

Putting Commitments into Action: Enhancing Energy Efficiency through International Cooperation

Background Paper

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Putting Commitments into Action: Enhancing Energy Efficiency through International Cooperation

After more than 30 years of international experience in analyzing and implementing energy efficiency policies, most policy makers accept the many benefits of energy efficiency. Yet the rate of implementation of energy efficiency policy lags. This mystery is heightened by the growing international consensus on the need to urgently address climate change, with energy efficiency providing the main low cost method for immediate action.

If energy efficiency is one of the few, possibly the only, energy policy options that can simultaneously address a range of policy concerns (See Box 1), **why is implementation often slow and inconsistent? What steps can be taken to move from general support for energy efficiency to concerted action to deliver it? And what role can enhanced international cooperation play?**

Thirty years ago no one could have foreseen the world of 2008 - an interconnected world, facilitated by the internet, global trade and easier transport, with a thriving global economy, vibrant global civil society and the emergence of market-based economies across the world. In the energy sector, there is increasing recognition of the links between energy users, producers, consumers and transit countries.

Energy security has moved from being a question of energy independence to one of mutual interdependence within competitive global markets. Energy efficiency has moved from a concept of conservation to one of efficient production and use of energy with the most appropriate global technologies. And the major new challenge to the energy sector is climate change, an issue which can only be addressed through global action. In this world, nations do not operate in a zero-sum game, but in an environment where significant progress in key areas can only be made cooperatively.¹

In such a world, it is legitimate to ask whether there are policy issues that require more harmonisation of international efforts, or more global governance. Improved global governance does not mean global government, but rather global approaches to common issues, jointly pursued by sovereign states, together with industry and other stakeholders.

Energy efficiency may be one such issue, at least in some of its aspects. The need to address global greenhouse gas emissions provides a common global framework to address energy efficiency. A relatively small number of global industries consume a large portion of the world's energy and/or produce the main energy using equipment.

¹ Martin Ortega 2007, *Building the Future: The EU's contribution to global governance*, Institute for Security Studies, Paris.

And there is a wealth of global experience to draw on in developing and implementing policies.

Therefore, it is worth asking how global international cooperation on energy efficiency could be improved by more concerted international effort to deliver more significant and rapid action.

Box 1 - Energy efficiency - the win/win/win/win option

Energy efficiency refers to gaining more useful output (lighting, heating, etc) per unit of energy input throughout the supply chain. So, more efficient electricity production or reduced gas and oil pipeline leakage are included as well as industrial, commercial, residential and transport end uses. While investments are often needed to increase energy efficiency, analysis repeatedly shows that significant energy savings are available with net savings, and often with very short payback periods.

When effectively implemented, energy efficiency can support many government objectives:

Greenhouse Gas Abatement

- Energy efficiency is the lowest cost form of greenhouse gas abatement. In many cases, energy efficiency can deliver both net economic benefits and emission reductions.
- Energy efficiency also defers the need for some investments in energy supply to a time when low-emissions supply options are more abundant and lower cost.

Economic benefits and employment

- Energy efficiency makes companies more productive and competitive. This also reduces costs for consumers and can help economic growth.
- Energy efficiency reduces input costs and allows investment in more productive infrastructure and activities than unnecessary energy supply.

Energy Security

- Energy efficiency reduces energy demand and so can reduce the need for energy imports.
- By reducing the need for energy supply infrastructure, it also contributes to reliability of supply for consumers.

Social benefits

- Energy efficiency makes it more achievable for energy-poor consumers to achieve a high level of energy services.
- If energy prices rise for other reasons (eg resource prices or emissions trading), energy efficiency will lessen and price impacts consumers.
- By reducing the need for public sector investments in energy supply, energy efficiency can also free scarce government resources to meet other social needs.

1. Enabling Energy Efficiency

Governments have a crucial supportive role in providing [an] appropriate enabling environment, such as, institutional, policy, legal and regulatory frameworks, to sustain investment flows and for effective technology transfer – without which it may be difficult to achieve emission reductions at a significant scale.

