



Implementing Agreement for a Co-operative Programme on Efficient Electrical End-Use Equipment (4E)



**Strategic Plan
2014-2019**

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Preface

During the first five year term of the 4E Implementing Agreement it has successfully established itself as an international forum between countries seeking to collaborate on energy efficiency policies for appliances and equipment. In doing so, it has forged strong relationships with the IEA Secretariat and other groups from the public and private sector. 4E's research and analysis is now recognised as making a unique and significant contribution to the energy efficiency policy debate.

Though this Strategic Plan, 4E aims to build on this foundation over the next five years in order to take advantage of the huge opportunities for end-use energy efficiency identified by the World Energy Outlook and other analysts.

While there appears a limitless number of useful activities for 4E, resource constraints demand that we take care in selecting projects that add value for our members and a wider group of stakeholders, represent a true collaborative effort and lead to significant energy and greenhouse savings. These principles have served 4E well during the first term enabling us to deliver on expectations.

While a number of changes are planned for the second term that allow 4E to expand our scope and more closely reflect the policy needs of our members, we are confident that the good management practices established in the first term will ensure that remain focussed on achieving tangible outcomes.

This document has been prepared for the IEA EUWP and CERT as part of the 4E's application for a second term. It highlights the key changes in 4E's Strategic plan proposed for the second term and has been endorsed by 4E's Contracting Parties.



Mike Walker
Chair, 4E Implementing Agreement
2012-14

4E Participants

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1 Introduction

In November 2012, the 4E met in Tokyo to consider the extension of 4E for a second term. Following a discussion of the strengths and weaknesses of the first term, proposals for potential changes to the strategic direction and organisation structure were debated by all delegates. The meeting concluded with a unanimous affirmative vote to seek a second term.

Since this time the 4E Management Committee has implemented the following consultation process with 4E members in order to gain agreement on the key elements of the a strategic plan for the second term:

- A survey of ExCo delegates.
- The release of a discussion document highlighting the options and their respective benefits and disadvantages, and recommended approaches.
- One-on-one consultation with ExCo delegates.
- A final workshop at the Nice ExCo, May 2013.

The proposals contained in this document represent the outcomes of this extensive and inclusive consultation process.

2 Strategic Direction

The 4E Strategic Plan covers a five-year period from March 2014 to February 2019, and builds on the achievements, and lesson learnt during the first term.

Reviews of the first term¹ indicate that:

- 4E has been very effective in achieving its stated objectives.
- The existing Contracting Parties regard participation in 4E as cost-effective.
- Other public, private and voluntary sector organisations value the role that 4E plays in supporting the co-ordination of international energy efficiency policies.

Since the development of the first 4E Strategic Plan, government ambitions in the field of energy efficiency have grown, there are more organisations involved and the potential role of 4E is clearer than when it began.

As a result, the 4E ExCo believes that 4E can be even more effective as a result of adopting the measures indicated in this section, which are designed to achieve the following aims:

- To provide greater flexibility and increased ability to meet the policy demands of national and regional energy efficiency programs.
- To streamline administrative processes and minimise the costs of participation, while still maintaining sufficient financial and project management and transparency.

2.1 CERT and EUWP strategies

4E's End of Term Report (2008-13) demonstrated a close alignment the current strategies of the IEA CERT and EUWP, particularly in the following areas:

- Provide energy end-use technology policy advice.
- Engagement with relevant organisations.
- Strengthening of technology network.

During the second term, 4E will continue and expand these activities, as identified below, and to strengthen communication with the EUWP, to remain consistent with the aims of the CERT and EUWP.

¹ See End of Term Report, 2008-2014

2.2 4E aims and objectives

Many of the appliance energy efficiency programs that engage with 4E include some products that use fossil fuels or renewables. Not only are the quantities of energy use and saving potential (other than electric) in space heating, water heating and cooking very considerable, but many provide equivalent services to electrical products. Attachment A provides further information on the fuel consumption and appliance energy efficiency policies for different fuel types in several 4E countries. It therefore makes sense for 4E to consider issues relating to end-use products that consume all fuels where there is significant potential for international collaboration, and where other organisations are not already active.

In order to maintain the established branding of 4E, and the logo, it is therefore proposed to change the name of the Implementing Agreement to 'Energy Efficient End-use Equipment'. It is recognised that this increases the potential for overlap with the work of other organisations, such as but not limited to the Industrial Energy-Related Technologies and Systems (IETS) and Emissions Reduction in Combustion (ERC) Implementing Agreements. Therefore to avoid any duplication, when 4E considers new Annexes, Projects or Tasks, there will be a requirement to first undertake a thorough investigation of which organisations are already active in this area. Where a potential for duplication is identified, 4E will initiate consultations with relevant organisations to clarify whether there is any opportunity for 4E to add value, before any decision to proceed is made.

In addition, although 4E work has included motor systems (fans, pumps, compressors) and network standby, 4E wishes to place greater emphasis on the significant opportunities to improve the efficiency of energy-using systems. This is not a topic that is yet given much attention by other international collaborative initiatives and therefore it is an area where 4E intends to provide guidance to governments, drawing together expertise from amongst member countries.

The proposed changes to the aims and objectives are shown in Table 1.

