

14 December 2017

INTERNATIONAL RENEWABLE ENERGY AGENCY

Eighth session of the Assembly Abu Dhabi, 13 – 14 January 2018

Report of the Chair of the Advisory Committee on the fifth cycle of the IRENA/ADFD Project Facility

Summary

As part of the United Arab Emirates (UAE) bid to host the International Renewable Energy Agency (IRENA), concessional financing of USD 350 million over seven annual project selection cycles (cycles) was committed by the Abu Dhabi Fund for Development (ADFD) to renewable energy projects in developing countries that are recommended by IRENA. The IRENA/ADFD Project Facility (Facility) is the result of this commitment and represents a unique partnership between IRENA and ADFD. IRENA facilitates an independent selection process of promising renewable energy projects that contribute to sustainable development whilst ADFD makes the final selection and funds the projects.

Since the selection of projects in the first cycle in January 2014, four cycles have been successfully facilitated by IRENA. The implementation of the Facility is guided by the "General Principles" (A/4/13), which were approved by the Assembly at its fourth session (A/4/DC/4).

The Advisory Committee (Committee) composed of IRENA Members and appointed annually by the Assembly has the overall responsibility to select and recommend projects to the ADFD, supported by an independent technical Panel of Experts (Panel) who score and comment on the projects. This report covers the work of the Committee during the fifth cycle of the Facility. It describes the implementation of the selection process and recommendations for future funding cycles.

During the fifth cycle, the Committee selected seven projects for recommendation to the ADFD for funding. The recommended projects share the promise of being replicable, transformative and sustainable. They aim at improving energy access, energy security and livelihoods. The projects represent a total potential new capacity of 46 megawatts and total project costs of USD 196.20 million which represent USD 73.27 million in loans from the ADFD with over USD 122.73 million in co-financing from other sources. The principles of ensuring geographic spread, technology diversity and alignment with government priorities have helped guide the selection. The ADFD selects projects from the recommended list from the Committee by the end of December 2017.

Throughout 2017, the Committee worked with the IRENA Secretariat to improve the selection process including peer-to-peer engagement of the experts on project evaluation. Webinars were facilitated between the co-Chairs of the Panel and the Committee. The Committee recommended face-to-face interactions, whenever possible, between project proponents, experts, the Committee and co-funders to clarify selection and post-selection requirements, as well as to learn from the experience of previous project proponents to the Facility. The Committee was encouraged by the increased collaboration between IRENA and ADFD to improve communication with project proponents on ADFD requirements post-selection. The Committee emphasised the need for continuing integration with other areas of IRENA's work.

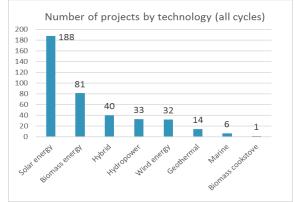
I. Background

- 1. The first four cycles resulted in the selection of 19 projects from Antigua and Barbuda, Argentina, Burkina Faso, Cabo Verde, Cuba, Ecuador, Iran (Islamic Republic of), Maldives, Mali, Marshall Islands, Mauritania, Niger, Saint Vincent and the Grenadines, Samoa, Senegal, Seychelles, Sierra Leone and Solomon Islands, which covered a variety of renewable energy technologies. These included minigrid solar PV with battery storage, grid-connected solar PV, small scale hydro, mini-grid wind energy, hybrid systems (wind and solar), biomass, waste to energy and geothermal. The projects are aligned with national development priorities, potentially transformative and mainly located in least developed countries (LDCs) or Island nations that have limited access to this type of funding. The Facility has also been an effective mechanism to encourage co-funding of projects.
- 2. Experience to date continues to highlight the challenges that exist in identifying sound projects and seeing them through to financial closure. The Facility and its operations are demonstrating how these challenges can be addressed providing important lessons that are being applied in subsequent cycles. Closer cooperation between ADFD and IRENA has resulted in an increased number of loan agreements and disbursements, allowing projects to move into implementation.
- 3. In the first four cycles, the Facility has mobilised USD 576 million as a result of:
 - USD 189 million in ADFD loans; and
 - Over USD 387 million in co-funding.
- 4. As per estimates from project proponents in these four cycles:
 - Around 100 megawatts of new renewable energy capacity will be added; and
 - Over one million people and businesses will benefit from improved access to energy and sustainable livelihoods.
- 5. From the line-up of selected projects so far, it is apparent that the Facility is supporting government-driven projects and those that would not be otherwise financed by private sources. This is in many cases a reflection of the difficulty for private sector entities to secure the government guarantee letter as required by ADFD. These are typically non-commercial projects but are economically feasible for the country and have a strong development focus. The projects have been selected in countries where renewable energy is being used to transform the local economy.
- 6. The demand for ADFD funding has remained high through each cycle. Project proponents in developing countries requested USD 3.8 billion in loans for 395 projects up to the fifth cycle.

