Credit where it’s Due
The Role of Export Credit Agencies in Promoting Sustainable Energy
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A report for WWF International and the Institute for Policy Studies by Kate Hampton

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Foreword

It is only comparatively recently that the activities of Export Credit Agencies (ECAs) have come to the attention of global civil society. ECAs remain among the least transparent of organisations, which is inconsistent with their status as taxpayer funded entities responsible and accountable to governments with a variety of ethical and environmental policies.

From a climate change perspective ECAs have pumped billions of dollars into the development of long lived carbon intensive capital stock, particularly in developing countries. Even worse, most of these financing deals were struck in secrecy and with little or no environmental safeguards attached. ECAs have often maintained that such issues have little or no relevance to their activities because of their mandate to promote commerce and exports. Whilst these assertions must be challenged on a number of fronts – not least that ECAs are propped up by taxpayers ignorant of their real activities – such issues have been well addressed and this report does not seek duplicate them.

What we do challenge is the concept that ECAs are adequately fulfilling even a purely commercial mandate adequately. The energy world of the 21st Century will be subject to a variety of very different drivers to that of the 20th Century. For example new market drivers such as climate change and energy market liberalisation will both increase the competitiveness of technologies which have low environmental impacts, which can be better deployed in decentralised locations and which are modular and carry lower resulting capital risks. We can see shifts of this nature beginning in the market place already not just in terms of installed plant, but reflected also in the analyses of many financial institutions of the future market potential for emerging cutting edge clean technology companies.

These profound shifts are not reflected in the lending portfolios of most ECAs. Dialogue with the sustainable energy community reveals very quickly that ECAs do not offer financial products which are seen as either useful or relevant to their needs. ECAs in turn complain that there is no demand from the new clean energy sector for their financial products. This report seeks to begin bridging that gap by identifying areas where ECAs can offer products and services relevant to the emerging clean energy industry, without taking on responsibilities more appropriate to other financial actors such as development banks or donor groups. It aims to encourage ECAs to adapt their activities to reflect the shifting market - and then to go further and actively speed-up the development and deployment of sustainable technologies.

We conclude however with a warning. Should ECAs fail to reform in the face of change and fail to exploit commercial opportunities speeding the transition to sustainable energy economies, then their reticence will be actively impeding progress. Given the increasingly critical nature of social and environmental problems resulting from energy sector investment – climate change being one example - such a dinosaur outlook can not justify continued public support. Whilst we are prepared to encourage and support ECAs who move with the times, our patience is limited. ECAs that refuse to dismantle archaic and increasingly irrelevant investment practices will inevitably face ever more strident calls for their abolition.

Liam Salter, WWF International Daphne Wysham, Institute for Policy Studies
Executive summary

This policy paper has been prepared by the World Wide Fund for Nature and the Institute for Policy Studies to examine the potential role for export credit agencies in supporting sustainable energy technologies, principally in the field of renewable energy and energy efficiency. Renewable energy currently represents only 2% of the global primary energy mix and is expected to rise to a mere 3% by 2020 (International Energy Agency, 2000). This compares poorly with rate of increase needed to avoid dangerous climate change, where scenarios have indicated the need for 40% of global energy consumption to be supplied by renewables by 2050 (Nakicenovic et al, 1998).

Export Credit Agencies (ECAs) are publicly funded institutions that promote exports. They use public money to provide exporters and their banks with insurance, guarantees against different types of risk and, in some cases, debt and equity. ECAs use public funds and should therefore serve environmental, social and economic policy objectives and support the international sustainable development commitments of the countries they belong to. In the energy sector, ECAs should be committed to supporting the deployment of sustainable energy technologies (SETs), i.e. renewable energy and energy efficiency technologies, not fossil fuels, large dams or nuclear power.

Between 1994 and early 1999, oil and gas development projects and power projects using fossil fuels made up nearly 40% of project and trade finance flows to developing countries; ECAs accounted for 20% of this financing (World Resources Institute, 2000). The climate impact of this investment is significant; for example, ECA support from the United States for fossil fuels between 1992 and 1998, some $23.2 billion, will result in lifetime emissions from these projects of 29.3 billion tonnes of carbon dioxide (Institute for Policy Studies, 1999).

The SET industry is growing rapidly with established energy companies and financial institutions entering the market. Good opportunities for the deployment of SETs already exist in developing countries and obstacles to investment relate to investor perception and institutional limitations as well as to structural barriers specific to the SET sector. The recent report by the G8 Renewables Taskforce concluded that ‘an outcome of serving up to a billion people in the next decade with renewables should be our goal and aspiration’ and that ECA reform has a major role to play in this context.