Table 1: Proposed changes to 4E's aims and objectives

	1 st Term	2 nd Term
Aims	The 4E will specifically focus on electrical end-use equipment. Industrial and commercial equipment as well as equipment mainly used in households is included. The 4E will focus on equipment that contributes most to the total end-use electricity consumption, such as electric motors and lighting, and will include technologies with fast growing markets shares such as set-top boxes. Further the increasing stand-by consumption is a relevant topic for this Implementing Agreement. Electric or hybrid motor vehicles are outside the scope and would be best covered in initiatives dealing with transport.	The 4E concentrates on non-transport energy using equipment and systems in the residential, commercial and industrial sectors. The 4E focus is on equipment types that contribute significantly to the total end-use energy consumption and/or has significant energy saving potential, and which are not the subject of competing initiatives.
Objectives	<p>The Programme to be carried out shall consist of international efforts to promote adoption of government policies to encourage the use of efficient electrical end-use equipment. The Programme will provide a forum for countries and other stakeholders to:</p> <ul style="list-style-type: none"> • Share expertise and develop greater understanding of end-use equipment and policies; and • Facilitate coordination of international approaches in the area of efficient end-use equipment. <p>These objectives will be met by:</p> <ol style="list-style-type: none"> i) Collecting and sharing of information on end-use equipment technologies and programmes; and ii) Pooling resources for agreed-upon projects and tasks. 	<p>The 4E work programme promotes government actions that encourage the use of energy efficient end-use equipment and systems. The 4E provides a forum for member country delegates and invited stakeholders to:</p> <ul style="list-style-type: none"> • Collect and analyse information, share expertise and pool resources; • Coordinate internationally acceptable approaches that promote energy efficient end-use equipment and systems; and • Develop greater understanding of policies and practices in the field of energy efficient end-use equipment and systems.

3 Scope

3.1 Annexes & Projects

The first 4E Strategic Plan identified a set of initial priority topics which were closely defined and offered the best chance of delivering outcomes which would be useful to policy makers. Five years later, the scope of what is achievable has expanded due to the increased interest by governments and industry in the alignment of equipment energy efficiency policies.

The 4E Strategic Plan for the second term will support greater scope in the range of appliances and equipment to be covered, and improve the flexibility of 4E's structure so that it can accommodate one-off projects as well as a range of longer term initiatives within Annexes.

This will be achieved through:

- Enlarging the scope of existing Annexes and the development of new Annexes where appropriate;
- Formalising the differences between Annexes and Projects, and undertaking future M&B activities on a project basis.

4E will seek to establish Annexes with a broad scope in the second term, which have the potential to support a range of different technologies and activities as separate work streams. This flexibility recognises that technology developments and policy needs often emerge more quickly than new Annexes can be initiated, and that establishing a new Annex is expensive.

Members of the existing Standby, Motor Systems and Solid State Lighting Annexes have signalled their intention to support an expansion of their activities in the second term, and are in the process of preparing detailed proposals. These proposals in the areas of Lighting, Motor Systems and Connected Devices will be considered by the ExCo during late 2013 and early 2014.

Following discussions at the November 2012 and May 2013 meetings, the ExCo will also continue to explore the opportunities for new Annexes covering a range of equipment covering applications such as heating, ventilation, air conditioning & water heating, as well as cross-cutting issues such as monitoring verification and enforcement. Delegates will be encouraged to bring forward and develop new Annex proposals for consideration by the ExCo. In recognition of the costs involved, the ExCo has agreed to consider requests for seed funding from potential lead countries.

The procedures for establishing new Annexes are identified in the ExCo document reprinted as Attachment B and included the following criteria to be used to assess proposals for new Annexes:

The extent that a proposal is able to demonstrate:

- Well-defined objectives and realistic deliverables, best be met through international collaboration.*
- A Work Plan that:*
 - Addresses one or more barriers to the achievement of improved energy efficiency, or*
 - Directly leads to significant improvements in energy efficiency or energy savings.*
- Activities that do not duplicate those currently undertaken by another organisation or could be better achieved by another organisation.*
- The commitment of the lead country and other participating countries in delivering the Work Plan.*

Proposals for Annexes may have other unique attributes, and these should be addressed in any proposal.

While the change of name to 'Energy Efficient End-use Equipment' creates the opportunity to extend activities to cover non-electric fuelled equipment, the intention is to remain focussed on electrical equipment. However the change of name and aims does allow for the possible inclusion of some non-electric equipment types where this is appropriate. For example, undertaking the international benchmarking of water heating or space heating has previously not been feasible since it requires all fuel types to be considered in order to make a meaningful and fair comparison.

It should be noted that the criteria used by the ExCo to consider new activities place emphasis on the avoidance of initiatives that duplicate those of an existing organisation, requiring that all proposals thoroughly research and resolve areas of potential overlap with Implementing Agreements and other groups before bringing proposals to the ExCo for consideration. With the inclusion of non-electric equipment within the scope, the ExCo realises that there is greater scope for duplication and will therefore pay particular attention to this criteria.

In the second term, 4E will also implement a number of structural changes.