This represents USD 13.6 billion in total project value and USD 9.8 billion in co-financing primarily from governments and other development funds.

- 7. In the fifth cycle, the demand for this type of concessional financing was at USD 0.8 billion requested for 89 projects, representing USD 2.9 billion in total project value, including USD 2.1 billion in co-financing. Hence, there is a continuing need for this type of funding. Please see further details under Annex 1.
- 8. Most of the projects submitted in all five cycles were solar PV projects in Africa. However, the project line-up differed across project cycles.

Figure 1: Total number of projects submitted in all five cycles by technology



For instance, there were no geothermal projects in the first cycle but there were two selected in the second cycle. There was also a hybrid mitigation and adaptation project submitted in Antigua and Barbuda in the year leading up to the Paris Agreement on climate change. In the fifth cycle, ocean technology projects have been shortlisted, which was not the case in previous cycles.

II. Project review and selection during the fifth cycle

- 9. The Advisory Committee has the overall responsibility to select and recommend projects to the ADFD. The Committee, comprised of up to seven IRENA Members and seven alternates, reflecting equitable geographic distribution, has two main roles. One is to carry out the overall project review and selection, and the second is to make suggestions to further improve the effectiveness of the Facility.
- 10. The Committee for the fifth cycle was established at the seventh session of the Assembly in January 2017. It consists of seven members and five alternates (see Annex 2). New Zealand, represented by Dr Mike Allen, Special Envoy for Renewable Energy of the Ministry of Foreign Affairs and Trade, was appointed Chair. The Committee established a Panel to provide technical advice to the Committee (see Annex 2).
- 11. The project review is undertaken through an online desk review of proposed projects. Webinars are carried out between the experts and the Committee during the selection process to assist in ensuring a consistent scoring, shortlisting and project evaluation scheme. Since the fourth cycle, IRENA has had the opportunity to accompany ADFD to onsite project appraisals to better assess project management and technical details of the proposed projects. This is of considerable value not only in terms of improved project selection and evaluation but also in building and expanding IRENA's engagement and links with project proponents of renewable energy projects in the field.
- 12. The fifth cycle opened on 11 November 2016. Webinars for project proponents were carried out in November 2016 and January 2017 to clarify the application requirements and solicit applications. By the application deadline of 15 February 2017, 89 eligible Executive Project Summary applications were received. The Panel shortlisted 39 applications based on the projects' potential to be transformative, replicable, improve energy access and energy security, and based on their technical merit, economic and financial viability, and socio-economic and environmental impact.
- 13. The Committee selected 26 projects from this shortlist, taking into account the results of the technical evaluation and scoring of the experts as well as based on consideration of geographic spread, technology diversity and national priorities of the countries applying. Of the 26 projects selected, 16 submitted Full Project Proposals at the second stage of consideration. It is noted that the main reasons that not all of the shortlisted project proponents submitted Full Project Proposals were the inability of the proponents to secure a government guarantee, as required by ADFD, or due to the incompatibility of application timelines. See Annex 3 for results of the selection process by geography, technology and type of organisation.
- 14. In early October 2017, based on the scoring of the Full Project Proposals by the Panel, the Committee selected a list of seven projects for recommendation to ADFD. These represented:
 - various regions (Africa, Asia, Latin America, and Islands in the Caribbean and the Pacific etc.);
 - a diverse mix of renewable energy sources and technologies; and
 - a wide range of activities meeting national energy priorities.