The obstacles to SET deployment in developing countries can be broadly categorised according to the following types:

- obstacles that are characteristic of Small and Medium sized Enterprises (SMEs) seeking to export (e.g. weak balance sheets, small transaction sizes);
- obstacles that are characteristic of developing countries (e.g. lack of client ‘creditworthiness’, high levels of currency risk);
- institutional obstacles (e.g. lack of staff familiarity and capacity regarding SETs, lack of products for joint ventures);
- obstacles that are specific to the SET industry (e.g. lack of investor familiarity, high upfront capital costs); and
• wider political obstacles (e.g. lack of regulatory and fiscal incentives to strengthen SET firms in the exporting country).

Most ECAs only give preferential terms to traditional power sources. While some are establishing programmes to support SMEs in general, these agencies have not yet developed products that are tailored to the SET industry, nor is the SET sector targeted by most ECAs.

The key recommendations of this report are the following:

1. **Measures to be undertaken immediately**

• ECAs should provide maximum repayment terms available under existing guidelines to support SET exports.
• ECAs should systematically consult with and target the SET sector when designing and marketing their products, especially SME products.
• ECAs should introduce portfolio targets for SET support.
• Common environmental and social standards negotiated at the OECD should be placed within a context of seeking to eliminate support for unsustainable energy technologies. These standards should be used as a first step in the phase out of support for unsustainable energy technologies

2. **Measures to be completed within a year**

• Staff capacity should be improved, through programmes to train existing staff and recruit new staff with experience in the SET sector. Each ECA should have staff members dedicated exclusively to the SET sector.
• ECAs should offer concessionary rates for SET projects (e.g. in the form of ‘SME Plus’ programmes) that are negotiated multilaterally to surpass those offered for other energy technologies.
• Safeguards against tied aid and technology dumping should be introduced by developing instruments to promote joint ventures.

3. **Measures to be completed within two years**

• ECAs should end all support for unsustainable energy technologies.
• ECAs should be reformed so that they support private sector investment within the context of an explicit sustainable development mandate to which they can be held accountable.

If ECAs are unable to shift current mandates in response to changes in global market priorities and government policy, then in effect they are acting as an anchor against the drive for sustainable development, for example in the fight against climate change. Such inflexible institutions clearly should not benefit from the support of the public purse – ECAs must adapt to survive or face closure.
1. Introduction

This policy paper has been prepared by the Institute for Policy Studies (IPS) and the World Wide Fund for Nature (WWF) to examine the potential role of export credit agencies in supporting the deployment of sustainable energy technologies in developing countries.

According to energy modellers, reducing emissions to a level that would avoid dangerous climate change without relying on the widespread use of nuclear power would require that energy efficiency be optimised and that renewable energy account for 40% of global energy consumption by 2050 and 80% by 2100. However, business-as-usual investment trends do not support such a shift; according to the Council of the Global Environment Facility, “Less than 2% of the energy investment being made annually in developing countries is currently in [renewable energy technologies]… This is despite the fact that [renewable energy technologies] are technically feasible and financially feasible in many places and are often national priorities.”ii The deployment of sustainable energy technologies (SETs), i.e. renewable energy and energy efficiency technologies, is also desperately needed to avoid further accumulation of the undesirable local environmental and social impacts associated with fossil fuels and nuclear power.

Export Credit Agencies (ECAs) are publicly funded institutions that promote domestic industries for export to markets in both developed and developing countries. They use public money to provide exporters and their banks with insurance and guarantees against different types of risk, such as political risk, currency risk or breach of contract by a foreign government or contractor; some ECAs also provide debt and equity. ECA support from an exporting country is usually matched with counter-guarantees from the importing country.

Between 1994 and early 1999, oil and gas development projects and power projects using fossil fuels made up nearly 40% of project and trade finance flows to developing countries; ECAs accounted for 20% of this financing.iii The climate impact of this investment is significant; for example, ECA support from the United States for fossil fuels between 1992 and 1998, some $23.2 billion, will result in lifetime emissions from these projects of 29.3 billion tonnes of carbon dioxide.iv

This report seeks to identify the role that can be played by ECAs in accelerating investment in the deployment of sustainable energy technologies by examining the following:

- What are the commercial opportunities presented by sustainable energy technologies and what are the obstacles that limit their widespread deployment?
- Are ECAs well placed to exploit these opportunities and address these obstacles? What are the limitations that face ECAs seeking to support the expansion of the sustainable energy industry?
- What ECA reforms could be introduced to further accelerate investment?
2. Overview of the sustainable energy sector

This section provides an overview of the SET sector and identifies opportunities and obstacles for companies seeking to export renewable energy and energy efficiency technologies to developing countries.