- IPCC Fourth Assessment Report²

The United Nations Framework Convention on Climate Change (UNFCCC) has estimated the investment requirements beyond business-as-usual to return emissions to current levels by 2030. This shows that required *additional* end-use energy efficiency investments in the industrial, transport and buildings sector would be around \$149 billion in 2030, with \$61 billion of this in developing and transition countries. This investment is on top of some \$400 billion of annual investment requirements in energy supply, which will also need to be more climate-friendly. The UNFCCC report goes on to say, “[w]hen considering means to enhance investment and financial flows to address climate change in the future, it is important to focus on the role of private-sector investments as they constitute the largest share of investment and financial flows (86 per cent).”³

This level of additional investment will require a supportive policy environment. Specific incentives for energy efficiency (including regulatory, financial and voluntary mechanisms) will be needed, as well as a general investment regime that appropriately rewards risk and encourages investment where it is most cost-effective.

There is considerable international experience with implementation of energy efficiency policies. The Energy Charter Secretariat (ECS), International Energy Agency (IEA), and the United Nations Economic Commission for Europe (UNECE), among others, conduct reviews of member country experience that identify successes as well as key technical, financial and institutional barriers to further progress. The IEA, ECS, UNECE and other national and international bodies also produce “horizontal” reviews of progress and key issues in implementing energy efficiency policies. A strong body of knowledge therefore exists on which to base effective energy efficiency policies and programs.⁴

This knowledge is not static and requires regular review to assess new technologies, new institutional and market arrangements, and new policy instruments. It is only recently, for example, that market mechanisms for energy efficiency (“white certificates”) and innovative utility regulatory mechanisms have been deployed. It is also important to recognise the different structures and circumstances of different nations. Approaches and methods effective in a highly industrialised market-based system may not be the most

² Working Group III Report, Summary for Policy Makers, p 21.

³ UNFCCC (2007), *Investment and Financial Flows to Address Climate Change*. The abatement scenarios at the core of this study are based on IEA (2006) *Energy Technology Perspectives- Scenarios & Strategies to 2050*

⁴ For some recent comprehensive analyses see, for example, IEA (2006) *Energy Technology Perspectives- Scenarios & Strategies to 2050*, IEA (2006) *World Energy Outlook 2006*, Energy Charter Secretariat (2007) *Policy Developments and Challenges in Delivering Energy Efficiency*, World Energy Council (2008) *Energy Efficiency Policies around the World: Review and Evaluation*.

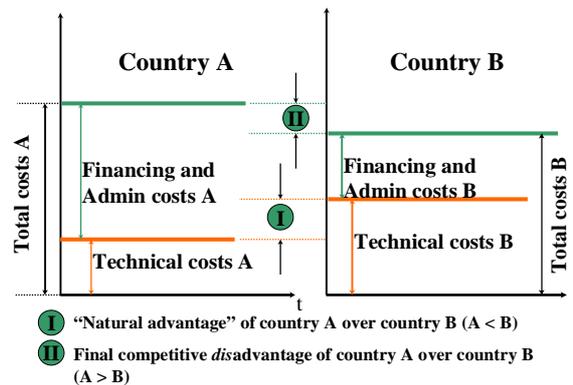
appropriate in a nation with limited implementation resources and strong government ownership in the energy sector. Evaluation and development of energy efficiency policies will continue to be an art as much as a science.

The overall investment environment is also crucial to facilitating the necessary investments in energy efficiency (see Box 2). Even a strong policy regime will have trouble attracting investment in a high-risk environment. For energy efficiency, an investment regime must include an appropriate sharing of risks and returns between investors and those who benefit from energy savings. This is difficult where the investor and end user are not the same, such as in the case of commercial building tenants and landlords. It can also be complex within an emissions trading system, as the economic benefits of energy efficiency investments may not be fully recovered by the investor.

Box 2 – the importance of an effective international investment regime

Given the magnitude of investment required, it will be important to ensure that investments take place where they are most cost-effective. Many low-cost opportunities will be in developing and transition economies, as these have much higher energy intensities.⁵

“NATURAL” VS. “FINAL” COMPETITIVE ADVANTAGES OF ENERGY PROJECTS



In the figure above, the technical costs of a project in country A are lower than in country B. However, investors will also consider financing and administration costs. This includes any premium due to a risky general investment framework as well as any administration costs (eg those involved in certifying CDM projects, or requirements for international financial institutions). In the case above, these costs are so great as to overturn the “natural competitive advantage” of the project in country A. From the perspective of Country A, the incremental financing and administrative costs symbolised by II lead to a total loss of investment. On a global basis, the technical costs of achieving the objectives of this project are increased by the amount symbolised by I less any increased financing costs inherent in investing in Country A.

