



GEF SECRETARIAT REVIEW FOR FULL/MEDIUM-SIZED PROJECTS* THE GEF/LDCF/SCCF/NPIF TRUST FUNDS

GEF ID:	5734		
Country/Region:	Argentina		
Project Title:	Sustainable Business Models for Biogas Production from Organic Municipal Solid Waste		
GEF Agency:	UNDP	GEF Agency Project ID:	5345 (UNDP)
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-5 Focal Area/ LDCF/SCCF Objective (s):	CCM-3; CCM-3;		
Anticipated Financing PPG:	\$75,000	Project Grant:	\$2,779,849
Co-financing:	\$12,745,000	Total Project Cost:	\$15,674,849
PIF Approval:	April 01, 2014	Council Approval/Expected:	May 27, 2014
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	Milena Vasquez	Agency Contact Person:	Marcel Alers

Review Criteria	Questions	Secretariat Comment at PIF (PFD)/Work Program Inclusion ¹	Secretariat Comment At CEO Endorsement(FSP)/Approval (MSP)
Eligibility	1. Is the participating country eligible ?	FJ - March 12, 2014: Yes. Argentina ratified the UNFCCC on 11 March, 1994.	MGV, June 28, 2016: Yes Argentina is eligible.
	2. Has the operational focal point endorsed the project?	FJ - March 12, 2014: Yes, by letter signed on 27 Feb, 2014.	MGV, June 28, 2016: Yes, Ms. Diana Vega the OFP endorsed the project on March 13.
Resource Availability	3. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	• the STAR allocation?		MGV, June 28, 2016: Yes.
	• the focal area allocation?	FJ - March 12, 2014: No. The project requests a total of \$3.2 million (agency fee and PPG included) of CCM funding and \$0.2 million of BD	MGV, June 28, 2016: Yes.

*Some questions here are to be answered only at PIF or CEO endorsement. No need to provide response in gray cells.

¹ Work Program Inclusion (WPI) applies to FSPs only. Submission of FSP PIFs will simultaneously be considered for WPI.

FSP/MSP review template: updated January 2013

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		funding. The remaining CCM and BD allocations of Argentina are respectively \$3,029,202 and \$86,850. Please reduce the amount requested. FJ - March 21, 2014: Cleared.	
	• the LDCF under the principle of equitable access		
	• the SCCF (Adaptation or Technology Transfer)?		
	• the Nagoya Protocol Investment Fund		
	• focal area set-aside?		
Strategic Alignment	4. Is the project aligned with the focal area/multifocal areas/ LDCF/SCCF/NPIF results framework and strategic objectives ? <i>For BD projects: Has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track progress toward achieving the Aichi target(s).</i>	FJ - March 12, 2014: Yes.	MGV, June 28, 2016: Yes, the project is aligned with CCM Objective 3: Promote investment in renewable energy technologies.
	5. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions, including NPFE, NAPA, NCSA, NBSAP or NAP?	FJ - March 12, 2014: Yes.	MGV, June 28, 2016: Yes, the project is consistent with Argentina's national strategies and plans, including its INDC, which seeks to reduce GHG emissions by 15% in 2030 compared to BAU through partly the utilization of renewable energy technologies including biogas, and its 3NC, which quantifies potential GHG emission reductions from the waste sector. The project will work within the National Programme for Integrated Management

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			of Municipal Waste (GIRSU).
Project Design	6. Is (are) the baseline project(s) , including problem(s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?	<p>FJ - March 12, 2014:</p> <p>a) Please clarify how energy generation based on biogas is part of ENGIRSU and how the project will avoid any overlap with the ENGIRSU activities.</p> <p>b) Please clarify the apparent inconsistency between (i) the expected tender from the government accessible to biogas, and (ii) what the PIF identifies as a lack of policy instrument facilitating grid connection and dispatch of distributed power systems (defined as a barrier in the PIF).</p> <p>c) It is understood that, through the GENREN program, the government will launch a tender accessible to biogas. Please clarify (i) how the tender is expected to work for biogas, (ii) what the proposed project will do that the tendering process cannot achieve, and (iv) how the proposed project will achieve emission reductions that cannot be achieved by the government tender process (since, in the end, the total emission reduction will depend on the amount of MW tendered for biogas).</p> <p>FJ - March 19, 2014:</p> <p>a) Cleared.</p> <p>b) and c) The clarifications provided do not address the previous comment. The PIF indicates that "The tenders are open up to a maximum capacity (MW) per type of technology" and "biogas will expectedly be included in the next tender round". The PIF then assumes that "the</p>	<p>MGV, June 28, 2016: Yes.</p> <p>Regarding GEFSEC's comments at PIF: Cleared. It is understood that there was one successful landfill biogas project that participated in the GENREN tender, the CEAMSE project, but that the scale is much larger than the scale considered by this project. In addition, due to poor financing conditions and country risk, the GENREN program suffered and has been discontinued. However, a number of ongoing changes in renewable energy policy under the new government will result in new tenders. Under the new government, a maximum price for wholesale market renewable energy has been defined at \$113/MWh and projects up to 50 MW in capacity are eligible for a range of tax benefits, including landfill gas and biogas. Further, the new Fund for Renewable Energy Development (FODER) will provide financial instruments for the promotion of renewable energy, including self-supply and co-generation.</p>

