



Sustainable Energy Authority of Ireland

International Energy Agency Technology Collaboration Programmes

Task/Annex Participation – Call for Applications

Key Dates	
Call Open Date:	Thursday the 19 th of September, 2019
Deadline for Application Submission:	Friday the 18 th of October, 2019 at 5PM GMT

It is the responsibility of each applicant to this call to ensure that they have read and fully understand all documentation associated with this call before making a submission.

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1. Call Introduction

SEAI is central to bringing about a low carbon economy through measures and activities focussed on the transition to a smarter and more sustainable energy future. To achieve this mission, SEAI will continue to build an environment for positive change through our research & innovation, analysis, modelling and support for policy-making. SEAI will catalyse direct action through our design and delivery of grant and incentive programmes and through our capacity-building processes with citizens, communities and private and public sector organisations.

SEAI is pleased to announce this call for applications to appoint Ireland-based entities to Tasks/Annexes of the International Energy Agency (IEA) Technology Collaboration Programmes.

2. IEA & Technology Collaboration Programmes

The International Energy Agency (IEA) works to ensure reliable, affordable and clean energy for its 30 member countries and beyond. Founded in 1974, the IEA was initially designed to help countries co-ordinate a collective response to major disruptions in the supply of oil such as the crisis of 1973/4. While this remains a key aspect of its work, the IEA has evolved and expanded. It is at the heart of global dialogue on energy, providing authoritative statistics and analysis.

The IEA examines the full spectrum of energy issues and advocates policies that will enhance the reliability, affordability and sustainability of energy in its 30 member countries and beyond. The four main areas of IEA focus are:

- Energy security: Promoting diversity, efficiency and flexibility within all energy sectors.
- Economic development: Ensuring the stable supply of energy to IEA member countries and promoting free markets to foster economic growth and eliminate energy poverty.
- Environmental awareness: Enhancing international knowledge of options for tackling climate change.
- Engagement worldwide: Working closely with non-member countries, especially major producers and consumers, to find solutions to shared energy and environmental concerns.

IEA Technology Collaboration Programmes (TCPs)

Technology Collaboration Programmes are important mechanisms undertaken in pursuit of the above goals. TCPs aim to facilitate international co-operation to develop new and improved energy technologies.

TCPs are independent, international groups of experts that enable governments and industries from around the world to lead programmes and projects on a wide range of energy technologies and related issues. The 6,000 experts involved in the TCPs work to advance the research, development and commercialisation of energy technologies. The scope and strategy of each TCP is in keeping with the IEA Shared Goals of energy security, environmental protection and economic growth, as well as engagement worldwide.

Each TCP is self-financed by participant countries, either through financial and/or in-kind contributions. The participants themselves decide whether cost-sharing, task-sharing or a combination of both is most appropriate.

Benefits of Participation in TCPs

There are numerous advantages to participating in the ongoing activities of TCPs for the Irish energy/low-carbon technology sector which include:

- Information sharing and networking with leading international R&D performing organisations;
- Participation in the acceleration of development and deployment of important energy technologies, processes & systems which are of global strategic importance;
- Forming new partnerships and strengthening R&D capability for future transnational collaborative working (e.g., H2020/FP9 consortia, etc.);
- Reduced cost and duplication of research activities through coordination of international collaboration;
- Learning from and contributing to best practice;
- Linking research, industry and policy on a global scale;
- Representing Ireland internationally at the forefront of activity in your area;
- Being at the forefront of international technical standards development;
- Involvement in development of technologies and the exposure of Irish companies/universities/research institutions/public & semi-state bodies to those who develop these technologies, to international expertise and opportunities;
- Ensuring that Irish researchers are conversant with, and contribute to developing, international best practice.

The outputs, findings and evidence from all activities associated with TCPs are freely available to member countries and SEAI can influence the work programme of the Tasks/Annexes towards national policy goals. All Tasks/Annexes produce annual and end of term reports every three years which describe the achievements, outputs and findings of the Tasks/Annexes.