So, it is essential not only to reduce any unnecessary administrative costs, but to provide a secure and stable general investment climate. This is the basis, for example, of the Energy Charter, which provides a legally binding framework for energy sector investments with safeguards and dispute resolution procedures.

⁵ See for example, IEA (2005) “Deploying Climate-Friendly Technologies through Collaboration with Developing Countries”, UNFCCC(2007) UNFCCC (2007), *Investment and Financial Flows to Address Climate Change*, Energy Charter Secretariat (2004), *Investing in Energy Efficiency: Removing the Barriers*.

Ensuring sufficient financial resources for energy efficiency investments will also be a challenge, especially in developing and transition countries. This will require integration with existing financial mechanisms, as well as growth in financial mechanisms such as third party financing through Energy Service Companies (ESCOs). It will be important that the financing mechanisms connected to the international climate change regime deliver funds and incentives for investment in energy efficiency.

2. International commitment to action on Energy Efficiency

The importance of energy efficiency has long been recognised and a range of international activities have been undertaken. In recent years, there has also been an increased commitment to energy efficiency in a number of international forums. For example:

- The Energy Charter includes a specific Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA), and works with 51 countries across Eurasia to develop, implement and evaluate energy efficiency policies and programmes;
 - Since 1998, a series of regular and in-depth reviews of member countries' energy efficiency policies, has helped to identify and implement best practice policies and institutional approaches, especially in transition countries.
 - The Secretariat has also produced a range of thematic reports to assist effective implementation of energy efficiency policies, including in areas such as Cogeneration and District Heating, Energy Efficiency and Emissions Trading, Energy Efficiency and Renewables, and Removing Barriers to Investment in Energy Efficiency
- For the 27 Energy Charter members who are also members of the EU, the EU Action Plan for Energy Efficiency has set a goal of reducing the European Union's energy consumption by 20% by 2020 relative to projected consumption;
 - As a first step, EU member states are preparing National Energy Efficiency Action Plans to achieve at least a 9% indicative energy end-use savings target for sectors outside the emissions trading scheme.
 - A first assessment of these plans in January 2008 show that some countries are setting ambitious targets and implementing necessary measures, but that considerable progress in many countries is required.⁶
- The IEA supports the G-8 in implementing Energy Efficiency arising from the leaders' meetings in Gleneagles in 2005, St Petersburg in 2006, and Heiligendamm in 2007.
 - The IEA has made a total of sixteen energy efficiency recommendations to the St. Petersburg and Heiligendamm Summits and will make additional recommendations to the Hokkaido Summit in July 2008. The original sixteen recommendations covered appliances, buildings, industry and transport and

⁶ European Commission COM(2008) 11 , "On a first assessment of national energy efficiency action plans as required by directive 2006/32/EC on energy end-use efficiency and energy services".

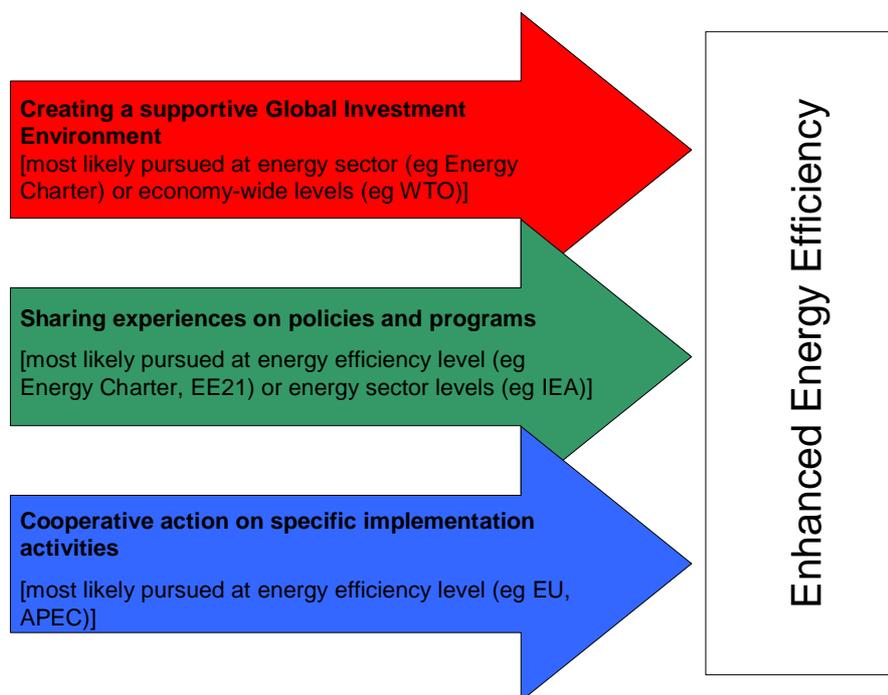
proposed measures like global phase-out of the most inefficient forms of incandescent lighting, global adoption of a 1-watt standard for standby power consumption in appliances, the development and enhancement of building performance standards, and the establishment of national programmes for energy efficient tyres.

