



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

GEF ID:	5728		
Country/Region:	China		
Project Title:	Accelerating the Development and Commercialization of Fuel Cell Vehicles in China		
GEF Agency:	UNDP	GEF Agency Project ID:	5349 (UNDP)
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-5 Focal Area/ LDCF/SCCF Objective (s):	CCM-4; CCM-4;		
Anticipated Financing PPG:	\$150,000	Project Grant:	\$8,233,560
Co-financing:	\$53,500,000	Total Project Cost:	\$61,883,560
PIF Approval:		Council Approval/Expected:	May 01, 2014
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	Ming Yang	Agency Contact Person:	

Review Criteria	Questions	Secretariat Comment at PIF (PFD)/Work Program Inclusion <sup>1</sup>	Secretariat Comment At CEO Endorsement(FSP)/Approval (MSP)
Eligibility	1. Is the participating country eligible?	MY 3/11/2014 Yes.	
	2. Has the operational focal point endorsed the project?	MY 3/11/2014 Yes. PPG: \$150,000; Project \$8,233,560; and Fees \$796,440; Total: \$9,180,000.	
Resource Availability	3. Is the proposed Grant (including the Agency fee) within the resources available from		

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

<sup>1</sup> 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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	(mark all that apply):		
	<ul style="list-style-type: none"> <li>the STAR allocation?</li> </ul>	MY 3/11/2014 Yes. China's GEF-5 total STAR allocation was \$211.69 million. As of 3/11/2014, China had a remainder of \$11.85 million in STAR resources.	
	<ul style="list-style-type: none"> <li>the focal area allocation?</li> </ul>	MY 3/11/2014 Yes. As of 3/11/2014, China had a remainder of \$9,772,982 in CCM cluster.	
	<ul style="list-style-type: none"> <li>the LDCF under the principle of equitable access</li> </ul>	MY 3/11/2014 Not applicable.	
	<ul style="list-style-type: none"> <li>the SCCF (Adaptation or Technology Transfer)?</li> </ul>	MY 3/11/2014 Not applicable.	
	<ul style="list-style-type: none"> <li>the Nagoya Protocol Investment Fund</li> </ul>	MY 3/11/2014 Not applicable.	
	<ul style="list-style-type: none"> <li>focal area set-aside?</li> </ul>	MY 3/11/2014 Not applicable.	
<b>Strategic Alignment</b>	4. Is the project aligned with the focal area/multifocal areas/ LDCF/SCCF/N PIF results framework and strategic objectives? <i>For BD</i>	MY 3/11/2014  Yes, it is aligned with CCM-4: Promote energy efficient, low-carbon transport and urban systems.	

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	<p><i>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></p>		
	<p>5. Is the project consistent with the recipient <b>country's national strategies and plans</b> or reports and assessments under relevant conventions, including NPFE, NAPA, NCSA, NBSAP or NAP?</p>	<p>MY 3/11/2014 Not at this time.</p> <p>The project is consistent with a number of energy policies and strategies of China including China's 12th Five-Year Plan (2011 to 2015), and China's Ten Cities-Thousand New Energy Vehicles Program.</p> <p>However, the PIF does not contain review information on China's national strategies and plans or reports and assessments under the Technology Needs Assessment (TNA) (see <a href="http://www.worldbank.org/projects/P120932/china-technology-needs-assessment-tna?lang=en">http://www.worldbank.org/projects/P120932/china-technology-needs-assessment-tna?lang=en</a>) and in the Second and the Third National Communications. Please review the country's TNA and the National Communications, and clarify consistency with national needs and priorities as articulated in these climate change Convention-related documents.</p> <p>MY 3/21/2014 Yes. Commends were addressed and questions were cleared.</p>	
	<p>6. Is (are) the <b>baseline project(s)</b>, including problem(s) that</p>	<p>MY 3/11/2014 Not at this time. Please address the following comments: a) On page 7 of the PIF, it reads "In September 2013, the MOF, MOST, MIIT and NDRC jointly launched and implemented a support program for new energy vehicles providing incentives for the commercialization of FCVs. In 2014, the subsidy support provided under the program is reduced</p>	