2.1. Characteristics of the SET industry

As exemplified by the growing competitiveness of wind power and rapid reductions in the cost of solar power, the renewable energy sector is gaining in strength. Investors and large energy multinationals are putting more and more money into renewable energy.

The global market for wind technology has been growing at a rate of 40% per year with a price per kWh in some European countries that can already compete with thermal power. Denmark currently generates 13% of its electricity from wind turbines and has a strategic target of 50% for 2030 that is supported by a targeted system of policy instruments and economic incentives. According to Dresdner Kleinwort Wasserstein, investment in wind power since 2000 will have reached $27 billion worldwide by 2005. Not surprisingly, Vestas, a Danish company and world leader in turbine manufacturing has seen its shares rise in price by 158% over the last year and now has a market capitalisation of $6 billion. While the Danish wind industry is unusual in its size and market concentration relative to the SET sector as a whole, this dynamism could be the shape of things to come.

According to Astropower, a US-based solar cell manufacturer, the cost of producing electricity from solar cells has fallen from $200 per Watt in 1980 to $3.50 today. Over the last three years, the value of Astopower shares has risen from a public offering value of $6 to $37 currently. The global market for photovoltaic (PV) systems is growing at 15% per year and it is expected that its value will reach $6 billion by 2010. This growth rate is considered to be a conservative estimate. Each time the installed base doubles, unit costs drop by 20%.

Both public and private financial institutions, including the International Finance Corporation and Merrill Lynch, have established dedicated renewable energy funds. Due to the growing reliance of industry on information technology, companies increasingly require maximum reliability from their power source. This and other factors are leading analysts to predict that power will be increasingly decentralised, moving away from the current model of large power plants dominating a centralised grid system to a system that promotes the construction of captive micropower units, an application to which renewables are particularly well suited. Well-capitalised companies like ABB, Shell, BP, General Electric, Siemens and Alstom are investing in renewable energy, despite being leaders in the fossil fuel industry and conventional power technologies. Even under business-as-usual scenarios, these trends may encourage economies of scale in renewables manufacturing, thereby improving prices and reducing risk.
Box 1: The G8 Renewable Energy Taskforce\textsuperscript{xii}

Reporting to G8 Heads of State and jointly chaired by Corrado Clini, Director General in the Italian Ministry of Environment, and Mark Moody Stuart, CEO of Shell International, the G8 Renewables Taskforce is composed of industry and government representatives and was tasked with delivering a strategy to promote the uptake of renewables in developing countries. The overall message was very simple – renewable energy is big business and ECAs have a central role to play in supporting its development. Their first report presented to the 2001 G8 Summit in Genoa concluded that a target of 1 billion new renewables consumers should be set over the next decade.

For ECAs specifically the report concluded ‘The G8 should extend so called ‘sector arrangements’ for other energy lending to renewables and develop and implement common environmental guidelines among the G8 Export Credit Agencies (ECAs). This could include: identifying criteria to assess environmental impacts of ECA-financed projects, and establishing minimum standards of energy-efficiency or carbon-intensity for these projects; developing a common reporting methodology for ECAs to permit assessment of their local and global environmental impacts.’\textsuperscript{xiii}

However, renewable energy currently represents only 2\% of the global primary energy mix and is expected to rise to a mere 3\% by 2020; most of this business-as-usual increase will come from the increased use of renewables in electricity generation in developed, not developing, countries.\textsuperscript{xiv} While the entry of established players is improving the profile and attractiveness of the renewable energy industry to more conservative investors, the dollar amounts invested are still small relative to those dedicated to fossil fuel exploration and more traditional energy R&D. For example, Shell recently announced a potential doubling of its investment in renewables; however, even with an increase, the investment will still only amount to about 2 \% of Shell’s total capital investment.\textsuperscript{xv} With a few exceptions, renewable energy companies are still small players, the majority of which are not publicly listed. The energy efficiency market is worth about $80 billion per year worldwide but most providers are also small companies.\textsuperscript{xvi} To accelerate the deployment of sustainable energy technologies in developing countries, therefore, ECAs need to address the needs of small and medium-sized enterprises (SMEs).

SET companies suffer from the barriers that are typical of other small and medium-sized enterprises (SMEs) seeking to export. These are:

- weak balance sheets and poor cash flow;
- lack of experience in overseas markets;
- limited domestic markets may mean that investors perceive SET technologies as unproven and, in some cases, technologies may still actually be at the demonstration stage;
- investor preference for large investments (usually over 15 USD million) rather than the smaller transactions that characterise the sustainable energy sector;
- lack of investor familiarity with sustainable energy technologies or markets and a preference for large, established players in the energy sector.