3. IEA TCP Governance and Structure

TCP Governance: Each TCP is organised under the auspices of an Implementing Agreement which is most commonly used to describe the legal text of a TCP. The legal text includes key provisions regarding the purpose, management and implementation of the TCP. The activities of each TCP are overseen by an Executive Committee (ExCo) comprised of representatives designated by each participant. The ExCo takes decisions on the management, participation and implementation aspects of the TCP. Some TCPs entrust the management functions of the TCP, or of a particular activity, to an Operating Agent (OA). At the conclusion of a 5-year term, each TCP must submit an end-of-term report and propose a new 5-year research strategy for approval by the IEA Secretariat.

Ireland's participation in TCPs: SEAI in its role as Ireland's national energy authority acts as Ireland's national signatory for IEA TCP Implementing Agreements. The scope and strategy of TCPs to which Ireland is a signatory align with national strategic objectives related to renewable energy, climate change and coordination of energy-related research as defined by SEAI.

IEA Standing Groups & TCP Executive Committees: SEAI and the Department of Communications, Climate Action & Environment (DCCAE) represent Ireland on IEA Standing Groups and Committees (e.g., the IEA Governing Board; IEA Committee on Energy Research & Technology; IEA Standing Group on Long-Term Cooperation; IEA Standing Group on Emergency Questions; IEA Standing Group on Global Energy Dialogue; and the IEA Committee on Budget & Expenditure) and Working Parties which, *inter alia*, oversee the IEA's strategy, work programme and priorities. SEAI staff also represent Ireland on relevant IEA TCP Executive Committees.

IEA TCP Tasks/Annexes: TCPs normally execute their research initiatives through collaborations known as Tasks or Annexes, each of which involves leading international researchers from industry, academia, research institutions and public bodies in member countries. The purpose of IEA research Tasks/Annexes is to provide a forum for world leading researchers and businesses to coordinate R&D activities in their area of interest on a global scale and to collaborate in the development and pursuit of projects. IEA research Tasks/Annexes typically have a 3-year term and can be extended for one or more terms. Some Tasks/Annexes execute core activities of the TCP and are continuously extended. The current SEAI call seeks to appoint entities based in Ireland to a range of selected IEA TCP Tasks/Annexes.

4. Who Can Apply to this Call

This call is open to public and private sector organisations based in Ireland (including Irish subsidiaries of overseas companies). Applications will be accepted from Companies, Research Performing Organisations (e.g., Universities, Institutes of Technology and Publicly Funded Research Institutions), NGOs, Public Sector Bodies and Semi-State Bodies who are based in Ireland. Proposals from individuals applying in their own right will not be accepted.

Applications can include up to two applicant organisations (**Lead and Partner Applicants**) and up to two nominated participants (**Lead and Partner Participants**). The nominated Participants are the individuals who will take part in Task/Annex meetings if the application is successful.

Lead Participant: The Lead Participant will hold overall responsibility for management of attendance, reporting, dissemination and other management duties associated with participation in the proposed Task/Annex. The Lead Participant will be the primary contact point for SEAI during the term of their participation in a Task/Annex. Each application may list only one Lead Participant.

Partner Participant: The Partner Participant may participate in Task/Annex activities to the same extent as the Lead Participant.

Details of the Applicant(s) and nominated Participant(s) are required in the Application Form. SEAI encourages applications including two Participants to ensure meeting attendance. The Lead and Partner Applicants can be the same organisation; however, SEAI encourages Applicants to consider submitting an application jointly with other entities in order to encourage cross-entity information sharing and such that the benefits of participating in Tasks/Annexes are broadly shared on a national scale. Where deemed beneficial, SEAI may request that separately submitted applications form a partnership to participate in Tasks/Annexes.

The list of Participants appointed following the 2018 SEAI IEA TCP Appointment Call is available in Appendix A.

