

30 AUG 2016

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Empowered lives.
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2016 – 2017 Two Year Work-plan

Work-plan for: 2016 - 2017

Project ID and Project Name: 00094022 Accelerating the Development and Commercialization of Fuel Cell Vehicles in China

2016				2017			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		24,121	499,287	5,299,581	230,845	299,394	590,063
Total for (2016)			523,408	Total for (2017)			6,419,883

Signature

Name

Mr. Xu Chaoqian
Director General
Department of High and New
Technology Development and
Industrialization
Ministry of Science & Technology

Signature

Name

Mr. Patrick Haverman
Deputy Country Director
United Nations Development
Programme
China

Date

Date

Work-plan for: 2016-2019 工作计划: 2016-2019																												
Project ID and Project Name: 00094022 Accelerating the Development and Commercialization of Fuel Cell Vehicles in China 项目号和项目名称: 00094022 促进中国燃料电池汽车商业化发展																												
EXPECTED OUTPUTS/OUTCOMES INDICATORS		PLANNED ACTIVITIES		TIMEFRAME 时间表												RESPONSIBLE PARTY				PLANNED BUDGET 计划预算								
Output/outcome indicators and annual indicator targets/ benchmarks (if applicable) 产出/成果指标、年度指标/基准 (如果可以)		List all activities to be undertaken (including evaluations and publications etc) 开展的所有活动 (包括评估和出版物)		Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	责任方	Source of Funds 资金来源	COA 费用代码	Description 说明	Amount (2016year) 2016年总数	Amount (2017year) 2017年总数	Amount (2018year) 2018年总数	Amount (2019year) 2019年总数	
Outcome 1A (Markedly reduced costs and improved performance and durability of FCVs in China.) 实现中国燃料电池汽车成本的显著降低和性能及可靠性的提升																												
Activity 1A.1.1.1 (FCV Manufacturer one-on-one TA) 为选定的燃料电池汽车制造商提供支援																												
Indicators: Average annual operating hours of newly produced Chinese FCVs by EOP, hours Average lifetime hours of operation of newly produced Chinese FCVs by EOP, hours Average high volume unit cost of newly produced Chinese FCVs at EOP, US\$	Activity: FCV Manufacturer one-on-one Technology Assistance				50%	50%				50%	50%				50%	50%					GEF	71300	These NC' assignments will provide one-on-one TA for various FCV manufacturers, one-on-one TA to eight component manufacturers, and input in assessing sourcing challenges of China's FCV manufacturers.	2,400	1,000	1,000	1,000	
					50%	50%				50%	50%										GEF	71200	The majority works are one-on-one technical assistance (TA) and liaison support for Chinese manufacturers, including one-on-one TA/liaison support for each of eight different types of component manufacturer and selected FCV manufacturers.	10,000	6,610	0	0	
						100%				100%					100%						GEF	72100	Prep of template on FCV manufacturing costs and analysis of results	60,000	60,000	60,000	60,000	
										50%	50%				50%	50%					GEF	71600	consists of DSA, international flights and domestic flights	0	0	16,700	3,700	
Activity 1A.1.2.1 (FCV manufacturer workshops (at least 4; includes written materials)) 根据项目的商业化目标, 至少召开4次座谈会。																												
Actual unit cost of newly produced Chinese FCVs at EOP, US\$										100%				100%						GEF	74200	Printing costs for the activity consist of the printing of the materials for each of the FCV manufacturer workshops	0	10,000	20,000	10,000		
						100%				100%				100%						GEF	71600	Travel costs incurred by MoST, PMO, NC, UNDP pilot and other cities.	15,000	2,000	3,700	5,700		
	Activity: Hold the kick-off meeting 召开项目启动会					100%				100%				100%						GEF	75700	The kick-off meeting & FCV manufacturer workshops (includes written materials) ,conference rent,accommodation etc Kick-off meeting: 550*50=27500RMB(4400USD) 550*30=27500RMB(2600USD)	4,400	2,600	2,600	2,600		
Reduction in high volume unit cost of newly produced Chinese FCVs at EOP, %	Activity 1A.2.1: Two reports (year two and year four) on project achievements in FCV design and production 完成两份燃料电池汽车设计和生产进展及相关措施总结报告 (两份报告分别在第二年、第四年底提供)																											
									50%	50%											GEF	74200	Printing costs for the activity consist of the printing of the 2-year and 4-year FCV manufacturing progress reports.	0	11,130	0	11,250	
	Activity 1A.2.2: Survey of FCV manufacturer individuals attending group training or receiving materials 设计并开展对参加团队培训和/或接收培训材料的个人调查 (区别于企业)																											
						100%															GEF	72100	Cost of a subcontractor is responsible for survey of FCV manufacturer individuals attending group training or receiving materials	4,721	0	0	0	
Activity 1A.3.1: Assessment of sourcing challenges for FCV manufacturers, eval options, prep compendium 全面评估国内燃料电池汽车制造商所面临的采购挑战, 以及国际燃料电池零部件和整车供应商技术水平, 寻找合适的零部件供应商。																												
										100%				100%						GEF	71200	International consultants remuneration of providing TA in assessment of sourcing challenges for FCV manufacturers	0	6,060	3,910	8,095		
										100%				100%						GEF	72100	Cost of a subcontractor is responsible for assessment of sourcing challenges for FCV manufacturers	0	2,500	2,500	7,963		

