

CLIMATE INVESTMENT FUNDS

May 20, 2014

**REPORT OF THE EXPERT GROUP ON THE
REVIEW AND SELECTION OF CONCEPTS TO BE FINANCED
FROM THE SREP PRIVATE SECTOR SET ASIDE**

BACKGROUND NOTE OF THE CIF ADMINISTRATIVE UNIT

1. At its meeting on October 31, 2013 the SREP Sub-Committee reviewed the document, SREP/SC.10/7, *Review and Selection of Concepts to Be Financed from the SREP Private Sector Set Aside*, and endorsed the following concepts to be further developed for SREP funding approval:

- a) *Strengthening of the ADERC H-REFF in Honduras (IDB);*
- b) *Scatec Solar PV 33 MW in Mali (AfDB);*
- c) *Kopere Solar Park in Kenya (AfDB); and*
- d) *ABC Business Models for Off-Grid Energy Access in Nepal (IBRD).*

2. The Sub-Committee requested the CIF Administrative Unit and the MDB Committee to review and revise the criteria used for reviewing project concepts for funding from the set aside, based on the criteria agreed by the expert group and taking into account the comments of the Sub-Committee and the expert group and lessons learned from the process to date. The revised criteria and template were circulated to the Sub Committee, and approved on February 12, 2014.

3. The Sub-Committee agreed that a second round for endorsing project concepts to be developed further for funding under the SREP set aside should be organized after the approval of the revised criteria. The CIF Administrative Unit was requested to organize the second round in accordance with the procedures agreed in April 2013, with the clarification that project concepts may be proposed in any of the eight pilot countries with an endorsed investment plan, and with a view to a decision by mail.

4. It was agreed that the expert group could consider during the second round the project concepts submitted for the first round or any revision of those concepts together with any new proposals submitted within the agreed timeframe. USD 36 million, primarily in concessional lending, was available for the second round. The Sub-Committee agreed that funding could be provided in the form of a grant on an exceptional basis when sufficiently justified.

5. The *Procedures for Allocating SREP Resources on a Competitive Basis from a Set Aside and new Concept Evaluation Criteria for SREP Set Aside* and concept note template are annexed to this report.

6. The Sub Committee agreed that the experts group from the first round of the private sector set aside would be asked to serve for the second round. All of the experts agreed to participate in this round. Since there were fewer proposals submitted for the second round (please see below), it was decided that the experts would not travel to Washington, but meet remotely. These experts are:

- a) Tamara Babayan, Armenia

- b) Ashington Ngigi, Kenya
- c) Robert van der Plas, Netherlands
- d) Nadia Crandall (Chairperson for the panel), UK.

7. Three concept proposals were submitted to the CIF Administrative Unit by three MDBs for review by the experts. This included projects located in two SREP pilot countries: Honduras, and Kenya. No regional proposals were submitted.

8. Each concept proposal had to specify how the concept meets the following minimum eligibility criteria:

- a) consistency with SREP program objectives, principles and investment criteria, (see SREP design document and investment criteria for guidance), and
- b) alignment with the objective of the country investment plan (see country investment plans).

9. The expert group then reviewed and prioritized the project concepts based on the following criteria and weighting. Each criterion was rated by the expert group from 1 (low) to 5 (high). After the weighting was applied for each criterion, the scores were totaled to reach a final composite rating. Proposals were shortlisted on this basis for recommendation to the SREP Sub-Committee. The review criteria are as follows:

- a) *level of innovation (25% weighting): this may include market creation, innovative financing structures, pilot testing of new business models, and new partnerships;*
- b) *projected leverage ratio (15% weighting): expected ratio of SREP funds to total project amount. Recognizing that projects with significant levels of private sector financing should receive a higher appreciation over all.*
- c) *Increased supply of renewable energy or increased access to modern energy services, as applicable (30% weighting): one of the following two criteria should be used, depending on the main objective of project. However, where projects are able to address both supply and access this should be noted. These projects could receive a higher appreciation over all.*
 - i. *Increased supply of renewable energy (30%): this will be measured through two ratios (with the total score resulting by adding up the scores under each of them):*
 - MWh1 per annum per US\$ of SREP funds requested (15%)
 - New MW installed from renewable energy as a percentage of total energy generating capacity in a country (15%)

- ii. *Energy access (30%):* increased number of women and men, businesses and community connections to modern sources of energy, inclusive of grid and off-grid connections and other non-power modern energy services/ technologies, per US\$ of SREP funds requested. This indicator should be total women and men, businesses and community services² with connections estimated over the life of the project.
- d) *readiness (15% weighting):* projects are expected to be approved by MDBs within 12 months from the endorsement of the project concepts by the Sub-Committee. Assessment of readiness may include regulatory framework, institutional capacity, project ownership, implementation risk, or project design clarity; and
- e) *commercial sustainability (15% weighting):* the likelihood of a project being able to stand alone in subsequent iterations or on a larger scale, without the need for additional concessional funding.

10. The expert group has recommended that all concepts be further developed with an allocation amounting to USD 32.8 million in SREP funding. Their detailed analysis and recommendations can be found in the report (attached).

11. As for the first round of the private sector set asides, the MDBs have provided detailed comments on the expert’s observations and additional information.

<i>Project</i>	<i>Country</i>	<i>MDB</i>	<i>Rank</i>	<i>\$ MM</i>
<i>Olkaria VI Geothermal Power Plant</i>	<i>Kenya</i>	<i>AfDB</i>	<i>1</i>	<i>20.5</i>
<i>Climate Venture Facility (KCFV) Project</i>	<i>Kenya</i>	<i>IBRD</i>	<i>2</i>	<i>6.8</i>
<i>Self-supply RE Guarantee Program</i>	<i>Honduras</i>	<i>IDB</i>	<i>3</i>	<i>5.5</i>
<i>Total Funds Requested \$ MM</i>				<i>32.8</i>
<i>Total Funds Available \$ MM</i>				

**ANNEX I: REPORT OF THE EXPERT GROUP ESTABLISHED TO REVIEW CONCEPTS
SUBMITTED FOR FUNDING FROM THE SREP SET ASIDE**

I. ACKNOWLEDGEMENTS

12. The SREP Expert Group (EG) would like to acknowledge the support provided by the CIF Administrative Unit as well as valuable inputs from the IBRD, the IDB and the African Development Bank. Their insights were of real value to our discussions as an Expert Group.

13. The EG wishes to thank the CIF Administrative Unit prior to, during, and subsequent to the Expert consultations for their generous help. The documentation was provided in a timely manner and was an essential element of EG deliberations.

14. We would also like to express our profound appreciation for the responsiveness and support of the SREP sub-committee. Overall, the EG have been delighted to work with a coordinated, well-organized and functional mandate, and a productive set of ranking criteria.

II. EXECUTIVE SUMMARY

15. A budget of USD 36 MM is available for a second round of projects selected by the SREP Sub-Committee. The EG was asked to rank three SREP project submissions according to a set of five criteria, as set out below.

16. The table on page 7 identifies the final ranking of the SREP II project submissions, and includes the total requested spend. This table may be used as a tool to allocate resources, and is intended as such.

17. Given the early stage of the project concepts, and the complexity of the issues, the EG does not attempt to allocate funds other than by ranking. For a complete assessment exercise, the EG would require in-depth business plans that incorporate detailed financial, technical and commercial detail, and have the opportunity to use them as a basis for extended conversations with MDBs.

18. The Expert Group Review Process on page 8 explains how the EG approached their task, noting that in-depth conversations with MDBs were an essential part of the process. It may be appropriate to extend these conversations in later rounds. A considerable amount of new information came to light and, had there been more time, the EG would have been glad to explore these in more depth.

19. In Ranking Criteria on page 10, each of the criteria is discussed in some detail. Overall, the EG found the criteria clear, well focussed and fit for purpose.

20. Individual Project Assessments, beginning on page 13, discusses each project in turn, with detailed comments and recommendations for each.

21. Procedural Challenges on page 34 identifies four areas where the EG encountered challenges. They are brought to the attention of the sub-committee so that they may be taken into account in future rounds of SREP funding.
22. EG recommendations to the Sub-Committee on page 36 identifies 3 suggestions for fine-tuning that may be of help in subsequent SREP rounds.
23. Appendix A introduces members of the EG. Appendices B and C offer a detailed tabulation and discussion of scoring protocols. Appendix D provides a description of EG activity, with an associated timeline.

III. INTRODUCTION

24. The Program on Scaling-up Renewable Energy in Low Income Countries (SREP) was established by the Climate Investment Funds (CIF) in order to pilot and demonstrate the economic, social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy.
25. In this second round, SREP II, \$36 MM has been made available. Project and program concepts prepared by the MDBs were submitted to the CIF Administrative unit for review by a panel of four experts. Two of these experts were selected from among those proposed by the pilot countries, and two were selected from among those proposed by the SREP contributor countries.
26. The EG was tasked with reviewing the proposals and preparing a ranking in accordance with the criteria supplied by the SREP sub-committee.
27. Finally, the EG was asked to include a qualitative explanation of the criteria used and the scoring of proposals leading to its recommendation and prioritisation.

IV. PROJECT RANKING AND FUNDING ALLOCATION

28. The EG was pleased to note that 3 MDBs engaged with the project. However, the SREP sub-committee might consider whether it would be a good idea in subsequent rounds to invite a larger number of submissions.
29. The total funding requested was \$ 32.8 MM, out of an available facility of \$ 36 MM.
30. Of the 6 SREP pilot countries, only Kenya and Honduras were represented.

Project	Country	MDB	Rank	\$ MM
Olkaria VI Geothermal Power Plant	Kenya	AfDB	1	20.5
Climate Venture Facility (KCFV) Project	Kenya	IBRD	2	6.8
Self-supply RE Guarantee Program	Honduras	IDB	3	5.5
Total Funds Requested \$ MM				32.8
Total Funds Available \$ MM				36.0

V. EXPERT GROUP REVIEW PROCESS

31. The EG was provided with the following documents prior to the SREP I and II meetings which we reviewed in advance of our 3-day videoconference.

- a) SREP Design document dated June 1st 2009
- b) Report of the SREP Expert Group dated June 4th 2010
- c) SREP Programming modalities and operational guidelines dated November 8th 2010.
- d) Scorecard for prioritizing SREP proposals (taken from SREP/SC.8/6 October 15, 2012
- e) Procedures for allocating SREP resources on a competitive basis from a set-aside dated April 9th 2013
- f) SREP Semi-annual operational report dated May 1st 2013
- g) Terms of Reference for the SREP expert panel private sector set-aside dated August 23, 2013
- h) Country investment plans for Kenya and Honduras.
- i) Co-chairs summary of the SREP Sub-Committee meeting of October 31st 2013.
- j) Proposed timeline for the SREP II set-aside.
- k) SREP II concept notes prepared by IDB, IBRD and AfDB.

32. In response, the EG formulated detailed questions on each of the 3 proposals. It was decided to raise these in conference with the MDBs, rather than in advance. It was felt that this would be an MDB-friendly approach, and would minimise the resources and time that would be required to formulate responses. Where questions could not be readily answered in conference, MDBs were asked to supply additional information to the EG during their 3 day meeting.

33. As a preliminary matter, at the start of their videoconference, the EG considered the ranking criteria. The EG noted with pleasure that the ranking criteria were specific, functional and applicable to the context. The EG also noted that the template for MDB submissions was well structured and clear.

34. The EG also considered whether each project met the minimum eligibility criteria for consideration by the SREP sub-committee. These criteria are:

- a) consistency with SREP program objectives, principles and investment criteria, and;
- b) alignment with the objective of the country investment plan.

35. The EG believe that each of the three submissions meet the minimum eligibility criteria as long as certain concerns are addressed, and should therefore be appropriately considered for SREP set aside funding.

36. The CIF Administrative Unit set up conference calls with each of the MDBs. **In-depth** conversations were essential to the EG's assessment because there was no other way for the complexity of the issues to be fully addressed. Furthermore, fundamental new information came to light during these calls, providing a clearer insight into each concept.

37. The EG discussed proposals and ranking criteria on each of the three days of their videoconference. Rankings were finalised in rough draft form on Thursday April 24th.

38. The Chair wrote up the report with input from all members of the EG, and submitted it to the CIF Administrative Unit on May 7th 2014.

