



international energy technology co-operation

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IEA implementing agreements

**background and
framework
as of 2003**

international energy technology co-operation



IEA implementing agreements

background and
framework
as of 2003

INTERNATIONAL ENERGY AGENCY

9, rue de la Fédération,
75739 Paris Cedex 15, France

The International Energy Agency (IEA) is an autonomous body which was established in November 1974 within the framework of the Organisation for Economic Co-operation and Development (OECD) to implement an international energy programme.

It carries out a comprehensive programme of energy co-operation among twenty-six* of the OECD's thirty member countries. The basic aims of the IEA are:

- to maintain and improve systems for coping with oil supply disruptions;
- to promote rational energy policies in a global context through co-operative relations with non-member countries, industry and international organisations;
- to operate a permanent information system on the international oil market;
- to improve the world's energy supply and demand structure by developing alternative energy sources and increasing the efficiency of energy use;
- to assist in the integration of environmental and energy policies.

** IEA member countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, the Republic of Korea, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States. The European Commission also takes part in the work of the IEA.*

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article I of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), the Republic of Korea (12th December 1996) and Slovakia (28th September 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

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Sustained development and deployment of cleaner, more efficient energy technologies are fundamental requirements within any strategy for energy security, environmental protection and economic growth. But national efforts alone no longer suffice to build bridges to an energy-efficient, low-carbon future. International collaboration has therefore become an indispensable part of technology's response to today's energy challenges.

Since its creation in 1974, the International Energy Agency (IEA) has provided a structure for international co-operation in energy technology research and development (R&D) and deployment. Its purpose is to bring together experts in specific technologies who wish to address common challenges jointly and share the fruit of their efforts. Within this structure, there are currently some forty active programmes, known as the IEA Implementing Agreements. Almost three decades of experience have shown that these Agreements are contributing significantly to achieving faster technological progress and innovation at lower cost. Such international co-operation helps to eliminate technological risks and duplication of effort, while facilitating processes like harmonisation of standards. Special provisions are applied to protect intellectual property rights.

IEA Implementing Agreements are at the core of the IEA's International Energy Technology Co-operation Programme. This Programme embraces numerous other activities that enable policy-makers and experts from IEA-member and non-member countries to share views and experience on energy technology issues. Using vehicles such as published studies and workshops, these activities are designed to enhance policy approaches, improve the effectiveness of research programmes and reduce costs.

The IEA's Implementing Agreements focus on technologies for fossil fuels, renewable energies, efficient energy end-use and fusion power. Effective dissemination of results and findings is an essential part of the mandate of each Implementing Agreement. Wide-ranging products and results are communicated by various means to those who can use them in their daily work. For its part, the IEA Secretariat circulates the on-line *OPEN Energy Technology Bulletin*, which includes news of the Implementing Agreements' activities and output. The IEA also issues publications giving updates on the Implementing Agreements' major achievements over past months.

An intensive review, in 2002, of the legal and management structures underpinning the co-operative activities of these IEA Implementing Agreements resulted in the "IEA Framework for International Energy Technology Co-operation". Approved by the IEA's Governing Board in April 2003, the Framework provides uncomplicated, common rules for participation in Implementing Agreements. It is a legal structure that actually simplifies international co-operation between national entities, business and industry. Participants are welcomed from OECD member and OECD non-member countries, from the private sector and from international organisations.

The purpose of this brochure is to outline how the IEA Implementing Agreements function and to guide readers towards more detailed information.

participating

in

IEA

implementing agreements

The Framework streamlines the legal mechanism for establishing the commitments of the participants and the management structure for guiding work under each Agreement. This seven-article Framework can be found at the end of this brochure.

Participants in Implementing Agreements fall into two categories: Contracting Parties and Sponsors (see Article 3 of the Framework).

- *Contracting Parties* can be governments of OECD member countries, OECD non-member countries or the European Communities, or entities nominated by them. They can also be international organisations in which governments of OECD member and/or OECD non-member countries participate.

Contracting Parties from OECD non-member countries or international organisations are not entitled to more rights or benefits than Contracting Parties from OECD member countries.

- *Sponsors*, notably from the private sector, are entities of either OECD member or OECD non-member countries which have not been designated by their governments.

The rights or benefits of a Sponsor cannot exceed those of Contracting Parties designated by governments of OECD non-member countries, and a Sponsor may not become a Chair or Vice-chair of an Implementing Agreement.

