

Intervention Summary

Title: *UK-ADB Private Sector Guarantee partnership*

What support will the UK provide?

The UK will provide up to £15 million over 4 years, 2011 – 14 in complementary grant financing alongside Asian Development Bank (ADB) risk mitigation operations designed to catalyse private sector investment in clean energy projects, both directly and more widely through demonstration effects.

International Climate Fund (ICF) resources will be used to establish a UK-ADB Private Sector Guarantee partnership. From this, £6m will be used to leverage uptake of ADB risk guarantee facilities for solar power plants in India. This will be achieved by buying down the cost of the guarantees, a critical constraint to demand for these facilities; ICF funds will be used to meet an agreed portion of the fees that would otherwise be charged to participating commercial lending institutions.

The remaining funds may be allocated for similar initiatives that seek to deliver a transformational impact on incentives for private investment in clean energy in other ADB developing member countries. Specific allocations will be made according to eligibility criteria (see Annex A) set out in this document, and subject to approval by both ADB and the Department of Energy & Climate Change (DECC). Amendments will be made to this business case if further projects are approved.

Why is UK support required?

The growth of demand for energy in developing Asia will be one of the key drivers of global greenhouse gas (GHG) emissions in the next few decades, as well as a critical enabler of economic growth and poverty reduction. The International Energy Agency (IEA) estimates that non-OECD Asia will account for two thirds of the increase in global energy demand by 2020. Increases both in the share of clean energy, and in energy efficiency, will be necessary for countries such as China and India to meet their carbon intensity targets without compromising future growth. Technological innovation will be required, but considerable potential exists to increase clean energy provision and energy efficiency through large-scale adoption of proven technologies.

Supportive policy and regulatory frameworks will be essential, and are being developed in major emitting Asian countries to achieve economic growth, climate change and energy security objectives. There is also a need to engage more directly with the private sector to develop appropriate risk mitigation instruments and build capacity, since private investment in clean energy is deterred by a range of risks including technology and commercial (both actual and perceived) as well as policy and regulatory risks. The ADB is playing a leading role in pioneering the sort of interventions that seek to bring together public and private money to catalyse clean energy investment on a much larger scale, for example through technical assistance, policy dialogue, knowledge dissemination and risk mitigation/credit enhancement through private sector operations. All programmes that will benefit from ICF funding (of which partial credit guarantee facilities for solar power generation projects in India will be the first one), fall into the latter category, i.e. risk mitigation and credit enhancement.

There is a clear rationale for donor grant financing to help leverage and complement ADB's activities in this arena, by providing the degree of concessionality that may be required to overcome market failures

which inhibit private sector uptake of ADB risk mitigation instruments. Experience has shown this to be the case for the partial risk guarantee facilities being developed for India and future programmes, where there is a gap between the pricing of guarantees required by ADB's internal risk management policy (for private sector operations) and the fee rates private sector developers and banks are willing to bear. The additive value of the ICF grant therefore is that, without it, uptake of the ADB facilities will be very limited. ICF grant resources will improve the terms on which commercial banks can access the ADB guarantee facilities, and the terms on which project borrowers can access bank financing, thus also improving the financial viability of projects and reducing costs. In this way, judicious deployment of grant financing alongside multilateral instruments can achieve substantially greater catalytic impact and value-for-money than separate, parallel initiatives.

The proposed ICF grant will provide excellent value for money alongside a trusted development partner which received one of the highest ratings in the recent Department for International Development (DFID) Multilateral Aid Review which provided a comprehensive comparative assessment of all multilateral development institutions. ADB will conduct detailed appraisal and due diligence for all activities, as well as managing, administering and reporting on the projects (of which partial credit guarantee facilities for solar power in India will be the first one).

HMG has already identified ADB as a key strategic partner on private investment in clean technology, notably in the context of the Climate Public Private Partnership (or "CP3"), which aims to leverage increased equity investment from institutional investors into cleantech investment in large Asian countries, including India and China. The proposed UK-ADB partnership will complement CP3 as it focuses on catalysing commercial lending rather than equity. There is also an opportunity to link up with, and support the objectives of the DECC-led Capital Markets Climate Initiative (CMCI) through the learning and piloting that will emerge from the projects.

What are the expected results?

The interventions under the partnership will deliver results in terms of (i) amount of private investment directly leveraged; (ii) clean energy capacity installed, or energy saved; (iii) avoided GHG emissions; and (iv) wider, longer-term impacts on private sector understanding of relevant technologies, risk perceptions and ease of access to commercial financing.

Specific details are given below for the India project, which would account for over one third of the total funding under the partnership. Full details about the approved guarantee facility can be accessed on the ADB website¹.

India Solar Power Generation Guarantee Facility

The £6 million ICF grant will catalyse an estimated £265 million private sector investment in clean energy generation, corresponding to approximately 130 MW of solar power capacity and 4.9m tonnes of CO₂e avoided over 25 years (assuming full attribution of emission savings to the UK ICF and full additionality). By playing a critical role in the successful financing of the first wave of solar power projects in India, the facility will transform overall market risk perceptions and induce other banks to lend to the sector. Over the medium term this will help develop local capacity and enable long-term

¹ India Solar Power Guarantee Facility: <http://www.adb.org/site/private-sector-financing/india-solar-generation-guarantee-facility>

cost reductions for solar power, including for off-grid consumers who are often by-passed.

Results from other uses of the partnership cannot be quantified here yet, but will also be reported in terms of (i) private investment leveraged, (ii) energy saved or clean energy capacity installed, (iii) CO₂e saved, and (iv) wider demonstration effects in terms of technology adoption or availability of commercial finance.

Poverty impacts will be largely long-term and indirect through promotion of a more sustainable growth path which help countries to contribute to global climate change mitigation goals in a manner consistent with domestic growth and poverty reduction objectives. There will also be some more direct short-term poverty impacts, as set out in the appraisal below.

Business Case for:

Strategic Case

A. Context and need for DFID intervention

Rationale

The growth of demand for energy in developing Asia will be one of the key drivers of global GHG emissions in the next few decades, as well as a critical enabler of economic growth and poverty reduction. Increases both in the share of clean energy will be necessary for countries such as China and India to meet their carbon intensity targets without compromising future growth. Technological innovation will be required, but considerable potential exists to increase clean energy provision and energy efficiency through large-scale adoption of technologies that may have been proven in other countries, but not yet in the markets being targeted by ADB.

Supportive policy and regulatory frameworks will be essential, and are being developed in major emitting Asian countries to achieve economic growth, climate change and energy security objectives. There is also a need to engage more directly with the private sector to develop appropriate risk mitigation instruments and build capacity, since private investment in clean energy is deterred by a range of risks including technology and commercial (both actual and perceived) as well as policy and regulatory risks. The Asian Development Bank (ADB) is playing a leading role in pioneering the sort of interventions that seek to bring together public and private money to catalyse clean energy investment on a much larger scale, for example through technical assistance, policy dialogue, knowledge dissemination and private sector risk mitigation/credit enhancement operations.