The M&B Annex has produced extremely high quality outputs to date however limitations on the availability of further data will mean that future activities are likely to be focused on deeper analysis including policy impacts, updating previous work and a small number of new products. Therefore a less systematic, product-by-product approach will be required. In addition, the large overlap between M&B delegates and national ExCo delegates means that a convergence of meetings would help to reduce overheads for delegates. As a result, in the second term, M&B activities will not be undertaken under a separate Annex, but instead the work that would have been undertaken will be continued on a project basis under direct management of the ExCo.

In addition, to provide further clarity and flexibility, 4E will recognise the distinction between the roles of Annexes and ExCo Projects, as follows:

- Annexes are formed to bring together a critical mass of 4E member countries to focus on topic areas, whether these are based on technologies, applications or cross-cutting issues. Annexes enable the kind of sustained attention to a topic required to develop expertise and cause change in national policies and technologies. Annex budgets are set to deliver a strategic plan agreed and funded by participants.
- ExCo projects are supported by all 4E member countries, and are funded through the ExCo common fund, and sometimes supplemented by additional voluntary contributions. ExCo Projects require less of a commitment than Annexes, tend to be more short-term, require lower levels of financial support and are usually exploratory in nature.

Current substantial ExCo Projects that will extend from the first term include:

- Policy Driven Innovation (PDI) (see Section 5)
- The Standardisation Community of Practice (see Section 6)

The ExCo will review proposals for new Annexes and ExCo Projects periodically, and implement transparent procedures for their assessment.

3.2 ExCo Meetings & Fee Structure

The 4E ExCo will continue to hold two meetings each calendar year in order to remain a source of information exchange and an effective management group. The facility to provide remote access to ExCo meetings, to hold ad-hoc meetings, teleconferences and to undertake out-of-session ballots shall also remain.

All existing members consider that participation in 4E represents extremely good value for money, and current costs of participation are lower than for many other Implementing Agreements. Nevertheless, the ExCo recognises that delegates face pressures on international travel and budgets, and therefore proposes to reduce the mandatory 4E membership fee to €20,000 per annum for all contracting parties. This represents €5,000 per annum reduction compared to previous compulsory ExCo and Mapping & Benchmarking Annex fees (not including the costs associated with voluntary participation in other Annexes).

4E will continue its policy of not offering reduced membership fees for Contracting Parties, since experience suggests that other costs and issues are more substantial barriers to membership. However, the option of external sponsorship of a country's membership will remain.

4 Contractual and Management Requirements

4.1 4E management

4E will continue to be managed by the ExCo comprising delegates from all Contracting Parties, and to be served by a Chair and one or more Vice-Chairs.

The current Chair, Mike Walker, and Vice-Chair, Hans-Paul Siderius, were elected for a two year period in November 2012. Elections will be held prior to October 2014 in order to re-elect or appoint new office holders.

In the second term, participation in the ExCo Management Committee will be formally expanded to include the Chair and Vice-chair(s), the Chairs of all Annexes and the 4E Operating Agent. The aim of these meetings is to progress actions following each ExCo meeting, and deal with issues that arise between meetings. The Committee will hold a teleconference approximately once per month and, to aid transparency, meeting minutes will be placed on the secure site for the entire Ex-Co to review.

In the appointment of all Operating Agents, the ExCo supports fair, open and transparent decision making, as well as value for money. Therefore appointment of Operating Agents in the second term shall be by competitive or selective tender when these appointments are funded through a common ExCo or Annex fund. When an appointment is funded entirely by one country, it is recognised that the procedure used to appoint may be at the discretion of that country.

4.2 4E legal text

The 4E legal text will be reviewed prior to the start of the second term and make such amendments necessary to ensure that the provisions remain consistent with the new Strategic Plan.

4.3 IEA framework

4E will continue to liaise with the IEA legal team to ensure compliance with the IEA Framework for International Energy Technology Co-operation (the Framework), and provide access up-to-date versions of Framework to new and existing Contracting Parties.

4.4 Annual reports

The 4E Annual Report will provide delegates with the ability to demonstrate to their national governments the cost-effectiveness of continued participation in 4E by including:

- All activities undertaken by 4E during the year.
- The key achievements.
- Financial and administration records.
- List of all participants.

Each Annual Report will be developed through a transparent process that involves the review by the Management Committee of initial drafts developed by the 4E Operating Agents, and final sign-off by the 4E Chair.

5 Contribution to Technology Evolution/Progress

Appliance and equipment programs typically form the mainstay of most government's energy efficiency policies, and have been extremely successful. Minimum energy performance standards, consumers labels, financial instruments and procurement activities are amongst the range of tools used by governments to increase the uptake of energy efficient equipment. This in turn has created a new market for innovative products, and increased expenditure in R&D for new efficient models.

However, as noted in the WEO 2012, successful climate change mitigation strategies require a step-change in the rate of energy efficiency improvement across all sectors.

In response, 4E has started a wide-ranging investigation into potential new approaches and policy measures designed to accelerate the rates of innovation for appliances and equipment. Beginning with a report on 'Technology Forcing Standards' (now known as 'Policy Driven Innovation' (PDI)), which identified many real-life examples of successful PDI policies, this work will continue through the second term.

In addition to this specific project, it should be noted that many 4E projects involve analysis of the impact of past and current policies in order to better understand how to design and implement better policies in the future. This area of work is vitally important so that governments can ensure a stable framework that supports industry investment in ever more efficient products.