Participation by Contracting Parties from OECD non-member countries or international organisations and by Sponsors must be approved by the IEA Committee on Energy Research and Technology (CERT).

The Implementing Agreement mechanism is flexible and accommodates various forms of energy technology co-operation among participants. It can be applied at every stage in the energy technology cycle, from research, development and demonstration through to validation of technical, environmental and economic performance, and on to final market deployment. Some Implementing Agreements focus solely on information exchange and dissemination.

Financing arrangements for international co-operation through Implementing Agreements fall into two broad categories:

- Cost sharing, in which participants contribute to a common fund to finance the work.
- Task sharing, in which participants assign specific resources and personnel to carrying out their share of the work.

Some Implementing Agreements use a combination of these two mechanisms.

Benefits of International Energy Technology Co-operation:

- **Shared costs and pooled technical resources**
- **Avoided duplication of effort and repetition of errors**
- **Harmonised technical standards**
- **A network of researchers**
- **Stronger national R&D capabilities**
- **Accelerated technology development and deployment**
- **Better dissemination of information**
- **Easier technical consensus**
- **Boosted trade and exports**

The idea of creating an Implementing Agreement usually stems from prospective Contracting Parties, with support from the IEA Secretariat. Before it comes into being, the Agreement must be approved by the IEA's Governing Board.

Once an Implementing Agreement has been established, its annual work programme is approved and managed by an Executive Committee comprising representatives nominated by the Contracting Parties and Sponsors. This acts as the "board of directors", whose decisions are taken on the basis of voting rules set forth within the Implementing Agreement. In many cases, the operational management of the work programme is assigned to an Operating Agent, Programme Manager and/or Programme Secretary, who is accountable to the Executive Committee.

Protecting intellectual property and patents is an area where the IEA has accumulated many years of experience under the terms of Implementing Agreements. In specific cases involving advanced technology and the participation of industry, the Implementing Agreement includes precise provisions on handling information and intellectual property. Pre-existing proprietary information, as well as inventions and patents developed under the Implementing Agreement, are appropriately protected.

The IEA Secretariat offers technical, legal and other kinds of support in setting up Implementing Agreements and the pursuit of their activities. A Desk Officer within the IEA Secretariat is responsible for liaison, which involves regular interaction with the responsible Working Party among the four which report to the IEA's Committee on Energy Research and Technology (CERT). CERT promotes and guides the IEA's international energy technology co-operation activities in general, including those of the Implementing Agreements.

The CERT and its Working Parties review the activities of the Implementing Agreements regularly, using an agreed set of evaluation criteria. Reviews are generally carried out every five years, prior to extension of the Agreement. Implementing Agreements also draw up annual reports on achievements and use of resources. External peer reviews are conducted from time to time.

where to

A website address can be found alongside the Implementing Agreements listed on the following pages. Managed by the Implementing Agreements themselves, these websites are a prime source of extensive information about the present and past activities of each Agreement. They provide details of membership and access to published material such as technical updates and analysis, also notification of relevant upcoming events. Many Implementing Agreements organise regular conferences and workshops and their websites offer proceedings and working papers on the specialised topics dealt with. Large volumes of technical information and links to other relevant websites make these Implementing Agreement websites a valuable source of current information on technology status and R&D approaches in more than forty energy technology domains. Many of the Implementing Agreements publish easily downloadable newsletters.

The IEA Secretariat's own homepage at <http://www.iea.org/> provides access to information on all aspects of the Agency's work. Special sections are devoted to the various technology areas covered by the IEA's International Energy Technology Co-operation Programme. These pages can be visited via the links on the main IEA homepage labelled "Energy Technology", "Renewable Energy" and "Energy Efficiency".

From the "Energy Technology" pages, links take the reader on to background information about the IEA's international energy technology co-operation activities and about the IEA committees/working party structure that oversees the work of the Implementing Agreements.

More than forty individual entries for each of the Implementing Agreements can also be accessed through a link to current programmes. Brief descriptions of the mandate and activities of each Implementing Agreement are provided on these IEA website pages, along with access to a selection of downloadable Implementing Agreement documentation such as annual reports, newsletters, project status reports and technical material.