There is a clear rationale for donor grant financing to help leverage and complement ADB's activities in this arena, by providing the degree of concessionality that may be required to overcome market failures which inhibit private sector uptake of ADB credit enhancement / risk mitigation instruments. Experience has shown this to be the case for the partial credit guarantee facilities being developed for India and China, where there is a gap between the pricing of guarantees required by ADB's internal risk management policy in order to protect the ADB's AAA credit rating upon which its ability to lend to developing member countries at favourable rates depends, and the fee rates private sector developers and banks are willing to bear. Local lending markets are impacted for example by certain capital adequacy regulations from the central bank, the underlying high cost of funds (especially in India), and the lack of long-term wholesale funding options (or bond market), all of which effectively reduces the maximum lending margins that can be passed onto borrowers. Narrow lending margins

means that banks are reluctant to spend a significant portion of that margin to hedge certain risks through guarantees or other credit risk insurance. While project sponsors could borrow from the more liberal international funding markets (e.g., using the London interbank offering rate, LIBOR, as the benchmark cost of funds), this would create a foreign exchange risk for the projects which earn only revenue in local currency. There are insufficient long-term hedging instruments available to hedge such a risk, which is why borrowers prefer loans through local banks and in local currency. For such reasons, ADB is seeking to structure its guarantee products to be taken up more so by the local banks. Judicious deployment of grant financing alongside multilateral instruments can achieve substantially greater catalytic impact and value-for-money than separate, parallel initiatives.

In the case of the India Solar Facility there is a strong rationale in terms of (i) the potential for these technologies to contribute to reducing carbon intensity, (ii) the emphasis being placed on this sector within the low carbon development plans of the national government, and (iii) the unwillingness despite this of commercial banks to lend to projects in this sector due to unfamiliarity with the technologies and high risk perceptions. Further details on this are given below.

For future uses of the partnership, applications made by ADB will have to satisfy the following eligibility criteria set out in Annex A:

- i. Demonstrating the innovative use of grant funds alongside official ADB guarantee instruments to catalyze private sector investment in clean energy
- ii. Providing positive incentives for the demonstration of low carbon development and mitigation of GHG emissions
- iii. Scaling-up development through funding low carbon programs and projects that are embedded in national plans and strategies. In this way, the diffusion and transfer of clean technologies will be accelerated
- iv. Realizing environmental and social co-benefits. This will illustrate the potential held by low-carbon technologies to contribute to the goals of sustainable development and the Millennium Development Goals

In addition to meeting these criteria designed to ensure partnership funds are used in a transformational manner, ADB will include in their application a market assessment of the available financing and financial instruments for the particular sector showing that there is either a gap in the financial products or a market failure that requires some intervention by ADB in the form of risk mitigation or credit enhancement. The application will also include justification for the amount of grant and level of concessionality alongside the ADB instrument.

India Solar Power

Relative to thermal, nuclear and hydropower, solar power is a relatively new technology for commercial grid-scale electricity production. While in operation mostly in Europe and the United States, it has not been sufficiently demonstrated in developing countries. Commercial banks perceive many project and sector risks, including commercial, technology, performance, regulatory, offtake and solar insolation/resource risks. Some of the risks may be mitigated by the Government through enacting new regulations, structuring bankable power purchase contracts and enhancing the creditworthiness of the offtaker. But the majority of the risks are inherent to solar power e.g., the variability of sunlight and energy yields, the unknown impact of local meteorological conditions, how solar photovoltaic and solar thermal technology will perform, and working with solar power developers, investors and turnkey contractors who may not have household names in India. Such risks cannot yet be quantified for lenders until such time there is a robust history of solar power plants operating in India over a 5-10 year period.

In January 2010, the Government of India launched the Jawaharlal Nehru National Solar Mission

(NSM), which intends to commission 20,000 MW of solar power by 2022 in order to improve energy security, diversify power generation through low-carbon sources and make India a global leader in solar manufacturing and R&D. The first 650 MW of photovoltaic and solar thermal projects have been awarded to private sector developers in December 2010 and will need to reach financial close by July 2011. Additional PV projects are expected to be awarded in a second round in late 2011. Most of these projects are small (e.g., 30 projects of 5 MW, a majority in the state of Rajasthan but also in Andhra Pradesh, Orissa, Tamil Nadu, Uttar Pradesh²), and likely to be below a reasonable threshold for direct financing by multilateral development banks and other IFIs. In addition, several states with strong solar resources (e.g. Rajasthan, Gujarat) have also initiated their own solar power programs, projects under which are also seeking financing.

In theory the combination of Feed-in Tariffs (FiTs) provided by central and state electricity regulators, and regulation under the Renewables Purchase Obligation, should provide sufficient incentive to make solar power generation viable. This is reflected in the level of response from developers to the first bidding round under the NSM. The Indian Government's support through the FiT should provide most of the financial support that would make solar cost competitive with the feed-in tariff of around 9 Rs/kWh (around three times the cost of fossil fuel based generation). However, in reality, investors (bank/developer) would not be prepared to wait 25 years to recover the initial capital investment meaning that other interventions are likely to be required to spur greater uptake of the FiT incentives. What is relevant is the risk perception of solar projects by lenders (commercial, technical and natural resource risks) and the contribution the sharing of this risk has on encouraging banks to lend to such projects, which mean many projects may fail to reach financial close on a non-recourse basis.

ADB has been actively involved with the Government in the development of the NSM, and has been in discussions since November 2010 with local and foreign commercial banks on developing a solar financing platform for the private sector in India. With projects being relatively small and having inherent risks that cannot be easily mitigated, the banks remain wary of long-term financing based on expected cash flows. ADB believes that a **partial credit guarantee (PCG)**³, supported by a parallel capacity building technical assistance program, will help share these risks and improve the inclination of commercial banks to finance solar power generation projects. Approved by the ADB Board in April 2011, the PCG Facility has the twin objective of (i) making limited recourse debt available at reasonable interest rates to the sector, and (ii) extending the tenor of loans to solar projects. The Facility is approved for up to \$150 million and will be administered directly by ADB operations staff. Comprehensive guarantees (for both political and/or commercial risks) would be issued by ADB to multiple international and local lenders⁴ to cover up to 50%⁵ of the risks of non-payment by the borrowers of debt service payments. These guarantees are for loans made to finance relatively small (2-25 MW) solar power generation projects in India; larger solar projects would be financed separately by the ADB private sector operations department (PSOD). This guarantee would cover

²Critical factors for the geographic selection of these projects are (i) insolation resources, i.e., where the intensity of the sun is strongest throughout the year; and (ii) the availability of land without competing uses. Insolation resources are strongest in the western areas of India, and there is an abundance of barren land that cannot sustain agricultural production.

³ A credit guarantee covers a lender against losses incurred if a borrower fails to make repayments on a loan. A partial credit guarantee (PCG) shares the risk of non-payment to the lender between the guarantor and the lender. In this case the PCG provided by ADB, will cover 50% of the losses incurred and the lender will incur the remainder of the losses.