VI. RANKING CRITERIA

39. The SREP sub-committee identified 2 binary and 5 quantitative ranking criteria.

Binary Criteria

40. In order to be evaluated, each project was required meet minimum eligibility criteria, as expressed in the binary rankings. Overall, MDBs addressed these criteria satisfactorily:

- a) ***Consistency with the SREP program objectives:***
The EG determined that all proposals met this criterion.
- b) ***Alignment with the objective of the country investment plan***
The EG determined that all proposals met this criterion.

Quantitative Criteria

A. Level of Innovation: 25% weighting

41. The sub-committee identified 4 elements contributing to level of innovation. The EG defined these 4 elements and gave a ranking out of 5 for each, with the overall innovation score

calculated as a score out of 25%, according to the weighting supplied. MDBs took care to address these criteria, although concept-stage projects are necessarily unable to clarify detail.

- a) **Market creation:** Stimulation of under-developed markets and/or the likelihood of scaling up a successful project both nationally and trans-nationally.
- b) **Innovative financing structures:** The creation of financial models or the harnessing of financial intermediaries without which the project could not proceed.
- c) **Innovative business models:** The creation or application of business models new to a particular geography without which the project could not proceed.
- d) **New partnerships:** Harnessing new and/or local project and investment partnerships, especially where an early-stage relationship can be productively developed.

B. Projected leverage ratio: 15% weighting

42. This is defined as the expected ratio of SREP funds to total project amount, recognizing that projects with significant levels of private sector financing should receive a higher appreciation over all.

43. MDBs took care to respond to this criterion. However, at this stage, it is not always clear how SREP funding will be optimally leveraged. Where specific challenges with this criterion arose, we have noted them in the section on each concept note. General comments, however, are as follows:

- a) Leverage data provided is preliminary and cannot be fully relied upon. However, the EG chose to rank according to MDB numbers as given.
- b) Proposals did not differentiate between funds that had been secured and funds that were anticipated. This is a particular concern where private sector engagement is less clear. However, the EG feels that this lack of clarity is acceptable at concept stage.
- c) For each concept, it was apparent that some funding would be sought from multilateral and bilateral agencies and other public sector sources in addition to that supplied by SREP and the MDB sponsor. Although SREP has a strong bias towards private sector engagement, the EG interpreted this criterion in the broadest way; that is, by calculating the additional funding leveraged by the SREP program, regardless of its source.
- d) Where there was any doubt about leverage, the EG ranked conservatively, applying the minimum stated ratio.

C. Increased supply of renewable energy or increased access to modern energy services: 30% weighting

44. While these are, in principle, alternative ranking measurements, the EG felt that it leads to a fairer outcome if both were estimated for every submission, since projects that address both receive a higher appreciation overall. Accordingly, conversations with MDBs explored assumptions on both measurements, and attempted to quantify numbers as far as was possible. The overall weighting of 60% was then divided by 2 to arrive at the requested criterion weighting of 30%.

45. **Increased supply of renewable energy** addresses two ratios:

a) *MWh per annum per US\$ of SREP funds requested* (15% weighting). This is a measure of supply, based on assumptions regarding capacity factors for different renewable energy technologies. For consistency across proposals, the capacity factors used are as follows:

i.	Solar PV	20%
ii.	Geothermal	85%
iii.	Biomass	70%

b) *New MW installed from renewable energy as a percentage of total energy generating capacity in a country* (15% weighting): This is also a measure of supply relative to existing installed capacity in a country.

46. **Increased number of individuals, businesses and community connections per US\$ of SREP funds requested**, is a measure of access, with a total possible score of 30%. Assumptions used by the EG were as follows:

a) Each individual consumes 500 watts of energy annually, and small rural businesses consume 2 KW of energy annually.

b) There are 5 members of every household and small farm.

D. Readiness: 15% weighting

47. Projects are expected to be approved by MDBs within 12 months from the endorsement of the project concepts by the Sub-Committee.

48. The sub-committee identified 5 elements contributing to level of innovation. The EG gave a ranking out of 5 for each, with the overall innovation score calculated as a score out of 15%, according to the weighting supplied. MDBs attempted to address these criteria, although concept-stage projects are necessarily unable to clarify detail.

49. Readiness comprises five elements:

- a) Regulatory framework must be in place
- b) Institutional capacity must be evident
- c) There must be clear ownership or championing of the project
- d) Implementation arrangements should be addressed in sufficient detail to show an acceptable level of implementation risk.
- e) There must be clarity of project design.

E. Commercial sustainability (15% weighting):

50. This is defined as the likelihood of a project being able to stand alone in subsequent iterations or on a larger scale, without the need for additional concessional funding.

51. This criterion is an extremely important one, but can often not be readily addressed given the concept stage of these proposals. Where we thought it helpful, the EG identified issues that might impact commercial sustainability and recommended further work by the MDBs on these areas as the project moves forward.

VII. INDIVIDUAL PROJECT ASSESSMENTS

Kenya Olkaria VI Geothermal Power Plant 140 MW (AFDB)

Grant funding requested: \$ 500,000

Non-grant funding requested: \$ 20,000,000

52. The Kenya Olkaria VI Geothermal power plant was ranked 1st overall with a score of 80% out of a possible total of 100%. It is the first geothermal project in Kenya to be structured as a Public-Private Partnership (PPP) and contributes significantly to existing installed renewable capacity, as well as offering a model that, if successful, should be replicable.

53. The EG is aware that the SREP program normally seeks to provide financing for renewable energy generation with capacities not to exceed 10 MW. (SREP Programming Modalities and Operational Guidelines Clause 20). However, Olkaria VI meets SREP design principles and objectives overall. The EG believes that the concept has considerable merit and should be given consideration by the SREP sub-committee.

Level of Innovation

54. Olkaria VI was awarded a score of 22.5% out of a possible total of 25% for innovation.

55. Market Creation: ranking 4 out of 5

- a) Olkaria VI is the first sizable Public-Private Partnership (PPP) ever done in Kenya for geothermal energy.

- b) The Government of Kenya will not provide a full sovereign guarantee. Therefore, the risk lies with the project company and with its contractual counterparties. This argues for public sector intervention in order to make the project viable.
- c) If implemented successfully, a PPP structure, which limits the use of constrained government resources, could be replicated in the future.
- d) Kenya has significant under-exploited geothermal capacity. In principle Olkaria VI could provide cost-effective base-load power for an under-served and fast-growing economy.
- e) Existing geothermal plants in the Olkaria field, either operating or under development, are all wholly owned by the Government of Kenya, with one exception.
- f) This exception is Olkaria III, the first geothermal plant developed as an Independent Power Project (IPP), funded with equity from the project sponsor, Ormat Technologies, and long-term debt from international development agencies. It has been fully operational since 2009 and its capacity is now to be increased from 48 MW to 148 MW. Given that an IPP has been operating successfully for some years, the EG suggests that lessons can be learned on ways to recruit private sector investors and extend their involvement in developing the geothermal resource for Olkaria VI.

56. Financing Structure: ranking 4 out of 5

- a) SREP funding is sought in the amount of \$0.5 MM as a project preparation grant, and \$20 MM as a non-grant concessional loan.
- b) Once a preferred bidder has been selected through a standard Request for Proposal (RFP), the project equity of \$150 MM will be provided by the private bidder (51%) and by KenGen (49%).
- c) It is anticipated that the project will be leveraged with 70% debt, also a standard in power plant development. Debt in the amount of \$275 MM is likely to be provided by MDBs and the SREP concessional loan, with local and international banks providing a further \$75 MM.
- d) While this financing structure is commonly used in the developed world, it has not previously been applied to a geothermal project in Kenya, and can therefore be considered innovative.

57. Piloting new business models: ranking 5 out of 5

- a) Utility-scale PPP models have not previously been deployed in geothermal projects in Kenya.
- b) This model, if successful, could be replicable as the Government of Kenya further develops its very substantial geothermal resource along the Rift Valley.

58. **New Partnerships: ranking 5 out of 5**

- a) Olkaria VI is attracting more than \$75 MM of equity funding from a commercial project developer. If this model is replicated, then Kenya will benefit from further foreign direct investment as it develops its renewable energy resource.
- b) The RFP mandates a significant proportion of local supply, with a local hiring target of a minimum 20% of the total workforce, as well as a minimum local sourcing requirement of 20% of the total value of construction services and supplies.
- c) The project will seek \$25 MM of debt from local bank lenders, which will help generate further economic activity in the country.

Projected Leverage Ratio

59. Olkaria VI was awarded a score of 15% out of a possible total of 15% for its projected leverage ratio. This was calculated using the ratio provided by the MDB of 1:20, which is as yet only indicative, due to the early stage of the proposal. (The quantum of SREP funds requested (\$20.5 MM as the denominator of overall project value of \$500 MM, actually gives a leverage ratio of 1:24.5). This ratio was then ranked according to the tiered system agreed by the EG.

60. AfDB lists five possible sources of funding beyond the projected SREP set-aside funds of \$20.5 MM. At this stage, however, none of these funding entities have been identified, with the exception of KenGen.

Increased supply of RE

61. Olkaria VI was awarded a score of 30% out of a possible total of 30% for increased supply of modern energy services; and 10% out of a possible total of 30% for increased access to modern energy services per SREP \$ requested.

62. The size of this utility-scale geothermal plant is unlikely to be altered, and therefore the supply numbers provided can be considered highly reliable, although the access numbers are more speculative.

**MWh per annum per US\$ of SREP funds requested:
*Relative ranking 1st***

- a) Total new MW of renewable energy installed is 140 MW.
- b) Using the capacity factor provided of 85%, MWh generated per annum will be (140MW x 85% capacity factor x 8760 hours) = 1,042,440 MWh.
- c) MWh per annum per \$ of SREP funds requested is (1,042,440 MWh/\$20,500,000) = **0.051 MWh per US\$ of funds requested.**

64. **New MW installed from RE as a % of total generating capacity:**
Relative ranking 1st

- a) The project creates 140MW of installed renewable energy.
- b) Kenya's total generating capacity is 1,841 installed MW.
- c) Olkaria VI adds $(140 \text{ MW} / 1,841 \text{ MW} \times 100) = \underline{7.6\%}$ new capacity added to existing installed capacity.

65. **Increased access to modern energy services:**
Relative ranking 2nd

66. Power from Olkaria VI will be sold to the Kenyan national grid, and construction of a transmission line from wells to grid has been included within the RFP. It is not obvious to calculate the number of men and women who will be additionally served by this new grid supply, but we have assumed that 1.3 MM people will gain increased access to modern energy services. This number is based on the average of our own EG calculations, and those supplied by AfDB. **Number of people served with renewable energy per US\$ of SREP funds requested would be $(1.3 \text{ MM} / 20.5 \text{ MM}) = 0.0634$ people.**

67. EG calculations regarding number of people are as follows:

- a) The plant provides 140 MW of installed energy at an 85% capacity factor, that is, very roughly, 120 MW delivered.
- b) Assuming that each Kenyan household uses 500 watts of energy annually, then 240,000 households or small farms would be served, given that the power sector is constrained and cannot serve new consumers without additional generating capacity.
- c) We assume that each household or small farm is inhabited by 5 people. Therefore, Olkaria VI could provide increased access for $(240,000 \times 5) = 1.2 \text{ MM}$ people.

68. AfDB calculations regarding number of people are as follows:

- a) AfDB extrapolates expected results from the 400 MW Menengai Geothermal Field proposal being financed by the SREP.
- b) Olkaria VI could potentially expand energy access to:
 - i. 175,000 households of which 24,500 in rural areas = 875,000 people.
 - ii. 105,000 small businesses = 525,000 people.
 - iii. Total increased access = 1.4 MM people

Readiness

69. Olkaria VI was awarded a score of 11% out of a possible total of 15% for readiness.

70. **Regulatory framework: ranking 3 out of 5**

- a) An enabling environment exists through Kenya's Least Cost Power Development Plan (LCPDP); through Kenya's Climate Action Plan; and through Vision 2030 (national energy policy for Kenya).
- b) However, the Government of Kenya will not provide a sovereign guarantee to cover the obligations of the off-taker, Kenya Power and Lighting Company (KPLC).
- c) It will also be necessary to write an enforceable contract with KenGen, which supplied steam for the project as well as being the minority equity partner. Their equity stake should increase the likelihood of their meeting contractual obligations.
- d) Finally, AfDB states that the cost of power generated, on preliminary calculations, is uncompetitive and may need to be written down by subsidizing capital costs. This is surprising, given that there is an existing geothermal IPP operating profitably. Further investigation is merited.

