

PARTICIPATION IN IEA TECHNOLOGY COLLABORATION PROGRAMMES (TCPs)

30 September 2016

Developments since 30 June 2016

On 15 August 2016 *Southern Company Services, Inc.* became a Sponsor to the *Hydrogen TCP*

Noteworthy developments since 30 September 2015

On 11 May 2016 the *Slovak Innovation and Energy Agency* became a Contracting Party to the *TCP on Solar Heating and Cooling (SHC TCP)*. This is the first participation of an entity from the Slovak Republic in a TCP.

On 27 April 2016, the *National Institute of Ocean Technology (NIOT)* became a Contracting Party to the *TCP on Ocean Energy Systems (OES TCP)*

On 11 April 2016, the *Dubai Energy and Water Authority (DEWA)* became a Sponsor in the *TCP on Clean Coal Centre (CCC TCP)*.

On 17 November 2015 during the IEA Governing Board meeting at Ministerial level, the *Chilean Ministry for Energy* became a Contracting Party to the *Advanced Motor Fuels TCP (AMF)*. This is the first participation of a Chilean entity in a TCP.

Full report

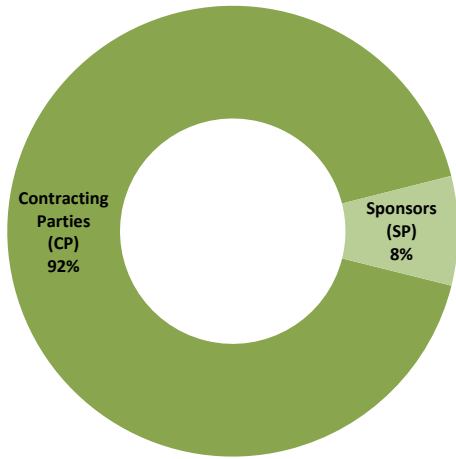
[Overview charts](#)

[One page table of participations for each country by TCP category and participant category](#)

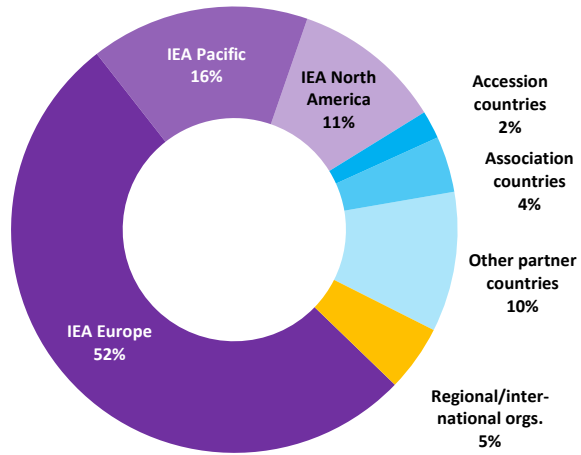
[Sponsor participations \(entities not representing governments\)](#)

[Participation tables for individual TCPs](#)