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Project Design	the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?	<p>by 5%, and will be reduced by 10% in 2015. In 2013, the production and sales of automobiles both exceeded 20 million, a world record. Moreover, China is the world's largest producer and user of buses. Chinese auto makers are keen on FCV R&amp;D and have formulated long-term development strategies." Please articulate the incentives of the government.</p> <p>b) Footnote 16 shows that "the largest subsidy is for cars with ranges of over 155 miles at 60,000 RMB (US\$ 9,800)". What does the "with ranges of over 155 miles" mean? Is it the vehicle running miles of per hydrogen refueling?</p> <p>c) If a Fuel Cell car is eligible for up to \$81,670 of subsidies, what is the full sale price of the car?</p> <p>d) The total GEF budgeted fund in this project can only subsidize about 100 cars. Please describe what will happen to the MOF/MOST/MIIT and NDRC September 2013 program, and to the Chinese New Energy Vehicle Demonstration and Industrial Development Plan, if the GEF does not finance this project (or does not subsidize the 100 cars).</p> <p>e) Please comment on the ability of this project demonstration of a small number of vehicles to help manufacturers reduce technology costs for FCVs to cost-competitive levels.</p> <p>MY 3/21/2014 Yes. Comments were addressed and questions were cleared.</p>	
	7. Are the components, outcomes and outputs in the <b>project framework</b> (Table B) clear, sound and appropriately detailed?	<p>MY 3/11/2014</p> <p>Not at this time.</p> <p>Please indicate the number of cars that will be financed by the GEF fund.</p> <p>MY 3/21/2014 Yes. Comments were addressed and questions were cleared.</p>	
	8. (a) Are global environmental/adaptation benefits identified? (b) Is the	<p>MY 3/11/2014</p> <p>Not at this time.</p> <p>The target of GHG emission reduction in this project is 130,000 tonnes of CO2 equivalent. Please explain the cost-effectiveness of this investment compared to other advanced vehicle and fuel technologies that could be supported.</p>	

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	description of the incremental/additional reasoning sound and appropriate?	MY 3/21/2014 Yes. Comments were addressed and questions were cleared.	
	9. Is there a clear description of: a) the <b>socio-economic benefits</b> , including gender dimensions, to be delivered by the project, and b) how will the delivery of such benefits support the achievement of incremental/additional benefits?		
	10. Is the role of public participation, including CSOs, and indigenous peoples where relevant, identified and explicit means for their engagement	MY 3/11/2014 Yes.	

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	explained?		
	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)	MY 3/11/2014 Yes.	
	12. Is the <b>project consistent and properly coordinated</b> with other related initiatives in the country or in the region?	MY 3/11/2014 Yes.	
	13. Comment on the project's <b>innovative aspects, sustainability, and potential for scaling up.</b> • Assess	MY 3/11/2014 Not at this time. The project is innovative, because FCV technology is still very innovative in China and in the world, requiring substantial demonstration and validation. The project will be sustainable because the Chinese government has policy and a long term development plan for FCVs, however, technology costs, must drop by a factor of 10 or more before fuel cell vehicles can be cost-competitive. There is great potential for scaling up because the private sector is the major investor with cash	

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	<p>whether the project is innovative and if so, how, and if not, why not.</p> <ul style="list-style-type: none"> <li>• Assess the project's strategy for sustainability, and the likelihood of achieving this based on GEF and Agency experience.</li> <li>• Assess the potential for scaling up the project's intervention.</li> </ul>	<p>investments in the project, however, this will only happen if the technology costs improve as noted.</p> <p>Please write one paragraph for each of the three topics: innovation, sustainability, and scaling-up. MY 3/21/2014 Yes. Comments were addressed and questions were cleared.</p>	
	<p>14. Is the project structure/design sufficiently close to what was presented at PIF, with clear justifications for changes?</p>		

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	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?		
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?	MY 3/11/2014 Yes. The co-financing amounts to \$53.5 million, with a majority from the private sector and in cash.	
	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	MY 3/11/2014 Yes. It is adequate.	



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	<p>Agency bringing to the project in line with its role?  <u>At CEO endorsement:</u>            Has co-financing been confirmed?</p>		
	<p>18. Is the funding level for <b>project management cost</b> appropriate?</p>	<p>MY 3/11/2014            Yes. It is 4.9%.</p>	
	<p>19. <u>At PIF</u>, is PPG requested? If the requested amount deviates from the norm, has the Agency 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</p>	<p>MY 3/11/2014            Yes. The PPG is \$150,000, which does not deviate from the norm.</p>	

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	activities using the PPG fund?		
	20. If there is a <b>non-grant instrument</b> in the project, is there a reasonable calendar of reflows included?	MY 3/11/2014 Not applicable.	
Project Monitoring and Evaluation	21. Have the appropriate <b>Tracking Tools</b> been included with information for all relevant indicators, as applicable?		
	22. Does the proposal include a <b>budgeted M&amp;E Plan</b> that monitors and measures results with indicators and targets?		
Agency Responses	23. Has the Agency adequately responded to comments from:		
	<ul style="list-style-type: none"> <li>• STAP?</li> </ul>		