71. **Institutional capacity: ranking 3 out of 5**

- a) Commercial operations are due to commence by end 2016. However, delays are already occurring, and risk compounding over time.
- b) Investors are wary of the institutional barriers that exist in the renewable energy sector in Kenya. These include a lack of reliable information with regard to regulatory and legal matters and a high degree of bureaucracy with commensurate delays and costs.
- c) There is no clarity as yet as to which MDBs will be committing funds. As \$255 MM is needed from this source, more than 50% of the overall project cost, this will be important to determine as the concept is developed.
- d) A transmission line will need to be built between the power plant and the sub-station, feeding into the national grid. There is no information as yet as to the length and cost of this transmission line. This is of particular importance as the transmission line is included within the RFP. As a general rule, infrastructure aspects of a project are undertaken by state-controlled entities.
- e) The Kenyan Electricity Transmission Company, KETRACO, is currently implementing an accelerated program to improve the national grid in order to increase power transmission capacity, reliability and supply to its customers. It is not certain that the grid is sufficiently robust at this time to absorb the additional capacity coming on-stream in the Olkaria fields.

72. **Project ownership: ranking 4 out of 5**

- a) KenGen will be a 49% minority equity partner with the preferred bidder taking the majority 51% stake.
- b) The project meets the guidelines of GoK, with geothermal an important part of their LCPDP.
- c) However, the preferred bidder has not yet been appointed.

- d) It is also unclear which MDBs will commit debt funding and to what level.
- e) Finally, the availability of private sector funding, intended to be \$75 MM, or 15% of the total project cost, has not yet been determined.

73. Implementation risk: ranking 4 out of 5

- a) Olkaria VI benefits from a known geothermal reserve, and will mostly make use of existing wells. Where additional wells need to be sunk, the risk is entirely mitigated by the Geothermal Development Company (GDC), a 100% state-owned company, formed by the Government of Kenya as a Special Purpose Vehicle to fast track the development of geothermal resources in the country. GDC is mandated to drill 1400 steam wells to provide steam for the generation of 5,000 MW of geothermal power by 2030. GDC's role is surface exploration and drilling for steam in order to avail steam to power plant developers for electricity generation.
- b) However, legal and regulatory hurdles are likely to delay the project significantly, given that it is already 6 – 9 months behind schedule.
- c) The GoK has is not yet entirely clear about its engagement with the project. It states that no sovereign guarantee will be available, but there nevertheless appears to be some possibility of a partial guarantee. In a similar vein, GoK clearly does not have the capacity to own all the geothermal capacity it plans to develop, yet it is keen to maintain control of its geothermal energy resource, which it views as a strategic asset.
- d) Selection of a qualified preferred bidder and ensuing negotiations may prove challenging given uncertainty over the tariff, likely lack of a GoK guarantee, lack of a robust framework within which the steam supply contract with KenGen can be negotiated, and an opaque and bureaucratic legal environment.

74. Project design clarity: ranking 4 out of 5

- a) Geothermal technology is standard and widely used. PPP models are also widely applied and understood. At concept level, therefore, the proposal is clear.
- b) Nevertheless, there is some lack of clarity as to how SREP resources are to be used, which merit further discussion.
- c) AfDB requests \$0.5 MM grant funding for project preparation, which will be deployed to support the GoK in addressing legal and regulatory constraints. The funds may also be used to cover high first-mover costs and lack of a technology track record. The EG is not yet persuaded that there are first mover costs or a lack of technology track record, although they acknowledge the existence of legal and regulatory hurdles.
- d) AfDB identifies three possible uses of the \$20 MM non-grant funding, and we recommend that additional detail should be required on the use of funds as the project concept is developed.

- i. Guarantee to cover KenGen’s payment default risk.
- ii. Concessional loan (terms to be defined) to reduce financing costs and to give comfort to private sector lenders.
- iii. Buy down project costs to a level where the energy could be sold at a competitive tariff. The EG is concerned to understand better why an existing IPP can operate without apparent need for this kind of support.

Commercial Sustainability

75. Olkaria VI was awarded a score of 12% out of a possible total of 15% for commercial sustainability, ranking 1st in this category.

- a) This 140 MW plant is one phase of a multi-phase development program in the Olkaria field. Given the high profile and government backing for geothermal energy, it is likely that these developments will come to fruition.
- b) The project will not be developed without a bankable PPA. Once this is in place, the likelihood of construction or operating failure is small.
- c) Dividends flow back to KenGen as a shareholder. They will enhance KenGen’s financial sustainability, improving its reliability as a steam supplier.
- d) The EG recommends that further research be conducted regarding the existing IPP plant, Olkaria III. It would be helpful to gain an understanding of both operational and financial performance, in order to inform the structuring of the Olkaria VI PPP.

76. EG Recommendations:

- a) The EG regarded this project favourably, because it uses well-established technology, benefits from a proven geothermal resource, and creates a model for PPP geothermal projects that could be readily replicable.
- b) AfDB should consider further investigation of the following aspects of the concept, as it is developed: capacity factors and operating margins of Olkaria III; tariffs relative to the cost of delivered energy; the availability of local bank financing; the need for, and cost of additional wells; the precise application of SREP funds.

Kenya Climate Venture Facility Project (IBRD)

Grant funding requested: \$ 800,000
 Non-grant funding requested: \$ 6,000,000 (guarantee)

77. The Kenya Climate Venture Facility Project (KCVF) was ranked 2nd overall with a score of 68% out of a possible total of 100%. The EG welcomed the resubmission of this proposal, as we found the SREP II version to be more focused, better conceived and with a reasonable chance of successful implementation.

78. KCVF supports very early-stage climate technology and renewable energy businesses, and provides financing which is not otherwise available through commercial intermediaries.

Level of Innovation

79. KCVF was awarded a score of 20% out of a possible total of 25% for innovation.

80. Market Creation: ranking 4 out of 5

- a) Creates a facility to fund start-up climate technology and renewable energy businesses. There is no other such facility in Kenya.
- b) Addresses access to the financing gap for early-stage companies. There are currently few options available for small businesses needing to raise external funding in the range of \$100,000 to \$1,000,000.
- c) It was noted that none of the companies in the pipeline originally presented in SREP I have yet been funded. This argues that there is a real need for such funding.

81. Financing Structure: ranking 3 out of 5

- a) SREP funding is sought in the amount of \$0.8 MM as a grant for technical assistance, and \$6 MM as a non-grant guarantee.
- b) An initial grant of \$4.9 MM has been given by the World Bank InfoDev Climate Technology Program (CTP), \$4.5 MM of which will support the operation of KCIC's incubation program.
- c) The remaining funding of \$20 MM (63% of the total project cost) will be sought over time from concessional lenders in the first instance, and from SME and impact funds as the model is proven and can attract equity participants on a commercial basis.
- d) The facility provides risk mitigation in the form of first loss protection through guarantee funding for investors in KCVF. It is estimated that this first loss protection will be in the range of 25% - 30% of principal amount invested.
- e) The facility also provides first loss protection to external co-investors who directly fund early-stage companies, without investing through the facility.
- f) Limiting the risk of capital loss may attract a new investor class with an interest in SME and impact investing. However, this may take some time and is not yet proven.

82. Piloting new business models: ranking 5 out of 5

- a) KCVF will seek out innovative climate technology and renewable energy start-ups and SMEs.
- b) The model functions within a larger consortium that is both robust and innovative with four other highly reputable participants:

- i. The Kenya Climate Innovation Center (KCIC) has been functioning as an incubator since 2012. It will provide technical and management support both pre- and post-investment; it will also help develop the project pipeline and assist with screening.
 - ii. The Global Village Energy Partnership (GVEP) provides input on strategy, business development, and access to finance.
 - iii. Kenya Industrial Research Institute (KIRC), supported by the Government of Kenya, offers advice on legal, regulatory and tax matters, and on energy tariffs.
 - iv. Price Waterhouse Coopers (PWC) provides support for financial management, operational systems and governance.
 - v. Strathmore University provides office facilities for KCIC and for the companies participating in its incubator.
- c) The model offers a three-pronged approach, through its consortium, that could contribute to a higher success rate than is generally expected for such early-stage ventures:
- i. KCVF invests patient capital
 - ii. It provides extensive management coaching and support both pre- and post-investment.
 - iii. It provides technical assistance both pre- and post-investment.

83. New Partnerships: ranking 4 out of 5

- a) The project consortium itself is a flexible and powerful body which should bring significant value-added to the early-stage ecosystem.
- b) KCIC is already working with 80 seed companies, and provides one set of inputs for the KCVF pipeline. These 80 companies are unlikely to gain access to technical assistance and management input, or indeed seed financing, from other sources.
- c) A local fund manager will be employed to screen and select investee companies, and to manage the asset portfolio. The hiring committee will seek out a fund manager with experience in the East African SME sector.
- d) Over time, the project intends to engage local financial intermediaries, SME and impact funds and other financing entities that could contribute to a more robust start-up environment.

Projected Leverage Ratio

84. KCVF was awarded a score of 9% out of a possible total of 15% for its projected leverage ratio. This was calculated using the ratio provided by the MDB of 1:4.5, which is still indicative given the early stage of the concept. The quantum of SREP funds requested (\$6.8 MM) as the denominator of the overall project value (\$31.7 MM) actually gives a leverage ratio of 4.66. This ratio was then ranked according to the tiered system established by the EG.

85. There is a concern that the proposed level of private sector leverage may be too ambitious given the early stage of the target market and as yet undefined exit mechanisms.
86. Sources of funding beyond the SREP set aside funds of \$6.8 MM include the following:
- a) An anchor grant of \$4.5 MM has already been committed by the World Bank InfoDev Climate Technology Program (CTP).
 - b) KCVF intends to raise a further \$10 MM from concessional funders, including MDBs.
 - c) KCVF will over time approach individual impact investors and funds for a further estimated \$10 MM additional investment into the facility, and for co-investment in individual companies.
 - d) Once established, the facility hopes to reach out to local banks for early-stage financing.
 - e) Co-investors have given verbal indications of their interest in participating should first loss guarantees be provided.
 - f) However, the EG notes that the current proposed structure seems ambitious in terms of attracting private sector funding, as it will take some time to demonstrate a track record of strong performance, and viable exit mechanisms.

Increased supply of Renewable energy

87. KCVF was awarded a score of 7% out of a possible total of 30% for increased supply of modern energy services; and 30% out of a possible total of 30% for increased access to modern energy services.

88. Given the early stage of this concept note, the complexity of the project and the uncertainty related to technologies to be deployed, the numbers provided and extrapolated must be considered a very rough estimate.

89. However, to reach a fair comparative ranking, the IBRD was asked to generate assumptions that would allow the project to be evaluated on all three parameters in this section.

90. **MWh per annum per US\$ of SREP funds requested:**

Relative ranking 3rd

- a) Total new capacity of renewable energy installed is estimated to be 37.5 MW (see below), which includes a variety of products supplied to households, farms and small businesses.
- b) Assumptions are based conservatively on solar PV, using a 20% capacity factor. However, many other kinds of technologies are also envisaged.
- c) Therefore, the installed capacity from new renewable energy sources will be (37.5 MW x 24 hours x 365 days x 20% capacity factor) = 65,700 MWh per year.
- d) MWh per annum per \$ of SREP funds requested is 65,700 MWh/\$6.8MM = **0.0097 MWh per annum.**

91. **New MW installed from RE as a % of total generating capacity:**

Relative ranking 2nd

- a) Of the 250,000 households that will have improved access to renewable energy, 60% will be purchasing household level power products. That is, 150,000 units sold to the target market.
- b) Assuming that each of these products generates 50 watts of power, the aggregate installed capacity of these units sold is estimated to be 7.5 MW.
- c) Separately, the EG also assumed an additional 2 KW installed for each of 15,000 farmers and small businesses. That is, $(15,000 \times 2 \text{ KW})/1,000 = 30 \text{ MW}$ installed.
- d) Total new MW installed from RE is $(7.5 + 30 \text{ MW}) = 37.5 \text{ MW}$.
- e) Total installed capacity in Kenya is 1,841 MW. This project therefore supplies an additional **2.04% installed capacity**.