Work-plan for: 2016-2019
 工作计划: 2016-2019

Project ID and Project Name: 00094022 Accelerating the Development and Commercialization of Fuel Cell Vehicles in China
 项目号和项目名称: 00094022 促进中国燃料电池汽车商业化发展

EXPECTED OUTPUTS/OUTCOMES INDICATORS	PLANNED ACTIVITIES	TIMEFRAME 时间表																RESPONSIBLE PARTY 责任方	PLANNED BUDGET 计划预算					
		Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019		Source of Funds 资金来源	COA 费用代码	Description 说明	Amount (2016year) 2016年总数	Amount (2017year) 2017年总数	Amount (2018year) 2018年总数
	Activity 1A.3.2: One-on-one coaching/liaison in international sourcing for FCV manufacturers 为选定的燃料电池汽车制造商提供援助, 完成具有竞争优势的国际供应商零部件采购协议。				100%				100%			100%				100%		GEF	74500	Miscellaneous communications costs (mail, telephone), transportation expenses, and exchange rate losses.	2,000	5,000	8,000	5,000
	Activity 1A.3.3: Survey of FCV manufacturers (two versions: one for all of them; one for one-on-one TA participants) 设计并开展中国燃料电池生产商调查, 以获取项目监测指标所需信息。将完成两份调查: 一份为对所有燃料电池汽车生产商现状的基础版本, 另一份为针对接受技术援助或接收培训材料的生产商的能力提升版本。																	GEF						
	Activity: Survey of FCV manufacturers								100%			100%				100%		GEF	72100	Cost of a subcontractor is responsible for a survey of individuals attending the aforementioned FCV manufacturer workshops or obtaining related materials.	0	2,500	2,500	2,500
	Activity 1A.4.1: Assistance to membrane manufacturer (TA consult, international liaison consult, partial equip purchase) 为国内膜生厂商 (如东岳集团) 提供降低生产成本、提升质量 (体现在耐久性提高、膜厚度变薄、氢气渗透率改善、性能和制造质量提升) 技术援助。																	GEF						
	Activity: Assistance to membrane manufacturer					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71200	International consultants' remuneration of providing TA in assistance to membrane manufacturer	0	8,120	4,060	0
								50%	50%									GEF	72200	Incremental cost of China-based FC membrane manufacturer to purchase equipment to achieve reduced cost and increased quality.	0	100,000	0	0
	Activity 1A.4.2: Assistance to catalyst manufacturer (TA consult, international liaison consult, partial equip purchase) 为国内催化剂生厂商 (如贵研铂业) 在完善工艺、提高规模化生产方面提供专家技术援助, 帮助其提供成本更低的催化剂 (目前催化剂主要依赖进口)。																							
	Activity: Assistance to catalyst manufacturer			50%	50%	25%	25%	25%	25%									GEF	74500	Miscellaneous costs	1,280	11,408	0	0
						25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71200	International consultants' remuneration of providing TA in assistance to catalyst manufacturer.	0	8,120	4,060	0
						50%	50%											GEF	72200	Incremental cost of China-based catalyst manufacture to purchase equipment to achieve reduced cost and increased quality.	0	100,000	0	0
	Activity 1A.4.3: Assistance to MEA manufacturer (TA consultant, international liaison consultant) 为国内膜电极厂商在提高工艺、减少废品率方面提供技术援助																							
	Activity: Assistance to MEA manufacturer			50%	50%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71200	International consultants' remuneration of providing TA in assistance to MEA manufacturer	0	8,120	4,060	0
						25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71600	Travel costs incurred by MoST, PMO, NC, UNDP pilot and other cities.	0	2,000	3,700	3,700
	Activity 1A.4.4: Assistance to bipolar plate manufacturer (TA consultant, international liaison consultant) 为国内双极板生产商在提高工艺、涂层和冲压等方面提供技术援助																							
	Activity: Assistance to bipolar plate manufacturer					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71200	International consultants' remuneration of providing TA in assistance to bipolar plate manufacturer	0	8,120	4,060	0
						25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71600	Travel costs incurred by MoST, PMO, NC, UNDP to pilot and/or other cities.	0	2,000	3,700	3,700
	Activity 1A.4.5: Assistance to FC stack manufacturer (TA consultant, international liaison consultant) 为国内燃料电池供应商如大连新源动力等在燃料电池堆和辅助系统优化方面提供技术援助																							
	Activity: Assistance to FC stack manufacturer					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71200	International consultants' remuneration of providing TA in assistance to FC stack manufacturer	0	8,120	4,060	0
						25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%		GEF	71600	Travel costs incurred by MoST, PMO, NC, UNDP to pilot and/or other cities.	0	2,000	5,668	3,700