Since 2001, readers around the globe have been receiving the IEA's *OPEN Energy Technology Bulletin*. This free-of-charge periodical on-line newsletter reports on developments within the IEA's energy technology community and includes coverage of work within the International Energy Technology Co-operation Programme and its Implementing Agreements. All aspects of technology research, development, demonstration and market deployment are covered, taking in the broad spectrum of technologies for clean fossil fuel use, for renewable energies, for efficient energy end-use and for fusion power. Updates are provided on future events in which IEA has an organisational role and on publications from within the IEA community world-wide.

The Bulletin's Archives can be accessed at:

http://www.iea.org/impagr/cip/archived_bulletins/index.htm

To subscribe: **<http://weaver.iea.org/mailman/listinfo/open-mail>**

information

implementing agreements and their websites

fossil fuels

Clean Coal Centre	http://www.iea-coal.org.uk
Clean Coal Science	http://iea-ccs.fossil.energy.gov
Enhanced Recovery of Oil	http://www.iea.org/eor
Fluidised Bed Conversion	http://www.iea.org/tech/fbc/index.html
Fossil Fuel Multiphase Flow Sciences	http://www.etsu.com/ieampf
Greenhouse Gas R&D Programme	http://www.ieagreen.org.uk

renewables

Bioenergy	http://www.ieabioenergy.com
Geothermal Energy Research Technology	http://www.iea.org/tech/gia/index.htm
Hydropower Technologies and Programmes	http://www.ieahydro.org
Ocean Energy Systems	http://www.iea-oceans.org
Photovoltaic Power System (PVPS)	http://www.iea-pvps.org
Production and Utilization of Hydrogen	http://www.eere.energy.gov/hydrogenandfuelcells/hydrogen/iea
Solar Heating and Cooling Systems	http://www.iea-shc.org
Solar Power and Chemical Energy Systems (SolarPACES)	http://www.SolarPACES.org
Wind Turbine Systems	http://www.ieawind.org

energy end-use: transportation

Advanced Fuel Cells	http://www.ieafuelcell.com
Advanced Materials for Transportation Applications	contact: tom.howes@iea.org
Advanced Motor Fuels	http://www.iea-amf.vtt.fi
Hybrid and Electric Vehicle Technologies and Programmes	http://www.ieahev.org

energy end-use: industry

Energy Conservation and Emissions Reduction in Combustion	http://www.im.na.cnr.it/IEA
Energy Conservation in Heat Transfer and Heat Exchangers	http://www.iea.org/heatex/index.htm
High-Temperature Superconductivity on the Electric Power Sector	http://www.iea.org/tech/scond/Scond.htm
Process Integration Technologies	http://www.iea-pi.org
Technologies for the Pulp and Paper Industry	http://www.ieapap.com

energy end-use: buildings

Demand Side Management	http://dsm.iea.org
District Heating and Cooling	http://www.iea-dhc.org/home.htm
Energy Conservation in Buildings and Community Systems	http://www.ecbcs.org
Energy Conservation through Energy Storage	http://www.iea-eces.org
Heat Pumping Technologies	http://www.heatpumpcentre.org

energy end-use technologies: information centres, systems analysis

Energy and Environmental Technologies Information Centres (EETIC)	http://www.caddet-ee.org http://www.caddet-re.org http://www.greentie.org
Energy Technology Data Exchange (ETDE)	http://www.etde.org
Energy Technology Systems Analysis (ETSAP)	http://www.etsap.org

transfer of technology

Climate Technology Initiative (CTI)	http://www.climatetech.net/about/index.htm
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fusion power

Environmental, Safety and Economic Aspects of Fusion Power	http://library.iea.org/dbtw-wpd/textbase/techno/technologies/index_fusion.asp
Fusion Materials	
Large Tokamak Facilities	
Nuclear Technology of Fusion Reactors	
Plasma Wall Interaction in TEXTOR	
Reversed Field Pinches	
Stellarator Concept	
Tokamaks with Poloidal Field Divertors (ASDEX Upgrade)	

IEA ENERGY TECHNOLOGY COMMITTEE STRUCTURE

C E R T

IEA committee on energy research and technology

WORKING PARTIES

F F W P

working party on fossil fuel technology

R E W P

working party on renewable energy technology

E U W P

working party on end-use technology

F P C C

fusion power co-ordinating committee

IEA FRAMEWORK FOR INTERNATIONAL ENERGY TECHNOLOGY CO-OPERATION

I. General Principles

Article 1 **Mandate**

- 1.1 In fulfilment of Chapter VII of the Agreement on an International Energy Program and in light of the Shared Goals of the IEA, the IEA operates Implementing Agreements to enable IEA member countries to carry out programmes and projects on energy technology research, development and deployment.
- 1.2 An Implementing Agreement is a contractual relationship established by at least two IEA member countries, and approved by the Governing Board, for the purpose set out in Article 1.1.
- 1.3 Participants in an Implementing Agreement shall contribute as fully as possible to the achievement of its objectives and shall endeavour to secure, through public and private support, the necessary scientific, technical and financial resources for the programmes and projects carried out under such an Implementing Agreement.
- 1.4 Each Implementing Agreement shall have an Executive Committee composed of representatives of all participants.