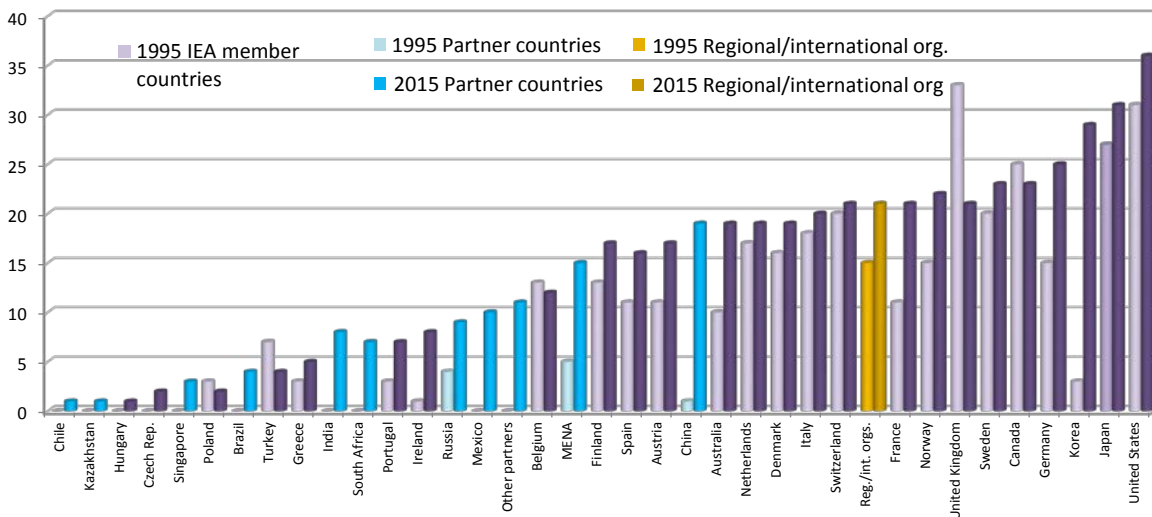
Participants by category



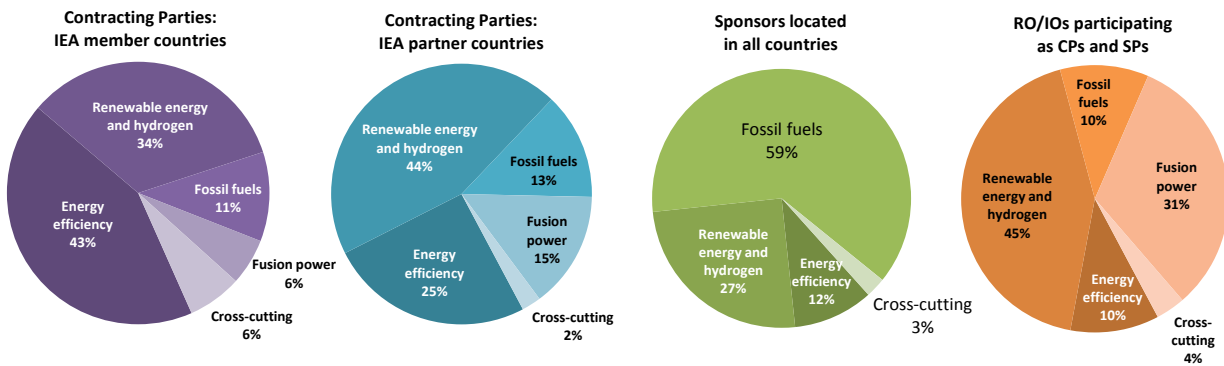
Participants by world region



Changes in participation in TCPs, 1995 - 2015



Participation by category



An entity may participate in more than one TCP. There are two possible categories of participation in a TCP, as a Contracting Party, or CP (an entity designated by the government of an OECD member or non-member country) or as a Sponsor, or SP (an entity of an OECD member or non-member country that is not designated by the government of their respective country). MENA comprises Algeria, Egypt, Israel, Morocco, Qatar, and the United Arab Emirates. Southeast Asia comprises Malaysia, Singapore and Thailand. Regional or international organisations comprise European organisations (EC, ECI, EPIA, EWEA), ECOWAS, OPEC, RCREEE and UNIDO.

PARTICIPATIONS IN TECHNOLOGY COLLABORATION PROGRAMMES (TCPs)