⁴ Including both traditional commercial banks and non-bank finance companies, the latter of which is an important lender for infrastructure projects in India

⁵50/50 sharing of the risks between ADB and the commercial bank ensures an equitable balance and prevents against moral hazard. This level of risk sharing is calculated on a present value basis over the life of loan, which provides flexibility for guarantees to be structured in different ways depending on the banks' preference. For example, if a bank is willing to take 100% of risks during the first 7 years of a loan, ADB can take 95-100% of the risk for the remaining 8 years. This example results in a 50% risk sharing on a present value basis.

any payment default pari passu with the commercial banks; it is not a “first loss” guarantee, which would be paid prior to any loss sharing by the commercial banks. ADB has discussed the facility with the Govt of India (both Ministry of New and Renewable Energy and Ministry of Finance), and the Govt has issued a letter of no objection for the facility. They are supportive of ADB’s efforts to leverage financing for these critical demonstration projects.

As mentioned earlier, there are a large number of small private sector solar projects that are required to reach financial close before July 2011⁶. This includes 37 projects awarded under the NSM, and an additional 20 other projects under state solar power programs. Timing is a critical factor, and without such a facility, financing will be made by banks on a limited basis only to those large corporations where there is an existing relationship and/or the client provides full recourse to a parent company balance sheet. ADB prefers to promote the use of limited recourse project financing based on the project’s cash flows, to ensure a level playing field amongst relatively unknown local and foreign solar power developers. Successful limited recourse financing or financing solar projects primarily based on project cash flows contributes significantly towards establishing the viability of the technology.

In April 2011, ADB’s management approved a separate \$1.25 million capacity building technical assistance program. This will build the capacity of both participating financial institutions under the Guarantee Facility as well as other Indian commercial lenders to appraise and undertake due diligence of solar power projects. Co-financing for the TA has been provided by the Government of Japan.

In solar power, 80-85% of the total cost of electricity over the useful life of the asset is the upfront capital expenditure; there are no fuel costs and minimal operations and maintenance costs. With a majority of the costs financed upfront, the rate of debt financing has a significant impact on what the project must recover through the tariffs. ADB and its partners have estimated that in India, a two percent (2%) reduction in the overall cost of financing (loan margin + guarantee fee) can result in an 8-10% reduction in the levelised cost of production of electricity. Financing of and reducing the cost of financing of the first round of solar projects has long term implications for feed in tariff (FIT) rates. Once the technical and financial viability of solar projects is established over the next 2-3 years, the cost of financing will be reduced and FIT rates can be reduced by the regulator. This helps alleviate the financial burden of high FIT rates on distribution companies and consumers while promoting a secure, renewable source of energy that helps mitigate the growth of GHG emissions in a high-growth emerging market.

ADB’s internal policies state that PSOD must charge loan and guarantee margins which are commensurate with the risks assumed and in line with market precedents. As solar power is a relatively high risk sector in terms of plant performance, variability of solar resources, technology and other risks, ADB must charge commercial banks a relatively high guarantee fee for such guarantee cover. In addition to the banks’ margin on the loan, the guarantee fees paid by the banks would normally be passed onto the borrowers. As the goal of the program is to reduce the overall cost of financing and lengthen loan tenors, this could be counterproductive and makes the financing scheme too expensive from the investor’s perspective. On the other hand, without any external guarantees, banks will charge high margins (3-4% over funding costs) and reduce the tenors of the loans, the combination of which may also make the financing untenable. ADB is therefore seeking donor grant financing to subsidise the guarantee fee rate, without which there may be little or no demand for the facility, and as a consequence projects may not reach financial closure. It is anticipated that the

⁶Failure to reach financial close by the date stipulated in the power purchase agreement is an event of default. The offtaker may unilaterally cancel the PPA without any compensation to the solar power developer.

proposed DFID grant would be used to reduce the guarantee fee by 50% on per project basis which would make the guarantees sufficiently attractive to both the lenders and the project investors⁷.

Evidence

There is a large body of evidence on the potential for solar power technologies to mitigate greenhouse gas emissions. Analysis by McKinsey for India⁸ shows that the power sector represents the largest potential for CO₂ reduction in India, with solar (Photovoltaic and Concentrated Solar Power) accounting for a large proportion of this. Solar energy is abundant in India with a rate of insolation among the highest in the world. Projected abatement costs for 2030 are relatively modest at around \$45 per tCO₂e for solar photovoltaic (PV) and \$20 for concentrated solar power (CSP), based on empirical evidence on the rate of cost reduction as capacity increases.

Evidence from publicly available market information, ADB's own extensive discussions with project developers, investors and commercial banks, and in India from the HMG Climate Change & Energy Unit's interactions with private sector players, strongly supports the view that access to commercial loan finance is highly constrained by high risk perceptions and a lack of familiarity with the technologies and capacity to carry out due diligence. In the case of India solar power this issue was highlighted by private sector representatives in a series of seminars and more informal discussions organised during the Delhi International Renewable Energy Conference in October 2010, and the World Economic Forum (WEF) India Economic Summit in early 2011. Access to long term debt finance on a non-recourse basis was highlighted by potential developers as a particular constraint. These financing challenges were also highlighted in analysis carried out for the WEF's Critical Mass initiative in late 2010.

Fit with ICF Priorities

The partnership contributes to two of the three priorities in the ICF Implementation Plan, relating to demonstrating the feasibility at scale of low carbon, climate resilient growth, and creating partnerships with the private sector. Building an enabling environment for private sector investment, engaging with the private sector to leverage finance and action on the ground are identified as one of the key ways the ICF will seek to deliver against priorities. Results from the partnership will contribute directly to three of the low carbon development (LCD) results indicators in the ICF Implementation Plan: (i) tonnes of CO₂e reduced or avoided, (ii) gigawatts of low carbon energy capacity installed, and (iii) ratio of external finance leveraged to UK public finance.

In terms of country focus, one third of the funding from the partnership will go towards action in India, one of the highest priority countries in the ICF LCD strategy. Other uses of the partnership have yet to be identified.

Feasibility

The feasibility of the programme rests on the detailed project preparation, appraisal and due diligence carried out by ADB for each specific use of the partnership. Funds will only be used alongside ADB facilities already approved by the ADB Board. These will have undergone highly

⁷ Pricing details are available on ADB's Solar Guarantee Facility website: <http://www.adb.org/site/private-sector-financing/india-solar-generation-guarantee-facility>

⁸ Environmental and Energy Sustainability: An Approach for India, McKinsey & Company 2009

rigorous approval processes going into the technical, institutional, economic and political feasibility of the project in question. In most cases (as with the India solar) complementary technical assistance will be provided to build the capacity of participating banks to carry out their own due diligence of projects, which will further enhance the prospects for efficacy of the ICF support to the financial risk mitigation instrument.