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		<p>bids for biogas based power would likely not be successful, with few, or possibly no MSW-based biogas energy plants". This assumption can be questioned. By CEO endorsement, detailed justifications on this assumption are expected along with accounting of baseline biogas response to the GEREN tender in the project impact estimation.</p>	
	7. Are the components, outcomes and outputs in the project framework (Table B) clear, sound and appropriately detailed?	<p>FJ - March 12, 2014:</p> <p>a) The project indicates that it seeks to add value to biogas-based energy generation by adding benefits from residue streams. Please clarify what are the barriers to adding value from residue streams and how the project will remove these barriers.</p> <p>Component 1:</p> <p>b) Please clarify the nature of output 1.1. Is the objective to design a generic business model framework or specific business proposals for identified projects?</p> <p>c) Please clarify the expected representativeness of chemical analyses planned for output 1.2. Is the composition of organic waste stream expected to vary strongly from locality to locality and from time to time? If yes, please clarify how the results of output 1.2. can be used beyond the specificity of the organic streams on which the analysis will be done.</p> <p>d) Please clarify how the project will increase consistency in the quality of the waste to be used.</p> <p>e) The output of output 1.4 is</p>	<p>MGV, June 28, 2016: Yes.</p> <p>Regarding GEFSEC comments at PIF: Cleared. Thanks for the response regarding the measures which the project will take to avoid methane leakage and monitor future leakages. It is important that the pilot projects do not adversely result in methane emissions and that this issue is integrated into policy and regulation through the GIRSU program, and mainstreamed with the Ministry of environment and Sustainable Development (MAyDS) and Ministry of Energy and Mines (MEM).</p>

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		<p>expected to go beyond recommendation to enhance the regulatory framework for MSW biogas and support the actual implementation of improvement to the regulatory framework. Please revise.</p> <p>f) Please clarify how the support to awareness raising of output 1.5 will enable a continuation of needed awareness raising beyond the project completion.</p> <p>Component 2:</p> <p>g) Please address Q6 and Q13.</p> <p>h) Please clarify how the project will make sure methane leakage from installations will be avoided and which sustained system it plans to put in place to monitor potential methane leakages in the future.</p> <p>FJ - March 19, 2014:</p> <p>a) The previous comment has not been addressed yet. Please clarify what are the barriers to adding value from residue streams and how the project will remove these barriers.</p> <p>b) Please clarify what will be the use of developing generic theoretical business models and who is expected to use them. Without a clear justification, please consider modifying or deleting output 1.1.</p> <p>c) Cleared.</p> <p>d) The quality of waste is not only related to identifying inappropriate material. The composition of available waste streams can strongly affect the ability of a bio-digester to produce regular and sufficient</p>	

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		<p>amount of biogas. Please clarify how the project will increase consistency in the quality/composition/digestability of the waste streams to be used.</p> <p>e) and f) Cleared.</p> <p>h) By CEO endorsement, details are expected on (i) how the project will make sure methane leakage from biogas energy installations will be avoided, (ii) which system it plans to put in place to monitor potential methane leakages in the future, and (iii) how the project will ensure this monitoring system will be sustained beyond project completion.</p> <p>FJ - March 21, 2014: Comments cleared.</p>	
	8. (a) Are global environmental/adaptation benefits identified? (b) Is the description of the incremental/additional reasoning sound and appropriate?	<p>FJ - March 12, 2014: Please address the last comment of Q6 c).</p> <p>FJ - March 21, 2014: Cleared.</p>	<p>MGV, June 28, 2016: Yes.</p> <p>a) The project has estimated a GHG emissions reduction of 67,000 tCO₂e direct through the pilot projects, 134,000 tCO₂e post-project direct through additional investments through the GIRSU program, and an indirect estimate of 374,000 tCO₂e through market transformation.</p> <p>b) The project has provided sound and appropriate incremental reasoning for the project to demonstrate biogas for energy generation from landfills and integrate this technology into the national MSW management and RE development strategies.</p>
	9. Is there a clear description of: a) the socio-economic benefits , including gender dimensions, to be delivered by the project, and b) how will the delivery of such		<p>MGV, June 28, 2016: Yes.</p> <p>The project will lead to the valorization of organic waste as an energy source at the municipal level, increase revenues for municipalities/concessionaries, and</p>