Work-plan for: 2016-2019
 工作计划: 2016-2019

Project ID and Project Name: 00094022 Accelerating the Development and Commercialization of Fuel Cell Vehicles in China
 项目号和项目名称: 00094022 促进中国燃料电池汽车商业化发展

EXPECTED OUTPUTS/OUTCOMES INDICATORS	PLANNED ACTIVITIES	TIMEFRAME 时间表																RESPONSIBLE PARTY 责任方	PLANNED BUDGET 计划预算																						
		Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019		Source of Funds 资金来源	COA 费用代码	Description 说明	Amount (2016year) 2016年总数	Amount (2017year) 2017年总数	Amount (2018year) 2018年总数	Amount (2019year) 2019年总数																
Output/outcome indicators and annual indicator targets/ benchmarks (if applicable) 产出/成果指标、年度指标/基准 (如果可以)	Activity 1B.3.1 Operation of all demo vehicles (no GEF funds will be used) 在每个城市示范运行所有燃料电池车 (费用由配套资金承担)																																								
																				co-financing(配套资金支持)	0	0	0	0																	
	Activity 1B.3.2 Analysis of demo results; recommendation and making of adjustments 定期和不定期对示范结果做评估, 目的是对示范计划做调整																																								
																			GEF	71200	International consultants' remuneration of providing TA in analysis of demo results	1,750	750	0	265																
	Activity 1B.4.1 Design of FCV demo data collection system, collection of data, analysis 数据采集方案设计、数据采集和分析																																								
																			GEF	72100	Cost of a subcontractor is responsible for designing FCV demo data collection system, collection of data, analysis	207,037	221,112	53,519	53,518																
	Activity 1B.4.2 Annual survey of public perception of FCVs 每年开展燃料电池汽车公众认知度调查																																								
																			GEF	72100	Cost of a subcontractor is responsible for annual survey of public perception of FCVs.	0	2,000	2,472	2,000																
	Activity 1B.4.3 Prep of template on FCV manufacturing costs; analysis of results 评估燃料电池汽车生产成本及明细																																								
																			GEF	71200	International consultants' remuneration of providing TA in prep of template on FCV manufacturing costs	2050	0	0	0																
Activity 1B.4.4 Annual reports (combine demo FCV operation and public survey); one-time report on costs 记录活动1B.4.1、1B.4.2和1B.4.3的结果, 并完成燃料电池汽车运行年度报告和燃料电池汽车成本报告																																									
																		GEF	74500	Miscellaneous communications costs (mail, telephone), transportation expenses, and exchange rate losses	0	0	0	168																	
Subtotal																		71200	International Consultants (国际专家)	3,800	750	0	265																		
																		71300	Local Consultants (国内专家)	2,400	-	-	0																		
																		72100	Contractual Services (分包)	207,037	223,112	55,991	55,518																		
																		72200	Equipment and Furniture (设备)	0	5,120,000	0	0																		
																		74200	Printing(印刷、翻译)	1,900	-	-	0																		
																		74500	Miscellaneous Expenses (杂费)	0	0	0	168																		
Outcome 1B subtotal																				215,137	5,343,862	55,991	55,951																		