For example, in the second term, EMSA will be providing further guidance on best practice policies in the field of efficient motors and motor-driven systems, as well as setting performance requirements, international certification processes and test methodologies for high efficient motors.

In the lighting field, the SSL Annex will continue to develop a quality assurance framework so that governments, industry and consumers can be confident in the performance of new, efficient, lighting technologies.

6 Contribution to Technology Deployment/Market Facilitation

As outlined in the End Term Report 2008-13, 4E recognises the importance of dialogue with industry and has initiated very significant liaison with relevant industry sectors at the ExCo and Annex levels, including the organisation of joint workshops, seminars and briefings.

During the second term, 4E will seek to increase communication and engagement with relevant industry sectors where appropriate, extending the distribution of policy recommendations and newsletters to a wider industry audience and holding more product-specific dialogues.

Particular examples of these include:

- The presentation of the work of the SSL Annex to the lighting industry through a continued presence at major industry events, detailed negotiations with peak bodies and accreditations organisations and initiatives targeted at test laboratories.
- EMSA will continue to engage with industry through EEMODS², its work with international, regional and national standards bodies, and through the network of testing laboratories.
- 4E together with the IEA Secretariat and SEAD³ will work to elevate the role of energy efficiency within international standardisations activities, working with industry representatives on IEC⁴ and ISO⁵ technical committees.

In addition to the work that Annexes undertake directly with relevant standardisation bodies, 4E members participate within the international standardisation processes in their own right, both at the Strategic and Technical Committee levels, and bring this experience to the work of 4E. To make better use of this resource, 4E has begun to develop a broader and more co-ordinated approach to its standardisation work through the launch of a 'Community of Practice' (CoP) with the IEA secretariat and SEAD.

This activity is particularly important if government aspirations for the closer alignment of product policies are to be realised, as noted in the November 2012 Communiqué launching the CoP:

“As governments seek to maximize energy savings from appliances and equipment through policies designed to stimulate higher energy efficiency levels, product test standards have a key role to play in ensuring accurate and repeatable test results and informative performance benchmarks. Governments recognize that the development of robust and uniform test methods by international standardization organisations is an important step towards reducing cost barriers for industry that may inhibit the trade of the most energy efficient products.

“The workshop identified opportunities where international standards can accelerate and expand the alignment of national and regional appliance energy efficiency policies. Participants noted that internationally-accepted product definitions, test methods, efficiency metrics, and performance classes often make it easier and faster for national governments to implement effective energy efficiency policies. Further, when these national policies are based on international standards, manufacturers benefit as the costs of complying with disparate policies and certification requirements are reduced; consumers benefit from lower product costs and accelerated innovation; regulators benefit from enhanced transparency and clarity across economies and lower administrative costs, and economies benefit from reduced barriers to trade.”

² Energy Efficiency in Motor Driven Systems International Conference

³ The Super Efficient Appliance Deployment initiative

⁴ International Electrotechnical Commission

⁵ International Organisation for Standardization

Through our collective representation and technical expertise, the CoP will aim to identify priorities for international standards and work with the IEC and ISO and industry to ensure that test and performance standards fit for purpose.

Through these and other efforts in the second term, 4E will increase the already significant level of engagement with relevant industry sectors, including the holding of joint workshops, presentations to industry events, briefings with key industry associations and the dissemination of information. While the ExCo has extensively discussed changes in the current rules, in order to maintain 4E as a government-led group able to discuss policy issues openly amongst delegates, the ExCo has unanimously decided to continue the policy of excluding individual companies and industry associations from formally joining 4E (and therefore Annexes). This decision will be reviewed periodically through the second term..

7 Policy Relevance

Experience from the first term suggests the decision-making processes within 4E are conducive to producing results that have great appeal to policy makers in the field of energy efficiency, not only those that participate directly in 4E. This is due to efforts to ensure that representatives at the 4E ExCo level represent, and are able to speak on behalf of, national energy efficiency departments, ministries and agencies. These delegates play a crucial role in debating, fine-tuning and finally approving work programs so that they reflect their policy priorities.

In the second term, the proposed changes to the development of Annexes and ExCo projects outlined in Section 3.1 will not change the inclusive nature of decision-making, but will allow greater flexibility in responding to policy needs. As a result, we are confident that the work initiated will lead to an increase in 4E influence on the energy efficiency policy environment.

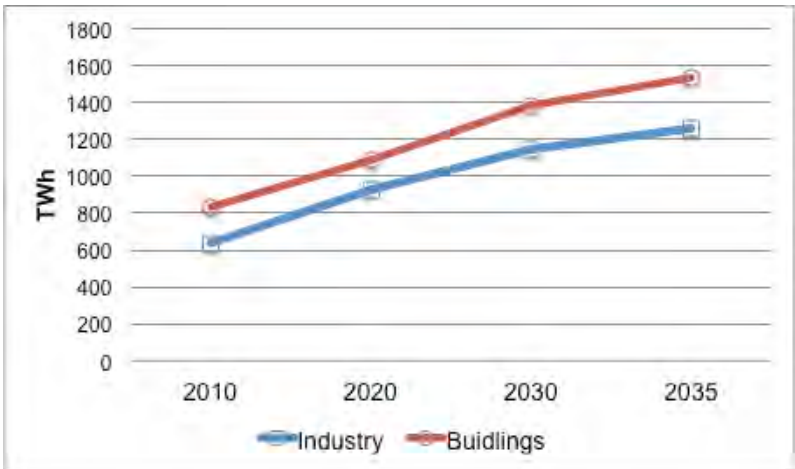
As noted in Section 9, the new Communications Plan will include initiatives designed to increase the linkages with policy makers. These include the better use of IEA publications and workshop, such as Energy Technology Perspectives, as a means to reach governments, and establishing formal reporting mechanisms with key organisations, such as the World Energy Forum.