92. **Increased access to modern energy services:**

Relative ranking 1st

- a) IBRD's assumptions state that 20 companies will be funded over the first 4 – 5 years, with 8, or 40% of them, graduating into a growth phase. They assume that 5 of the 8 will serve households as their principal customer base.
- b) Without yet being able to identify these 5 portfolio companies, the assumption is that each company will sell 50,000 units over 5 years, reaching 5 people per household. That is, $5 \text{ companies} \times 50,000 \text{ units} \times 5 \text{ people per household} = 1.25 \text{ MM people}$ with increased access to energy services.
- c) Separately, we calculated access for a further 15,000 farmers and small businesses, assuming 5 people per enterprise. That is, $15,000 \times 5 = 75,000 \text{ people}$ in addition, with increased access to energy services.
- d) Total increased access = 1.325 MM people
- e) Number of people per US\$ of SREP funds requested would be $(1.325 \text{ MM}/6.8 \text{ MM}) = 0.195 \text{ people}$.

Readiness

93. KCVF was awarded a score of 12% out of a possible total of 15% for readiness.

94. **Regulatory framework: ranking 5 out of 5**

- a) The KVCF focuses on small-scale distributed off-grid projects that are not subject to regulatory hurdles.
- b) KCIC enjoys strong support the Government of Kenya.
- c) KCIC features in Kenya's National Climate Change Action Plan (NCCAP).

95. **Institutional capacity: ranking 4 out of 5**

- a) KCIC has been in operation since 2012, and has demonstrated its ability to generate a pipeline of early stage companies.
- b) The World Bank InfoDev Climate Technology Program (CTP) has given a \$4.5 M grant to KCIC to launch its incubation program.
- c) However, KVCF has not yet demonstrated private sector engagement or capacity.

96. **Project ownership: ranking 5 out of 5**

- a) KVCF joins an existing consortium of reputable organisations which each bring different strengths in support of the facility, ranging from management and technical input, information on regulation and tariffs and office space, to back office and financial support.
- b) KVCF will appoint a dedicated fund manager responsible for investment decisions and outcomes.

97. **Implementation risk: ranking 3 out of 5**

- a) The facility structure has not yet been finalized.
- b) There is no short-list of qualified fund managers identified as yet.
- c) The consortium structure, with obligations and benefits for each participant, should be made more explicit.
- d) It is not yet clear how the high level of costs relative to the fund size will be addressed.
- e) Private sector engagement is as yet unproven.
- f) The concept note focuses on the supply side but has not addressed demand side capacity or mechanics.
- g) There are no early results from the KCIC pipeline so issues of quality and scalability have not been addressed. Nor is it clear whether any of these early-stage companies are investment ready.
- h) Risk mitigation for investors is still to be structured.

98. **Project design clarity: ranking 3 out of 5**

- a) The broad outlines of the concept are clear.
- b) Critical details are as yet undeveloped however. These include the facility, loss mitigation, and co-investment structures, as well as a persuasive argument for consumer demand.
- c) It is not yet obvious that this would offer a sufficiently compelling commercial opportunity for private investors.

Commercial sustainability

99. KVCF was awarded a score of 9% out of a possible total of 15% for commercial sustainability, ranking 2nd on this category.

- a) KCIC was launched in 2012 and has been supporting early-stage companies since then. None has as yet been funded and it is not yet clear whether this is because of lack of a financing facility, or because of the quality of the pipeline. Demonstrating a viable pipeline will be essential to launching this facility, as without this, the market may not prove ready to absorb start-up funding of this kind.
- b) This is a very heavy supply side intervention, but little attention has been paid to the demand side. There is a risk that the fund may be too large for its purpose in the immediate future, since it will be necessary to develop a consumer and business market, at the same time as building the facility and supporting the portfolio companies.
- c) On a related point, KCVF may be overly reliant on behavioural changes, in seeking to convert potential into actual demand.
- d) There is some mention of innovative financing structures within the pipeline of companies themselves. As rural populations are extremely constrained in terms of their purchasing power, creative financing mechanisms will be essential to build consumer-oriented businesses.
- e) There are major logistical challenges in distributing goods and services to remote rural communities, with transport and communications infrastructure still quite nascent in some areas. There is a concern that this will place a constraint on the growth of consumer-oriented companies.
- f) Early stage ventures have a high likelihood of failure (although less so when supported by technical and management assistance, and concessionary initial funding). If the facility is indeed dedicated to supporting distributed energy projects in rural communities, it is unclear that there will be sufficient upside for investors commensurate with the risk.
- g) The ultimate facility size will not be large enough to support the fund management infrastructure. It is therefore difficult to see how this can become commercially sustainable. Investors will not be willing to bear a very high level of costs, and the facility is likely to require ongoing public sector funding.
- h) There is a risk of market distortions where private investors might engage directly with the best seed companies, piggy-backing on the due diligence, screening and support provided by the consortium, while leaving the facility with weaker companies and sub-optimal returns. It might be worth considering the option of offering loss protection only through the facility. This would also have the benefit of increasing assets under management (AUM) and therefore reducing cost ratios.
- i) There is no exit strategy currently envisaged for the portfolio companies. Kenya does not offer a viable IPO market, nor are distributed services for rural communities likely to be an obvious target for trade buyers. Without a track record of successful exits, it will be difficult to attract private sector investors. Therefore, the facility should emphasize financing structures which are self-liquidating, so that investors can realize their investments.

100. **EG Recommendations:**

- a) The EG regarded this project favourably, because it envisages a much-needed facility for early-stage climate technology and renewable energy businesses that doesn't yet exist in the region, and offers an innovative approach to addressing the problem. If it succeeds, the model could be highly replicable. Information-sharing will be an important part of the development of other CICs newly established in the Caribbean, Ethiopia and South Africa, and a further four to follow in India, Vietnam, Morocco and Ghana.
- b) IBRD should consider further clarification of the following aspects of the concept, as it develops: managing the quality of the pipeline; harnessing private sector engagement and funding; consortium structure, with a detailed agreement as to obligations and benefits for each member; costs of the facility relative to the size of assets under management; a focus on demand-side aspects of the program; careful structuring of the loss guarantee in order to avoid negative market distortions; exit strategies for investors.

Honduran Self-Supply Renewable Energy Guarantee Program (IDB)

Grant funding requested: \$ 500,000
Non-grant funding requested: \$ 5,000,000 (guarantee)

101. The Honduran self-supply guarantee program (HSSP) was ranked 3rd, with an overall score of 50% out of 100%.

102. HSSP provides first loss guarantees to IDB on loans to local Honduran companies that are establishing self-supply renewable energy programs. These self-supply initiatives would not otherwise be bankable because collateral requirements generally exceed the capacity of modest local businesses, while loans of this size and tenor are not available through local financial intermediaries. Indeed, without this additional guarantee, the projects exceed IDB's own risk tolerances.

Level of Innovation

103. HSSP was awarded a score of 16% out of a possible total of 25% for innovation.

104. **Market Creation: ranking 4 out of 5**

- a) Allows IDB to provide debt to private companies in Honduras that it otherwise could not, based on its risk tolerances.
- b) Encourages the installation of self-supply renewable energy using technologies that include solar PV, solar thermal, biogas and biomass.
- c) Over time, the initiative may create a PPA market for third-party renewable energy companies to supply energy to Honduran SMEs, through third-party solar

PV rooftop installations for example. This is seen as a possible benefit once a self-supply model is established.

- d) There is as yet no commercial scale solar or biogas energy generation in the Honduras, although there is some private sector biomass generation.

105. Financing Structure: ranking 3 out of 5

- a) IDB will provide \$20 MM of uncollateralized loans to corporate self-supply projects, funding no more than 50% of the total project costs.
- b) \$5 MM of this will benefit from the SREP non-grant guarantee.
- c) The remaining 50% of project costs will be supplied as equity by the company that is installing renewable energy capacity. Initially, local bank finance is unlikely to be available, meaning that projects will enjoy a maximum leverage of 50%. This reduces their attractiveness to the company investing in their own RE supply, and extends the payback period. However, once the viability of these projects has been established, it is hoped that financial intermediaries will be able to loan up to 25% of the total project cost, raising the leverage to a more standard 75%, and increasing the attractiveness of the investment.
- d) The financing structure benefits from simplicity and offers a robust model for a nascent market.
- e) Although donor-backed guarantees have been previously used by IDB in other geographies, and are therefore familiar and workable, they have not as yet been applied for RE projects in Honduras.
- f) HSP therefore ranks high on financing structure innovation.

106. Piloting new business models: ranking 3 out of 5

- a) This model, third party financing of projects within companies' facilities, has been widely used in the developed world to excellent effect. Self-supply rooftop solar PV, in particular has enjoyed explosive growth in the US and Western Europe, particularly where government subsidies make projects financially attractive. There are no projects of this kind as yet in Honduras, and therefore HSSGP ranks high on new business model innovation.
- b) However, we note that IDB and other MDBs have credit lines with local banks that are not currently utilized, and that the Nordic Development Bank (NDB) and IDB have jointly identified up to 12 self-supply projects that are economically viable. This model has therefore been under development for some time. It would be helpful to understand whether a guarantee facility of this kind is likely to be the best catalyst for the development of the self-supply market.

107. New Partnerships: ranking 3 out of 5

- a) At inception, new partnerships will be limited to those companies that have the financial capacity to invest a significant sum in creating their own renewable energy supply.

- b) The EG accepts that a feasible pipeline has been identified, with about \$30 MM of projects currently under development. IDB will lend up to 50% of the project cost, for a total of \$15 MM.
- c) However, it is too early for third-party PPA providers, local lenders or local equity investors to become involved.
- d) The opportunity for new partnerships and replicability will be generated in later years as the viability of these projects is demonstrated.

Projected Leverage Ratio

108. HSSP was awarded a score of 12% out of a possible total of 15% for its projected leverage ratio. The ratio used was that supplied by the MDB of 1:8, although the quantum of SREP funds requested (\$5.5 MM) as a denominator of the overall project value (\$40 MM) gives a ratio of 1: 7.27. This was then ranked according to the EG tiering system.

109. It would be helpful to understand, given that IDB is requesting SREP funds for a guarantee to cover 25% of its projected loans, how they have calculated the loan loss risk, and whether their entire \$20 MM of funding relies on this guarantee, or whether they would consider starting out with a lower level of activity.

110. Sources of funding beyond the SREP set aside funds include the following:

- a) IDB \$20 MM
- b) Equity from corporates \$20 MM

Increased supply of Renewable energy

111. HSSP was awarded a score of 6% out of a possible total of 30% for increased supply of modern energy services, and 6% out of a possible total of 30% for increased access to modern energy services.

112. Given the early stage of this concept note and the complexity of the pipeline, with multiple technologies and anticipated capacities, the numbers supplied must be considered a very rough estimate.

113. In order to arrive at a fair comparative ranking, the EG extrapolated from IDB's numbers to arrive at a ranking for all sub-sections in this criterion.

114. MWh per annum per US\$ of SREP funds requested ***Relative ranking 2nd***

- a) Total new MW of renewable energy installed is expected to be 20 MW, assuming a total project size of \$40 MM.
- b) Assuming 10 MW is solar thermal or PV, and 10 MW is biogas/biomass, it is anticipated that this would generate 80,000 MWh annually. This assumes an

average 46% capacity factor which is defensible, and accurately reflects the technologies identified in the current pipeline.

- c) MWh per \$ of SREP funds requested is therefore $80,000 \text{ MWh} / \$ 5.5 \text{ MM} =$
0.0145 MWh per \$ per annum.

115. New MW installed from RE as a % of total generating capacity

Relative ranking 3rd

- a) IBD anticipates that HSSGP will support the installation of 20 MW of renewable energy.
b) The installed capacity in Honduras is 1,700 MW as of 2012.
c) The project therefore supplies an additional 20 MW/1700 MW = an additional **1.18% installed capacity.**

116. Increased access to modern energy services:

Relative ranking 3rd

- a) The EG has assumed that each company supported has 300 employees, enabling access to renewable energy for $(300 \times 20) = 6,000$ people.
b) In addition, the EG has assumed that the 20 MW of new installed capacity will support $(20,000,000 \text{ watts} / 500 \text{ watts usage per household} \times 5 \text{ members of each household}) = 200,000$ people.
c) Clarification should be sought on whether self-supply projects in the pipeline are also intended to support local domestic usage, as this is not evidenced in the concept note.
d) Total increased access = $(6,000 + 200,000) = 206,000$ people.
e) **Number of people per US\$ of SREP funds requested would be $(206\text{K} / 5.5 \text{ MM}) = 0.0375$ people.**

Readiness

117. HSSGP was awarded a score of 10% out of a possible total of 15% for readiness, ranking 3rd.

118. *Regulatory framework: ranking 4 out of 5*

- a) HSSGP is intended for off-grid self-supply projects for private sector businesses. These do not require regulatory approval from the Honduran government, so that implementation is massively simplified.
b) Given the current high cost of energy in Honduras, unreliable grid power and the weakness of the electric utility, it is likely that these projects will be commercially viable for some time to come, assuming that the political environment remains sufficiently stable.