- Implementation of the IEA recommendations is progressing with the most dramatic results being in the development of national policies to phase-out incandescent bulbs. Several countries have established a phase-out target year and the remaining IEA member countries have policy processes underway to develop such a target. Similarly, national governments are strengthening building codes, setting standards for standby power and addressing or considering other recommendations.
- The UNECE works with 56 countries in North America, Western Europe, Eastern Europe and Central Asia to improve energy efficiency outcomes, with a special focus on ensuring adequate and effective financing of energy efficiency projects.
 - In 1999, the United Nations Foundation (UNF) approved then launched the project, "Energy Efficiency Investment Project Development for Climate Change Mitigation". The UNF, through the United Nations Fund for International Partnerships (UNFIP), jointly with partners such as development agencies, private sector companies and institutions, provides funds to the project. The UNECE, as the executing agency, manages and disburses the funds for projects in the participating CIS and east European countries.
 - A new UNECE Energy Efficiency 21 (EE21) Project on Financing Energy Efficiency Investments for Climate Change Mitigation is supported by the Global Environmental Facility (GEF), the UNF and the Fonds Français pour l'Environnement Mondial. It will provide for a \$US 250 million fund to finance energy efficiency investments in 12 UNECE transition economies. The United Nations Environment Programme will be the GEF Co-Implementing Agency together with an international financial institution. The UNECE is the Executing Agency for the project.
- APEC Leaders agreed at the Sydney Summit in 2007, to a regional aspirational goal of a reduction in energy intensity of at least 25% by 2030, providing focus for continuing work on energy efficiency across the Asia-Pacific region
 - The APEC Experts Group on Energy Efficiency and Conservation (EGEEC) has developed a common database for technical energy efficiency standards and has led work on harmonised international testing procedures and banding for some lighting products and motors, as well as a range of other projects.
 - Following the Sydney Summit, the Energy Working Group is considering modalities for completion of regular energy efficiency reviews of APEC member countries.

3. How can enhanced international cooperation help?

How can enhanced international cooperation improve the delivery of energy efficiency, and support the massive global investment that will be required to deliver significant reductions in greenhouse gas emissions? And, given the many competing demands on governments and industry, where should efforts be focused?

Three broad levels of cooperative activity can be identified, all of which can be pursued in parallel or together. Each of them can also be pursued very specifically in relation to energy efficiency, or in a broader context of energy or the whole economy. However, they are addressed below moving from inherently broad to inherently more narrow:



- *Creating a supportive global investment environment.* As discussed above, a strong framework that reduces uncertainty, appropriately rewards risk and allows for efficient dispute resolution is fundamental to supporting investment. This may be especially true in energy efficiency investments where a large initial investment can make a return over many years (eg new industrial plant, commercial buildings, high-efficiency energy supply including new and refurbished CHP). A recent IEA study⁷ has documented with 6 national case studies critical financial barriers and policy experiences in addressing them. It proposes a number of measures for consideration by governments to create and enhance markets for energy efficiency.

⁷ IEA and AFD (2008), Promoting Energy Efficiency Investments: Case Studies in the Residential Sector

A supportive environment will also include sufficient access to capital, especially in developing economies. Among other things, this will require clear and consistent messages from international bodies including IFIs to ensure that energy efficiency is always integrated into funding decisions. As a minimum, it will be essential to ensure all investments are evaluated on a whole-of-life basis, not just first-cost.