5. Levels of Funding Available

Each TCP is self-financed by member countries, either through financial and/or in-kind contributions.

SEAI may cover the following costs (where applicable) to enable Irish participants to take part in IEA TCP Task/Annex meetings:

- (i) annual 'country membership' TCP fees
- (ii) annual Task/Annex membership fees

- (iii) if required, approved travel expenses associated with enabling appointed nominated participant(s) to participate in Task/Annex activities (e.g., economy class air rail and bus travel, accommodation/subsistence costs, etc. as per SEAI's policy)

It is important to note that SEAI does not pay salary costs/daily rates to Task/Annex participants. Ideally, applicants for Task/Annex participation should have prior ongoing research activity, related to the subject area of the Task/Annex. It is expected that applicants should be sufficiently committed to participate in the relevant Task/Annex in the context of their strategic interests to cover the salary/time costs associated with participation in Tasks/Annexes. Details of how to claim travel expenses will be provided by SEAI to successful nominated Participants; expenses will be paid directly to the Applicants and not to the nominated Participants.

6. Tasks/Annexes Included in this Call

In order for researchers from Ireland to participate in a particular Task/Annex, SEAI is required to evaluate the relevance of the TCP to national priorities, SEAI's capacity to staff the relevant TCP Executive Committee and ultimately is required to sign up to the Implementing Agreement which governs the relevant TCP.

This call provides the opportunity for applicants to submit proposals to be appointed to the Tasks/Annexes listed in Table 1.

Under the 'Comment' column, the Table identifies when only a Partner Participant is required for the Task/Annex. For such cases, a Lead Participant has been appointed following previous calls, thus the Application Form must only include one partner organisation (Partner Applicant) and one Partner Participant. In such scenarios, it is recommended that a potential Partner Participant should make contact with the Lead Participant already appointed to the relevant Task/Annex. Please refer to Appendix A for a list of Participants appointed following the 2018 SEAI IEA TCP Appointment Call.

Only Tasks/Annexes listed in Table 1 are open for application in the present appointment call.

Successful Participants will be appointed to participate in the associated Task/Annex until the end of its current term. Where Tasks/Annexes continue past the current term end dates, SEAI may choose to reappoint the successful Participants to the next term of the Task/Annex or to issue a call for participants. In cases where Tasks/Annexes do not have an end date, appointments will be made for an initial period of three years*.

Table 1. Tasks/Annexes open for application

IEA TCP	Tasks/Annexes	Comment
Bioenergy	Task 32: Biomass combustion and co-firing	
	Task 34: Direct thermochemical liquefaction	
	Task 36: Material and energy valorisation of waste in a circular economy	
	Task 42: Biorefining in a circular economy	Partner Participant only

IEA TCP	Tasks/Annexes	Comment
Demand Side Management (DSM)	Proposal under development: Social license to automate DSM	
	Proposal under development: Global Observatory on Community Self-Consumption and Peer-to-Peer Energy Trading	
Energy in Buildings and Communities (EBC)	Annex 5: Air infiltration and Ventilation Centre (AIVC)	Partner Participant only
	Proposal under development: Follow on from Annex 67 (Energy flexible buildings)	
International Smart Grid Action Network (ISGAN)	Annex 2: Smart grid case studies	
	Annex 6: Power transmission & distribution systems	Partner Participant only
Wind energy	Task 11*: Base technology information exchange	
	Task 19: Wind energy in cold climates	
	Task 25: Design and operation of power systems with large amounts of wind power	Partner Participant only
	Task 26: Cost of wind energy	
	Task 28: Social acceptance of wind energy projects	Partner Participant only
	Task 29: Analysis of aerodynamic measurements	
	Task 30: Offshore code comparison collaboration, continuation, with correlation and uncertainty	
	Task 31: WAKEBENCH - International wind farm flow modelling and evaluation framework	
	Task 32: Lidar for wind energy deployment	
	Task 37: Wind energy systems engineering	
	Task 39: Quiet wind turbine technology	
	Task 40: Downwind turbine technologies	
	Task 42: Wind turbine lifetime extension	
	Proposal under development: Digitalisation of wind energy	Partner Participant only
	Proposal under development: Wind farm controls	

*IEA Wind Task 11 does not require continuous participation by a single expert. The primary activity of Task 11 is organised on the basis of four bespoke Topical Expert Meetings (TEM) per year, each on a new and different subject. In the application form, applicants must mention the name of the TEM(s) they wish to apply to. Each application may list one or several TEM(s).