119. **Institutional capacity: ranking 3 out of 5**

- a) A pipeline for corporate self-supply has already been identified
- b) There is already significant MDB activity in the self-supply market.
- c) However, IDB states “the funding will support the establishment of a new business model and associated legal and contractual frameworks for self-supply projects.” This framework must be in place for the proposal to meet the readiness criterion, and it will take time to generate a robust model.
- d) There is no PPA framework currently in place for third party suppliers, and this too will require considerable legal and contractual work, if the intentions is ultimately to develop this market.

120. **Project ownership: ranking 3 out of 5**

- a) This proposal is complements the Honduras Renewable Energy Financing Facility (H-REFF), anticipated to come on stream in H2 2014. However, this is a loan guarantee, rather than an equity initiative.
- b) IDB has clearly been very active in the area, and is committing 40% of their overall facility for the Caribbean and Latin America (\$20 MM out of \$50 MM) to this initiative.
- c) The Nordic Development Fund joint provides essential information through 8 completed feasibility studies, and a further 4 ongoing studies.
- d) However, local financial intermediaries have not, as yet, engaged despite established credit lines and a training program that has reached out to two local banks and the Honduras Banking Association.
- e) It is also not envisaged that third-party providers will be involved in this initiative until the models are proven and established.
- f) The extent of support from the Honduras government is unclear, particularly in view of the recent unrest.

121. **Implementation risk: ranking 3 out of 5**

- a) Feasibility studies demonstrate economic viability.
- b) Self-supply models are robust and widely applied in other geographies, albeit where government subsidies are available, offering solid models for this initiative.
- c) Honduran energy prices are in the region of \$0.20 per KWh, so there should be ample demand for cheaper, more reliable sources of supply.
- d) However, the political and economic climate is troubled, with the Honduran government re-assessing its energy policy and ENEE under pressure.
- e) Many corporate balance sheets may be too small to fund 50% of the project costs.
- f) There is also a concern around sufficient private sector engagement, beyond corporate self-suppliers. Without a real focus on capacity building, it may be hard to make the project viable longer term.

122. **Project design clarity: ranking 3 out of 5**

- a) In principle, self-supply renewable energy is well understood and the concept note is clear as far as it goes.
- b) Questions remain to be clarified, however, around management of the loan guarantee. If IDB has custody of the guarantee, guidelines should be put into place to avoid conflicts of interest. It would also be helpful as the concept is developed, to clarify whether this is intended to be a virtual or a funded guarantee, and under what conditions it can be triggered.
- c) With regard to the \$500K non-grant funding, the use of funds is not yet clear. One possibility is to establish standard documentation for projects of this kind, although as this should need to be done only once, the sum requested is quite generous. Another possibility will be to provide training for local banks. Again the sums involved are generous relative to the likely costs. As the concept is developed, it would be helpful to have more detail on the allocation of this money.

Commercial Sustainability

123. HSSGP was awarded a score of 6% on commercial sustainability, out of a possible total of 15%, ranking 3rd in this category.

- a) The fundamental question raised by this project is the loan guarantee structure. It provides first-loss guarantee to IDB in mitigation of its own risk concerns, but it does not provide a first-loss guarantee to any other participant. The EG finds it difficult to envisage how private sector engagement will be scaled for some years hence, until self-supply renewable energy demonstrates a robust and viable model, since there is no mitigation for any other lender or equity provider.
- b) There is a further question around the capacity of local corporate borrowers to pay for their renewable energy installations through energy savings. As the concept is developed, it will be helpful to understand how due diligence on corporate balance sheets, profitability, growth prospects and management depth is to be conducted and by whom. The oversight mechanism is also important, as is the tenor and structure of the loans envisaged.
- c) Leverage is anticipated at 50% with IDB loans providing the debt, and the equity provided by the company. These relatively low leverage ratios will significantly reduce the profitability of the renewable energy investment, and will lengthen the payback period. Until local banks are ready to provide debt financing, and thus raise the leverage ratio, these renewable energy installations will look less viable than they otherwise might.
- d) Small-scale distributed energy projects suffer from disproportionately high costs and it would be useful to understand whether there is a minimum size for each installation while the initiative is getting established and is proving itself

124. **Expert Project Recommendations:**

- a) The EG favours an intervention that supports self-supply renewable energy in a political environment where such projects cannot otherwise flourish. The high economic and environmental cost of thermal energy in the Honduras means that businesses cannot compete in the global market and this limits economic development. However, we have reservations concerning the purpose of the requested funds which exclusively protect the MDB and not private sector players; the proposed structure of the market intervention which requires the corporates themselves to raise 50% of the equity; and the overall score which may indicate a need for the concept to be revisited, and its parameters reconsidered.
- b) The IDB should consider further clarification of the following aspects of the concept, as it develops: Most importantly, structuring the guarantee facility; also, engaging local partners other than the corporates; risk mitigation for other lenders; engaging local communities and suppliers; local employment; and precise use of the \$500K non-grant funding.

VIII. PROCEDURAL CHALLENGES

125. SREP II has shown tremendous advances on SREP I in terms of the MDB template, the quality of response, the ranking criteria and the time allotted for the Chair to turn around a lengthy document. For this, we are very appreciative.

126. The EG would nevertheless like to highlight areas where friction still occurs, in the event that the sub-committee might like to consider these for later funding rounds.

Conceptual versus Detailed Proposals

127. As with SREP I, the EG saw an ongoing tension between concept-level proposals and a reasonable level of readiness.

128. The EG continued to find that answers were not always forthcoming and that estimates for projected leverage, increased supply and increased access were often quite speculative.

129. A particular concern was the engagement of the private sector. In some cases, engagement with the private sector is unlikely to occur at project launch, but will be developed gradually over time as models prove themselves to be robust and commercial. As with SREP I, the EG felt that MDBs had selected entities with which there were already strong existing relationships or ongoing projects. Opportunities might be lost unless MDBs reach out beyond existing partnerships. One way to circumvent the problem might be to provide small grants for developing project proposals so that MDBs can commit resources to the initiative, before funding has been awarded.

Engagement by MDBs

130. We noted that MDBs did not always submit according to the requested format, and that substantive and crucial new information was presented in our audio and video meetings. We suggest therefore, that the format should be rigorously respected, and that non-compliant proposals be declined, as happens with comparable situations such as EU funding proposals.

131. SREP I and II have set a precedent whereby the MDBs may expect to always be consulted for clarifications during the CN evaluation process. Ideally, CNs should respond to the precise SREP evaluation criteria so that such consultations become a tool of creative enquiry, rather than an effort to establish basic details. Having said that, MDB conversations were productive and we wonder whether there might be a way for the EG and the MDBs to collaborate more creatively in later SREP rounds.

132. The EG observed moments of tension with MDBs who appeared to find certain questions too challenging. However, we raise questions to ensure that we understand fully what is being proposed, and to search out areas of weakness or risk that can be brought to the attention of the MDBs and the SREP sub-committee, and ultimately remedied. It may be helpful in future to redefine roles for all participants so that expectations are in accordance.

133. We would request that the MDB team leader be present to answer questions, since that individual has full knowledge of all aspects of the project. Team members may not always have the same level of understanding.

Pipeline

134. The EG was concerned that there were only three submissions in this round, and that one of the three was a reworking of a SREP I submission, albeit very notably improved in quality.

135. It seems that the funnel for concept submissions is narrow, since MDBs are the only channel available. We understand that private companies are eager to submit but are currently required to do so in collaboration with MDBs.

Administration

136. It is entirely understandable that a remote working arrangement was suggested for SREP II, because of cost-cutting initiatives within the World Bank.

137. However, the work of the EG requires discussion, reflection and exchange of ideas. Working remotely meant that a free-flowing conversation with a rapid exchange of ideas became impossible. Technology problems and different time zones exacerbated the problem. This problem could be simply addressed if EG meetings were to be held in person, rather than remotely.

IX. EG RECOMMENDATION TO THE SUB-COMMITTEE

MDB Accountability

138. MDBs were responsive and helpful throughout. However, the EG recommends:
- a) Greater MDB engagement prior to their funding application, possibility with the help of a seed grant from SREP.
 - b) Careful compliance with requested format.
 - c) Availability of team leader for EG meeting.
 - d) More robust project data and financials.
 - e) Clarity on how MDBs source private sector partners

Private Sector Engagement

139. The EG remains concerned that MDBs are biased towards existing private sector partners, possibly precluding new and innovative entrants from consideration. It is not clear that they are fully adopting the procedures recommended for inviting expressions of interest in Clauses 13 and 14 of the Procedures. In some cases, private sector engagement can only be fully realised once a project is well established and proven. The EG recommends that this be carefully monitored on an ongoing basis by the SREP sub-committee.

140. It is recommended that the MDBs clarify their engagement with local communities to seek out new private sector partners, and that projects which evidence strong private sector partnerships should be privileged.

141. The EG also suggests that the funnel for concept submissions be broadened. Private companies that meet well-defined qualification guidelines should be encouraged to submit directly, thus ensuring that opportunities to involve commercial organizations are optimised for the benefit of the country in question and for the SREP program in particular.

EG Accountability

142. The EG would welcome some methodology for monitoring their performance. It would be helpful for example, to assess rankings against semi-annual updates on the progress of a project, including spend against budget, supply and access data, private sector engagement, speed of implementation and, ultimately, commercial sustainability.

143. In this way, the sub-committee might useful gauge the value-added of the expert group's input.

APPENDIX A: EXPERT GROUP PARTICIPANTS

Four experts were appointed by the CIF Sub-Committee for SREP I, two from those proposed by the pilot countries, and two from those proposed by the SREP contributor countries. This same group was appointed to review SREP II. Given that we were familiar with the SREP program and with participating MDBs, this made for a particularly productive set of meetings, and a greater level of in-depth consideration than was possible in the time constraints imposed by SREP I.

Each member of the EG brought different and complementary skill sets, and jointly formed a highly functional team:

- Public and private sector backgrounds
- Detailed in-country knowledge, particularly for Kenya.
- Hands-on experience of specific renewable energy and energy mitigation technologies, including solar PV and thermal and biomass.
- Financial expertise, notably with financing structures and impact funds.
- Gender diversity

Name	Country	Title	Organisation
Tamara Babayan	Armenia	Director	Armenia Renewable Resources and Energy Efficiency Fund
Nadia Crandall (Chair)	UK	Director	Harvard Business School Angels of London
Ashington Ngigi	Kenya	Managing Director	IT Power Eastern Africa
Robert van der Plas	Netherlands	Director	Marge Sarl

APPENDIX B: DETAILED FINAL PROJECT RANKINGS

Criteria and Projects	Unit	Weight	Honduras Self-	Score	Kenya Climate	Score	Kenya Olkaria	Score
			Supply		Facility		geothermal	
			IDB		IBRD		AfDB	
Consistency with SREP objectives	yes/no		yes		yes		yes	
Alignment with objectives of country IP	yes/no		yes		yes		yes	
Level of Innovation		25%		16%		20%		23%
Market creation	5		4		4		4	
Innovative financing structures	5		3		3		4	
Piloting new business models	5		3		5		5	
New partnerships	5		3		4		5	
Projected Leverage of SREP Funds	5	15%	1:8	12%	1:4.5	9%	1:20	15%
Increased RE supply or access								
MWh per annum per \$ of SREP funding		15%	0.015	4%	0.010	3%	0.051	15%
New installed MW as a % of existing generating capacity		15%	1.18%	2%	2.04%	4%	7.60%	15%
Increased access per \$ of SREP funding		30%	0.038	6%	0.195	30%	0.063	10%
Readiness		15%		10%		12%		11%
Regulatory framework	5		4		5		3	
Institutional Capacity	5		3		4		3	
Project ownership	5		3		5		4	
Implementation risk	5		3		3		4	
Project design clarity	5		3		3		4	
Commercial Sustainability	5	15%	2	6%	3	9%	4	12%
Total Score		130%		56%		87%		100%
TOTAL SCORE LEVELISED		100%		50%		68%		80%

APPENDIX C

EXPLAINING DETAILED CALCULATIONS

Consistency with SREP objectives:

This is a binary yes/no ranking and it was determined that each project met the objectives.