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As shown by the German and Danish models of targeted government intervention, robust domestic markets for SETs in exporting countries can provide SET companies with greater financial security and ensure that they are well placed to export successfully. Moreover, increased investment in a domestic setting would help to provide economies of scale in SET manufacturing, thereby reducing prices. Currently, most SET companies operate without political guidance regarding the availability of long-term regulatory and fiscal incentives. This lack of a long-term policy framework inhibits companies as they seek to develop spending plans for research and development as well as investment strategies, both domestic and export-driven.

Some technologies may not be as readily applicable to the domestic setting of a company as they are to the export market; for instance, the relative lack of insolation in some parts of Northern Europe as compared with, say, Africa means that the small scale of a domestic solar energy market should not undermine feasible export options. In such cases, ECAs may have to be more creative in the manner of their support. In most cases, strengthening domestic markets will make it easier for ECAs to support SETs in developing countries.

2.2. Developing country markets for renewable energy

The renewable energy industry in developing countries is not yet very well developed. For example, in India, the largest developing country market for photovoltaic (PV) technology where sales amounted to about 11MW in 1996 (about 12% of global sales), most of the intermediate products, i.e. wafers and cells, are still imported with only the assembly of PV systems occurring in India. This is happening despite the existence of government incentives aimed at promoting SETs and a strong financial sector. Kenya, another developing country leader, also has a domestic industry focused largely on assembly. This provides Northern corporations with an opportunity to promote direct exports and embark on joint ventures with local manufacturers.

It is important to differentiate between on-grid and off-grid renewable energy projects; although they suffer from related market constraints, they present different financial challenges. On-grid projects are generation facilities connected to a pre-existing transmission system and are usually supported by long-term power purchase agreements with a utility or a large consumer. Off-grid projects can either be captive systems for businesses or households, or made up of a mini-grid system based on one or more energy facilities. Renewables, particularly photovoltaic and biomass technology, are often well suited to off-grid applications. Home systems may be owned centrally by a local distributor, or sold to households individually. Overall, financing mechanisms for off-grid projects are less conventional and therefore more challenging for investors. However, evidence shows that if appropriate financing arrangements can be made, such as the use of pre-paid power cards, communities and consumers are often willing to pay for off-grid renewable energy. In semi-urban areas, it is not unusual for off-grid consumers to pay higher prices to meet their modest energy needs than richer on-grid customers due to the premium charged by diesel and oil distributors.
Opportunities for renewable energy

According to the International Finance Corporation (IFC), a member of the World Bank Group, market conditions for the deployment of renewable energy technologies are increasingly favourable:\textsuperscript{xx}

- against a background of “strong electricity demand growth”, on-grid projects are benefiting from the emergence of favourable conditions “in a growing number of countries” for small-scale private power projects;
- there is an increasing number of project sponsors: independent power producers (IPPs), equipment manufacturers, engineering and construction firms, specialised developers, energy service companies (ESCOs) and end users;
- the promotion of renewable energy by governments, development agencies and NGOs has contributed to the emergence of a favourable investment environment for renewable energy in a number of developing countries.

In addition, increasing numbers of private investors are beginning to recognise the inherent advantages of renewable energy:\textsuperscript{xxi}

- zero or low fuel costs and low operating costs for on-grid projects make them a competitive option in the long term;
- the small scale of on-grid renewable energy projects facilitates rapid installation and replication and increases the range of project sponsors and power purchasers that can use them relative to larger conventional projects;
- off-grid renewable energy technologies may provide more reliable energy than, say, diesel generators and kerosene lanterns at “an increasingly competitive cost”.

Obstacles for renewable energy

Despite the advantages presented by renewable energy, important constraints remain. Obstacles to the rapid and widespread deployment of renewable energy technologies include:\textsuperscript{xxii}

- lack of familiarity amongst project sponsors, clients and financial institutions with renewable energy technologies in general;
- lack of familiarity amongst project sponsors, clients and financial institutions with project structures, risk profiles and financing requirements;
- renewable energy projects often entail much higher up-front capital costs than more conventional projects and therefore require long term energy financing; and
- alternatives, i.e. fossil fuels, are often subsidised or cheap in developing countries, most notably in the case of coal.

In addition to these obstacles, which are specific to renewable energy, the IFC also noted that smaller projects can fall outside the reach of sources of international finance, a problem common to projects undertaken by SMEs, and that customers in developing countries may lack ‘creditworthiness’. While small projects may have similar transaction costs to larger projects, these costs cannot be spread over a large investment. Larger projects can absorb higher transaction costs so that regulatory, market and financing barriers can be more easily overcome. Constraints that apply to all power projects in developing countries, such as problems with currency
convertibility and negotiating power purchasing agreements (PPAs), may prove prohibitive on a small project.