- 15. The recommended projects included a wider set and type of projects than in the previous cycles. Project technology types included:
 - solar PV, off-grid and grid-connected;
 - biomass energy;
 - geothermal; and
 - tidal wave energy.
- 16. The total quantity of requested loans for the recommended projects was USD 73.27 million and total projected project costs were USD 196.20 million.
- 17. The ADFD is expected to make its final selection of projects from the list recommended by the Committee by December 2017. The announcement of the selected projects is planned to take place at the eighth session of the IRENA Assembly in January 2018.

III. Improvements implemented during the fifth cycle

A. Broader regional outreach

18. The opening of the fifth cycle was announced using a wide range of communication channels, including social media platforms, global webinars, newsletters, and a press release. Interested project proponents were approached at global and regional events, including the IRENA Council and Assembly and the World Future Energy Summit (WFES), as well as bilaterally upon request. As a result, there was a 10% increase in the number of applications received from the previous cycle. Eighty-nine projects from a variety of regions (including eight new country project proponents) covering a range of renewable energy technologies were submitted, including, for the first time, several marine technology projects (see Annex 3). While solar PV continues to dominate the line of projects submitted, the increased diversity in renewable energy technologies proposed reflects the overall growth and viability of the renewables market.

B. Increased awareness of selection requirements

19. Webinars were carried out in English and French in October 2016 and January 2017 to guide project proponents through the selection process, application form requirements and ADFD requirements, to help them understand how their projects would be evaluated by the experts and Committee. During these webinars, project proponents were introduced to IRENA's tools and sources of information on costing, resource assessment and project development. A more detailed explanation was provided on ADFD's tendering and procurement requirements post-selection. Clearer information on the government guarantee requirement was provided to IRENA focal points in project countries. In total, over 150 potential project proponents participated in the webinars.

C. Increased knowledge sharing and feedback loop

20. In May 2016, an additional webinar was conducted to assist the 26 shortlisted project proponents in preparing Full Project Proposals, which included expert feedback about improving the project proposals. This expert feedback was a summary of confidential evaluation comments on the Executive Project Summary proposals outlining how best to improve the projects and meet ADFD requirements. See Box 1 for more details.

Box 1: Expert feedback on priority concerns to help project proponents focus and prepare Full Project Proposals

To assist project proponents in preparing their Full Project Proposals, the expert comments made on the summary proposals were focused around priority concerns:

- 1. Technical, management and project status issues:
 - Project proponents may provide significant technical data but are not always able to demonstrate their capacity for management of the project. The appropriate advocates/managers of the project must be in place to take the project forward;
 - Inadequate feedstock identified in the bioenergy/waste-to-energy projects;
 - Geothermal projects must be beyond exploratory drilling stage; and
 - Projects need to be at pre-tendering and procurement stage for the consultant and contractor.
 That is, projects need to be at a stage where tenders for consultants and major procurement are
 already prepared, but not yet issued. Tendering and procurement must be undertaken as per
 ADFD requirements.
- 2. Economic/ financial sustainability issues:
 - Revenue modelling often lacks sufficient cost detail;
 - Off-taker risks, and how these can be mitigated, are not always well addressed;
 - For off-grid or smaller projects, the capability and willingness for communities to pay for energy is often poorly (or unrealistically) considered and the implications not critically evaluated;
 - Co-financing pledges and plans need to be in place; and
 - A full technical and economic feasibility study will need to be provided by each project proponent, including an economic analysis, value of externalities, and social and environmental benefits and costs.

3. Other:

- A government guarantee letter from the state entity/ Ministry responsible for the international borrowing affairs of the country, such as the Ministry of Finance, is a mandatory part of the Full Proposal submission.
- 21. An optional circular communication from IRENA and ADFD addressed to the respective ministries involved in international borrowing affairs of host countries about the sovereign loan offer and government guarantee requirement of the ADFD has been made available on the website of the Facility for shortlisted project proponents. This was provided to offer a reference document to engage with these ministries to explain the ADFD requirement for a government guarantee.
 - D. Online dashboards targeting various stakeholders to further facilitate funding and co-funding of projects
- 22. Online dashboards for the management and presentation of the selection process, evaluation criteria and shortlisted projects targeting various stakeholders have been expanded. Dashboards were created for project proponents, experts, the Committee and potential co-funders to further facilitate the selection process, the process of co-funding and reporting on projects post-selection. Over 197 co-funding entity contacts were engaged through the online dashboard (see Annex 4) to share the projects shortlisted. As a result, co-funding entities have indicated interest to fund various ADFD-funded and non-funded projects, such as a wind project in Africa.
- 23. As the ADFD funding covers up to 50% of the project costs, the Facility has increased its efforts to facilitate co-funding through coordination with external partners as well as through the Coordination Group of Arab National and Regional Development Institutions. This group comprises of ten Arab