The need for special-purpose funding will also continue, including partnerships between governments and private financial institutions. The Energy Efficiency 21 Project of the UNECE has recently led the development of The European Clean Energy Fund, a €356 million investment fund established by SwissRe and Conning & Company in 2007 to finance environmentally sound energy projects in Western, Central and Eastern Europe. The fund provides equity and mezzanine finance for energy efficiency, renewable energy and waste-to-energy projects to generate carbon credits and renewable energy certificates. The UNECE will also be the executing agency for a \$US 250 million public-private partnership Energy Investment Fund to support case study investment projects in renewable energy technologies, electric power and clean coal technologies in Southeast European and Eastern Europe, Caucasus and Central Asia (EECCA).

- *Sharing experiences on energy efficiency policies and programs.* There is a large and growing volume of work explaining and analysing experiences with energy efficiency policies. EU President Jose Manuel Barroso has referred to the IEA as the “de facto secretariat of the G-8” and asks whether the IEA mandate should be extended to give it a broader international role.⁸ This could include a role for more consistent data collection and analysis, where the IEA is already the world leader, as well as policy-related discussions. A key consideration here would be the IEA’s current membership, which is confined to industrialised countries, and how to extend this relationship to other regions and nations. IEA member countries have tried to address the changing nature of energy markets by making outreach to emerging economies a high priority for the agency.

While impossible to fairly summarise here, one key lesson from international analyses is that there is no “one size fits all” approach. Any international sharing of experience will need to recognise both different types of countries as well as specific national circumstances. So, for example, those countries which have recently entered the EU may have valuable lessons for other countries making a transition to a market economy. Developing countries in Asia may have lessons for those in Africa and vice versa. For many countries capacity building will be important.

⁸ “Energy Security, Environment and Development: Towards Better Global Coordination in Energy Matters”, Speech to the G8 Task Force, 24 May 2007

- *Cooperative action on specific implementation activities.* A relatively few key industries (eg automobiles, white goods, information and communications technology) produce products consuming a large share of global energy. These industries are global with widespread international trade. Common approaches to these industries may help to focus R&D resources as well as reduce any costs of improving energy efficiency. Similarly, a few industries (eg aluminium, energy supply, steel, cement, pulp&paper, chemicals) consume a large part of industrial energy use and operate in global markets. Common approaches here may also reduce any costs of improving energy efficiency. Care would need to be taken to ensure any such approaches did not reduce competition in markets or introduce barriers to open trade. The close cooperation of industry and governments is crucial.

International cooperation on research and development may also lead to improved access to advanced technologies. Any approaches in this area would need to recognise competitive realities, and many energy efficiency opportunities require no technological development.

At a consumer level, there may be some benefit in ensuring global consumers receive broadly consistent messages about the importance of energy efficiency and the technical and economic potential of different options.

Box 3 contains possible suggestions for cooperative activities that could be pursued by international organisations in partnership with governments, industry and other stakeholders, in each of these three areas.

Box 3 – Some possible areas for international cooperation

Creating a supportive global investment environment.

1. Develop and implement frameworks to promote secure and open trade and investment in energy and energy-related products and industries.
2. Agreed rules (and possibly financing) for international financial institutions to ensure energy efficiency is integrated into decision-making.
3. Better integration of energy efficiency issues into existing methods for providing financial and technical assistance to transition and developing economies, including climate change-related mechanisms.

Sharing experiences on energy efficiency policies and programs

4. Sharing experiences in developing “good practice” guidance for national energy efficiency policies and programmes, which recognises different economic, institutional and social circumstances facing each nation, including industrialised, transition and developing economies.
5. Common approaches to data collection and analysis, and evaluation of programs.

6. Examine methods to share the resources and results arising from their respective activities, including energy efficiency reviews of member countries, while preserving the integrity of individual review mechanisms.
7. Mechanisms for regular high-level consultation between key international bodies to discuss related work and possible integration. Also to include consultation mechanism with industry to assist priority setting.

Cooperative action on specific implementation activities.