For the off-grid sector specifically, major obstacles were identified in a market study to support the establishment of the World Bank’s Solar Development Corporation. These obstacles are:

- the level and structure of disposable incomes in rural areas;
- the high up-front costs of installation;
- the lack of distribution networks in off-grid areas limits the availability of PV technology; and
- the lack of appropriate financing and collection mechanisms.

Affordability is usually cited as a major impediment to SET investment, but the accelerated promotion of PV technology using appropriate policy instruments would lead to rapid price reductions. The size of the industry means that relatively small increases in the manufacturing base can have a major impact on price. In order to make PV technology accessible to a wider share of the potential market, significant economies of scale will have to be achieved.

2.3. Developing country markets for energy efficiency

As defined by the International Institute for Energy Efficiency, energy efficiency projects are “initiatives undertaken to improve the efficiency of energy use in a commercial, industrial, institutional or residential facility. The incremental costs of high-efficiency equipment and related engineering services are recovered from savings on the energy bill.” Energy efficiency projects are increasingly undertaken by Energy Service Companies (ESCOs) which pay the costs of the initiative upfront and are reimbursed from the savings.

While the opportunities presented by the promotion of energy efficiency are obvious, especially in a climate of energy price liberalisation, ESCOs and exporters of energy efficient products still have to face market barriers in developing countries that, like those for renewable energy, aggravate competition for scarce capital. These include the following:

- obtaining collateral may be problematic, so energy efficiency projects are perceived to be more risky than power supply projects;
- like renewable energy projects, energy efficiency investments tend to be small;
- the promotion of energy efficiency requires the establishment of conservation incentives and developing countries (as well as most developed countries) do not usually have a regulatory environment that provides such an incentive;
- financial institutions may lack experience in energy efficient investments.

As with renewable energy technologies, the promotion of energy efficient products and services may facilitate technological leapfrogging, i.e. enable the deployment of sustainable technologies with a high added value at an earlier stage in the development of energy infrastructure than was possible in now-developed countries. So, how can export credit agencies help the SET industry take advantage of this opportunity?
3. Are ECAs well placed to promote sustainable energy?

Although the SET sector is expanding in absolute terms under a business-as-usual investment path, the deployment of sustainable energy technologies must be accelerated in relative terms to achieve social, environmental and economic policy objectives - such as avoiding dangerous climate change and minimising local environmental and social impacts while improving access to energy. Exports can play a valuable role in unlocking sustainable energy markets and driving the development of domestic industries. Thus, it is necessary to determine what ECAs can do to promote SETs based on the barriers that SETs face and the mandate of ECAs to promote trade in line with government policy.

3.1 Subsidy restrictions

ECAs are limited to some extent by the Arrangement on Guidelines for Officially Supported Export Credit, a so-called ‘gentleman’s agreement’ between OECD governments that limits the level of subsidy that ECAs can provide. The Arrangement establishes a framework for the financing terms that can be offered to exporters. It has no status in international law, except in the EU where it has been passed into Community law by way of a Council Decision.

Included in the Arrangement are the following guidelines:xxvi

- minimum cash down-payment of 15% of the export contract value;
- maximum repayment terms of 5 years for countries with a GNP per capita above $5,445 in 1997 and 10 years for all other countries;
- limits on premium rates based on the Country Risk Classification Method, under the 1997 Knaepen Package Agreement;
- limits on interest rates based on Commercial Interest Reference Rates;
- restrictions on concessionality (tied aid) to 50% for Least Developed Countries and 35% for all other developing countries; prohibition of tied aid for countries whose income per capita was more than $3,125 in 1997, under the 1991 Helsinki guidelines.

However, the restrictions on maximum repayment terms do not usually apply to large transactions, including most energy and power projects. Under the Arrangement, the following exemptions are provided to the standard repayment terms:

- conventional power plants can receive support for up to 12 years;
- nuclear power plants can receive support for up to 15 years;
- project finance transactions can receive support for up to 14 years (an agreement for a trial period due to end in September 2001);
- ships and civil aircraft may also benefit from special repayment terms.

As set out below in Table 3.1, some ECAs already offer products targeted at SMEs.xxvii However, these SME products have not been designed for use by the SET industry. Moreover, with the exception of US Ex-Im’s Environmental Exports Program, these products are not actively marketed to the SET industry. Even Ex-Im’s
Environmental Exports Program offers little in the way of special dispensations; at best it provides SETs with similar terms to those offered for traditional power plants.