B. Impact and Outcome

India Solar Power Generation Guarantee Facility (the “Facility”)

Outcome:

Leveraging private sector investment for solar. It is expected that the Facility will directly leverage financing for approximately 130 MW of projects, which would result in 205GWh of clean solar energy added to the grid in India and 4.9 million tons of CO₂ abated during the contractual life of the solar projects. This analysis assumes that all the emission savings can be attributed to our ICF intervention and that the investment would not have happened without our intervention⁹. If the emission savings were attributed to the Indian Government, ADB and UK ICF based on the level of public support then the UK share of the 4.9Mt would be nearer 0.1Mt.

Leveraging Private Investments

PCG (£ M)	Loans leveraged (£M)	Projects financed (£ M)	Projects capacity at \$3.3 M per MW (MW)	Generation at 18% capacity utilization (MWh)	CO ₂ savings at 0.962 t CO ₂ /MWh (tons)	25 years CO ₂ savings (M tons)
93	186	265	130	204,779	196,997	4.92

Impacts:

The Facility will contribute to the long-term development of the solar power industry in India in the following ways:

Reducing risk perceptions of commercial lenders: in the medium-term, commercial banks that finance projects alongside ADB will become more comfortable with solar power and have direct access to performance and operational data to better understand the risks. This will transform overall market risks perceptions and induce other banks to lend to the sector. This experience can be compared with the past financing of wind power in India, where banks initially had very similar concerns on wind resources and technical performance of turbines. As such, they required additional guarantees from creditworthy and known sponsors (thereby limiting the universe of investors), and financing was not provided on a project basis. Now with 14,000 MW installed in India, local commercial banks are comfortable with the risks and offering debt financing of up to 14 years without recourse to parent companies. The same results (longer tenors, lower margins) may be expected in solar once there is track record of projects. Performance indicators for the medium term impacts include the cumulative solar capacity in the country by 2015, the percentage of solar projects financed on a non-recourse basis, and the project margins charged vis-à-vis other renewable energy

⁹ The project is additional if either this investment allows India to exceed its solar mission target or it would not meet its target without interventions and the specific projects funded by this intervention would not go ahead without it.

projects (to the extent such information is either publicly available or provided anecdotally through regular interaction with banks).

Developing local capacity. The cost of solar power equipment remains one of the fundamental barriers to solar power being competitive with more conventional sources of power generation. In general, solar power presently costs approximately \$3 - \$3.3 million per MW installed, compared with \$1.4 million for wind, \$1 million per MW for hydropower, and \$800,000 per MW for thermal power (gas and coal). One of the long-term objectives of ADB's support for solar power is to help reduce the cost for implementation in developing countries. This can be accomplished in a developing country like India once manufacturing of solar power components is indigenized and reaches economies of scale. Significant demand from projects for capital equipment, panels, modules, experienced contractors, spare parts, etc is a necessary condition to generate interest and investment in local manufacturing. The Facility will help achieve this scale by supporting the first few hundred MWs of solar power

Improving viability of solar in India and the region. Based on a much lower cost of labour but strong engineering and technology base, there is significant scope for manufacturing cost reductions in India. Local manufacturing will reduce the price of solar components and increase competitiveness of solar power with other sources of energy production. Establishing a large commercial market in India and the region will induce global competition in the sector, further lowering prices and cost of electricity production. This is aligned to the NSM's aim to achieve grid parity (peak energy) by 2022 for solar power generation and parity with coal-fired thermal power by 2030¹⁰.

Improved affordability and accessibility of the technology. Solar power is most appropriate for off-grid and distributed electricity generation, due to its modular scalability to meet small loads and to increase electrification rates in the most under-developed and inaccessible areas of India. As costs of solar equipment reduce due to scale and indigenous production and development of local capacity, solar energy in the remote rural areas of India will become affordable and accessible.

Results from other uses of the partnership cannot be quantified here yet, but will also be reported in terms of (i) private investment leveraged, (ii) energy saved or clean energy capacity installed, (iii) CO₂e saved, and (iv) wider demonstration effects in terms of technology adoption or availability of commercial finance.

¹⁰ India Solar Power Guarantee Facility, p. 3: <http://www.adb.org/Documents/RRPs/IND/44941-01-ind-rrp.pdf>

Appraisal Case

A. Determining Critical Success Criteria (CSC)

Each CSC is weighted 1 to 5, where 1 is least important and 5 is most important based on the relative importance of each criterion to the success of the intervention.

CSC	Description	Weighting (1-5)
1	Commercial loans are extended leading to clean energy projects being financed.	5
2	Projects financed are successfully implemented in line with projections made.	5
3	Risk perceptions fall in the medium term, evidenced by more commercial bank lending in general for the type of projects covered by the partnership, and better terms (e.g. longer maturities, lower margins).	4

B. Feasible Options

There are no other guarantee products currently available that specifically focus on clean energy financing. The facilities being developed by ADB, which the partnership will support, are therefore innovative products which may influence the design of other such instruments in future. Complementary activities relating to improving the policy and regulatory framework, improving the creditworthiness of solar power purchasers etc, will also contribute to the CSCs identified above, and HMG in many cases is also supporting such activities. However, these interventions alone will not be sufficient to shift market perceptions and catalyse investment at scale in the short-term, both because these policy conditions are likely to evolve over time as lessons are learned from projects, and because some of the perceived risks are inherent to the technologies or reflect a lack of familiarity rather than policy-related.

By directly engaging the private sector through risk mitigation and complementary technical assistance, the ADB facilities supported under the partnership will catalyse private investment in the short term. This could lead to strong demonstration effects through learning from actual projects on the ground, lessons which be valuable in adjusting risk perceptions of lenders as well as generating lessons for policy makers and project developers.

Because of the lack of existing guarantee instruments focused on clean energy, no alternative delivery mechanism is considered feasible to address the market failure currently inhibiting commercial lending for these sectors. Consideration of options is therefore restricted to the scope of the partnership with ADB, and specifically whether to proceed with the India solar facility only, or to broaden the funding to or other similar programmes under a broader partnership. The following 3 options are therefore considered:

Option 1: Provide co-financing of £6m for the India Solar Power Generation Guarantee Facility only. This was the main focus of the Concept Note endorsed by the ICF Board in March 2011. ICF funding in respect of the Facility has been approved in principle by the DECC Secretary of State following the submission of 17 May which sought approval to allow ADB to communicate the availability of ICF subsidy to potential partner banks.

Option 2: Provide a total of £15m under a broader Private Sector Guarantee partnership. This would include £6m for the India Solar Power Generation Guarantee Facility, with the remaining £9m to be allocated for use in similar ADB guarantee programmes, to be agreed on a case by case basis subject

to agreed criteria.

Over the past year, ADB's private sector operations have been actively pursuing energy efficiency funding and risk-sharing facilities with local and international banks, ESCOs and potential borrowers throughout Asia, with particular focus on Indonesia, the Philippines, Vietnam, India, Bangladesh and the PRC.

ADB has received strong interest from both local and international banks as well as established ESCOs in developing energy efficiency programs/facilities in several markets, but has so far only been able to offer competitive terms in markets that benefit from an element of grant/concessionary funding

Option 3: Do nothing. In this case, experience to date suggests there will be little if any uptake of the ADB guarantee facilities for India and other similar initiatives. The implications of this will vary between sectors and countries, but in all cases will substantially reduce the level of lending by commercial banks to the technologies in question. This will affect both the volume and quality of projects financed overall.