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	benefits support the achievement of incremental/ additional benefits?		job creation. The project is not explicitly gender-sensitive, but potential gender impacts will be assessed and addressed throughout the project.
	10. Is the role of public participation, including CSOs, and indigenous peoples where relevant, identified and explicit means for their engagement explained?	FJ - March 12, 2014: Yes.	MGV, June 28, 2016: Yes.
	11. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk mitigation measures? (e.g., measures to enhance climate resilience)	FJ - March 12, 2014: Yes.	MGV, June 28, 2016: Yes.
	12. Is the project consistent and properly coordinated with other related initiatives in the country or in the region?	FJ - March 12, 2014: Please address Q6 and Q7. FJ - March 21, 2014: Cleared.	MGV, June 28, 2016: Yes. In particular we appreciate that the project is coordinating closely with the UNIDO/GEF project (GEF ID 9053).
	13. Comment on the project's innovative aspects, sustainability, and potential for scaling up. <ul style="list-style-type: none"> Assess whether the project is innovative and if so, how, and if not, why not. Assess the project's strategy for sustainability, and the likelihood of achieving this based on GEF and Agency experience. Assess the potential for scaling up the project's intervention. 	FJ - March 12, 2014: <p>a) Please provide a rough estimate of the profitability of the proposed biogas systems and explain how the project intends to ensure a sustained profitability for similar projects in the future.</p> <p>The project proposal lacks a mechanism for replication and scaling up. The financial sustainability of the supported activities therefore appears very weak. Stating that the "development of a full-fledged enabling business environment is considered outside the scope of the GEF project" is not considered as sufficient.</p> <p>b) Please clarify if the only scaling</p>	MGV, June 28, 2016: No. <p>a) Please clarify if GIRSU will continue to fully support future projects (for the portfolio to be developed by the project) or where other complementary resources are expected to come from, and what the scale of these resources is in the medium term.</p> <p>b) It is understood that the GEF resources will be used to directly support the pilot projects along with funds from GIRSU to prove the business model. Please clarify how exactly the GEF resources will be used and if there is scope of imitating financial</p>

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		<p>up process considered is the planned government tender for RE including biogas.</p> <p>c) In the affirmative, and if Q6 comments have been addressed, please revise the project activities to (i) ensure that the project financial support will mimic the type of incentive stakeholders should expect with the tender, (ii) set in place a financially sustainable mechanism to support the preparation of projects. The latter mechanism would be used for the proposed pilots and would continue to operate beyond project completion.</p> <p>d) If other replication and scaling up modalities are considered, please include in the PIF activities to set the appropriate mechanisms in place, and to sustain them. Alternatively you would need to include activities to ensure the transition from the supported pilot to an existing or future replication mechanism if any.</p> <p>FJ - March 21, 2014: Comments cleared. By CEO endorsement, details are expected on (i) how the project will support and enable the transition from 2 highly subsidized pilots to 30 or more replications based on GIRSU resources, and (ii) how and with which partner the project will support the development and implementation of financial risk mitigation measures.</p>	<p>instruments that may serve as risk mitigation measures such as guarantees, so as to mimic future regulation or instruments (for example what the types of instruments FODER will issue) that can attract private investment.</p> <p>c) Please clarify if any of the pilot projects will result in public-private partnerships and whether additional co-financing (during project implementation or post-project) is expected to be catalyzed as a result of this project.</p> <p>d) The financial sector is notably missing from the list of stakeholders the project will be consulting and working with. Please consider this addition under Component 1 as relevant to inform the replication of the business models developed.</p> <p>e) From the analysis presented, it appears that landfill gas systems are more profitable than biodigestor systems. How do you justify investing in that technology? Can you ensure that business model will be able to be replicated without concessional funding?</p> <p>MGV, July 19, 2016: Comments cleared.</p>