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EXPECTED OUTPUTS/OUTCOMES INDICATORS		PLANNED ACTIVITIES		TIMEFRAME 时间表												PLANNED BUDGET 计划预算												
Output/outcome indicators and annual indicator targets/ benchmarks (if applicable) 产出/成果指标、年度指标/基准 (如果可以)		List all activities to be undertaken (including evaluations and publications etc) 开展的所有活动 (包括评估和出版物)		Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	RESPONSIBLE PARTY 责任方	Source of Funds 资金来源	COA 费用代码	Description 说明	Amount (2016year) 2016年总数	Amount (2017year) 2017年总数	Amount (2018year) 2018年总数	Amount (2019year) 2019年总数	
Outcome 2B (Increased number of transport hydrogen producers and of hydrogen refueling stations on the ground in China, including some(both producers and stations) using renewable energy to produce hydrogen) 中国车用氢气生产商和加氢站数量的增加, 包括一些 (制氢企业和加氢站) 使用可再生能源生产氢气。																												
Indicators:		Activity 2B.1.1: Planning, construction, operation of 4 RE-based hydrogen production facilities (no GEF funds) 可再生能源制氢的计划、建设和运行, 包括风能和垃圾填埋沼气制氢。【配套资金支持】																										
Annual production of hydrogen from autonomous renewable energy in China at EOP, metric tons																							co-financing(配套资金支持)					
Cumulative investments in renewable energy based hydrogen production and/or refueling stations in Chinese cities by EOP, US\$ million		Activity 2B.1.2: Replication plan for RE-based hydrogen production and liaison with potential replicators 开展在其他地方项目可复制和扩大规模示范设计和启动工作, 包括与潜在可再生能源制氢企业建立联系, 能力建设和考察活动等。																										
							100%			100%											GEF	71600	The four activities with domestic travel are: (1) design of HRS database and monitoring; (2) design and implementation of hydrogen production demo monitoring; (3) replication plan and liaison with potential replicators and (4) outreach and technical assistance for gasoline stations to add hydrogen refueling	6,400	1,050	1,050	0	
Number of renewable energy based hydrogen production units in China of substantial scale		Activity 2B.2.1: Planning, construction, operation of 3 to 5 new HRSs (no GEF funds will be used) 计划、建设和运行至少3个加氢站。新建站计划城市包括北京、上海、郑州、佛山。北京新建站第二个加氢站 (第一个目前运行的站在北京西北部)。新增加的示范站还包含风能和太阳能制氢的加氢站。																										
Number of hydrogen refueling stations in China at EOP							100%				100%												co-financing(配套资金支持)					
Annual amount of hydrogen delivered to FCVs via hydrogen refueling stations, tons		Activity 2B.2.2: Addition of EV charging at Anting (no GEF funds will be used) 安亭加氢站内加装充电桩 (有太阳能板)。【配套资金支持】																										
																							co-financing(配套资金支持)					
		Activity 2B.2.3: Outreach/TA to gasoline stations (GEF funds), construction/operation (no GEF funds) 研究在现有加油站增加加氢能力的可行性并提供技术援助																										
																							co-financing(配套资金支持)					
		Activity 2B.3.1: Design of monitoring, monitoring, annual reporting, recommendations: RE-based hydrogen 可再生能源制氢运行监督、报告和传播, 根据问题提供建议。																										
							100%				100%										GEF	71300	These services are spread among five activities: (1) replication plan for RE-based hydrogen production and liaison with potential replicators ; (2) design of monitoring system and annual reporting on hydrogen production demos; (3) design of HRS monitoring system and annual reporting on China's HRSs; (4) and (5) preparation of integrated report on project's hydrogen production demos and HRS demos ;	1,300	2,300	900	800	
							100%				100%										GEF	72100	Cost of a subcontractor is responsible for a design of monitoring, monitoring, annual reporting, and related recommendations of RE-based hydrogen demos	0	5,810	17,430	5,810	
		Activity 2B.3.2: Design of monitoring/HRS database, monitoring/annual reporting: HRSs 加氢站的运行阶段数据采集方案设计, 执行数据采集/监控, 运行报告准备和发布, 准备不同站总结报告																										
							100%				100%										GEF	74200	Consist of the printing of the report on HRS demos and the integrated annual report on results on both RE based hydrogen production and on HRSs (reports will include annual monitoring and public perception findings as well as integrating one-time up front cost studies)	0	2,000	2,000	1,000	
											100%										GEF	72100	Cost of a subcontractor is responsible for a design of monitoring/HRS database, monitoring/annual reporting of HRS demos	0	5,200	15,600	5,200	