**Table 3.1 Examples of SME products already available**

<table>
<thead>
<tr>
<th>ECA</th>
<th>Eligibility</th>
<th>Examples of products</th>
</tr>
</thead>
</table>
| OPIC (USA)    | Companies with annual turnover less than US$250 million. No minimum investment.| -Insurance against political and commercial risk  
                 |                                                                                             | -Technical assistance  
                 |                                                                                             | -Corporate and project financing |
| Ex-Im (USA)   | Companies with up to US$3 million in annual export sales. No minimum or maximum investment. | -Working capital  
                 |                                                                                             | -Insurance against political and commercial risk  
                 |                                                                                             | -Maximum allowable terms for ‘Environmental Exports’ and dedicated staff member |
| EFIC (Australia) | Companies with an annual turnover of less than AUS$10 million                | -Non-payment cover (short-term receivables)  
                 |                                                                                             | -Guarantee to the exporter’s bank  
                 |                                                                                             | -Insurance against political and commercial risk |
| ECGD (UK)     | Minimum investment of GBP£20,000                                              | -Fast-track processing  
                 |                                                                                             | -Support for up to 40% non-UK content  
                 |                                                                                             | -Favourable margins for banks working with SMEs  
                 |                                                                                             | -Insurance against political and commercial risk  
                 |                                                                                             | -Non-payment cover  
                 |                                                                                             | -Dedicated team for ‘Smaller Exporters’ |
| EDC (Canada)  | Companies with up to CAN$1 million in annual export sales                    | -Fast-track processing  
                 |                                                                                             | -Export financing (e.g. loans to buyers)  
                 |                                                                                             | -Non-payment cover (short-term receivables)  
                 |                                                                                             | -Insurance against political and commercial risk  
                 |                                                                                             | -Dedicated team for ‘Emerging Exporters’ |

It is apparent that current ECA products are designed to promote traditional forms of energy generation, not SETs. ECAs have failed to provide targeted products whose purpose is to overcome industry-specific barriers.
3.2 Non-financial limitations

ECAs do not have staff with the level of experience necessary to identify, attract and support SET exports. Even if developing country governments and ECAs want to promote SET-based energy systems, ECAs may be inadequately equipped in financial and/or institutional terms to support smaller community-based projects. The International Finance Corporation (IFC) acknowledged its limitations by inviting financial and capacity building intermediaries with experience in small transactions to manage the IFC’s new renewable energy funds. Without the involvement of these more experienced organisations, the IFC would be unable to assist small project proponents in meeting its own lending criteria.

ECAs are still perceived as friends of the fossil fuel and nuclear industries and ECAs’ assistance is usually disbursed through banks that are not familiar with or to the SET industry. This perception of ‘capture’ does not encourage SET companies to seek assistance from ECAs. By failing to raise the standard of projects they support, ECAs are inhibiting the competitiveness of technologies with an inherently lower environmental impact. Thus, slow progress in establishing social and environmental guidelines for ECAs under the Export Credit Group process of the OECD is undermining the ability of ECAs to aggressively pursue opportunities for financing in the SET sector.

3.3. Adaptability to different export strategies

The appropriateness of existing export credits, guarantees and finance depends upon the export strategy employed by the exporting company. Currently, support from an ECA is most appropriate where “the straightforward export of physical goods is planned. Because it requires the buyer to get bank guarantees, however, it is probably not applicable where a joint venture is being established, where the buyer is insufficiently creditworthy…”

However, promoting joint ventures could be an effective way to increase exports of SETs because:

- direct exporting tends to favour established companies dealing with large orders, not the smaller companies and projects which dominate the SET sector;
- developing country entities may be unfamiliar with SETs and may require a long term commitment to capacity building, so-called ‘soft technology’;
- exporters may be unfamiliar with local conditions, including markets, business practices and government regulations;
- locally defined needs can be addressed more effectively through closer collaboration; and
- technology dumping can be avoided.

Table 3.2 below sets out different export strategies, their risk profile and potential for technology transfer; i.e. the long-term SET deployment in export markets involving the development of local capacity.
<table>
<thead>
<tr>
<th>Export strategy</th>
<th>What it means</th>
<th>Level of risk</th>
<th>Potential for technology transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect and direct exporting</td>
<td>Indirect exporting means having products sold overseas by a middleman. If products are sold by the company itself (either from the company’s headquarters or by a foreign subsidiary), this is called direct exporting.</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Contractual joint ventures</td>
<td>This will involve technology transfer e.g. licensing a patent, establishing a franchise agreement, providing technical assistance. Payment will usually be in the form of a fee or royalty.</td>
<td>Middle</td>
<td>High</td>
</tr>
<tr>
<td>Joint manufacturing venture</td>
<td>Establishment of a joint manufacturing venture involves a high level of participation by local partners. This type of venture will improve the likelihood of technologies and business practices being adapted to local conditions.</td>
<td>High</td>
<td>Highest</td>
</tr>
<tr>
<td>Joint project venture</td>
<td>A joint project venture is limited to the duration of the project.</td>
<td>High</td>
<td>Middle</td>
</tr>
<tr>
<td>Direct investment</td>
<td>Creation of wholly-owned operating entity in a developing country. This type of investment does not involve technology transfer.</td>
<td>Highest</td>
<td>Low</td>
</tr>
</tbody>
</table>