8. Harmonised energy efficiency testing, performance banding and regulatory approaches to mass-produced equipment.
9. Consideration of performance standards relevant to energy supply equipment.
10. Common elements of energy efficiency requirements for buildings, including rating tools, measurement and labelling systems.
11. Improving access to capital for energy efficiency for SMEs, including templates and other tools to assist the use of third-party financing for energy efficiency projects.
12. Frameworks to promote investment in efficient energy supply equipment.
13. Support for energy efficiency R&D.

4. Models for International Cooperation?

There are many potential models for international cooperation on energy efficiency activities, including many already in operation. The Energy Charter, the IEA, the UNECE, APEC, the Asia-Pacific Partnership on Clean Development and Climate, REEEP, CLASP, and others have significant activities on energy efficiency, with different focuses, competences and operating structures.

Any enhanced cooperation would need to recognise and complement the different roles of these organisations. For example, the UNFCCC is the international negotiating body on international climate change agreements, not limited to energy. The IEA is the world leader on energy data collection and analysis, not limited to energy efficiency. The Energy Charter is the only international trade and investment treaty focused on energy (including energy efficiency). The UNECE deals with sustainable economic development issues across a range of sectors, with energy efficiency playing a special role.

All of these roles and activities could be considered in looking at improved global international cooperation on energy efficiency. This could suggest a path that goes from enhanced information sharing (on technologies, best practice policies, etc) toward more direct cooperation on common approaches (either energy efficiency specific or more general). Any institutional mechanism could be relatively loose at first, growing together with the nature of issues addressed.

Different broad institutional arrangements are also possible. These could include:

- An ad hoc collection of governments, international institutions, industry and other stakeholders that gather to develop specific solutions to specific issues.
- An institution originally consisting of a core group of leading countries that can together implement significant change, with the possibility of extending membership over time to other countries.
- Transformation of existing international institutions (eg the UN – including the UNFCCC, the IPCC) to deal with these issues in a more integrated way.

Each approach has many variants, and there are strengths and weaknesses of each. A key in assessing any institutional approach is to ensure that it leads to more rapid and/or improved implementation of energy efficiency rather than additional delays.

5. Role of the conference

This conference will not determine global governance arrangements for energy efficiency. However, it will help to identify the key barriers to implementation of energy efficiency for governments and industry that can be addressed through enhanced international cooperation. It will also identify some key aspects that such international cooperation requires to be effective. And it will determine what some practical next steps might be.

In this way, the conference will contribute to ongoing international discussions of these issues, and help ensure that any developments are pragmatic and effective.

Appendix - Background on Supporting Organisations



Energy Charter Secretariat (ECS)

The Energy Charter brings together [51 countries](#)⁹ across Eurasia representing nearly 40% of global GDP in a multilateral framework for energy cooperation that is unique under international law. It promotes energy security through the operation of more open and competitive energy markets, while respecting the principles of sustainable development and sovereignty over energy resources. It is the only agreement of its kind dealing with inter-governmental cooperation in the energy sector, covering the whole energy value chain from exploration to end-use, and all energy products and energy-related equipment.

The Treaty's provisions focus on four broad areas:

- The protection of foreign investment;
- Non-discriminatory conditions for trade in energy materials, products and energy related equipment and provisions to ensure reliable cross-border energy transit flows;
- The resolution of disputes between participating states, and – in the case of investments – between investors and host states;
- The promotion of energy efficiency, and attempts to minimize the environmental impacts of energy production and use.

The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) builds on the provisions of the Treaty, and requires its participating states to formulate clear policy aims for improving energy efficiency and reducing the energy cycle's negative environmental impact. The Working Group on Energy Efficiency and Environmentally Related Aspects has developed into a valuable forum for policy debate and exchange of experience, and many of the transition economies have used this cooperative process to develop policies, legislation and other measures supporting improvements in energy efficiency.

The Working Group has completed a number of regular and in-depth reviews of member countries' approaches to energy efficiency and related environmental aspects. These have helped to identify and address implementation difficulties.

The Secretariat has also produced a range of thematic reports to assist effective implementation of energy efficiency policies, including in areas such as Cogeneration and District Heating, Energy Efficiency and Emissions Trading, Energy Efficiency and Renewables, and Removing Barriers to Investment in Energy Efficiency

www.encharter.org

⁹ The Energy Charter Treaty was signed in December 1994 and entered into legal force in April 1998. To date the Treaty has been signed or acceded to by fifty-one states plus the European Communities (the total number of members is, therefore, fifty-two).