regional and national development funds that meet every six months to share projects for co-funding. Some examples of external partners that took on projects for co-funding include the Arab Fund for Economic Development in Africa (BADEA) for the Mali project in the first funding cycle, the Islamic Development Bank for the wind project in Sudan and the UNDP Global Environment Facility for the wind and solar project in Mauritania. The working agreement between the ADFD and the French Development Agency signed in 2016 outlines further cooperation on financing renewable energy projects through the Facility.

- 24. Several projects seeking financing through the Facility have also been introduced to IRENA's Sustainable Energy Marketplace, an online platform to facilitate matchmaking between project proponents and interested funders, where they have been registered to obtain financing from other sources in addition to ADFD.
 - E. Record number of experts formally engaged covering a wide range of expertise
- 25. There was considerable success in soliciting experts from IRENA Members, regional networks and other partners. As a result, 22 experts (see Annex 2) covering a wide range of expertise in the public and private sectors, including from several regional organisations, were formally engaged, compared to 16 and 9 experts in the previous two cycles, respectively.
 - F. Increased knowledge sharing between the Panel and the Committee during evaluation
- 26. Following the initiative introduced in the fourth cycle, the co-Chairs of the Panel presented the expert technical evaluation process and outcomes to the Committee via webinar meetings, which was of considerable value to the Committee.
- 27. The Committee expressed its great appreciation for the efforts of the experts, which they emphasised as key to the continued success of the selection process adopted by the Facility.
 - G. IRENA and ADFD engagement has intensified to advance projects to implementation
- 28. A Cooperation and Support Agreement between IRENA and ADFD, signed in April 2016, empowered IRENA to assume a greater role supporting ADFD in post-selection activities, including onsite appraisals and facilitating communications between ADFD and project proponents. The aim is to help projects advance to implementation. Box 2 illustrates the communications and measures facilitated by IRENA between the bilateral parties involved, i.e. ADFD and the project proponents.
- 29. ADFD actively participated in the Committee meetings that took place during IRENA Council meetings that took place during the fifth cycle to raise awareness on:
 - coordination activities carried out with the Coordination Group of Arab National and Regional Development Institutions, which resulted in co-financing obtained by BADEA for the abovementioned project in Mali during the first cycle;
 - several bilateral loan agreements signed and disbursements made in relation to approved projects, largely due to enhanced interaction with the project beneficiaries from all cycles (please see Box 2); and
 - issues faced post-selection in connection with beneficiary governments' ability to meet ADFD requirements, changes in government leadership impacting the execution of agreements, and setting up the Project Implementation Units (PIU).

A/8/6

Box 2: Measures taken to advance projects to implementation

IRENA and ADFD continue to work closely together to advance projects to implementation. These measures have included the following elements:

- Deadline set for project proponents included in Guidelines for Applicants: If a project is selected for ADFD funding, the loan¹ and guarantee² agreements should be signed within a maximum period of two years from the date of the official notification by ADFD of the preliminary approval of the loan;
- Bi-weekly coordination meetings between IRENA and ADFD staff: Updates on the latest status and outstanding actions on all selected projects that require follow up with project proponents.
- Monthly reporting by project proponents: Monthly reports introduced to follow project status and take action if assistance is required on specific obstacles/topics;
- Quarterly video conference calls with ADFD, IRENA and project proponents: Follow up progress on project implementation and development impacts with project proponents using a joint tracking framework;
- Bilateral capacity building meetings between ADFD and project proponents during IRENA
 Council and Assembly meetings for selected projects: Provide clarifications on post-selection
 stages and guidelines for tendering and procurement and disbursement for project proponents
 selected by ADFD for funding;
- Ad hoc technical project support: Assistance to improve the quality of projects and utilise IRENA's internal expertise to help on guiding the project if required; and
- Onsite project appraisal missions: ADFD and IRENA staff meet with country and project representatives to help drive the project forward, to appraise the project onsite, and to agree on development indicators.