In the case of India solar for example, without the guarantee, local commercial banks (ADB's primary target) are likely to lend **much less** into the solar power sub-sector. There remains a significant gap in power generation capacity in India that can be filled more easily by thermal (coal) power projects in development, and with banks' portfolio exposures growing substantially in the power sector there is an opportunity cost to lending to solar power. Banks understand thermal power, so the internal costs are much less to process and approve such loans as compared to solar. If reputable banks choose not to lend to solar, investors will have a harder time obtaining financing for their projects. Delays lead to additional development costs of a project. This will lead them to other (2nd or 3rd tier) banks that may be willing to lend, but with significant recourse to the parent company (an inherent expense to the parent company because it blocks debt raising capacity for its core business) and/or at higher lending margins due to the unknown risks. Ultimately, investors in solar power may choose to invest in another sector or country all together due to the significant impact of the cost of financing in India.

Overview of Options

Options 1 and 2 are therefore essentially variations on a single option, differing in scale only. There is a strong evidence base for Option 1, based on the extensive and detailed preparation and due diligence already carried out by ADB and summarised in their own Board papers (RRPs) for the India facility. The overall evidence base is rated as medium for Option 2 in that this includes funding for other programmes not yet developed by ADB; it is expected however that equally robust supporting evidence for future projects under Option 2 would be provided when specific applications for the use of remaining Funds are submitted.

A crucial aspect of Option 2 is therefore the process for approval of subsequent uses of the remaining Funds. As noted above, in seeking endorsement from DECC, in addition to showing how the proposed project meets the eligibility criteria set out in Annex A, ADB will include in the application a market assessment of the available financing and financial instruments for the particular sector showing that there is either a market failure that justifies intervention by ADB in the form of risk mitigation.

C. Appraisal of Options

The direct results and benefits of Option 1 is shown in the following table. Option 2 has not been included in this estimate as projects are yet to be brought forward. However it is anticipated that direct

results and benefits from further projects would be similar.

	Cost to ICF £m	Private investment leveraged £m	Leverage Ratio	Clean energy capacity installed / energy saved GWh	CO ₂ e saved MT	tCO ₂ e saved per £ of ICF resources
Option 1	6	268	45	205	4.9	0.8

This table sets out the incremental costs, and benefits, of option 1, and therefore the foregone benefits of Option 3 (do nothing)..

These estimates implicitly assume that the partnership is additional and catalytic, i.e. that the projects would not be financed without the subsidy provided by ICF resources to buy down the cost of guarantees. There is strong evidence for this from ADB's extensive discussions with banks, and from benchmarking with guarantee products available for other sectors. For example, when the guarantee was being discussed with banks in India, there was receptivity to the structure and application of the guarantee product to solar power projects at this early stage of development in the country. However, most banks (especially local banks) indicated that the indicative fees were too high. As a result, only one international bank has applied and been approved as a partner bank. After permission was granted to ADB by DECC in May 2011 to verbally discuss the fee reduction scheme, four banks (three of which are local banks) have since applied to ADB to be a partner bank and due diligence is underway. This demonstrates that ADB appears to have adequately surveyed the market and chosen an appropriate level of subsidy under this scheme.

This judgement is corroborated by evidence from expert external reviewers from the Capital Markets Climate Initiative (CMCI) network. Even if it assumed that as much as 50% of the projects would have gone ahead without the subsidy (a highly optimistic 'do nothing' assumption based on evidence to date in the India solar sector), the private financing leverage ratio would still be more than 20 for Option 1 .

The above results are those directly attributable to the projects financed under the partnership. As noted, the broader aim is to achieve wider, transformational impacts on market perceptions through strong demonstration effects. These may be measurable, for example, in terms of wider adoption of the relevant technologies in the countries concerned, increased availability of commercial loan finance in general, and reduced loan margins or longer tenors. There may also be replicable lessons in terms of the design of appropriate financial risk mitigation instruments.

Some of this lesson learning could be facilitated and disseminated through the CMCI initiative. In the case of India solar for example (already identified by the HMG Climate Change & Energy Unit with CMCI members as an immediate priority for CMCI work in India), CMCI could explore ways of institutionalising the concept of partial guarantees by engaging the Government of India, with a view to developing a joint approach to lowering the cost of capital of the next wave of solar projects and translating these gains into lower feed-in tariffs and/or government subsidies. Lesson learning and dissemination will also be promoted by ADB itself through various means. These may include regular consultation meetings with stakeholders, regular project monitoring which puts heavy emphasis on lessons learned, in-depth stock-taking report performed after several years of operation, and project completion reports. Findings are disseminated in a range of ways: via project reports posted on the ADB website, seminars, conferences, publications, follow-on projects, policy advisory and country partnership strategies. ADB conferences to external parties on private sector strategies typically showcase several case studies featuring presentations from borrowers.

Economic Appraisal

The ADB Board document for the India solar Facility (Supplementary Appendix A, available on

request) includes a detailed cost benefit analysis for the Facility, which shows the economic rate of return (EIRR) for a typical solar PV project of the type and scale likely to be financed under the facility to be 20.5%. This is, well above the social discount rate of 10%, and remains so under all adverse scenarios explored in the sensitivity analysis. The corresponding Net Present Value (NPV) is between £6.5m and £6.9m, depending on whether CDM benefits are included in the analysis. This estimate only includes the costs and benefits of projects directly financed through the ADB programme and does not include any qualitative effects from catalysing the project financing market. These qualitative effects (i.e. catalytic impacts) are arguably the main purpose of the programme, but are not easily captured in ex ante economic analysis.

The Base Case appraisal assumes that the guarantee facility is entirely additional, i.e. that none of the projects availing guarantees under the facility would be financed without it. An alternative possibility is that some of the projects would still be financed, but with recourse to parent company balance sheets. To the extent this is the counterfactual, the impact of the guarantee facility would be more in terms of wider catalytic impact than the projects directly guaranteed, since full-recourse financing does not rely on project-level risk assessment. For the purpose of this Business Case a sensitivity analysis has also been conducted for less favourable assumptions on the additionality of the ICF subsidy for India solar to assess under what conditions the case for investment becomes marginal:

Additionality Scenarios		Without CDM	With CDM	Without CDM	With CDM
Scenarios		EIRR (%)	EIRR (%)	NPV (at 10%) £m.	NPV (at 10%) £m.
A.	Base Case	20.50%	21.10%	6.5	6.9
B.	75% benefits only	14.10%	14.50%	2.4	2.7
C.	60% benefits only	9.90%	10.30%	0	0.2

This suggests that the programme would cease to be economically viable (on the basis of direct attribution only, i.e. excluding wider market effects) if more than 40% of the projects would have been financed without the ICF subsidy. Based on the lack of any interest from banks and developers at the pre-ICF fee rate (as set out above), this is considered a highly improbable scenario.