8 Contribution to Environmental Protection

End-use applications such as heating, air conditioning, lighting, televisions, computers and motors consume approximately 18,000 terawatt hours (TWh) of electricity and 375,000 petajoules (PJ) of primary energy each year. The electricity alone will cost consumers around US\$2 trillion.

As shown in Figure 1, electricity consumption is predicted to grow at 2.8% p.a. in the industrial sector and 2.5% p.a. in buildings to 2035 under current policy scenarios, growing faster than all other non-renewable stationary energy sectors.

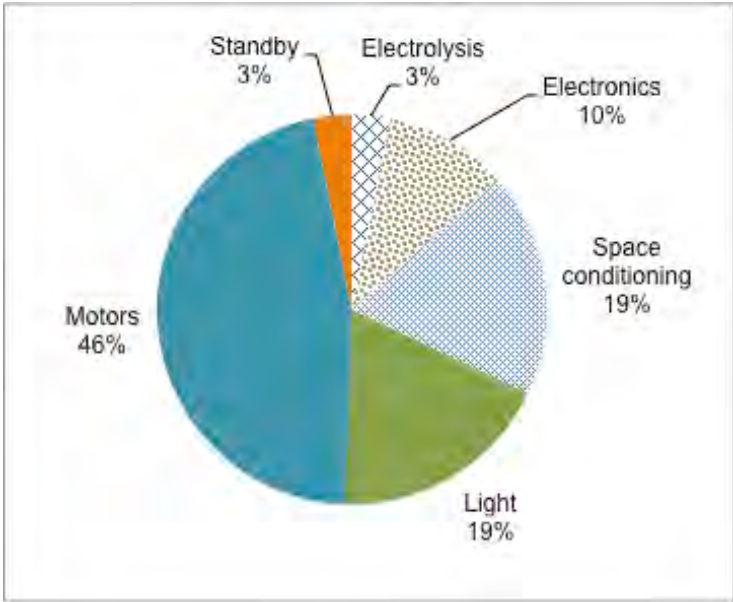
Figure 1: Estimates of electricity growth under current policy scenario (WEO 2012)



Much of this energy flows through mass-manufactured, market-traded products, which are the focus of national and regional energy efficiency policies supported by 4E activities. As shown by the distribution of global electricity consumption in Figure 2, the majority of these end-use categories are

currently covered by 4E Annexes or projects. 4E’s planned extension in the second term will lead to even greater coverage of electric products as well as those that use other fuels.

Figure 2: Share of world electricity consumption by major end-use category⁶



Enhanced energy efficiency policies by 4E and non-member countries have the potential to address climate change and environmental damage caused by different forms of energy generation. Analysis by the International Energy Agency shows that a ramping-up of energy intensity to 2.6 times the rate of the last 25 years will not only half energy demand, but will boost economic output by \$18 trillion by 2035.

“If action is not taken before 2017, all the allowable CO2 emissions would be locked-in by energy infrastructure existing at that time. Rapid deployment of energy efficient technologies would postpone this lock-in to 2022, buying time to secure a much-needed global agreement to cut greenhouse-gas emissions.”⁷

Several countries are responding to the urgent need for action by accelerating their energy efficiency policy efforts. For example, President Obama issued the goal of cutting the energy wasted by US homes and businesses by 50% over the next 20 years in the 2013 State of the Union Address.

However, as noted by the IEA, G8, APEC and the Clean Energy Ministerial, meeting these challenges for globally traded products requires co-ordination between governments so that economies of scale are utilised to maximize efficiency improvements and to prevent the dumping of less efficient stock.

In recognition of this, 4E was established in 2008 to provide a forum for the international co-ordination of energy efficiency policy for electrical equipment and appliances amongst governments. A key focus is the international alignment of policy measures, particularly amongst the proliferation of standards and labelling programs operated by most economies. Improved alignment will not only maximise energy savings through the reduction of barriers to trade and compliance costs, but also through improved access to a greater range of policy measures and greater confidence in setting ambitious performance requirements.

For example, by improving the efficiency of products sold to match the world’s most efficient current standards would save 2,000 TWh/year of electricity by 2030 (the equivalent of 600 mid-size power plants, or about two-thirds of 2007 electricity consumption in the European Union). It would also conserve 21,000 PJ/year of primary energy (equivalent to three billion barrels of oil) and decrease carbon dioxide emissions over the next two decades by 11 billion tonnes.