H. Integration of IRENA's work on project development and support

- 30. Work continued on strengthening collaboration with IRENA's Project Navigator, which provides systematic guidance and tools to build capacities, improve the quality of proposals and increase the overall project bankability. Areas of improvement were identified, specifically the economic analysis provided within the Full Project Proposals. The Navigator team is continuing to help to improve the quality of project proposals that are submitted to the Facility in subsequent cycles.
- 31. Coordination with the IRENA Sustainable Energy Marketplace continues for project development support, co-funding and funding.
- 32. Engagement with both the Navigator and the Marketplace is important to support project proponents in the development of their proposals, thereby reinforcing IRENA's effectiveness in helping identify and raise capital.

 $^{^{1}}$ A loan agreement will be signed with the state entity/ Ministry that deals with the international borrowing of the country if the beneficiary is a government entity.

² A loan guarantee agreement will be signed with the government of the host country in line with signing the loan agreement with the borrower, if the borrower is a semi-governmental or private entity.

IV. Recommendations for improvements in subsequent cycles

- 33. The Committee identified certain challenges and proposed some potential solutions during its meeting on the sidelines of the thirteenth meeting of the Council. These included the following:
 - The Executive Project Summary and Full Project Proposal application forms do not provide the clarity needed on what is expected in the project proposals. IRENA could work with ADFD to ensure subsequent forms provide further guidance on how best to comply with the selection criteria, including ADFD requirements. Expert considerations on each part of the form could be expanded to provide more details to the project proponents on how their projects will be evaluated.
 - IRENA and ADFD requirements are provided to project proponents but may need further clarification. In order to improve proposal writing, as well as to ensure that project proponents provide economic analysis on the benefits of the project to the relevant economy and comply with ADFD requirements, it may be worthwhile to refer all project proponents to IRENA's Project Navigator to allow them to seek further information on these topics. This may be particularly relevant for bioenergy projects, since a limited number of bioenergy projects are ultimately accepted following completion of the process.
 - Project proponents sometimes advise that they are not clear on the post-selection requirements of ADFD. ADFD requirements are provided to project proponents, but need to be further clarified on the ground and within the context of relevant international meetings that will allow for in-person exchanges and help advance projects to implementation.
 - The Committee and experts also require further clarifications on how to evaluate projects. Best practice in evaluation from previous cycles covering each technology could be shared with the Committee and experts at the beginning of each cycle. Furthermore, IRENA could provide additional guidance based on the Guidelines for Experts.
- 34. Face-to-face engagements between project proponents, experts and funds to discuss and clarify how best to meet the selection and post-selection requirements would be highly beneficial. Such Facility engagements could be held in the context of other relevant international events to clarify requirements and address identified challenges.
- 35. Regular webinars for various relevant stakeholders throughout the process are important to help project proponents prepare their applications, for experts to evaluate the projects using a standard scoring scheme, and for funds to understand the process and consider co-funding the projects.
- 36. There needs to be greater coordination with the IRENA Sustainable Energy Marketplace in a two-way stream of projects. Projects seeking funding on the Marketplace that are eligible for funding from ADFD need to be easily directed towards applying to the Facility during each funding cycle's call for proposals.
- 37. Meetings and webinars with co-funders and other funds to share the shortlisted projects to support project development need to be carried out. Partnerships with other funds need to be strengthened to ensure effective monitoring and evaluation and capturing lessons learnt from the co-funded projects.