Alignment with objections of country IP:

This is a binary yes/no ranking and it was determined that each project met the objectives.

Level of Innovation:

- Each of the four sub-criterion were ranked on a scale from 1 to 5, with 5 the maximum score.
- The total for each project was calculated, then divided by the maximum of 20 points, and multiplied by the weighting of 25%.

Projected leverage of SREP funds:

- The ratio of SREP funds to the overall project cost was calculated, and a tiered scoring was applied. The score divided by the maximum of 5 was multiplied by the weighting of 15%:
 - Ratio of 1:1 score 1 point
 - Ratio of 1:2 score 2 points
 - Ratio of 1:4 score 3 points
 - Ratio of 1:8 score 4 points
 - Ratio of > 1:8 score 5 points

Increased renewable energy supply or access:

- ***MWh per annum per \$ of SREP funding:*** MWh were calculated for each project and divided by the SREP funding requested. The highest number received the maximum score of 15%. The score for the lower ranking projects was achieved by dividing their MWh per \$ by that of the top-ranking project, and multiplying by the weighting of 15%.
- ***New installed MW as a % of existing generating capacity:*** Estimated new MW were divided by the existing installed MW in each country. The highest percentage received the maximum score of 15%. A score for the lower ranking projects was reached by dividing their percentage by that of the top-ranking project, and multiplying by the weighting of 15%.
- ***Increased access per \$ of SREP funding:*** The increased number of men and women gaining access to renewable energy was estimated, using an assumption of 500 watts consumption per household per annum, and 5 people for every household and farm. This number was then divided by the amount of SREP funding requested. The highest number received the maximum score of 30%. A score for the lower ranking projects was reached by dividing their number by that of the top-ranking project, and multiplying by the weighting of 30%.

Readiness:

- Each of the five sub-criterion were ranked on a scale from 1 to 5, with 5 the maximum score.
- The total for each project was calculated, then divided by the maximum of 25 points, and multiplied by the weighting of 15%.

Commercial Sustainability:

- Each project was given a qualitative ranking out of 5. The score was calculated by dividing this ranking by 5 and then multiplying by the weighting of 15%.

Total Score:

- In an attempt to be as fair as possible to every submission, the EG ranked both supply and access criteria. This resulted in a total score out of 130%.

Total Levelised Score:

- The score in each category was simply totalled, with the exception of category c, increased supply or access to renewable energy. These elements were separately totalled and divided by 2, in order to arrive at a score out of 100%.

APPENDIX D

TIME LINE FOR EXPERT GROUP

January 14th 2014:

Confirmation of Expert Appointments for SREP II by the CIF Administrative Unit.

April 7th 2014:

MDB concept notes send out to EG by the CIF Administrative Unit.

April 14th 2014:

Administrative call with EG and CIF Administrative Unit

April 17th 2014:

EG call to discuss questions and issues arising from concept notes and to agree a modus operandi.

April 22nd – 24th 2014:

EG meetings by video conference, with Robert van der Plas and Nadia Crandall working from London, Tamara Babayan working from Tbilisi, and Ashington Ngigi working from Nairobi.

May 2nd 2014:

Follow-up conference call with EG to review draft report.

May 7th 2014:

Submission of EG report to the CIF Administrative Unit

ANNEX II: MDB COMMENTS ON THE EXPERT REPORT FOR SREP

II.1 African Development Bank

African Development Bank Response to Expert Group Report SREP Private Sector Set-Aside II

The African Development Bank (AfDB) is pleased to receive the report of the SREP Expert Group and the recommendation for endorsement of its Olkaria VI Geothermal Power Plant concept proposal. The AfDB also acknowledges and welcomes the Experts' observations and recommendations related to process improvements and expanded participation under future SREP Set-Aside rounds. The AfDB continually seeks to achieve the broadest level of private-sector participation possible in its geographic markets and would be supportive of any recommendation and subsequent efforts to enhance the overall effectiveness of the SREP program.

Although in the early stage of project development, the Olkaria VI demonstrates considerable merit. The Olkaria VI project will represent the first geothermal public-private partnership in Kenya and add an additional 140 MW of installed capacity, increasing the country's geothermal installed capacity by approximately 58% and expanding clean, more affordable and reliable energy to approximately 1.4 million people in a country with a current energy access rate of only about 18%. Moreover, the Olkaria VI project aims to strengthen local communities by ensuring economic opportunities for residents and businesses alike through specific targets for local hiring and sourcing of supplies and materials. Lastly, the project is expected to demonstrate significant, favorable environmental impact with green-house gas emissions savings of about 15 million tons over its twenty-five year life.

While recognizing the positive potential and expected benefits of the project, the AfDB remains cognizant of the potential issues, of this early-stage proposal, such as those pointed out in the report of the Expert Group and largely consistent with those noted in the AfDB original Concept Note. As the composition of the Sponsorship team is further defined and the project's financing proposal and budgets are more fully developed, the AfDB, through its comprehensive due diligence processes during the project preparation phase, would be able to clarify and/or satisfactorily address specific points related to the capacity of the national grid, the proper alignment of all project costs and risks among the various stakeholders, and the most effective and catalytic use of SREP loan resources.

Additionally, in response to other items highlighted in the report, the AfDB would like to clarify the following: (i) the \$500,000 grant requested under the proposal would be used exclusively in supporting the Government of Kenya (GoK) in addressing legal and regulatory constraints related to the project and not to cover for high first-mover costs and lack of a technology track record; (ii) the \$255 million in MDB resources referenced in the financial plan of the Concept Note should more accurately read MDBs and other sources such as DFIs [in any case, with amounts and sources being more clearly identified at a later stage of proposal development]; and

(iii) total funding of \$20.5 million relative to estimated total project costs of \$500 million would result in expected leverage of SREP resources of 1:24 not 1:20.

Despite the fact that the Government of Kenya has made significant progress in developing an appropriate legal and regulatory framework governing private investments in the power sector, there are still a number of legal and regulatory barriers that need to be addressed in order to fast-track the development of utility-scale renewable energy projects in the country. The lack of access to comprehensive, accurate and reliable information on the renewable energy regulatory landscape in Kenya has been a significant barrier to private sector participation. Furthermore, the number and types of licenses and/or clearances required, application procedures and associated costs, contacts within relevant government entities, turn-around times and the different sequential steps in the application processes are examples of barriers that the project will also try to address.

In summary, the Olkaria VI project represents considerable environmental, social and economic benefits for Kenyans and would result in significant leveraging of SREP funding. When successful, the project would also be replicable as the Go K continues to pursue the development of its considerable geothermal resource potential. The AfDB is appreciative of the contributions of the Expert Group, and it is encouraged by the possibility of being able to further develop this project concept and proposal.

II.2 World Bank

Response by IBRD to Expert Group report on Kenya Climate Venture Facility SREP Round II
We would like to express appreciation to the Expert Group for their thoughtful comments on the Kenya Climate Venture Facility (KCVF) project and welcome their favorable recommendation for the project endorsement. The KCVF will be the **first financing vehicle of its kind in the East Africa region exclusively dedicated to the financing and development of early-stage climate-tech companies, specifically addressing the market failure of the acute seed/early-stage financing gap in Kenya**. It directly supports the efforts of Government of Kenya to mitigate and adapt to climate change through the deployment of appropriate climate and clean technologies. This project promotes building *local* green industries that can drive sustainable economic growth and provide environmental benefits. We also would like to acknowledge the fact that given that the proposal is at a concept note phase, the points raised by the Expert Group will be further developed and detailed during the project preparation phase. We would also like to provide the following clarifications on some of the issues raised by the Expert Group.

Managing the quality of pipeline. We recognize that the quality of pipeline is paramount to the success of the project. It is important to note that while KCIC will be a key source of pipeline, KCVF will have the ability to also target other viable investments outside KCIC portfolio. Therefore, through both the KCIC's portfolio and outside channels, we do think that there will be opportunity to identify a significant number of investment opportunities given the target company and risk profile that KCVF is targeting.

Market Demand Stimulation - We note an important observation that the project does not focus on demand stimulation in the Kenyan consumer and business market. This is by intention –

the project is an “access to finance” project that aims to invest and enable capital to innovative and promising early-stage renewable energy and clean-tech companies targeting the Kenyan market. The market development and marketing will be done by individual portfolio companies depending on which segment of the Kenyan market they’re targeting. The rapid growth of existing innovative clean-tech companies in Kenya that have already moved into the growth phase suggests that there is demand for the kind of products that the KCVF portfolio will target. In evaluating individual investment opportunities, KCVF will target those companies that aim to meet existing or latent demand for the products they’re offering, and have developed a sound marketing plan to target different market segments. Additionally, it will provide market development and marketing support as part of its assistance to portfolio companies, both directly as well as with consortium partners such as GVEP. Furthermore, the project will also explore innovative consumer finance models - particularly for the rural Kenyan market – to make products more affordable to target customers.

Costs of the facility relative to the size of assets under management. The actual pre and post investment cost of KCVF will be much lower than a typical fund because the targeted companies will have a more straightforward diligence process and simpler investment structures to expedite the pre-investment costs. Additionally, the KCIC - by sourcing and pre-screening deals from its portfolio, and providing post-investment TA – will help reduce the pre and post-investment cost burden of KCVF. Lastly, the cost structure of KCVF is not expected to be based on an annual fee but rather a management budget that will be a function of the current size of portfolio and planned investment for the upcoming year(s). As such the cost will be proportional of the actual investment portfolio, rather than a fixed percentage of the total capital of KCVF (as in a traditional fund structure). Nevertheless, we do expect that the on a percentage basis the cost will be quite high because of the small size of the KCVF Facility (and portfolio).

Short-list of qualified facility managers. Opposite to what has been noted in the report, there are a few qualified fund managers that have been identified and that already expressed strong interest in managing this proposed facility. As specified in the proposal, once the project enters the appraisal phase, KCIC will go through the selection of the facility manager and identify the most suitable firm based on specific parameters including the strategic interest and capacity to run an early-stage investment program in renewable energy and clean-tech in Kenya.

KCIC consortium structure. KCIC is operated by a consortium comprising of four members with distinct but complementary expertise. All the four Consortium members have extensive experience working with innovative entrepreneurs and have physical presence in Kenya and since the launch of the KCIC they were able to demonstrate complementarity, collegiality and ability to capitalize on each other’s strengths in provision of technical assistance to the local entrepreneurs. It is important to note that the Consortium is in the process of forming KCIC as a legal entity (Company limited by Guarantee), a process expected to be completed in the few months.

Exit strategies for investors. In light of the higher exit risk associated with this category of early-stage companies, KCVF will also consider instruments that have “self-liquidating” elements to them. These could include equity with management buy-back options, redeemable preferred shares, or more innovative financing instruments such as revenue/cash-flow financing

mechanisms where payouts to investors are tied to revenue/cash performance of the company. Important to note that the choice of such instruments will be tailored to the need and project cash-flow trajectory of companies, and designed not to prematurely take cash out of the company before it has reached a certain stage of maturity. The exact design of such innovative instruments will be further developed in the project preparation phase.

Risk of market distortions where private investors pick best seed companies, leaving the facility with weaker companies and sub-optimal returns. The observations and concern of the expert group about the risks of over-subsidizing co-investors into individual portfolio companies (through first loss coverage) are noted and appreciated. The project team feels however that it is important to engage co-investors in the project (rather than only leveraging capital at the Facility level):

- Diversify KCVF portfolio risk - Start-up/early stage companies tend to be “capital hungry” as they often take a few years to become cash-flow positive. Rather than KCVF provide all the seed/early-stage capital to meet these needs, it is more prudent to de-fray investment risk by bringing in other co-investors into individual deals.
- Value to portfolio companies - Apart from capital, such co-investors would bring also other forms of “value-add” that would contribute to the growth prospects of the companies. With potentially deeper pockets than KCVF, they will also be able to develop more comfort with KCVF portfolio companies and be a source of growth-stage capital for these companies.
- Enable SME/impact investors come in more early – Bringing in more direct investors into deals earlier than they typically would do will contribute to the development of the early-stage investing eco-system in Kenya as such investors develop more of a practical understanding of playing in this space.