International Energy Agency (IEA)

The International Energy Agency acts as energy policy advisor to [27 member countries](#) in their effort to ensure reliable, affordable and clean energy for their citizens. Its member countries are industrial economies of Europe, North America, Japan, Korea, Australia and New Zealand.

Founded during the oil crisis of 1973-74, the IEA's initial role was to co-ordinate measures in times of oil supply emergencies. As energy markets have changed, so has the IEA. Its mandate has broadened to incorporate the "Three E's" of balanced energy policy making: energy security, economic development and environmental protection.

Current work focuses on climate change policies, market reform, energy efficiency, energy technology collaboration and outreach to the rest of the world, especially major consumers and producers of energy like China, India, Russia and the OPEC countries. It provides world class energy statistics and analysis of energy trends. The World Energy Outlook is published annually and the Energy Technology Perspectives every two years; both provide scenarios of future energy consumption and production.

The IEA energy efficiency activities are designed to provide state of the art energy efficiency policy analysis in addition to facilitating the development of those policies. Over the last three years the IEA has carried-out work for the Gleneagles G8 Summit on best energy efficiency practices in appliances, buildings, industry and surface transport. That work has yielded policy recommendations to the last two summits and to the 2008 summit. The consolidated set of recommendations from these Summits covers 25 fields of action across seven priority areas: buildings; appliances; lighting; transport; industry; power utilities and cross-sectoral activity.

www.iea.org



United Nations Economic Commission for Europe (UNECE)

The United Nations Economic Commission for Europe (UNECE) was set up in 1947 by ECSSOC as one of five regional commissions of the UN. UNECE brings together 56 countries located in the European Union, non-EU Western and Eastern Europe, South-East Europe and the Commonwealth of Independent States (CIS) and North America.

UNECE's major aim is to promote pan-European economic integration. To this end, it provides analysis, policy advice and assistance to governments. It gives focus to the United Nations global mandates in the economic field, in cooperation with other global players and key stakeholders, notably the business community.

Energy has been one of the cornerstones of UNECE since it was established. In the 1980s and particularly in the 1990s, energy-related environmental issues were added to the menu of subjects addressed by the UNECE energy programme.

The Energy Efficiency 21 Project (EE21) of the UNECE is an example of a Sustainable Energy programme devoted to achieving sustainable development in the energy sector at a regional level. It is designed to develop the skills of private and public sector experts at the local level to develop energy efficiency and renewable energy investment projects.

The [UNF/UNFIP](#) project "Energy Efficiency Investment Project Development for Climate Change Mitigation" started in January 2000, executed by the UN ECE. Its major goal is to accelerate energy efficiency market formation activities for the greater participation of private sector investments in the participating countries of Belarus, Bulgaria, Kazakhstan, the Russian Federation and Ukraine. It focuses specifically on three areas - municipal lighting, hospitals and district heating. Investment projects to reduce carbon emissions have been developed under EE21 with local counterparts. Some \$US 60 million of proposals have been prepared, projects of some US\$ 14.9 million have been financed with an estimated 136,000 tonnes of CO₂ avoided per year.

A new UNECE EE21 project on Financing Energy Efficiency Investments for Climate Change Mitigation will establish a public-private partnership to finance energy efficiency investments in 12 UNECE transition economies. Its main objective is to develop a \$US 250 million dedicated Investment Fund to attract capital commitments from public and international private sector investors. The Project is supported by the Global Environmental Facility(GEF), the United Nations Foundation(UNF) and the Fonds Français pour l'Environnement Mondial.

EE21 Projects will be solid investments that could lead directly to reducing GHG emissions by 10 million tonnes of CO₂ per year, enhanced skills of local experts and policy reforms in participating countries. Over 20 years, direct CO₂ emissions reduction stand at 200 million tonnes, according to UNDP/GEF standards. The possibility that the Fund is replicated after demonstrating success, could lead to a further 200 million tonnes of emission reductions over 20 years. Including indirect emissions reductions leads to a conservative estimate of 600 million tonnes over 20 years.

www.unece.org