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EXPECTED OUTPUTS/OUTCOMES INDICATORS		PLANNED ACTIVITIES		TIMEFRAME 时间表												RESPONSIBLE PARTY 责任方	PLANNED BUDGET 计划预算											
Output/outcome indicators and annual indicator targets/ benchmarks (if applicable) 产出/成果指标、年度指标/基准 (如果可以)		List all activities to be undertaken (including evaluations and publications etc) 开展的所有活动 (包括评估和出版物)		Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018		Q1 2019	Q2 2019	Q3 2019	Q4 2019	Source of Funds 资金来源	COA 费用代码	Description 说明	Amount (2016year) 2016年总数	Amount (2017year) 2017年总数	Amount (2018year) 2018年总数	Amount (2019year) 2019年总数	
								25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	GEF	72100	Cost of a subcontractor is responsible for solicitation and vetting policy incentive ideas new to China (incl. review of international)	0	8,000	24,000	8,000		
		Activity 3B.1.2: Design and reaching consensus on policy pilots 和地方沟通并就政策示范点和示范性质达成一致, 并实施示范政策。至少包含两个燃料电池汽车和加氢站激励政策示范																										
								25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	GEF	72100	Cost of a subcontractor is responsible for designing and reaching consensus on policy pilots	0	8,000	24,000	8,000		
		Activity 3B.2.1: Implementation of agreed local level policy pilots (at least 2) 开展地方政策示范项目, 至少有两个燃料电池汽车和加氢站激励示范政策。与潜在投资者接触并探讨优惠政策。【政策实施是配套活动】																										
																						co-financing(配套资金支持)						
		Activity 3B.2.2: Design of novel policy plan monitoring and assessment of results 设计和实施地方示范政策, 记录相关结果并做宣传																										
								100%												GEF	74200	Printing costs of USD 1,500 for Outcome3B consist of the printing of 1,500 copies of design of novel policy plan and monitoring and assessment of results (at unit cost of USD 1);	800	0	0	0		
		Activity 3B.2.3: Survey of cities on local FCV roadmaps and incentive policies 设计并开展对城市的调查, 了解制定地方燃料电池汽车和基础设施发展路线图和激励政策的城市数量和政策类别																										
															100%				100%	GEF	72100	Cost of a subcontractor is responsible for a survey of cities on local FCV roadmaps and incentive policies	0	0	10,000	10,000		
Subtotal																					71200	International Consultants (国际专家)	0	2,420	1,810	0		
																					72100	Contractual Services (分包)	0	16,000	58,000	26,000		
																					74200	Printing(印刷、翻译)	800	0	0	0		
Outcome 3B subtotal																							800	18,420	59,810	26,000		
Outcome 4 (Enhanced acceptance of FCVs for both public and private uses via increased knowledge and awareness) 通过科普和宣传提高公共和私人消费领域对燃料电池汽车的接受度																												
Indicators:																												
Number of public and private vehicle users that are aware and interested in the application of FCVs by EOP		Activity 4.1.1: Media campaign in four cities and nationally 在4个示范城市开展媒体宣传																										
								100%		50%		50%			50%			50%		50%	50%	GEF	74200	Media campaign in four cities and nationally	0	2,000	2,000	2,000
Number of local governments that are aware and have adopted FCVs in their public transport systems by EOP		Activity 4.1.2: Preparation and dissemination of brochures 准备、印刷并分发介绍燃料电池汽车特点和优势的宣传册																										
								100%													GEF	74200	Preparation and dissemination of brochures	0	1,850	0	0	
Number of private vehicle owners that own and use a FCV by EOP		Activity 4.1.3: Design and conduct of a survey of individuals that were involved in the project advocacy program. 设计并开展对项目推广活动的个人调查, 以确定这些宣传怎样改变他们对燃料电池汽车的看法																										
										50%		50%			50%			50%		50%	GEF	72100	Survey of individuals exposed to advocacy program	0	2,000	6,000	2,000	
Number of other companies/service providers (such as postal service) that have adopted FCVs by EOP		Activity 4.1.4: Design, production, airing of TV documentary on FCVs on TV in China. 设计并制作在中国电视节目播放的纪录片																										
								100%													GEF	74200	Design, production, airing of TV documentary on FCVs on TV	0	2,000	0	0	
		Activity 4.1.5: Design and production of video material to counter myths regarding the safety of hydrogen. 设计并制作消除公众对氢气安全顾虑的宣传片																										
										100%											GEF	74200	Design and production of video to counter myth of danger of hydrogen production	0	2,000	0	0	
		Activity 4.2.1: Annual workshop for demo cities and other possibly replicating cities 每年召开燃料电池汽车示范城市和其他感兴趣的城市交流会, 交流示范燃料电池汽车、制氢、加氢站和政策示范的发现、经验和教训等																										
															100%				100%		GEF	75700	Annual workshop for demo cities and other possibly replicating cities 550*30=27500RMB(2600USD)	0	2,600	2,600	2,600	