Political Appraisal

As part of its project preparation process ADB consults both government and private sector stakeholders closely, and requires formal government approval before its facilities become effective. This provides assurance that any political risks will be minimised, and that the design of the risk mitigation facilities takes due account of government priorities and the policy and institutional context in the country concerned. This is well reflected in the case of the India solar programme as follows (further details are in the ADB Board documents):

India: There is strong endorsement from both Ministry of Finance and Ministry of New & Renewable Energy for the ADB facility as the deadline for the first round of projects under the National Solar Mission (NSM) draws near. The NSM is an initiative of the central and state governments to promote environmentally sustainable energy growth while addressing India's energy security challenge. It is a high political priority, a flagship initiative under the National Action Plan on Climate Change and constitutes a major contribution by India to meeting the global challenge of climate change. Further details on the policy context, and the regulatory measures being undertaken to promote the goals of the NSM, are given in Appendix 2 of the ADB Board document.

Social Impact:

Poverty impacts will be largely long-term and indirect through promotion of a more sustainable growth path which help countries to contribute to global climate change mitigation goals in a manner consistent with domestic growth and poverty reduction objectives. In addition there will be some direct, short-term social impacts.

In the case of the India solar power programme, for example, positive poverty/social impacts will occur through (i) adding to electricity supply thereby alleviating a key constraint to economic activity and job creation; (ii) indirectly accelerating access to energy for off-grid consumers in remote rural areas by helping drive down costs of solar technology; (iii) contributing to state tax revenues which can be used for development spending (although welfare benefits here depend on the use to which government revenues are put at the margin); and (iv) direct short-term job opportunities in the construction, operation and maintenance of solar power projects. Whether job creation constitutes a net social benefit will depend on whether the jobs in question are additional or whether they displace jobs with similar skills and real wages in other sectors. In general this additionality is likely to be greater in India.

Negative social impacts, e.g. with respect to indigenous people and resettlement issues, are expected to be small. In the case of India solar, the ADB's social analysis (Appendix 4 of the Board document) shows that negative social impacts are likely to be modest. All such issues will be addressed by requiring partner banks to adopt an appropriate Environmental and Social Management System (ESMS) to ensure that all sub-projects meet the requirements of ADB's safeguard requirements on involuntary resettlement and indigenous peoples. The ADB's safeguards policy will similarly be applied to all future programmes supported by the partnership.

Environmental Impact:

As with social impacts, ADB carries out a thorough environmental appraisal as part of its project preparation procedure. No significant adverse environmental impacts are expected for the type and size of sub-projects expected under the India programme. Nevertheless, prior to ADB issuing any guarantee, each partner bank will be required to set up and maintain an environmental and social management system to ensure that all sub-projects meet the requirements of ADB's safeguards policy.

ADB's environmental and social safeguards policies were strengthened in 2009. This included extending the policy to cover private sector lending and lending through third parties such as local banks in borrowing countries. The safeguards are essentially the same as those adopted by the World Bank and are considered to be robust¹¹. ADB ensure the safeguards are enforced by application of its Accountability Mechanism.

D. Comparison of Options

Since Options 1 and 2 are the same in terms of the design and implementation of the modality and the processes followed by ADB in preparing and managing specific programmes under the partnership, differing only in size, they would score equally against the Critical Success Criteria set out above.

The choice between these options therefore rests on the judgement as to whether the additional investment of ICF resources under Option 2 is justified by the additional results, taking into account greater uncertainty at this stage about specific investments and results under Option 2. However it should be noted that this uncertainty will be reduced as further projects are brought forward under this

¹¹ DFID Multilateral Aid Review: Assessment of the Asian Development Bank

partnership which will allow further appraisal. Assuming that further projects will deliver similar results and benefits, the appraisal above shows that the additional investment is justified in terms of private investment leveraged and CO₂ savings, both of which are high and offer good value for money. By extension, both options are preferred over Option 3, which would involve forgoing a significant opportunity to leverage private investment in high quality clean energy projects, and to deliver longer term transformational impact through demonstration effects.

Although there is greater uncertainty surrounding Option 2 than Option 1 in that programmes have yet to be developed for the £9m not earmarked for the India project, this risk is mitigated by the fact that ADB's stringent project preparation process will apply to all future programmes, and by the clear eligibility criteria (see Annex A) and market rationale that must be set out in future applications, which will be subject to DECC approval. An additional argument in favour of Option 2 is that it will provide a stronger basis for lesson learning about design of appropriate risk mitigation instruments for clean energy, by being able to draw upon a wider range of practical examples and share lessons between these.

On balance, therefore, **Option 2** is the recommended Option.

E. Measures to be used or developed to address value for money

Three key measures will be used to assess value for money from the partnership:

- Leverage ratio of private investment to ICF resources. As shown in the appraisal above, this is expected to be high. This represents excellent value for money; in the case of the India solar programme, if the UK was instead to provide a direct grant of the same amount to a solar power developer, the amount would only be sufficient to build one 4-5 MW project, instead of catalysing investment in the creation of 205,000 MWhs of solar generation capacity. The actual leverage ratio achieved will be calculated from the data collected by ADB on sub-projects that are financed.
- Economic rates of return (EIRRs) on sub-projects. Again, as noted in the economic appraisal above, these are expected to be high. This will be calculated ex post as part of ADB's evaluation of the programme.
- Abatement cost (in terms of £ per tonne of CO₂ abated) is the key indicator of cost effectiveness, and will be calculated from data on project costs and outcomes. The incremental abatement cost for solar PV in India is estimated by ADB at over £60, reflecting the high cost of solar technologies at present. The rationale for the India solar facility rests on the very large untapped potential of solar power relative to other renewable energy sources, and the substantial scope to reduce future costs through economies of scale (empirical evidence suggests that every doubling of capacity reduces costs of solar generation by 18%) and indigenisation of local production.

Commercial Case

Indirect procurement

A. Why is the proposed funding mechanism/form of arrangement the right one for this intervention, with this development partner?

The selection of ADB as a partner is based on the extensive due diligence already undertaken by ADB in developing risk guarantee facilities relevant to specific contexts, and the critical barrier that has emerged in terms of the uptake of these facilities which is amenable to ICF intervention. This, along with the preparatory work undertaken by ADB, and its close ongoing role in programme implementation, provide a clear opportunity to deploy ICF resources in an effective manner with modest management and administrative burden to HMG.

The ADB was rated in the strongest category of multilaterals in the 2010 DFID Multilateral Aid Review¹², scoring a maximum 4 on a scale of 1-4. Within the overall assessment its leadership in promoting low carbon growth and private finance for climate change, strategic and performance management, financial management, and cost/value consciousness were all rated as either 3 or 4.

The proposed funding mechanism reflects the nature of the funding to ADB. ADB will not manage ICF resources, as in the case of Trust Fund arrangements. ICF funds will be disbursed as a direct transfer to ADB to meet an agreed portion of the guarantee fee, with the fee payable by partner banks reduced by a corresponding amount. The partnership is an umbrella mechanism which specifies the information to be provided and the process to be followed in approving future uses of ICF resources. It takes into account standard legal requirements of both ADB and DECC.