⁶ IEA 2011, Energy-Efficiency Policy Opportunities for Electric Motor-Driven Systems

⁷ WEO 2012

9 Contribution to Information Dissemination

During the first term, 4E developed and implemented a Communication Strategy, as outlined in the End of Term Report. As the number of groups with an interest in energy efficiency has grown, there is an increased requirement for the ExCo to take a strategic approach, and therefore a new Communication Strategy will be developed for the second term aimed at ensuring the targeted dissemination of 4E messages to appropriate audiences from the public, private and voluntary sectors.

4E has very limited resources and focuses on specifically targeted audiences reached through a variety of channels. These reflect the diverse nature of the audience, and include technical reports, newsletters, webinars and briefing notes; as well as 4E initiated events, presentation at seminars, workshops and conferences.

The 4E suite of websites form the cornerstone of the 4E's communications, and have evolved over the first term. A recent appraisal has highlighted the need to improve presentation, navigation and update to facilitate use by touch screen technologies, and these improvements will be made during the second term.

While communication activities tend to be organised to suit particular audiences, all except those involving confidential materials are accessible without cost to any interested parties.

The ExCo has resolved in the second term to emphasise to the following opportunities:

- Develop closer links with the IEA Secretariat in order to maximize the opportunity to use IEA products to help our outreach and engagement with 4E non-member countries.
- Strengthen communication with the IEA End-Use Working Party.
- Establish formal reporting and communication functions with other relevant organisations.
- Make better use of the existing linkages between ExCo member countries and relevant groups and organisations.
- Develop processes for systematically identifying and communicating with key organisations.
- Continue to translate key 4E documents into languages other than English.

10 Engagement with IEA Member and Partner Countries

In the second term, the ExCo will continue efforts to attract new members with particular emphasis on the countries and organisations identified in Table 2. Countries that express an interest will be granted observer status at ExCo and Annex meetings for a limited period in order to decide whether to join.

Table 2: Target of 4E non-member countries

High Level (ranking 1)	Mid-level (ranking 2)
China	Brazil
European Commission	Finland
Germany	Ireland
India	New Zealand
Mexico	Norway
Russia	Philippines
	Spain
	Thailand

Non-member countries will still be able to benefit from the work of 4E by accessing the majority of 4E materials, attend workshops, seminars and other events.

11 Added Value

As noted previously, there is a high degree of association between 4E and national energy efficiency programs. The work of the 4E Mapping & Benchmarking Annex in particular has been able to provide

new analysis that would not have been feasible without international collaboration. This has demonstrated the considerable benefits of co-operation, including direct savings for some participants.

At the same time, 4E intends to take advantage of the developing realisation by governments that many efficiency objectives can only be met through international collaboration, to expand its role in providing a platform for agreements relating to energy efficiency policies.

For example:

- While individual governments find it difficult to participate in the international standardisation field, 4E is in a unique position to provide leadership and bring about the closer alignment of appliance policies.
- 4E has been active in developing the skills and accreditation of testing organisations and will continue to play an important role in establishing similar networks.

Providing an assessment of the achievements of 4E is important for countries to justify their continued involvement in the Implementing Agreement. Currently most countries assemble information on a needs basis according to their national priorities, however the ExCo is considering the use of an independent expert to undertake an evaluation of the effectiveness of 4E during its second term.

Attachment A: Information on residential energy consumption in 4E economies

Figure 3 to Figure 7 below illustrate the distribution of energy consumed in the residential sectors in economies that participate in 4E, by fuel type. The contribution of fuel types other than electricity is significant but varies by region from 30% to 76%.