Such potential co-investors are not able or willing to invest in start-up/earlier stage companies because the investment risk is much higher for these companies than that for traditional SME and/or growth stage companies. Therefore this is a market failure problem within the SME financing curve, which this project aims to address through the value-proposition of KCVF and the risk mitigation support requested through SREP. Appropriately designed risk mitigation support through the use of public funds can unlock this source of capital for the types of companies that the project targets.

However, we do agree that the risk to investors at the deal level is lower than the risk to investors coming in at the Facility level. As such, the level of risk mitigation support (through the SREP “first loss” cover) will be lower for the former than the latter. During the project preparation phase, the project team will develop in more detail the appropriate levels of mitigation support to be provided to the two levels of investors to ensure that these capital pools are unlocked but are not over-subsidized. Furthermore, at the deal level, the extent of risk cover per co-investor will be tied to the maturity level of the portfolio company to ensure that such investors are not over-subsidized.

II.3 Inter-American Development Bank

Response by IDB to Expert Group report on Honduran Self-Supply Renewable Energy Guarantee Program Second Call for Proposals of the SREP Set Aside

The IDB would like to express its appreciation for the thoughtful and committed work of the Expert Group (EG) in evaluating the proposals for this second round of the SREP Set Aside. As noted by the EG, the infant stage of this process and its nature required them to propose solutions and deal with tensions, in limited amounts of time. We acknowledge the difficulties associated with it, and would hereby like to offer our constructive views to support that same objective.

We are glad to see that the EG found that all three submissions met “the minimum eligibility criteria as long as certain concerns are addressed, and should therefore be appropriately considered for SREP set aside funding.” In response to the observations of the EG, we have shared with them ex-post detailed clarifications to ensure adequate understanding of our proposed concept. We would hereby like to highlight to the SREP Trust-Fund Subcommittee a couple of these points, which we believe could have benefited from additional interaction between the EG and IDB. We are also taking this opportunity to share our views on aspects of the evaluation process and the scoring methodology, which we believe should be revised in a next instance.

EG Evaluation - General Comments

- 1. Mobilizing private investment.** In various instances the EG expresses reservations over the limited potential effect of the IDB proposal in mobilizing private financing beyond IDB’s own capital. We don’t share this view, for the following reasons: (i) by allowing debt leverage (even if it was initially only IDB debt and for 50% of total project cost), this model could make a number of investments (including those in the identified pipeline) financially viable, and get the other 50% of total projects costs covered by equity or co-financing from another lenders; (ii) while the program was initially conceived to provide direct risk mitigation support to IDB lending, other lenders could also benefit; for example, IDB’s lending could be subordinated to theirs (taking advantage of the risk mitigation offered by the SREP guarantee), thereby offering risk mitigation for other lenders too; (iii) the program’s main immediate goal is not to maximize leverage but rather to have a critically needed demonstration effect for these technologies, applications and business models, which will address some of the information and risk perception barriers (in combination with some capacity building activities to be conducted using the requested grant funding), in order to later enable further financing and leverage from local financial institutions. It will require some time for this demonstration effect to occur, but once some of the key industries move on this, other industries and lenders are expected to quickly follow. This last point—the effect of demonstration in reducing risk perception—is at the base of our view of the commercial sustainability of self-supply solutions promoted by this program. Lastly, while providing guarantee support to local financial institutions is not envisioned as critical for the initially identified investments, IDB will also consider such possibility as the pipeline further develops and it is deemed needed.

2. **Readiness.** We were very surprised with the low relative position (last) and scoring awarded to IDB’s proposal under the readiness criteria. It was significantly counter-intuitive to us given that: (i) the proposed model has already a programmatic framework established that would facilitate internal processing and accelerate MDB approval; (ii) no major policy, regulatory or institutional capacity challenges are present; and (iii) as shared with the EG, IDB had already identified and completed detailed engineering studies for at least nine projects (total investment cost of about \$30M) eligible for investment under this program, which would immediately require the SREP guarantee support. It therefore looked to us that this program, which with SREP support should be able to close the first transactions within 6-12 months, would score at a superior level in readiness.

Scoring Methodologies and Evaluation Process - General Comments

1. **Scoring methodologies.** While in this occasion the pre-defined evaluation criteria were applied by the EG as specified, there was still room for the EG to define specific scoring algorithms under each category, that could affect scores in unpredicted ways. In this case we consider that the selected criteria and the scoring methodology had a significant negative effect on the IDB proposal and, in general, on any proposal supporting non-baseload technologies with good but not extreme leverage ratios. Fifty percent of the points missed by the IDB proposal (relative to the maximum of 100) stem from these issues within just one criterion (Increased Supply of Renewable Energy). This was a combined result of the proposed scoring methodology and its effect in scores in the presence of what we would consider “outliers”, as well as the criteria not being systematically adjusted in all cases for the size of the investment (this last issue was not a decision by the EG, but rather the result—potentially an oversight—of the criteria previously approved by the Subcommittee). We make this observation because the relatively low score received by the IDB proposal as a result of this is an important reason behind some EG reservations. A different (more appropriate, in our view) methodology may have avoided this. Details are provided at the end of this note.
2. **Process.** We believe that the EG evaluation process would be improved if an opportunity for feedback and clarifications from the MDBs to the EG initial written assessment is provided, before the EG proceeds to the final scoring and recommendations. As the EG recognizes in the report, the evaluation could have benefited from additional time, and enhanced engagement. In our review of the report we identified—and have consistently provided specific clarifications to the EG—areas where we thought additional feedback previous to a final report would have been beneficial in more properly assessing the proposals. We hope this limitation will not negatively affect the possibility of supporting our current proposal, and that lessons can be effectively incorporated in the next round.

EG Evaluation - Detailed Comments

EG Comments	Response
Page 25. “HSP therefore ranks high on financing structure innovation ”	It is unclear why then the IDB proposal only got 3 out of 5 points here.
Page 25. “ IDB and other MDBs have credit lines with local banks that are not currently utilized ”	The credit lines with local banks are being utilized , but they have targeted other technologies (mini-hydro) and not the small scale renewable energy technologies (solar, biomass, biogas) that this Program will support.
<p>Page 25. “However, it is too early for third-party PPA providers, local lenders or local equity investors to become involved”</p> <p>Page 27. Project ownership. “It is also not envisaged that third/party providers will be involved in this initiative until the models are proven and established”</p>	This is not the case: there are several companies we are in discussions with who are proposing these projects and negotiating PPAs.
<p>Page 25. Project Leverage Ratio. “Sources of funding beyond the SREP set aside funds include the following:</p> <ul style="list-style-type: none"> • IDB \$20 MM • Equity from corporates \$20 MM” 	These \$20M may not only come from the company’s equity, but also, as mentioned during the call, from other DFIs or local banks, in a senior/less risky position than the IDB’s financing due to the first-loss guarantee provided by SREP.
<p>Page 25. Project Leverage Ratio. “It would be helpful to understand ... whether their entire \$20 MM of funding relies on this guarantee, or whether they would consider starting out with a lower level of activity”</p>	IDB Projects that may be funded without the need for a SREP guarantee were not counted as part of the \$20M , and would provide additional leverage. This estimate covers only projects where we think the SREP guarantee would really provide financial additionality.
<p>Page 26. Institutional capacity. “IDB states that ‘the funding will support the establishment of a new business model and associated legal and contractual frameworks for self-supply projects.’ This framework must be in place ...”</p>	This may have been misunderstood. These are private-equity projects that do not require government or regulatory approval . The lawyers between the two companies involved just need to agree on the PPA, lease agreement, or EPC.
<p>Page 27. Project ownership. “The extent of support from the Honduras government is unclear, particularly in view of the recent unrest.”</p>	We are not sure how any recent unrest referred to would jeopardize this program. Our staff on the ground does not consider any conditions have recently become particularly unfavorable for this type of project. In regard to the support from the government, we shared the proposal with the government in late March, and we have not since received any expressions of concern.

<p>Page 28. Project design. “Questions remain to be clarified, however, around management of the loan guarantee If IDB has custody of the guarantee, guidelines should be put into place to avoid conflicts of interest. It would also be helpful as the concept is developed, to clarify whether this is intended to be a virtual or a funded guarantee, and under what conditions it can be triggered.”</p>	<p>As explained during the call with the EG, this would be a funded guarantee. The average percentage provided by SREP would be 25%, so the IDB would have significant capital at risk in every loan to mitigate conflict of interest.</p>
<p>Page 28. Project design. “With regard to the \$500K non-grant funding, the use of funds is not yet clear...”</p>	<p>As mentioned during the call with EG costs of additional investment grade engineering feasibility studies are \$30,000-\$100,000. It is envisioned that 5-10 studies would be conducted at an estimated combined cost of \$200,000-\$400,000. Additionally in-depth training to local FIs showing the lessons learned, depending on the number of FIs provided training, would be \$50,000-150,000. Remaining technical cooperation (TC) resources might be used to reduce the costs of environmental studies to meet IDB/IFC criteria, which are \$5,000-\$25,000 for biogas and biomass projects. The TC could help reduce legal costs, which can be \$20,000-\$50,000 per loan.</p>
<p>Page 28. Commercial Sustainability. “The EG finds it difficult to envisage how private sector engagement will be scaled for some years hence, until self-supply renewable energy demonstrates a robust and viable model, since there is no mitigation for any other lender or equity provider.”</p>	<p>Private financing could also come from other DFIs or local banks, perhaps in a senior/less risky position than the IDB’s financing due to the first-loss guarantee provided by SREP. Also, it is possible that local banks will provide co-financing at shorter tenors and based on corporate guarantees of tangible existing assets (not to the energy assets) to co-finance these projects. Moreover, the fact that demonstration will take some time, and that additional private investment at a significantly larger scale will not occur until then, does not in our view mean that such demonstration and replication will not be provided and that this type of projects would therefore not become commercially sustainable.</p>
<p>Page 28. Commercial Sustainability. “There is a further question around the capacity of local corporate borrowers to pay for their renewable energy installations through energy savings...”</p>	<p>The engineering and feasibility studies we have completed for nine projects show the financial viability of these projects, therefore providing evidence that the energy savings would enable recovering the investment costs.</p>

<p>Page 28. Commercial Sustainability. “As the concept is developed, it will be helpful to understand how due diligence on corporate balance sheets, profitability, growth prospects and management depth is to be conducted and by whom. The oversight mechanism is also important, as is the tenor and structure of the loans envisaged.</p>	<p>We don’t understand why this is a concern for commercial sustainability criteria. Due diligence and loan supervision is a standard practice at IDB, which will conduct all necessary related functions as lender to these projects.</p>
<p>Page 29. Commercial Sustainability. “Leverage is anticipated at 50% with IDB loans providing the debt, and the equity provided by the company. These relatively low leverage ratios will significantly reduce the profitability of the renewable energy investment, and will lengthen the payback period. Until local banks are ready to provide debt financing, and thus raise the leverage ratio, these renewable energy installations will look less viable than they otherwise might.”</p>	<p>Lower leverage and return does not mean they would not be viable, though. The projects for which we have conducted engineering studies offer reasonable returns. Also, it is possible that local banks will provide co-financing at shorter tenors and based on corporate guarantees of tangible existing assets (not energy assets).</p>
<p>Page 29. Commercial Sustainability. “Small-scale distributed energy projects suffer from disproportionately high costs and it would be useful to understand whether there is a minimum size for each installation while the initiative is getting established and is proving itself”</p>	<p>Costs have come down significantly. Solar projects in particular, which are modular, do not suffer from disproportionately high costs. Many large-scale plants require transmission and voltage step-up costs that small-scale behind the meter projects do not incur. Existing costs for complete rooftop systems are below \$2/watt, less than some recent large-scale projects that the IDB has financed. The minimum size is based on the cost of the fees associated with the loan, such as the environmental, social and legal costs mentioned earlier. Based on these costs, a loan of less than \$2M may be challenging, though with the ability to cover some of these costs from grant funding the loans could be as low as \$500,000.</p>