30 September 2016

	TCPs in which the country or entity participates	Distinct Entities	Participations in TCPs ¹																Total participations in TCPs
			Cross-cutting		End-use, efficiency								Fossil fuels		Fusion		Renew-ables and hydrogen		
					Buildings		Electricity		Industry		Transport								
			CP	SP	CP	SP	CP	SP	CP	SP	CP	SP	CP	SP	CP	SP	CP	SP	
Entities from:																			
United States	36	12	2		5		3	2	1		5		3	5	8		8	5	
Japan	31	16	2		5		2			4		4	1	8		8			
Korea	29	10	2		5		3		1	5		2		4		7			
Germany	25	14	2		4		3		1	5		1	2		9	2			
Canada	23	7	1		5		2			3		3		3		6			
Sweden	23	2	2		6		3		1	4		2			6				
Norway	22	5	2		4		2		1	1		3	1		10				
United Kingdom	21	15	1		6		2			3		3	3		7				
France	21	11	3		4		1			3		3	1		9				
Italy	20	11		1	3		3	1		3		2			10				
Switzerland	21	4	1		3		3			4		2	1	1	7				
Denmark	19	5	1		5		1		1	3		1			7				
Netherlands	19	4	1		4		3		1	1		1	1		7	1			
Austria	17	8	1		3		2			3		3			5				
Australia	19	13	1		2		1			2		4		1	8				
Finland	17	3	1		3		3			4		1			5				
Spain	16	11	1		1	1	2			2		3			6				
Belgium	12	7	3		3		2		1	2					4				
Ireland	8	2	1		1		1			1					4				
New Zealand	7	7			1		1					1			4				
Portugal	7	4			1				1			1			4				
Greece	5	4	1									1			3				
Turkey	4	3			1					1					2				
Poland	2	3										2							
Czech Republic	2	2			1							1							
Hungary	1	1										1							
Estonia																			
Luxembourg																			
Slovak Republic	1														1				
IEA COUNTRIES	n.a.	184	29	1	76	1	43	3	9	59		48	15	25	147	8			
China	19	17			2		1			3		2	2	4	6	1			
Mexico	10	3					1			1		1	1		6				
Russia	9	6	1				1					2	1	4					
Israel	8	3			1		1			3					3				
India	8	6					2					3	1	3	1				
South Africa	7	4					1					2	1		4				
Brazil	4	3											1		3				
Singapore	3	3					1								2				
Thailand	3	3								1			1		1				
U.A.E.	3	2											2		1				
Algeria	1	1													1				
Chile	1	1								1									
Croatia	1	1													1				
Egypt	1	1													1				
Iceland	1	1													1				
Kazakhstan	1	1	1																
Lithuania	1	1													1				
Malaysia	1	1													1				
Monaco	1	1													1				
Morocco	1	2													2				
Nigeria	1	1													1				
Qatar	1	1														1			
Slovenia	1	1			1														
Ukraine	1	1												1					
Venezuela	1	1										1							
PARTNER COUNTRIES	n.a.	66	2		4		8			9		11	10	12	37	2			
European Commission	20	1	1		1		1					2		8	7				
ECI	2	1						1								1			
ECOWAS	1	1														1			
ITER	1	1												1					
OPEC	1	1										1							
RCREEE	1	1														1			
SolarPower Europe	1	1														1			
Wind Europe	1	1														1			
INTL/REG. ORGS	n.a.	8	1		1		1	1				3		9	7	5			
TOTAL	n.a.	258	32	1	81	1	52	4	9	68		62	25	46	191	15			

1. Participations represent signatories (Contracting Parties or Sponsors) to each TCP. An entity may participate in more than one TCP.

CP: Contracting Party SP: Sponsor

EC: European Commission and the European Atomic Energy Community ECI: European Copper Institute

ECOWAS: Economic Community of West African States ITER: International Thermonuclear Experimental Reactor

OPEC: Organisation for Petroleum Exporting Countries RCREEE: Regional Centre for Renewable Energy and Energy Efficiency

PARTICIPATION OF SPONSORS IN IEA TCPs

30 September 2016

Entities participating as Sponsors	Entity location	Cross-cutting	End-use				Fossil fuels			Renewable Energy and Hydrogen					TOTAL
		Energy Tech. Systems Analysis (ETSAP TCP)	Energy Storage (ECES TCP)	Demand-Side Management (DSM TCP)	High-Temperature Superconductivity (HTS TCP)	Clean Coal Centre (CCC TCP)	Fluidized Bed Conversion (FBC TCP)	Greenhouse Gas R&D (GHG TCP)	Geothermal Energy (Geothermal TCP)	Hydrogen TCP	Photovoltaic Power Systems (PVPS TCP)	Solar Heating and Cooling (SHC TCP)	Wind Energy (Wind TCP)		
from IEA member countries															
BG-Group	GBR							1							
BP Global	GBR							1							
Bruker Corporation	DEU				1										
Chevron Corporation	USA							1							
Coal Industry Advisory Board	FRA							1							
Columbus Superconductors	ITA				1										
Doosan Power Systems	GBR							1							
Electric Power Research Institute	USA							1							
Enel Foundation	ITA	1													
ExxonMobil Corporation	USA							1							
Forschungszentrum Jülich	DEU							1							
GE Power	USA							1							
International Association for Hydrogen Safety	BEL									1					
International Copper Assoc. - Copper Alliance	USA										1				
JGC Corporation	JPN							1							
Nat. Org. Hydrogen and Fuel Cell Technology	DEU									1					
ORMAT Technologies, Inc	USA								1						
Regulatory Assistance Project	USA			1											
RWE AG	DEU							1							
Shaw Consultants International	USA						1								
Shell Global Solutions	NLD									1					
Shell International B.V.	NLD							1							
Smart Electric Power Alliance	USA										1				
Solar Energy Industries Association	USA										1				
Southern Company Services, Inc.	USA									1					
Statoil	NOR							1							
Total	FRA							1							
University of Lleida	ESP		1												
Total	Total	1	1	1	2		1	14	1	4	3			28	
from partner countries															
Anglo American South Africa	ZAF						1								
Banpu Public Company Limited	THA						1								
Beijing Research Institute Clean Coal	CHN						1								
Bharat Heavy Electricals Limited	IND						1								
Chinese Wind Energy Association	CHN														
Dubai Electricity and Water Authority	UAE						1								
Electric Power Planning and Engineering Institute	CHN						1						1		
Gulf Organisation for Research & Development	QAT											1			
Instituto de Investigaciones Eléctricas	MEX							1							
Masdar Institute	UAE							1							
Petrobras	BRA							1							
SUEK AG	RUS						1								
Total	Total						7	3				1	1	12	
from regional or international organisations															
Economic Community of West African States (ECOWAS)	TGO												1		
European Copper Institute - Copper Alliance	BEL			1									1		
Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)	EGY												1		
SolarPower Europe	BEL										1				
Wind Europe	BEL													1	
Total	Total			1							1	3	1	6	
Total		1	1	2	2	7	1	17	1	4	4	4	2	46	