Figure 3: Distribution of energy consumed in the Canadian residential sector

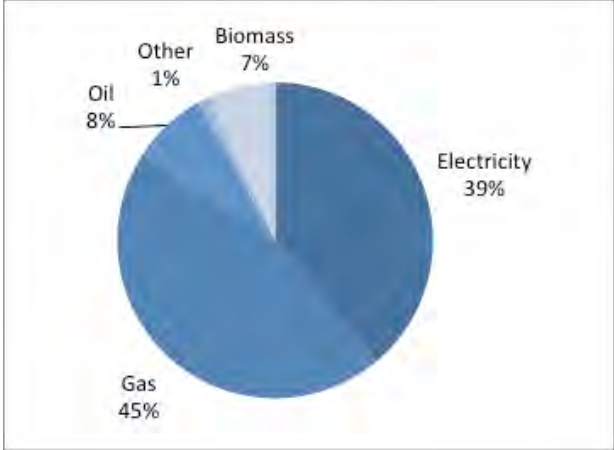


Figure 4: Distribution of energy consumed in the US residential sector

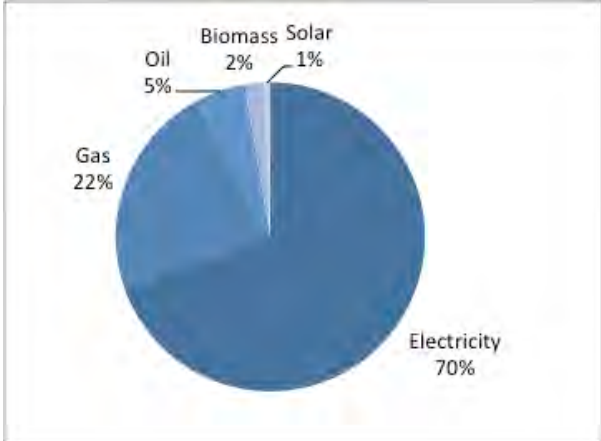


Figure 5: Distribution of energy consumed in the EU residential sector

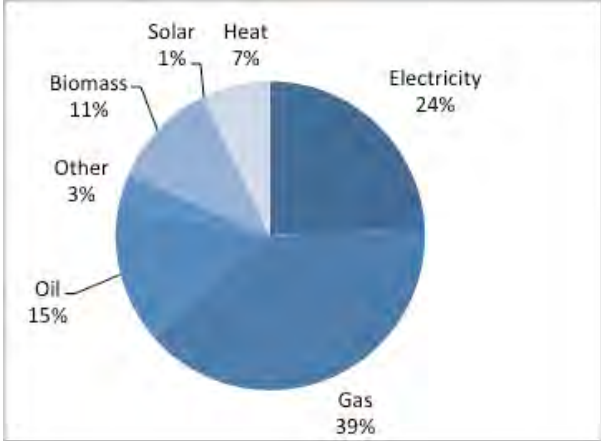


Figure 6: Distribution of energy consumed in the Australian residential sector

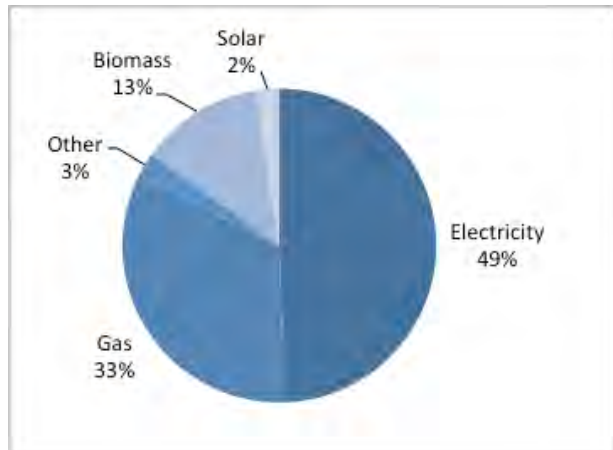


Figure 7: Distribution of energy consumed in the Japanese residential sector

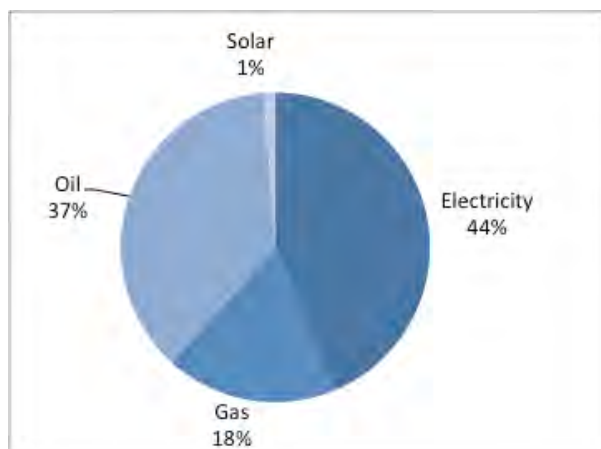


Table 3 shows the coverage of categories of non-electric residential appliances by policy measures in sections countries and regions.

Table 3: Distribution of energy efficiency programs for non-electric residential appliances

	Australia	Canada	EU	Japan	USA
Gas Water Heaters	Category included in Program	Category included in Program	Coverage under consideration	Category included in Program	Category included in Program
Gas Space Heater	Category included in Program	Category included in Program	Category included in Program	Category included in Program	Category included in Program
Gas cookers	Category included in Program	Category included in Program	Coverage under consideration	Category included in Program	Category included in Program
Oil water heaters	Category included in Program	Category included in Program	Coverage under consideration	Category included in Program	Category included in Program
Oil space heater	Category included in Program	Category included in Program	Category included in Program	Category included in Program	Category included in Program
Solid fuel boilers	Category included in Program	Category included in Program	Coverage under consideration	Category included in Program	Category included in Program

Legend	
Category included in Program	Category included in Program
Coverage under consideration	Coverage under consideration

Attachment B: The Development of Annexes and ExCo Projects

Introduction

The 4E consultation document prepared in 2012, “*Discussion of issues relating to the new strategic plan and 4E management*”, proposed a series of changes for the 4E second term, including:

- Expanding the scope of some existing Annexes, e.g.
 - SSL to Efficient Lighting, Standby to Network Equipment.
- Establishing the principle that new Annexes should aim for a broad scope, e.g.
 - Appliances (residential); Heating, Ventilation, A/C & Water Heating.
- Creating a system that may provide financial support for developing new Annexes and projects.
- Streamlining ExCo oversight through moving M&B activities from a dedicated Annex to a set of projects directly controlled by the ExCo and undertaking any other ‘ExCo Projects’ on an agreed merits basis.

The consultation strategy proposed that these issues should be further discussed and refined at the ExCo in Nice (May 2013) so that these guidelines could inform future Annex and project development.

This document proposes a set of ExCo guidelines designed to aid transparency and fairness in decision-making. Experience suggests that the ExCo may need to retain some flexibility in how these applied so these are proposed as guidelines and should not be treated as binding rules.