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	14. Is the project structure/design sufficiently close to what was presented at PIF, with clear justifications for changes?		MGV, June 28, 2016: Yes. Changes from PIF reflect changes in the government as well as adjustments to mitigate risks, and are well justified.
	15. Has the cost-effectiveness of the project been sufficiently demonstrated, including the cost-effectiveness of the project design as compared to alternative approaches to achieve similar benefits?		MGV, June 28, 2016: Yes.
Project Financing	16. Is the GEF funding and co-financing as indicated in Table B appropriate and adequate to achieve the expected outcomes and outputs?	FJ - March 12, 2014: This question will be reviewed once the other comments are addressed. FJ - March 21, 2014: Cleared.	MGV, June 28, 2016: Yes.
	17. <u>At PIF</u> : Is the indicated amount and composition of co-financing as indicated in Table C adequate? Is the amount that the Agency bringing to the project in line with its role? <u>At CEO endorsement</u> : Has co-financing been confirmed?	FJ - March 12, 2014: Please clarify (i) who would be the recipients of SAYDS loans, (ii) how these loans would be attributed, and (iii) whether this lending system may continue after project completion. FJ - March 21, 2014: Cleared.	MGV, June 28, 2016: Yes, co-financing of \$12,745,000 of which \$2,460,000 is in-kind and \$10,285,000 is in cash has been confirmed.
	18. Is the funding level for project management cost appropriate?	FJ - March 12, 2014: No. The project management cost should not exceed 5% of the GEF grant (excluding management costs). Please reduce the project management cost. FJ - March 21, 2014: Cleared.	MGV, June 28, 2016: Yes.
	19. <u>At PIF</u> , is PPG requested? If the requested amount deviates from the norm, has the Agency	FJ - March 12, 2014: The PPG amount is in the norm.	MGV, June 28, 2016: The Agency reported on the status of implementation of the PPG activities and use of PPG

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	provided adequate justification that the level requested is in line with project design needs? <u>At CEO endorsement/ approval</u> , if PPG is completed, did Agency report on the activities using the PPG fund?		funds. Of the \$75,000 requested, a total of \$23,417 has been spent to date, and \$47,562 are committed to be spent. a) Please clarify why the majority of the PPG funds have not yet been utilized and what activities will be supported by the committed funds. MGV, July 19, 2016: Comment cleared.
	20. If there is a non-grant instrument in the project, is there a reasonable calendar of reflows included?	FJ - March 12, 2014: n.a.	
Project Monitoring and Evaluation	21. Have the appropriate Tracking Tools been included with information for all relevant indicators, as applicable?		MGV, June 28, 2016: Yes a CCM tracking tool has been submitted with calculation details.
	22. Does the proposal include a budgeted M&E Plan that monitors and measures results with indicators and targets?		MGV, June 28, 2016: Yes, a budgeted M&E plan has been submitted that will follow indicators and targets set on the Project Results Framework and Tracking Tool.
Agency Responses	23. Has the Agency adequately responded to comments from:		
	<ul style="list-style-type: none"> STAP? 		MGV, June 28, 2016: Yes, but not all. a) On question 3, please clarify why "not off-grid solutions are sought in the project." b) On question 6, please provide more information on the supporting conditions for the waste streams to be separated at the source. Does this separation already exist? If not, how will waste separation system be implemented and what role would the project have on this aspect?

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			MGV, July 19, 2016: All 8 comments from STAP have been adequately addressed.
	<ul style="list-style-type: none"> • Convention Secretariat? • The Council? 		MGV, June 28, 2016: No. Please provide responses to comments made by Council members including Canada and Germany add them to Annex B. MGV, July 19, 2016: Comments from Canada and Germany have been addressed and added to Annex B (p. 16 of the CEO Endorsement Request).
	<ul style="list-style-type: none"> • Other GEF Agencies? 		
	Secretariat Recommendation		
Recommendation at PIF Stage	24. Is PIF clearance/approval being recommended?	<p>FJ - March 12, 2014: No. Please address the above comments.</p> <p>FJ - March 21, 2014: Yes, the project is recommended for inclusion in a future work program.</p>	
	25. Items to consider at CEO endorsement/approval.	<p>FJ - March 21, 2014:</p> <p>a) The PIF assumes that "the bids for biogas based power would likely not be successful, with few, or possibly no MSW-based biogas energy plants". This assumption can be questioned. By CEO endorsement, detailed justifications on this assumption are expected along with accounting of baseline biogas response to the GEREN tender in the project impact estimation.</p> <p>b) By CEO endorsement, details are expected on (i) how the project will make sure methane leakage from biogas energy installations will be avoided, (ii) which system it plans to put in place to monitor</p>	

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		potential methane leakages in the future, and (iii) how the project will ensure this monitoring system will be sustained beyond project completion. c) By CEO endorsement, details are expected on (i) how the project will support and enable the transition from 2 highly subsidized pilots to 30 or more replications based on GIRSU resources, and (ii) how and with which partner the project will support the development and implementation of financial risk mitigation measures.	
Recommendation at CEO Endorsement/ Approval	26. Is CEO endorsement/approval being recommended?		MGV, June 29, 2016: No, please address comments in Q 13, 19, and 23. MGV, July 19, 2016: Yes. Comments have been cleared. P.M. recommends CEO Endorsement.
	First review*	March 12, 2014	June 29, 2016
Review Date (s)	Additional review (as necessary)	March 21, 2014	July 19, 2016
	Additional review (as necessary)		

* This is the first time the Program Manager provides full comments for the project. Subsequent follow-up reviews should be recorded. For specific comments for each section, please insert a date after comments. Greyed areas in each section do not need comments.