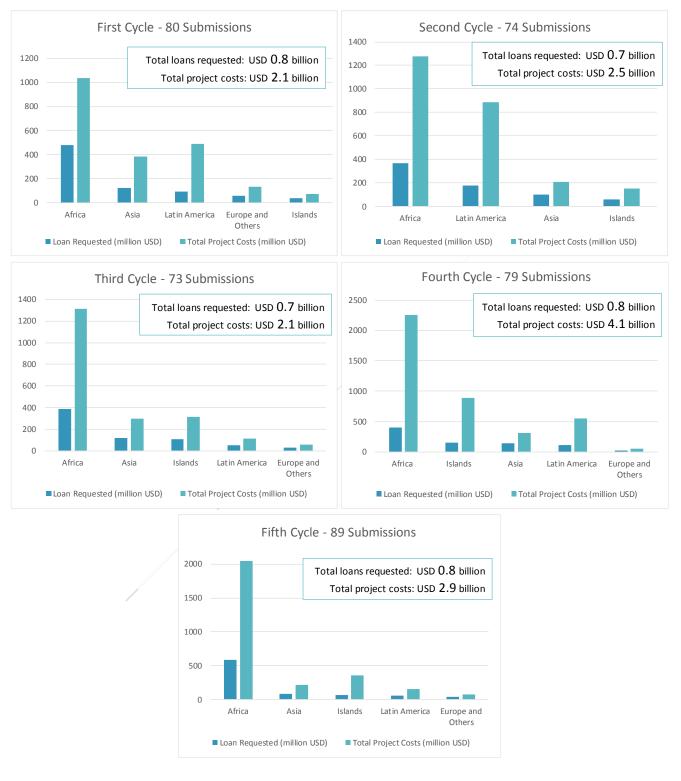
Table 1: Proposed events to clarify selection and post-selection requirements for project proponents, experts and funds and to address challenges

Workshop at the eighth session of the IRENA Assembly or WFES in January 2018	Background	Type of audience
IRENA/ADFD Selection Process Workshop	The workshop would aim to improve the overall quality of project submissions. The results of the workshop would be made available to all project proponents. A webinar follow up would be held for all project proponents who could not join the meeting.	Selected project proponents and experts from the fifth cycle, IRENA Members, participants interested in applying to the Facility, ADFD operational team and other funders.
IRENA/ADFD Post-Selection Workshop	The workshop would be an opportunity to discuss post-selection ADFD requirements challenges faced by projects in previous cycles and how to best overcome them to advance projects to implementation.	Selected project proponents from previous cycles to share lessons learnt, as well as other selected project proponents, IRENA Members, current and future project proponents, the ADFD operational team and other funders.

V. Opening of the sixth cycle and the future of the Facility

- 38. The sixth cycle will open on 16 November 2017 to receive Executive Project Summaries through the Facility's website at http://irena.org/adfd. The deadline to receive Summaries is 15 February 2018 at 17:00 Abu Dhabi time. It is planned that the implementation of this cycle will incorporate improvements recommended by the Committee, to the extent that this can be achieved within available resources.
- 39. A thematic meeting will be held on the side lines of the fourteenth meeting of the IRENA Council and potentially also at the eighth session of the IRENA Assembly, highlighting the opening of the sixth cycle. This will provide an opportunity to publicise the Facility, encourage participation and clarify requirements for project proponents. It is crucial that during those meetings the following key requirements are clarified: a full feasibility study, with confirmed sites for the project, must be provided at the time of the submission of the Full Project Proposal; no loans can be offered without a government guarantee letter; and, post-selection, ADFD will require ratification of the loan agreement and that tendering and procurement must comply with ADFD requirements, including that it is undertaken in line with internationally accepted norms.
- 40. Overall, the Facility has been a significant opportunity to gain experience and build learning around operating a Facility of this nature. This experience has been valuable not only within the Facility but has also encouraged co-funders and other funds to consider greater participation in this and similar programmes. The demand for funding through the Facility has remained high from cycle to cycle, demonstrating the need for this type of finance for developing countries.

Figure 2: Graphs depicting total loan size requested for each cycle and total project costs by region



Advisory Committee members and alternates in the fifth cycle

Members

- France
- Japan
- Jordan
- New Zealand
- Pakistan
- Republic of Korea
- Zimbabwe