Thus, instead of focusing their efforts on direct and indirect exporting, ECAs could develop new products for joint ventures that make SETs imports more attractive and cater to the long-term commercial needs of client SET companies seeking to develop export markets.
4. Conclusions and recommendations

While good opportunities for the deployment of SETs already exist in developing countries, obstacles to investment related to investor perception and institutional limitations as well as to structural issues in the SET sector impede the realization of such opportunities. ECAs can easily play a role in accelerating the deployment of sustainable energy technologies in developing countries by addressing these obstacles.

Addressing generic obstacles associated with SME exports and commercial activity in developing countries should be achievable within the existing mandate for ECAs given that these issues are not related uniquely to SET exports. However, ECAs must take steps to ensure that their SME activities in developing countries are supported by better outreach and marketing to the SET industry. Within their current mandate, ECAs can also address institutional obstacles, for instance by hiring new staff with experience in the SET sector and improving the environmental and social eligibility threshold for investments they support.

In order to address obstacles that are specific to SETs, ECAs will have to develop tailor-made products in consultation with the SET industry. Some initial suggestions are included in Annex 1. Subsequent to consultation, this suggests that ECAs will have to negotiate common financial terms of engagement for SETs, as they have done for power plants and project finance.

Finally, overcoming wider political obstacles will require joined-up thinking across several policy areas, not just ECA policy. However, with particular reference to ECAs, governments should require that ECAs phase out support for energy technologies and investment in energy projects that are not sustainable. The phase-out should begin immediately.

**Measures to be undertaken immediately**

- ECAs provide maximum repayment terms available under existing guidelines to support SET exports.
- ECAs systematically consult with and target the SET sector when designing and marketing their products, especially SME products.
- ECAs introduce portfolio targets for SET support.
- Common environmental and social standards negotiated at the OECD are placed within a context of seeking to eliminate support for unsustainable energy technologies. These standards should be used as a first step in the phase-out of support for unsustainable energy technologies.

**Measures to be completed within a year**

- Staff capacity is improved, through programmes to train existing staff and recruit new staff with experience in the SET sector. Each ECA has staff members dedicated entirely to the SET sector.
- ECAs offer concessionary rates for SET projects (e.g. in the form of ‘SME Plus’ programmes) that are negotiated multilaterally to surpass those offered for other energy technologies.
Safeguards against tied aid and technology dumping are introduced by developing instruments to promote joint ventures.

**Measures to be completed within two years**

- ECAs end all support for unsustainable energy technologies.
- ECAs are reformed to support private sector investment within the context of an explicit sustainable development mandate to which they can be held accountable.

Annex 1 lists specific obstacles identified in this report and suggests a role for ECAs and other institutions in overcoming them.

In conclusion, ECAs can and should support the deployment of sustainable energy technologies through the integration of environmental and social objectives, including climate change mitigation, in programme and project design and implementation. Without such integration, export credits will continue to reinforce unsustainable business-as-usual investment practices with negative impacts not only in developing countries, but also in OECD member states. Developing countries are being locked into a path of fossil fuel-driven development based on centralised energy systems while opportunities for technology leapfrogging and the promotion of promising OECD industries are systematically underestimated and overlooked. Export credit agencies can clearly do more to promote sustainable energy, both on their own, and with greater political support and intervention.

If ECAs are unable to shift current mandates in response to changes in global market priorities and government policy, then in effect they are acting as an anchor against the drive for sustainable development, for example in the fight against of climate change. Such inflexible institutions clearly should not benefit from the support of the public purse – ECAs must adapt to survive.
# Annex 1  Suggested action to overcome obstacles to SET investment