B. Value for money through procurement

There will be no procurement under the partnership. All ICF funding will go directly to buying down the cost of guarantees, rather than procuring goods or services.

¹² http://www.dfid.gov.uk/Documents/publications1/mar/multilateral_aid_review.pdf

Financial Case

A. How much it will cost

The UK will provide up to £15 million over 4 years (2011-14) in complementary grant financing to enhance the impact of ADB operations in catalysing private sector investment in clean energy projects. This funding will need approval by the DECC ICF Approvals Panel.

Approximately £6 million will be used to leverage uptake of ADB risk guarantee facilities for solar power generation plants in India, by subsidising the price of the guarantees. The remaining £9 million will be allocated for initiatives that help deliver a transformational impact on incentives for private investment in clean energy, excluding up to £100,000 which may be retained for external evaluation to be commissioned by DECC/DFID.

The anticipated forecast of expenditure is as follows: Year 1 - £2m; Year 2 - £5m; Year 3 - £5m and Year 4 - £3m.

B. How it will be funded: capital/programme/admin

UK funds will come from DECC's allocation of ICF programme resources, and will count entirely as capital expenditure (CDeI).

ICF resources will be used to establish a Memorandum of Understanding (MoU) between the UK and ADB for the India Solar Facility. Further MoUs will be established for any future facilities.

C. How funds will be paid out

DFID will work directly with the ADB to assist administration of UK resources on behalf of DECC. DECC will disburse funds to the ADB against an agreed payment schedule for each agreed project. Payments will be made against a statement detailing actual expenditure to date (committed and spent), and subject to annual reviews of progress against outputs.

Subject to necessary internal approvals, the ADB will utilize the grant to implement the objectives as set out in the attached Business Case. Grants will be disbursed as guarantee agreements are signed between the ADB and an approved partner bank for specific solar projects, in accordance with the arrangements to be set out in the relevant Memorandum of Understanding. Guarantee fees due over the life of the guaranteed loan (based on scheduled debt service payments) will be calculated on a net present value basis and disbursed to ADB in one payment at financial close (i.e. the first disbursement under the guaranteed loan when the ADB guarantee becomes effective). The grant will buy down a fixed percentage of the market-based guarantee fees approved by ADB's Investment Committee, with the percentage determined for each programme based on local market conditions in order to avoid providing excessive subsidy.

Any unused balance from the Grant Account (e.g. resulting from less-than-predicted uptake of the guarantee facility) will be returned to HMG at the end of the programme, subject to adjustments as set out in the Memorandum of Understanding.

D. How expenditure will be monitored, reported, and accounted for

The ADB will administer and account for the grant resources in accordance with its financial regulations and other applicable rules and procedures and practices, and keep separate records and accounts. Grant resources will be held in a separate account so that these can be separately accounted for. Further specific arrangements on progress reporting, financial reporting and audit are

set out in the MoU for the India Solar Power Guarantee Facility (see attached). Additional MoUs for subsequent facilities will be developed.

The UK's grant funds will not be used to procure any goods, services or capital assets under this programme.

Management Case

A. Oversight

The partnership will be subject to joint oversight, at six-monthly intervals, between the ADB, DFID and DECC to ensure that implementation is on-track.

Within the ADB, the partnership will be managed both by ADB's private sector operations department, PSOD (for the India Solar Facility) and future facilities under the Clean Energy Financing Partnership Facility (CEFPF). ADB's CEFPF Facility Manager will be responsible for effective coordination within ADB, adherence to the guidelines of the Arrangement, effective monitoring and reporting to DFID/DECC. Future programmes seeking funding from the partnership will be reviewed following CEFPF guidelines and governance structure.

Within DFID, the programme will be managed within the cross-government Climate Change and Energy Unit (CCEU), DFID India. Within DECC, the ICF team will be responsible for the programme. The DFID team will involve DECC in key decisions on the strategic focus, during reviews, and in management and financial reporting.

The DFID Programme Manager will oversee the day-to-day financial and performance management of this grant, with technical inputs to be provided by advisory staff within the CCEU, from across DFID, and from DECC. The DFID Programme Manager will provide regular management and financial reporting to the DECC ICF Secretariat on the programme. The DFID project team will also ensure that all expenditure is managed and reported in accordance with the spending norms established under the ICF.

The DECC ICF team will be ultimately responsible for the programme as the funding is allocated from DECC's budget. A DECC / DFID Letter of Understanding will be prepared to formalise arrangements between departments for the management of the programme.

B. Management

The objectives of the programme will be delivered through an umbrella partnership. Specific programmes supported under the partnership will be subject to individual MoUs according to a common format consistent with standard DFID guidelines for MoU payments to Multilateral organisations. Management arrangements for delivery of agreed outputs, quality assurance etc will follow the ADB's internal processes. The ADB will administer and account for the Grant in accordance with its financial regulations and other applicable rules and procedures and practices.

Per CEFPF guidelines, the Clean Energy Working Group, will review applications for individual projects, ensure adequate coordination between sovereign and non-sovereign operations, and recommend proposed grant financing for future projects to the Climate Change Steering Committee who will endorse the submission of the application to DFID / DECC. The ADB, through the Office of Co-financing Operations, will then submit a request to DFID / DECC with supporting justification setting out how the proposed programme meets the eligibility criteria (see Annex A), along with relevant ADB documentation for information. Subject to approvals by the DECC ICF Approvals Panel, a Memorandum of Understanding will be signed between the UK and the ADB for future facilities.

The DFID project team, with DECC participation, will review additional project proposals to ensure that grant allocations are oriented towards the agreed priority sectors; fit with the criteria of the CEFPF and the partnership; and that the proposals are consistent with ICF funding norms. DFID's project team will maintain regular links with DECC to ensure that this support is consistent with and

supports the UK's overall strategic objectives with the ADB and that lessons are fed into HMG's overall thinking on working with the private sector and on low carbon development. These future project proposals will also be reviewed by ADB following CEFPF guidelines and governance structure.

C. Conditionality

There are no specific conditions attached to this programme. HMG has already identified ADB as a key strategic partner on private investment in clean technology, and DFID's overall partnership with the ADB is based on a shared commitment to poverty reduction, and to strengthening financial management and accountability. If, during annual reviews of the programme, or at another time, DFID, ADB and DECC judge that the programme is seriously off-track, the programme (or component parts) may be suspended or terminated in line with DFID's standard procedures.

If, any changes occur which, in DFID's and DECC's opinion, impair significantly the developmental value of the project, DFID/DECC and the ADB will consult at the earliest opportunity on measures to resolve the problem and identify possible courses of action. In any event, if DFID/DECC judge that the programme is seriously off-track, DFID/DECC can at its sole discretion modify or terminate the grant or its component parts giving 3 months notice in writing. At the end of the project, any unspent funds and/or interest accrued, will be returned to the Donors.