7. Responsibilities and Deliverables

Participants who, on foot of this call for applications, are appointed and supported by SEAI to participate in IEA TCP research Tasks/Annexes, will be required to commit to the following responsibilities and deliverables:

- To propose a work programme contributing to achieving the Task/Annex objectives with the agreement of the Task/Annex Leader (also known as the Operating Agent);
- To deliver the agreed work programme providing agreed deliverables to the Task/Annex Leader and additionally compile national information in subject matter area of the Task/Annex, as and when required;
- To provide, to the Task/Annex Leader, estimates of the direct and related research work (person-months) of the national research effort contributing to the Task/Annex programme;
- To attend and participate in Task/Annex meetings organised by the Task/Annex Leader – typically two meetings per year – and web meetings, where organised by the Task/Annex Leader;
- When unable to attend Task/Annex meetings, to nominate an alternate for approval by SEAI;
- Following each meeting, to provide high-level summary information to SEAI on progress within the Task/Annex, in electronic format, for posting on the SEAI website (a reporting template will be provided by SEAI);
- On a yearly basis, provide a report summarising the achievements of the Task/Annex, provide associated recommendations which are relevant to the Irish energy system and an outlook for the upcoming year (a reporting template will be provided by SEAI);
- To assist in disseminating Task/Annex information to interested groups in Ireland;
- To co-ordinate any Task/Annex meetings which are hosted in Ireland.

8. Submitting your Application

In order to submit an application to this call, applicants should submit the following documentation to SEAI:

- (i) **Completed Application Form** (using template provided by SEAI). The application form template requests the following details:
 - a. Which TCP & Task/Annex is being applied for;
 - b. Details of the Lead and Partner Applicants;
 - c. Names and contact details of the nominated Participants;
 - d. A description of alignment of the Task/Annex with Ireland's national energy and climate priorities and goals. Where relevant you may also refer to broader national priorities;
 - e. A description of the relevance of the Task/Annex to the strategy of the Applicants and alignment of the Task/Annex with the Lead and Partner Participants' research areas;
 - f. A description of the experience of relevant national/international collaboration/representation brought by the Lead and Partner Participants;
 - g. A description of how the Lead and Partner Participants will, as Ireland's representatives, a) contribute to the work of this Task/Annex and b) disseminate

- information gained to the relevant national audience in Ireland (Who will the information be disseminated to? How? What information?);
- h. Details of which costs Applicants are requesting that SEAI covers;
 - i. A brief biography of the Lead and Partner Participants which, for successful applications, may be placed on the SEAI website and in materials relating to promotion/marketing of Ireland's participation in IEA activities.
- (ii) **CVs for the nominated Participants** (max. 2 pages per CV). CVs should demonstrate that nominated Participants have track records commensurate with that which would be expected for representation of Ireland in international fora.
- (iii) **Professional photographs** in .jpg or similar format for the proposed Participants. These photographs may be placed on the SEAI website and in materials relating to promotion/marketing of Ireland's participation in IEA activities.