<table>
<thead>
<tr>
<th>Generic obstacles</th>
<th>Role for ECAs</th>
<th>Role for other institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECAs’ lack of reach</td>
<td>More aggressive marketing of ECA products to SET companies.</td>
<td>Use of local financial intermediaries by multilateral development banks and better co-operation amongst financial institutions</td>
</tr>
<tr>
<td></td>
<td>Cooperate with organisations that have outreach facilities to identify potential projects (e.g. regional development banks, NGOs and aid agencies)</td>
<td></td>
</tr>
<tr>
<td>Undercapitalized companies</td>
<td>Develop products that are tailored to the needs of SMEs seeking to export</td>
<td>Policy makers should encourage the development of robust domestic markets</td>
</tr>
<tr>
<td>High transaction costs due to small scale of projects</td>
<td>Introduce streamlined, standardised procedures for small transactions</td>
<td>Governments could make new funds available to ECAs to cover transaction costs (e.g. more staff)</td>
</tr>
<tr>
<td>High levels of risk</td>
<td>Negotiate appropriate terms for SMEs as new common guidelines</td>
<td>Governments could provide reserves to cover risks such as the higher default rates and cost overruns</td>
</tr>
<tr>
<td>Creditworthiness of developing country entities</td>
<td>Develop of an appropriate financial structure for small projects</td>
<td>Information sharing between donor organisations and ECAs would allow for capacity-building around the most successful business models</td>
</tr>
<tr>
<td></td>
<td>Develop local currency facilities or co-operate with financial institutions that do</td>
<td></td>
</tr>
<tr>
<td><strong>SET-specific obstacles</strong></td>
<td><strong>Role for ECAs</strong></td>
<td><strong>Role for other institutions</strong></td>
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<tr>
<td>Lack of experience with SETs</td>
<td>Improve delivery by hiring staff with experience in renewables&lt;br&gt;SET projects need to be easily replicated and experience in developing countries needs to be widely disseminated&lt;br&gt;Develop ECA products that can support joint ventures and technology transfer</td>
<td>Integration of SET deployment objectives across all bilateral and multilateral institutions</td>
</tr>
<tr>
<td>Lack of investor-ready feasibility studies</td>
<td>This is perhaps beyond the foreseeable expertise of ECAs</td>
<td>Grant money for technical assistance should be provided during project development, suggesting co-operation between a wide range of donor organizations</td>
</tr>
<tr>
<td>High up-front costs</td>
<td>Ensure that the optimal repayment terms are made available to SET companies&lt;br&gt;Negotiate appropriate terms for SETs as new common guidelines</td>
<td>Governments should agree to extend repayment terms beyond limits set for power stations under current guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Political obstacles</strong></th>
<th><strong>Role for ECAs</strong></th>
<th><strong>Role for other institutions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High level of public support for competing technologies</td>
<td>Phase out ECA spending on large-scale fossil fuel and hydroelectric projects and nuclear power</td>
<td>Other financial institutions should do the same to ensure that ECAs are not taking on a disproportionate amount of risk in their portfolios</td>
</tr>
<tr>
<td>Lack of a strategic approach to energy sector investments</td>
<td>Conduct strategic environmental assessments of ECA support for energy sector investments&lt;br&gt;Co-operate with a wider range of entities, such as multilateral and host-country institutions engaged in compiling renewable energy resource assessments and market studies&lt;br&gt;Establish environmental and social screening criteria that exclude the least sustainable energy projects&lt;br&gt;Implement greenhouse gas accounting for individual projects</td>
<td>Governments should ensure that climate and other environmental policy objectives are mainstreamed into energy, trade and investment policies</td>
</tr>
</tbody>
</table>
Endnotes


ii Strategic Partnerships with GEF Implementing Agencies GEF/C.13/9 July 8, 1999 GEF Council, 1999)

iii The Climate of Export Credit Agencies (World Resources Institute, 2000)

iv OPIC, Ex-Im and Climate Change: Business as Usual (Institute for Policy Studies and Friends of the Earth, 1999)

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xv Shell Outlines Renewable Energy Investment Plans by Matthew Jones (Financial Times online July 15, 2001)


xviii Rural Energy and Development: Improving Supplies for Two Billion People (World Bank, 1996)


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xxvii This information was compiled on the basis of information available on these ECA websites in March 2000

WWF’s mission is to stop the degradation of the planet’s natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world’s biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption

WWF Climate Change Campaign

Global warming and climate change pose a serious threat to the survival of many species of plants and animals and to the well-being of people around the world. WWF’s campaign has two main aims: to ensure that industrialized nations make substantial reductions in their domestic emissions of carbon dioxide by 2010; and to promote the use of clean renewable energy in the developing world.

WWF Climate Change Campaign
Director
Jennifer Morgan
c/o WWF US
1250 24th Street, NW
Washington DC 20037 – 1175
USA

Tel: +1 202 822 3455
Fax: +1 202 331 2391
Website: www.panda.org/climate

Institute for Policy Studies
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Daphne Wysham
733-15th St., NW
Suite 1020
Washington, DC 20005
USA

Tel: +1 202 234 9382
Fax: +1 202 387 7915
E-mail: dwysham@seen.org
Website: www.seen.org