D. Monitoring and Evaluation

Monitoring of progress and impact will be done with reference to the attached Results Framework, and the specific Design and Monitoring Frameworks (DMFs) for each separate programme. ADB will be responsible for data collection as part of its own internal Monitoring & Evaluation process for each project supported. Aggregation of data for the purpose of reporting to DECC on the overall partnership will be the responsibility of the ADB.

Progress Reviews: DFID/DECC and the ADB will undertake annual consultation meetings, including joint monitoring missions if appropriate, to discuss the annual work programme, review progress and results, assess risks, and make forward recommendations on how performance can be further improved, how partnerships can be strengthened at country and regional level, and other business as required with the financing partners. The ADB will undertake regular monitoring and reporting to DFID to support these review processes, including against the key performance indicators. Semi-annual discussions will also be held between PSOD and DFID/DECC to assess progress, test the validity of key assumptions, flag up any issues, and firm up forward priorities. This will be harmonized with PSOD's own internal semi-annual monitoring process.

Progress Reporting: ADB will provide DFID/DECC with semi-annual and annual reports covering the full calendar year on the activities, outputs and outcomes achieved. In addition, ADB will monitor and report annually on the overall effect of the guarantees on the respective DMC finance market. DFID/DECC will draw on these documents and annual consultations for its annual Output to Purpose Reporting and project scoring. Within six (6) months from the end of the Guarantee Availability Period, ADB shall provide DFID / DECC with a final report which will contribute towards DFID's Project Completion Report.

Evaluation: DFID/DECC may propose an independent mid-term review by the middle of Year 2. This will review progress, identify critical issues and make recommendations for the remainder of the programme period to ensure impact and sustainability; assess progress against any relevant lessons learned or weaknesses identified. DECC/DFID and the ADB will consider the modalities for an evaluation of the overall partnership in year 2014. Detailed end of project evaluations will be undertaken by ADB for each programme supported under the partnership; these will form a key input

to the evaluation of the overall partnership and provide evidence for DFID's Project Completion Report. Evaluation questions will include:

- To what extent have targets set out in the Results Framework been achieved?
- What is the evidence of systemic impact in terms of e.g.: reduced risk perception/increased availability of commercial finance on affordable terms; increased number of local banks lending for clean energy; establishment or design of other financial risk mitigation instruments either nationally or internationally?
- What is the evidence for wider adoption of the relevant technologies at national level?
- To what extent have wider development/poverty reduction benefits been achieved, e.g.: reductions in costs of solar PV technology resulting in increased off-grid deployment in remote areas; economic value-added and jobs created through increased domestic capacity in the relevant sectors?

E. Risk Assessment

ADB carries out detailed risk assessments, with appropriate risk mitigation strategies for all its programmes. Risks specific to individual programmes under the partnership will be assessed in the relevant ADB Board documents, as in the India Solar Facility. The utilisation of ICF funds under the partnership directly addresses one of the key risks identified for the India Solar Facility, namely that of slow uptake/implementation of the ADB guarantee facilities.

The following generic risks are identified at the overall level of the partnership. Overall, the programme is rated as Medium Risk.

Risk 1: poor creditworthiness or technical capacity of sub-project borrowers results in projects not being completed, or implemented in line with projections made. This risk will be mitigated by careful selection (supplemented to technical assistance) by ADB of partner banks based on their capacity to carry out appropriate credit assessment and due diligence, and detailed selection criteria for sub-projects including technical, financial and sponsor viability. After mitigation, this is considered to be a low probability, high impact risk.

Risk 2: wider transformational impacts are not achieved. This risk will be mitigated by proactive efforts by ADB to disseminate lessons learned (as described in Section C above), and by complementary activities taken up under the DECC-promoted Capital Markets Climate Initiative (CMCI). Nevertheless this remains a medium probability, high impact risk.

Risk 3: guarantee fee subsidies are not passed on by partner banks to sub-projects. This risk will be mitigated by ADB requiring that banks must transparently disclose in the loan term sheets to their borrowers the guarantee fees to be paid by DFID to ADB, thus enabling borrowers to determine whether banks have in fact lowered their lending margins. Even if the subsidy is not passed on to borrowers, however, it may still have had a catalytic impact by inducing banks to take up the guarantee and lend to projects they would not otherwise have financed, or would only have financed at a much higher interest rate. In terms of the overall objectives of the partnership, this risk is assessed as low risk, low medium impact.

State Aids

There may be a some state aids risk in the event that EU companies receive credit guarantees under the proposed scheme. However, given that the scheme will be administered by the ADB rather than DECC and given that the scheme will be operated on an open and transparent basis, any such risk is likely to be low.

F. Results and Benefits Management

The attached Results Framework sets out the results chain and key performance indicators for the India Solar programme. The planned indicators and targets were developed jointly with the ADB and will form an effective basis for assessing progress. More detailed project-specific Design and Monitoring Frameworks (DMFs) will be prepared by ADB for each separate programme that will be supported under the partnership. The DMF for the India solar programme can be found in the Board documents for this programme.

Whilst the targets are judged to be realistic, ADB will proactively take steps to ensure that viable projects are identified and implemented effectively, for example by working with project developers and relevant government agencies, and through rigorous due diligence and capacity building of partner banks.

ANNEX A: Eligibility Criteria

1.1 Projects in all of ADB's DMCs are eligible for Grant resources under this partnership.

1.2 Grant resources will be provided for fees for risk mitigation or credit enhancement products covering debt obligations of commercial financial institutions, where deployment of clean energy applications in DMCs provide a high demonstration effect or transformational approach to a sector compared to a "business as usual" baseline, including:

- (i) Political risk guarantees; or
- (ii) Partial credit guarantees¹³.

Credit enhancement products proposed to benefit from the Grant will be in line with ADB's Credit Enhancement Policy and associated operations manual¹⁴.

1.3 Priority sectors and themes for the allocation of Grant resources are:

- (i) power and energy,
- (ii) rapid urbanisation, including through low carbon transportation,
- (iii) agriculture, and
- (iv) other cross-cutting initiatives towards low carbon development that pilot test new private sector partnerships.

1.4 In addition to complying with eligibility criteria of the Clean Energy Financing Partnership Facility (CEFPF), eligibility criteria include:

- (i) Demonstrating the innovative use of Grant funds alongside ADB guarantee products to catalyze private sector lending and investment in the priority sectors (set out in 1.3);
- (ii) Providing positive incentives for the demonstration of low carbon development and mitigation of GHG emissions;
- (iii) Scaling-up low carbon development through funding low carbon programs and projects that are embedded in national plans and strategies. In this way, the diffusion and transfer of clean technologies will be accelerated; and
- (iv) Realizing environmental and social co-benefits. This will illustrate the potential held by low-carbon technologies to contribute to the goals of sustainable development and the Millennium Development Goals.

¹³ While provision of first loss guarantees will be considered (where ADB covers a higher corresponding percentage of the initial non-payment event(s), subject to a maximum amount of initial losses), any potential future project involving first loss guarantee should be raised at the earliest possible opportunity with the UK.

¹⁴ <http://www.adb.org/Documents/Manuals/Operations/OMD09.pdf>