<p>Page 29. Expert Recommendations. “However, we have reservations concerning the purpose of the requested funds which exclusively protect the MDB and not private sector players...” “...and the overall score which may indicate a need for the concept to be revisited, and its parameters reconsidered.”</p>	<p>In our comments above we reiterate some ways in which this program expects to mitigate risk for private financing and thus crowd it in. We do not share the view that the lower score relative to other proposals should be a reason to revisit the concept, when 50% of the points lost (24 out of 50) do not stem from conceptual problems of the proposals, but rather from the scoring methodology issues—as detailed below—and the high bar on RE production set by another proposal (which for us is an outlier), under very different technological circumstances and leverage considerations.</p>
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Details on scoring “distortions” created by adopted criteria (from point 3 above)

The IDB proposal has, in our view, been disproportionately negatively affected by the definition of scoring criteria and methodologies under the “Increased Supply of Renewable energy” criteria (and the effects of outliers in it). This explains 50% of the points that IDB missed relative to the possible maximum of 100. Although the IDB program will provide cost-effective RE and economic co-benefits, it lost 24 out of the 30 points available under this criterion, mainly due to the following reasons:

- i. **Subcriterion 1. MWhs of RE / \$ of SREP investment.** The scoring methodology selected by the EG to score proposals under this sub-criterion would assign the maximum score for the most “cost-effective” proposal (measured in terms of MWh of RE per SREP \$ invested) and score the other proposals proportionally to their MWh/SREP \$ value relative to such highest value. The problem here is that the proposal with the highest “cost-effectiveness” (geothermal in Kenya) is—in our view—an outlier, given the combination of the high capacity factor of geothermal (85%) and the unusually high leverage expected (with SREP funding only 4% of total project cost yielding a leverage factor of 1:24). Beyond the significant disadvantage that any intermittent technology will have relative to geothermal base-load, the type of leverage factor offered by the geothermal proposal is rare, only feasible in very exceptional cases. An approach to scoring not based on extremes, but rather on averages or medians, or relative scoring based on positions, but not necessarily proportional to values, should be considered instead in the future, to avoid the negative effect of outliers.
- ii. **Subcriterion 2. MWs of RE installed capacity / Total installed capacity in the country.** In this case, this criterion ended up penalizing smaller proposals, since such measure was not adjusted for the total amount of SREP investment (this criterion was adopted by the Subcommittee, not by the EG). In this case too, the biggest proposal (Kenya geothermal, proposing a 140MW plant) was not adjusted—like no one else was, applying the criteria consistently—for the size of the amount of SREP financing requested (which was about four times bigger than the IDB proposal). As a result, in our view, this exacerbates the perceived inferior value of the contribution of one over the

other (with the detrimental scoring effect on the IDB one). **The IDB proposal therefore lost 84% of the maximum punctuation under this subcriterion.** If an adjustment was made according to the SREP \$ of investment, the proposal would have lost less than half these points.

- iii. **Split between RE generation and Access value.** While the following did not negatively affect the scoring of the IDB proposal, it should be taken into consideration for future rounds, as it may have such effect in certain occasions. Per the Call for Proposals guidelines, projects would be assessed based on either their RE generation value or their access value; one of the two would be selected by the EG based on which of the two objectives the project was mainly pursuing. While it was recognized that those with significant benefits on both dimensions could somehow get additional recognition, the scoring methodology finally adopted by the EG penalizes those which were—as expected—mostly supporting only one of the two objectives. According to such methodology, and contrary to what the guidelines indicated, instead of the EG picking one of the two objectives (RE generation value or Access value) the EG effectively averaged the value of each proposal in each of the two dimensions. This is not how the guidelines suggested proposals should be evaluated. So again, while this did not in this case penalize the IDB proposal, it should be taken into consideration in future rounds.

ANNEX III: REVISED CRITERIA AND TEMPLATE

CONCEPT EVALUATION CRITERIA FOR SREP SET ASIDE

1. Concept proposals will be submitted to the CIF Administrative Unit by the MDBs using the template provided in Annex I. SREP funds will be primarily provided as concessional reimbursable resources in the form of loans, guarantees, equity etc. for projects financed under the set aside. However, concept proposals which require grants may be considered on an exceptional basis if sufficiently justified.
2. Each concept proposal should specify how the concept meets the following minimum eligibility criteria:
 - a) consistency with SREP program objectives, principles and investment criteria, (see SREP design document and investment criteria for guidance), and
 - b) alignment with the objective of the country investment plan (see country investment plans).
3. If a concept does not provide sufficient evidence as to how it will meet both requirements, the expert group will not score the proposal.
4. The expert group will review and prioritize the project concepts based on the following criteria and weighting. Each criterion will be rated by the expert group from 1 (low) to 5 (high). After the weighting is applied for each criterion, the scores will be totaled to reach a final composite rating. Proposals will be shortlisted on this basis for recommendation to the SREP Sub-Committee. The review criteria are as follows:
 - a) *level of innovation* (25% weighting): this may include market creation, innovative financing structures, pilot testing of new business models, and new partnerships;
 - b) *projected leverage ratio* (15% weighting): expected ratio of SREP funds to total project amount. Recognizing that projects with significant levels of private sector financing should receive a higher appreciation over all.
 - c) *Increased supply of renewable energy or increased access to modern energy services, as applicable* (30% weighting): one of the following two criteria should be used, depending on the main objective of project. However, where projects are able to address both supply and access this should be noted. These projects could receive a higher appreciation over all.

- i. *Increased supply of renewable energy (30%):* this will be measured through two ratios (with the total score resulting by adding up the scores under each of them):
 - MWh¹ per annum per US\$ of SREP funds requested (15%)
 - New MW installed from renewable energy as a percentage of total energy generating capacity in a country (15%)
- ii. *Energy access (30%):* increased number of women and men, businesses and community connections to modern sources of energy, inclusive of grid and off-grid connections and other non-power modern energy services/ technologies, per US\$ of SREP funds requested. This indicator should be total women and men, businesses and community services² with connections estimated over the life of the project.
- d) *readiness (15% weighting):* projects are expected to be approved by MDBs within 12 months from the endorsement of the project concepts by the Sub-Committee. Assessment of readiness may include regulatory framework, institutional capacity, project ownership, implementation risk, or project design clarity; and
- e) *commercial sustainability (15% weighting):* the likelihood of a project being able to stand alone in subsequent iterations or on a larger scale, without the need for additional concessional funding.

¹ For consistency across proposals, we suggest that we stipulate the assumption regarding average capacity factors for each RE technology; e.g., 30% for wind, 20% for solar PV; 85% for geothermal; 50% for hydro; 60-80% for biomass. (xx MW installed X 8760 hours X capacity factor = annual MWh). For those projects which are technology agnostic, the MDB team will assume the capacity factor based on the expected mix of technologies in an hypothetical portfolio. If the project is able to offer hard evidence of a different capacity factor due to data collected at an exceptional site, that this data could be used if accepted by the expert committee.

² In line with the SREP Revised Results Framework approved in June 2012 if households are counted instead of people, the assumptions about household size should be stated in the document.

Timeline for the Delivery of the Second Round of Proposals under the SREP Private Sector Set-Asides

End November 2013

Agree procedures, criteria, timeline, and common format. Circulate revised procedures and criteria for Sub-Committee review and approval by mail by end of November 2013.

December 2013

Confirm participation of expert group from first round.

MDBs and CIF Administrative Unit to make available publicly through various channels, as appropriate, procedures, timeline and a common format as well as relevant background information. This will include revisions to dedicated pages on the CIF and MDB websites (as appropriate) as well as on websites in the countries and other communication means.

Immediately upon approval of the procedures by the Sub-Committee, the pilot countries and other proponents to work with MDBs to generate project/program ideas to be submitted as a concept note using the common format.

End March 2014

Deadline for submission of concept proposals (MDBs and project proponents).

Proposals compiled for review by the expert group (CIF AU).

Mid April 2014

Expert group meets to review and score all eligible proposed concept proposals and agree on recommendations to be submitted to the Sub-Committee.

End April 2014

Circulation of the expert group report to the Sub-Committee for review and endorsement of project concepts through a decision by mail.

Mid May 2014

Endorsement by the Sub-Committee of concepts to be developed further.

Annex I: Common Format for Project/Program Concept Note for Applying Resources from the SREP Competitive Set-Aside (Round II)

1. Country/Region:		2. CIF Project ID#:	
3. Project/Program Title:			
4. Date of Endorsement of the Investment Plan:			
5. Funding Request (in million USD equivalent):	<i>Grant:</i>	<i>Non-Grant (loan, equity, guarantee, etc.):</i>	
6. Implementing MDB(s):		<input type="checkbox"/> Private sector arm <input type="checkbox"/> Public sector arm	
7. Executing Agency:			
8. MDB Focal Point and Project/Program Task Team Leader (TTL):	<i>Headquarters- Focal Point:</i>	<i>TTL:</i>	

- I. General Project/Program Description:** Provide a summary description of the project, objectives, and expected outcomes. Which sectors would be targeted? Also, provide information whether this will be a solely private sector project, a PPP, or a public sector project financing private sector entities
- II. Context and market:** Provide brief explanation of country/sector context and an overview of the market (product nature, supply and demand status, prices, and competition. In the absence of other comparable products, provide a brief explanation on how the proposed product will substitute for existing products and the benefits from a climate standpoint, and the prospects of commercial viability. If proposing a new business model, provide information of comparable to business as usual). Also, provide an overview of current **market barriers** and how will they be reversed by the proposed project.
- III. Detailed Project description and Innovation:**
- a. Innovation** - how the project is innovative in terms of business model, financial instruments or structure, market creation, and/or new partnerships, and how the innovation will add value to the project
 - b. Technology, Product, and/or Business Model:** Provide description of the technology, the technology provider if identified, whether it has been tested, commercialized and viable commercially. If the project does not involve a technology, provide a description of the business model and its structure.
 - c. Increased supply of renewable energy or increased access to modern energy services, as applicable:** report on one of the following, depending on the main objective of project.

- i. Increased supply of renewable energy. Provide calculation of newly installed capacity (MW) and power generated (MWh/yr) from renewable energy sources³
 - ii. Increased access to modern energy services. Provide calculation of increased number of women and men, businesses and community services connections to modern sources of energy, inclusive of grid and off-grid connections, and other non-power modern energy services/technologies, per US\$ of SREP funds requested. This indicator should be total women and men, businesses and community services⁴ with connections estimated over the life of the project
 - d. **Increased supply of renewable energy:** provide calculation of new MW produced from renewable energy as a percentage of total energy available in a country;
 - e. **Commercial sustainability:** Provide an overview of how the plan will be able to stand alone in subsequent iterations or on a larger scale, without the need for additional concessional funding.
 - f. **Other benefits:** Describe gender impact, an indication of GHG co-benefits, and other development co-benefits as appropriate.
- IV. Rationale for SREP funding:** Provide an explanation as to why the idea should receive the funding and how it would further advance the objectives of the endorsed investment plan.
- V. Consistency with Investment Criteria:** Provide information how the proposed project meets the investment criteria for the SREP Investment Program, including:
- Increased installed capacity from renewable energy sources
 - Increased access to energy through renewable energy sources
 - Low emission development
 - Affordability and competitiveness of renewable sources
 - Productive use of energy
 - Economic, social and environmental development impact
 - Economic and financial viability
 - Leveraging of additional resources
 - Gender considerations
 - Co-benefits of renewable energy scale-up

³ For consistency across proposals, we suggest that we stipulate the assumption regarding average capacity factors for each RE technology; e.g., 30% for wind, 20% for solar PV; 85% for geothermal; 50% for hydro; 60-80% for biomass. (xx MW installed X 8760 hours X capacity factor = annual MWh)

⁴ In line with the SREP Revised Results Framework approved in June 2012 if households are counted instead of people, the assumptions about household size should be stated in the document.

VI. Financial Plan (Indicative):

Source of Funding	Amount (USD million equivalent)	Type of instrument (equity, debt, guarantee, grants, credit lines, etc.)	Percentage (%)
Project developer			
MDBs			
SREP			
Local banks			
Other investors			
Bilaterals			
Others			
TOTAL			100

VII. Implementation Feasibility: Provide information on the implementation feasibility of the proposed project and an estimated timeline for project approval (SREP Sub-Committee and MDB), implementation and completion. Demonstrating readiness includes: in place regulatory framework, evident institutional capacity, clear project ownership, implementation risk, or project design clarity.

VIII. Potential Risks and Mitigation Measures: What are the risks that might prevent the project development outcome(s) from being realized, including but not limited to, political, policy-related, social/stakeholder-related, macro-economic, or financial?