9. Evaluation Criteria

Only fully complete applications will be considered for evaluation. The evaluation criteria under which applications will be assessed, and the proportion of marks awarded to each criterion is provided below:

- Alignment of the Task/Annex with Ireland's national energy & climate priorities and goals (30%)
- Relevance to Lead and Partner organisations' strategy and to the area of research of the proposed Participants (30%)
- Relevant experience of the proposed Participants (30%)
- Quality and adequacy of contribution and dissemination plans (10%)

10. Timeline

Any queries relating to this call should be submitted in writing by email to EnergyResearch@seai.ie

The deadline for receipt of queries is 5PM GMT on Friday the 11th of October, 2019. Queries received after this date may not be responded to.

Applications should be submitted by email to EnergyResearch@seai.ie no later than 5PM GMT on Friday the 18th of October, 2019. Any application submitted after the deadline will not be considered. Please use the following subject line when emailing your application: '2019 SEAI IEA TCP Appointment Call – TCP Name – Task/Annex Number'.

Please note that it is the responsibility of applicants to ensure that all of the necessary documentation associated with an application has been submitted to SEAI.

SEAI seeks to promote substantial participation by Ireland in IEA TCPs and, as such, may launch subsequent calls for participation in IEA TCP Tasks/Annexes.

APPENDIX A

List of successful participants following participation in the 2018 SEAI TCP Appointment Call.

TCP	Task/Annex Number	Task/Annex Title	Lead Participant (Lead Applicant)	Partner Participant (Partner Applicant)
Bioenergy	Task 37	Energy from biogas	Jerry Murphy (Mare, UCC)	David Wall (Mare, UCC)
	Task 39	Commercializing conventional and advanced transport biofuels from biomass and other renewable feedstocks	Stephen Dooley (TCD)	-
	Task 42	Biorefining in a circular economy	JJ Leahy (UL)	-
	Task 44	Flexible bioenergy and system integration	Deane Paul (UCC)	Brian Ó Gallachóir (UCC)
	Task 45	Climate and sustainability effects of bioenergy within the broader bioeconomy	Rory Monaghan (NUIG)	Alessandro Singlitico (NUIG)
EBC	Annex 5	Air Infiltration and Ventilation Centre (AIVC)	Simon Jones (Aereco)	-
	Annex 67	Energy flexible buildings	Sarah O'Connell (NUIG)	Marcus Keane (NUIG)
	Annex 70	Building energy epidemiology: Analysis of real building energy use at scale	Beth Massey (IERC)	Brian O'Regan (IERC)
ETSAP	Annex XIV	Understanding and facilitating the energy transition to achieve the 'well below 2°C' goal	Brian Ó Gallachóir (Mare, UCC)	James Glynn (Mare, UCC)
DSM	Annex 25	Business models for a more effective market uptake of DSM energy services	Matthew Kennedy (IERC)	Joanna Southernwood (IERC)
ISGAN	Annex 5	Smart grids International Research Facility Network (SIRFN)	Terence O'Donnell (UCD)	Andrew Keane (UCD)
	Annex 6	Power transmission and distribution systems	Anthony Walsh (ESBN)	-
Ocean Energy Systems	Task 4	Assessment of environmental effects and monitoring efforts for ocean wave, tidal and current energy systems	Anne Marie O'Hagan (Mare, UCC)	-
	Task 8	Consenting processes for ocean energy on OES Member Countries	Anne Marie O'Hagan (Mare, UCC)	-
Wind Energy	Task under development	Digitalisation of wind energy	Des Farren (ServusNet Informatics)	-
	Task 25	Design and operation of power systems with large amounts of wind power	Damian Flynn (UCD)	-
	Task 28	Social acceptance of wind energy projects	Geraint Ellis (Queen's University Belfast)	-
	Task 34	Working together to resolve environmental effects of wind energy (WREN)	Claire Deasy (Brookfield Renewable)	Gavin Fennessy (Ecology Ireland)
	Task 36	Forecasting for wind energy	Richard Linger (Cork Institute of Technology/Nimbus Centre)	Conor Lynch (Cork Institute of Technology/Nimbus Centre)
	Task 41	Enabling wind to contribute to a distributed energy future	Raymond Byrne (DKIT)	Paul MacArtain (DKIT)