criteria

1 – Technical experience in the TCP area (4 pages)

a) Understanding of the sector in the UK and internationally (20%)

- Interpretation of challenges and opportunities

- Understanding of markets, technologies, standards, regulations, innovations, research areas, barriers and issue

b) Developing research tasks and leading working groups (15%)

- Experience and expertise setting up new research tasks, identifying gaps, preparing review reports, reviewing research proposals

- Chairing or participating in steering boards or international committees

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Question 2 (20%)
– draft evaluation criteria

2 – Links with community in the technology area (2 pages)

• Please present your links to individuals and organisations working in the technology area in the UK.

• Please map out the links across industry, academia, NGOs and government.

• evidence of participating in collaborative projects, extra assurance for examples since 2015, e.g. grant applications, participation in steering boards, etc

Question 3 (10%)
– draft evaluation criteria

2 – Knowledge transfer plan (1 page)

- Plan to impart technical knowledge and links with industry to the BEIS delegates and the IEA TCP as a whole.

- This answer can include suggestions of conferences to attend, presentations, jointly preparing reports, etc.

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Question 4 (20%)
– draft evaluation criteria

2 – Service delivery (2 pages)

- How you plan on delivering the requirement based on the pricing scenario
- How this role fits in with existing responsibilities
- Planned communication style and QA
- Plan for participating in annexes and working groups (topics interested in)
- Include potential working pattern, periods likely to be unavailable etc.

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Question 5 – Pricing (15%)
– draft evaluation criteria

- Evaluated on total cost for a representative pricing scenario

  - For lot 3: only use pricing scenario for general and additional tasks. Maximum budget available is ~£8,500 for one year

  - For lots 1 and 2: use the pricing scenario for general tasks, additional tasks, and being the operating agent for an annex. Maximum budget available is ~£20,000 for one year.

- Additional budget of £1750/year for T&S (not included in baseline)
- The Programme of Work will be agreed with the BEIS delegate at the start of each year to determine the scope of work.

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Procurement expected timelines

Proposed Tender Timeline	Dates (may be subject to change)
Advert and full invitation to tender issued	20th March 2023
Deadline for questions relating to the tender	24th March 2023
Responses to questions published	29th March 2023
Deadline for receipt of tender	6th April 2023 (2.00PM)
[If needed] contract clarification process	13th-18th April 2023
All suppliers alerted of outcome	24th April 2023
10 day Standstill period	25th April– 5th May 2023
Contract award on signature by both parties	By 12th May 2023
Contract start date	15th May 2023

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Application process - Jaggaer

- Organisations must apply on behalf of applicants (can be sole trader, academia or industry) by first registering to the live Jaggaer Portal (https://beisgroup.ukp.app.jaggaer.com/) and then apply for the programme

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Transparency

- In the interests of fairness, Q&A from this session will be anonymised and shared with all bidders, including those unable to attend today.

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Terms and conditions

- BEIS T&Cs are expected to form the basis of the contract, we will publish the final version of the T&Cs at the time of the ITT.

- They will be final and any bids submitted on condition that T&Cs are amended will be effectively submitting a non-compliant bid.

- If you have questions about the T&Cs you can ask them today or during the ITT Q&A window.

- All Q&A raised during the ITT publication period will be anonymised and shared with all bidders.

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A

Terms and conditions

- Intellectual Property:

- Any New IPR created under the Contract is owned by the Buyer

- Liability:

- Except for certain exclusions, each Party's total aggregate liability under the Contract is no more than 125% of the Charges paid or payable to the Supplier

Department for Energy Security & Net Zero

IEA TCP

Meet the TCPs

Alternate delegate role

Application process

Q&A