Article 2 **Nature of Implementing Agreements**

- 2.1 The activities of an Implementing Agreement may include, inter alia:
 - (a) co-ordination and planning of specific energy technology research, development and deployment studies, works or experiments carried out at a national or international level, with subsequent exchange, joint evaluation and pooling of the scientific and technical results acquired through such activities;
 - (b) participation in the operation of special research or pilot facilities and equipment provided by a participant, or the joint design, construction and operation of such facilities and equipment;
 - (c) exchange of information on (i) national programmes and policies, (ii) scientific and technological developments and (iii) energy legislation, regulations and practices;
 - (d) exchanges of scientists, technicians or other experts;
 - (e) joint development of energy related technologies; and
 - (f) any other energy technology related activity.
- 2.2 Participation in an Implementing Agreement shall be based on equitable sharing of obligations, contributions, rights and benefits. Participants in an Implementing Agreement shall undertake to make constructive contributions, whether technical, financial or otherwise, as may be agreed by the Executive Committee.
- 2.3 Some or all of the participants in an Implementing Agreement may choose to execute specific projects and/or programmes through Annexes to the Implementing Agreement.

II. Rules Applicable to IEA Implementing Agreements

Article 3

Participation, Admission and Withdrawal

- 3.1 An Implementing Agreement can be established by two or more IEA member countries subject to approval of the Committee on Energy Research and Technology (CERT) and of the Governing Board. There are two possible categories of participants in Implementing Agreements: Contracting Parties and Sponsors.
- 3.2 **Contracting Parties** may be
- (a) the governments of both OECD member or OECD non-member countries;
 - (b) the European Communities;
 - (c) international organisations in which the governments of OECD member countries and/or OECD non-member countries participate; and
 - (d) any national agency, public organisation, private corporation or other entity designated by the government of an OECD member country or an OECD non-member country, or by the European Communities.
- 3.2.1 Participation in any Implementing Agreement for OECD non-member countries or for international organisations requires prior approval by the CERT. However, should the CERT consider a first time application by an OECD non-member country or an international organisation to be sensitive, it may refer the decision to the Governing Board as it deems appropriate.
- 3.2.2 Prior to CERT approval of participation of OECD non-member countries or international organisations in any Implementing Agreement, the Executive Committee shall:
- (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and
 - (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join; its acceptance of the terms and conditions of the Implementing Agreement; the name of its designated entity if it is not the applicant itself; and the name of the entity that will sign the Implementing Agreement.
- 3.2.3 The terms and conditions for the admission, participation and withdrawal of Contracting Parties, including their rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.2.4 Notwithstanding Article 3.2.3, no Contracting Party from an OECD non-member country or international organisation shall have greater rights or benefits than Contracting Parties from OECD member countries.
- 3.3 **Sponsors** may be
- (a) entities of OECD member countries or OECD non-member countries who are not designated by the governments of their respective countries to participate in a particular Implementing Agreement; and

- (b) non-intergovernmental international entities in which one or more entities of OECD member countries or OECD non-member countries participate.
- 3.3.1 Participation of Sponsors in Implementing Agreements requires prior approval by the CERT.
- 3.3.2 Prior to CERT approval of Sponsor participation in any Implementing Agreement, the Executive Committee shall:
 - (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and
 - (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join; its acceptance of the terms and conditions of the Implementing Agreement; and the name of the entity that will sign the Implementing Agreement.
- 3.3.3 The terms and conditions for the admission, participation and withdrawal of Sponsors, including rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.3.4 Notwithstanding Article 3.3.3, no Sponsor shall have greater rights or benefits than Contracting Parties from OECD non-member countries and no Sponsor shall be designated Chair or Vice-chair of an Implementing Agreement.
- 3.3.5 The CERT shall have the right to not approve participation of a Sponsor if the terms and conditions of such participation do not comply with this Framework, any Decisions of the CERT or the Governing Board and the Shared Goals of the IEA.