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	<ul style="list-style-type: none"> <li>• Convention Secretariat?</li> </ul>		
	<ul style="list-style-type: none"> <li>• The Council?</li> </ul>		
	<ul style="list-style-type: none"> <li>• Other GEF Agencies?</li> </ul>		
<b>Secretariat Recommendation</b>			
<b>Recommendation at PIF Stage</b>	<p><b>24. Is PIF clearance/approval being recommended?</b></p>	<p>MY 3/11/2014 Not at this time. Please see comments in Boxes: 5, 6, 7, 8, and 13. In addition, the total Agency Fee (9.67%) exceeds 9.5%. Please revise it accordingly.</p> <p>MY 3/21/2014 Yes. Comments were addressed and questions were cleared.</p>	
	<p>25. Items to consider at CEO endorsement/approval.</p>	<p>MY 3/21/2014</p> <p>Issues to be address during GEO Endorsement Request</p> <p>In November 2013, the GEF Evaluation Office (GEFEO) presented a document to the GEF Council (see <a href="http://www.thegef.org/gef/Impact%20Evaluation%3A%20GEF%20Support%20to%20Climate%20Change%20Mitigation">http://www.thegef.org/gef/Impact%20Evaluation%3A%20GEF%20Support%20to%20Climate%20Change%20Mitigation</a>). For the China Fuel Cell Buses Phase I (GEF #941) and Phase II (GEF #2257) projects, the document identified various issues that are summarized below.</p> <ol style="list-style-type: none"> <li>1. Unsuitable technologies and approaches</li> </ol> <p>The two projects did not lead to mainstreaming due to the technology's lack of maturity. The technologies used in the two projects were greeted with skepticism or not adopted as they did not match local preferences in fuel cell busses in China. The technologies were in stages of development where replication in the private sector was not yet feasible for reasons of technological maturity. These projects were not able to generate large savings since they were not ready for broad adoption in the countries. Their market size was limited, and the projects had no replication or follow-up activities.</p> <ol style="list-style-type: none"> <li>2. Lack of licensing and legislation for the technology in commercial use</li> </ol>	

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		<p>The operation of GEF project-supported investments has been discontinued in these two projects. For GEF #941, the agreement with Daimler Chrysler for procurement of fuel cell buses was discontinued for fear of counterfeiting. For GEF #2257, permit for passenger transportation could not be obtained for the procured buses.</p> <p>Non-energy-specific legislation such as safety standards, tariffs, etc. posed a barrier for broader adoption of fuel cell bus technologies in China, which did not make the technologies accepted as a safe, useful, and sustainable option for local transport.</p> <p>3. Smallest global environment benefits</p> <p>The GEF #2257 project had the smallest measureable impact of GHG emission reduction among all evaluated CCM projects in the GEFE0's evaluation in 2013, which was at 10,000 tonnes in one year without ongoing impact. The buses procured from the GEF #941 project had been relegated to museums.</p> <p>By CEO Endorsement Request, the Agency needs to present measures taken to address the above issues and to explain further how the proposed initiative will have the intended impacts on technology adoption that the earlier projects failed to deliver. In particular:</p> <ol style="list-style-type: none"> <li>1. Sustainability of technologies and approaches <ol style="list-style-type: none"> <li>a. Explain how the level of technology maturity has changed since the GEF #941 and GEF #2257 projects.</li> <li>b. Justify how FCV technologies and approaches proposed at the GEF5 project are sustainable.</li> <li>c. Further elaborate that the current and near-future market size and cost implications are promising for the development of FCV technologies.</li> <li>d. Clarify what policy-regulatory measures are taken and enforced to address the barriers that limited private sector investments during the implementations of the GEF #941 and GEF #2257 projects.</li> <li>e. Clarify further the replication and scale-up activities, and provide specific targets and timeline.</li> <li>f. Articulate why the private sector is interested in this proposed project and would like to provide major capital co-financing, and what the government or the market incentives are to attract private sector investments.</li> </ol> </li> <li>2. Licensing and legislation for commercial use <ol style="list-style-type: none"> <li>a. Clarify the changes in licensing and legislation (safety standards, tariffs, etc.) and policies</li> </ol> </li> </ol>	

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		<p>(such as permits etc.) that were identified as barriers in GEF #941 and GEF #2257.</p> <p>b. Articulate the current status of removing barriers in licensing and legislation.</p> <p>3. Global environment benefits</p> <p>a. Analyze the key reasons that limited the global environment benefits and other impacts from the GEF #941 and GEF #2257 projects.</p> <p>b. Articulate further measures in the proposed GEF-5 project to ensure that measureable global environment benefits and impacts should be achieved from the proposed project.</p> <p>The GEF Secretariat will engage the GEF STAP to review the technologies and approaches proposed in the project to ensure their level of maturity and feasibility in China, and to analyze the sustainability and scale-up potential proposed in the project.</p>	
Recommendation at CEO Endorsement/Approval	26. Is CEO endorsement/ approval being recommended ?		
	First review*	March 11, 2014	
Review Date (s)	Additional review (as necessary)	March 21, 2014	
	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.