Alternates

- Antigua and Barbuda
- Bangladesh
- Egypt
- Ethiopia
- Portugal

Panel of Experts in the fifth cycle

- Martin Baart, Ecoligo GmbH (in Germany) Co-Chair and Lead
- Kudakwashe Ndhlukula, SACREEE (in Zimbabwe) Co-Chair and Lead
- Ali Ahmed Ali, Ministry of Electricity and Renewable Energy, International Cooperation (in Egypt)
- Pedro Martins Barata, Get2C (in Portugal)
- Krzysztof Biernat, Bioeconomy / Institute for Ecology and Bioethics, PIMOT Automotive Industry Institute/ CSWU Cardinal Stefan Wyszynski University Poland, (in Poland)
- Nicola Bugatti*, ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE) (in Cabo Verde)
- Isabel Cabrita, Research Studies and Renewables (in Portugal)
- Cyril Carabot, French Renewable Energy Industry Association (in France)
- Henri Horn, Ministry of Foreign Affairs (in Finland)
- Aleksi Lumijarvi, GreenStream Network Ltd. (in Finland)
- Guido Mattei, International energy expert, professor and evaluator (in Italy)
- Karen McClellan, Windfire Group Ltd. (in United Kingdom)
- Karim Megherbi, Access (in United Arab Emirates)
- Silomba Nkusuwila, Energy Regulation Board (in Zambia)
- Filipe Pinto, Energy and Geology, Security and Normalization Division (in Portugal)
- Salvatore Scagliarini*, EU and EBRD Horizon 2020 funding facility and EBRD Sustainable Energy Programme (in Italy)
- Martín Scarone, Ministry of Industry, Energy and Mining (in Uruguay)
- Wilson Sierra, Ministry of Industry, Energy and Mining (in Uruguay)
- Belma Soydas Sozer, General Directorate of Renewable Energy, Department of Renewable Energy, Ministry of Energy and Natural Resources (in Turkey)
- Assan Todéman, Energy/New and Renewable Energy (in Benin)
- Yogender Kumar Yadav, Sardar Swaran Singh National Institute of Bio-Energy (in India)
- Kaoru Yamaguchi, The Institute of Energy Economics (in Japan)

^{*}Did not participate at the Full Project Proposal stage due to unforeseen commitments.

Figure 3: Regions represented among the Executive Project Summary and Full Project Proposals submitted in the fifth cycle

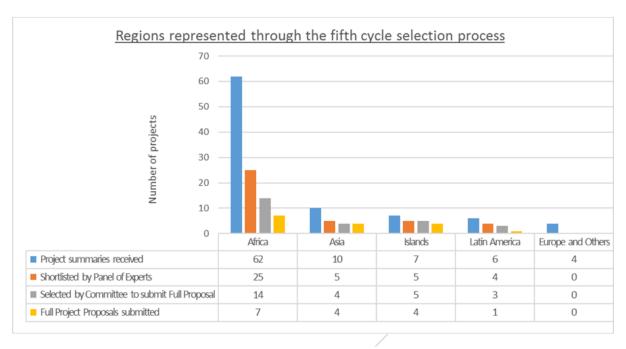


Figure 4: Renewable technologies represented among the Executive Project Summary and Full Project Proposals submitted in the fifth cycle

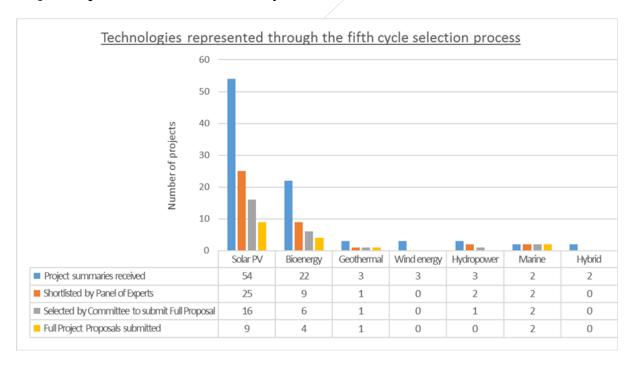


Figure 5: Type of organisations represented among the Executive Project Summary and Full Project Proposals submitted in the fifth cycle

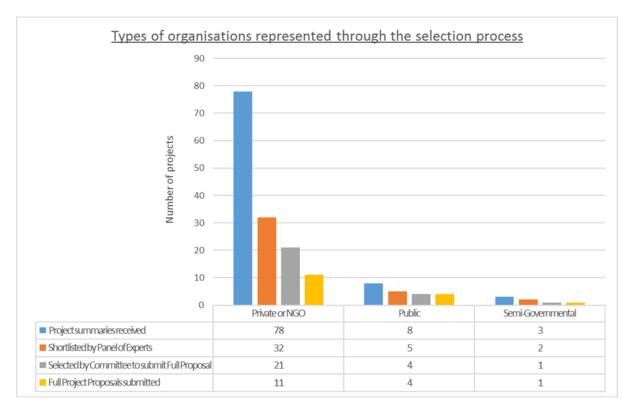


Figure 6: Online dashboard for interested co-funders