Article 4

Specific Provisions

- 4.1 Unless the CERT otherwise agrees, based on exceptional circumstance and sufficient justification, Implementing Agreements shall be for an initial term of up to, but no more than, five years.
- 4.2 An Implementing Agreement may be extended for such additional periods as may be determined by its Executive Committee, subject to approval of the CERT. Any single extension period shall not be greater than five years unless the CERT otherwise decides, based on exceptional circumstances and sufficient justification.
- 4.3 Notwithstanding Paragraph 4.2, should the duration of the programme of work of an Annex exceed the term of the Implementing Agreement to which it relates, the CERT shall not unreasonably withhold approval to extend the Implementing Agreement for such additional period to permit the conclusion of the work then being conducted under the Annex.
- 4.4 Either the Contracting Parties or the Executive Committee of each Implementing Agreement shall:
 - 4.4.1 approve the programme activities and the annual programme of work and budget for the relevant Implementing Agreement;

- 4.4.2 establish the terms of the contribution for scientific and technical information, know-how and studies, manpower, capital investment or other forms of financing to be provided by each participant in the Implementing Agreement;
- 4.4.3 establish the necessary provisions on information and intellectual property and ensure the protection of IEA copyrights, logos and other intellectual property rights as established by the IEA;
- 4.4.4 assign the responsibility for the operational management of the programme or project to an entity accountable to the Executive Committee of the relevant Implementing Agreement;
- 4.4.5 establish the initial term of the Implementing Agreement and its Annexes;
- 4.4.6 approve amendments to the text of the Implementing Agreement and Annexes; and
- 4.4.7 invite a representative of the IEA Secretariat to its Executive Committee meetings in an advisory capacity and, sufficiently in advance of the meeting, provide the Secretariat with all documentation made available to the Executive Committee members for purposes of the meeting.

Article 5

Copyright

- 5.1 Notwithstanding the use of the IEA name in the title of Implementing Agreements, the Implementing Agreements, the Executive Committee or the entity responsible for the operational management of the programme or project may use the name, acronym and emblem of the IEA as notified to the World Intellectual Property Organisation (WIPO) only upon prior written authorisation of the IEA and solely for the purposes of executing the Implementing Agreements.
- 5.2 The IEA shall retain the copyright to all IEA deliverables and published or unpublished IEA material. Implementing Agreements wishing to use, copy or print such IEA deliverables and/or material shall submit a prior written request of authorisation to the IEA.

Article 6

Reports to the IEA

- 6.1 Each Executive Committee shall submit to the IEA:
 - 6.1.1 as soon as such events occur, notifications of any admissions and withdrawals of Contracting Parties and Sponsors, any changes in the names or status of Contracting Parties or Sponsors, any changes in the members of the Executive Committee or of the entity responsible for the operational management of the programme or project, or any amendments to an Implementing Agreement and Annex thereto;
 - 6.1.2 annual reports on the progress of programmes and projects of the Implementing Agreement and any Annex;
 - 6.1.3 notwithstanding Article 6.1.1, in addition to and with the Annual Report, annually provide the IEA with the following information:
 - (a) the names and contact details of all current Contracting Parties and Sponsors;

- (b) the names and contact details of all Contracting Parties and Sponsors who may have withdrawn from the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (c) the names and contact details of all new Contracting Parties and Sponsors who may have joined the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (d) any changes in the names or status of any Contracting Parties or Sponsors;
 - (e) the names and contact details of the Executive Committee members and the entity responsible for the operational management of the programme or project; and
 - (f) any amendments to the text of an Implementing Agreement and any Annex thereto.
- 6.1.4 End of Term Reports, which shall include all the information and documentation required by Decisions of the CERT then in effect and relating thereto; and
- 6.1.5 at the request of the IEA, any other non-proprietary information as may be requested by the IEA in connection with the IEA's mandate.

Article 7

Effective Date

This Framework shall take effect and become binding on all participants in the Implementing Agreements and Annexes from the date of its approval as a decision by the Governing Board.

framework

FURTHER INFORMATION

Detailed information on the Implementing Agreements and on all aspects of the IEA's work can be found on the IEA website:

www.iea.org

Queries regarding the Implementing Agreements should be addressed to:

impag@iea.org

INTERNATIONAL ENERGY AGENCY

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www.iea.org