Participation tables for individual TCPs

CROSS-CUTTING

	IEA member countries	Partner countries	ROs/IOs
CTI			
Contracting Parties	8	-	-
Sponsors	-	-	-
ETSAP			
Contracting Parties	21	2	1
Sponsors	1	-	-

END-USE

Buildings

	IEA member countries	Partner countries	ROs/IOs
DHC			
Contracting Parties	9	-	-
Sponsors	-	-	-
EBC			
Contracting Parties	24	2	-
Sponsors	-	-	-

4E

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	12	-	-
Sponsors	-	-	-

ECES

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	15	2	-
Sponsors	1	-	-

HPT

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	16	-	-
Sponsors	-	-	-

Electricity

	IEA member countries	Partner countries	ROs/IOs
DSM			
Contracting Parties	13	1	1
Sponsors	1	-	1
HTS			
Contracting Parties	12	1	-
Sponsors	2	-	-

ISGAN

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	18	6	1
Sponsors	-	-	-

Industry

	IEA member countries	Partner countries	ROs/IOs
IETS			
Contracting Parties	9	-	-
Sponsors	-	-	-

Transport

	IEA member countries	Partner countries	ROs/IOs
AFC			
Contracting Parties	11	2	-
Sponsors	-	-	-

AMT

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	7	3	-
Sponsors	-	-	-

AMF

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	13	4	-
Sponsors	-	-	-

Combustion

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	11	-	-
Sponsors	-	-	-

HEV

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	17	-	-
Sponsors	-	-	-

FOSSIL FUELS

	IEA member countries	Partner countries	ROs/IOs
CCC			
Contracting Parties	6	1	1
Sponsors	-	7	-
EOR			
Contracting Parties	9	4	1
Sponsors	-	-	-

FBC

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	15	2	-
Sponsors	1	-	-

GOT

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	5	-	-
Sponsors	-	-	-

GHG

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	13	4	2
Sponsors	14	3	-

FUSION POWER

	IEA member countries	Partner countries	ROs/IOs
CTP			
Contracting Parties	3	2	2
Sponsors	-	-	-
ESEFP			
Contracting Parties	4	2	1
Sponsors	-	-	-

FM

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	5	3	1
Sponsors	-	-	-

NTRF

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	4	3	1
Sponsors	-	-	-

PWI

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	2	-	1
Sponsors	-	-	-

RFP

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	2	-	1
Sponsors	-	-	-

ST

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	2	-	1
Sponsors	-	-	-

SH

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	3	2	1
Sponsors	-	-	-

RENEWABLE ENERGY AND HYDROGEN

	IEA member countries	Partner countries	ROs/IOs
Bioenergy			
Contracting Parties	19	3	1
Sponsors	-	-	-
Geothermal			
Contracting Parties	11	2	1
Sponsors	1	-	-

Hydrogen

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	17	3	1
Sponsors	4	-	-

Hydropower

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	6	2	-
Sponsors	-	-	-

OES

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	17	7	-
Sponsors	-	-	-

PVPS

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	20	5	1
Sponsors	3	-	1

RETD

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	9	-	-
Sponsors	-	-	-

SHC

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	17	4	1
Sponsors	-	1	3

SolarPACES

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	10	10	1
Sponsors	-	-	-

Wind

	IEA member countries	Partner countries	ROs/IOs
Contracting Parties	21	1	1
Sponsors	-	1	1