Guidelines

These guidelines deal with the following issues:

- The differences between 4E Annexes and 4E ExCo Projects.
- The processes for initiating new 4E Annexes or the renewal of existing Annexes.
- The processes and criteria for the allocation of funds for ExCo Projects and to support the development of new Annexes.
- The management and administrative requirements for accessing Implementing Agreement funds.

Annex and Project Distinction

Both Annexes and ExCo Projects have different attributes and roles within the 4E structure:

- Annexes are formed to bring together a critical mass of 4E member countries (but not necessarily all members) to focus on topic areas, whether these are based on technologies, applications or cross-cutting issues.
- Annexes enable the kind of sustained attention on a topic required to develop expertise and cause change in policies and technologies.
- Annex budgets are set to deliver a strategic plan, are funded and managed by participants with regular reporting to the ExCo.
- ExCo projects may fall into two categories; a M&B project comparing member policies and practices or a project idea which the ExCo wants to commission.
- ExCo projects are funded through the Implementing Agreement common fund, and sometimes supplemented by additional voluntary contributions by individual member countries.
- ExCo Projects tend to be more short-term, require lower levels of financial support and are usually exploratory in nature.

Initiating or renewing 4E Annexes

Procedure

The process for initiating an Annex, or renewing an existing Annex, is that a clearly identified lead country should:

- i. Prepare an Annex proposal. Typically an outline proposal is presented to the ExCo for comment in advance of a formal application which outlines the scope, likely member support, an indicative budget and operating agent, likely initial focus and reporting timeframe.
- ii. Secure the support of sufficient other countries to make the Annex viable. At a minimum, two member countries must agree to create a new Annex with an agreed work plan and budget though in normal circumstances Annexes should strive to engage all members and have a critical mass of members because it meets the 4E objectives.
- iii. Gain Annex approval from the ExCo.

Applications for ExCo approval for a new Annex should be made to the ExCo as far in advance of meeting dates as possible and not later than 30 days prior to the ExCo.

Annex approval criteria

The following criteria may be used by the ExCo to approve an Annex application or renewal.

The extent that a proposal is able to demonstrate:

- v. Well-defined objectives and realistic deliverables, best be met through international collaboration.
- vi. A Work Plan that:
 - a. Addresses one or more barriers to the achievement of improved energy efficiency, or
 - b. Directly leads to significant improvements in energy efficiency or energy savings.
- vii. Activities that do not duplicate those currently undertaken by another organization or could be better achieved by another organisation.
- viii. The commitment of the lead country and other participating countries in delivering the Work Plan.

Proposals for Annexes may have other unique attributes, and these should be addressed in any proposal.

Annexes do not require all contracting parties to participate in Annex activities, but Annex proposals must receive unanimous approval from the ExCo. Unanimous approval includes votes in support or abstentions. Where unanimous support is not obtained, the funds of the Implementing Agreement may not be used.

Process and criteria for allocation of ExCo funds

The ExCo intends to allocate funds for:

- ExCo Projects, including projects that were previously completed under the M&B Annex and other research activities.
- To support the development of new Annexes.

Procedure for application

The following process may be used by the ExCo to approve applications for funding under these two categories:

- i. Each project must have at least one 'nominee' that is a current member of the ExCo. This person will be regarded as the lead person for the project, responsible for preparing the proposal, monitoring and reporting progress to the ExCo.
- ii. Applications for ExCo funds should be made to the ExCo as far in advance of meeting dates as possible and not later than 30 days prior to the ExCo. Each project proposal must be supported by the provision of outline information, supplied by the nominee. The Chair and Operating Agent in consultation with lead country sponsor will review the application against the criteria in a paper circulated prior to the ExCo meeting.
- iii. The nominee (or someone appointed by the nominee) must present the project to the ExCo.
- iv. The nominee should demonstrate some financial commitment to the project, not including in-kind support.
- v. The ExCo will debate the merits of the project or potential Annex having regard to the nominee's proposal and management assessment. The ExCo will make a decision on the allocation of funds based on the proposal's ranking against the selection criteria, the amount requested, and the availability of ExCo funds.

Selection criteria

The following criteria may be useful in assessing ExCo Projects and support for the development of new Annexes:

The ExCo supports projects that:

- i. Demonstrate well-defined objectives and realistic deliverables.
- ii. Where these objectives can best be met through international collaboration.
- iii. Will:
 - a. Address one or more barriers to the achievement of improved energy efficiency, or
 - b. Directly lead to significant improvements in energy efficiency or energy savings.
- iv. Do not duplicate activities currently undertaken by another organization or could be better achieved by another organisation.

In the case of applications for the support of developing new Annexes, additional criteria may include:

- The ability of the proposed Annex to meet the above criteria.
- The commitment of other 4E countries to participating in the proposed Annex.

An application must not receive any 'no' votes to be considered approved by the ExCo.

Administering ExCo finances

ExCo funds are administered by the 4E Operating Agent. When the ExCo has approved the allocation of ExCo funds according to this guideline for an Annex or a project, the Operating Agent is authorised to contract directly with a third-party contractor identified by the lead country nominee to facilitate the Annex or project starting.