



Developing Market-based Energy Efficiency Program in China (P132748)

EAST ASIA AND PACIFIC | China | Energy & Extractives Global Practice |
Global Environment Project | Investment Project Financing | FY 2017 | Seq No: 12 | ARCHIVED on 31-Mar-2023 | ISR55581 |

Implementing Agencies: China National Energy Conservation Center, Hebei PMO, Huaxia Bank, People's Republic of China

Key Dates

Key Project Dates

Bank Approval Date: 16-Mar-2017

Effectiveness Date: 05-Sep-2017

Planned Mid Term Review Date: 12-Apr-2021

Actual Mid-Term Review Date: 07-Jun-2021

Original Closing Date: 30-Apr-2022

Revised Closing Date: 31-Oct-2023

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The objective of the project is to support development and implementation of China's priority energy efficiency and environment programs, with a focus on improving the results measurement and verification system and developing market-based mechanisms.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components Table

Name

Component 1. Supporting market-based priority energy efficiency and coal cap control programs:(Cost \$8.80 M)

Component 2. Supporting result-based green energy financing in Jing-Jin-Ji Region:(Cost \$4.50 M)

Component 3. Supporting result-based environmental program in Hebei Province:(Cost \$4.50 M)

Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	□ Moderately Satisfactory	□ Moderately Satisfactory
Overall Implementation Progress (IP)	□ Moderately Unsatisfactory	□ Moderately Satisfactory
Overall Risk Rating	□ Moderate	□ Moderate

Implementation Status and Key Decisions

The project is assessed on track to achieve the Project Development Objective (PDO). The Project supported several key policy and technical studies to inform important policy measures to advance energy efficiency programs in China, including the Energy Dual Control Policy under the 14th Five Year Plan, provincial programs in Shandong, Henan, and Shanxi on coal consumption reduction and substitution program under the 13th Five Year Plan, and several key policies regarding building energy efficiency, cooling, tax incentives for green investment, among others. Activities to develop energy consumption measurement, reporting, and verification (MRV) methodologies and design the market-based energy consumption right trading scheme are under implementation, expected to deliver draft policy proposals for adoption and implementation. In addition, Components 2 and 3 provided support to Huaxia Bank and Hebei Development and Reform Commission (DRC) in implementing the Bank-funded Programs-for-



Results (PforR) that have achieved significant impacts on energy efficiency, carbon emissions reduction, and environmental protection. The PDO and the results indicators are expected to be fully met by the closing date. The implementation progress is also on track for timely implementation and completion. All three implementing agencies and their PMOs have made a significant effort to expedite implementation progress since the last mission in May 2022, despite challenges from the pandemic as reported in the previous ISR. All three implementing agencies are fully committed to timely completion by October 31, 2023.

Risks

Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	Low	Low	Low
Macroeconomic	Moderate	Moderate	Moderate
Sector Strategies and Policies	Low	Low	Low
Technical Design of Project or Program	Moderate	Moderate	Moderate
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate	Moderate
Fiduciary	Moderate	Moderate	Moderate
Environment and Social	Low	Low	Low
Stakeholders	Moderate	Moderate	Moderate
Other	--	Moderate	Moderate
Overall	Moderate	Moderate	Moderate

Results

PDO Indicators by Objectives / Outcomes

To support development and implementation of China's priority EE and environment program				
►Energy savings measurement, reporting and verification system improved and standardized (Text, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	n.a.	Contracts signed in May 2020 and activities are under implementation.	Energy savings measurement, reporting and verification (MRV) framework and guidance has been developed. Detailed MRV methodologies for enterprises and verifiers are under development.	MRV system for energy savings improved and standardized
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023



Comments:	Energy savings measurement, reporting and verification (MRV) framework and guidance has been developed. Detailed MRV methodologies for enterprises and verifiers are under development, expected to be delivered by September 2023.			
► Market-based mechanisms for energy savings designed and piloted (Text, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No Market-based mechanism for energy savings designed or piloted	Contracts were signed in May 2020. A national market-based energy consumption rights trading scheme is being designed building on lessons from pilot schemes that have been implemented in nine provinces.	Provincial energy consumption rights trading scheme has been piloted in several provinces. A national energy consumption rights trading scheme has been designed, building on the pilot experience, and is currently under review.	Market-based EE trading mechanisms designed and piloted
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	Provincial energy consumption rights trading scheme has been piloted in Sichuan, Zhejiang, Henan, and Fujian since 2017, followed by several other provinces with similar market-based mechanisms for energy efficiency. A proposal for establishing a national energy consumption rights trading scheme has been developed, building on experience from the pilot provinces, and is currently under the review of the government.			
► Energy and environment results verified for the Jing-Jin-Ji Region and Hebei Province (Text, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No results to be verified	Verification systems have been established and have been operational for both P4R.	Verification systems for green energy financing and environmental programs in JJJ Region and Hebei Province established and completed	Verification systems for green energy financing and environmental programs in JJJ Region and Hebei Province established
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	Verification systems have been established and have been operational for both PforRs, with independent verifiers contracted. DLIs for the Innovative Financing for Air Pollution Control in JJJ PforR and the Hebei Air Pollution Prevention and Control PforR Operations were verified. Verification has been fully completed for both PforR as the Hebei PforR was closed on December 31, 2019, and the JJJ PforR was closed on June 30, 2022.			

Intermediate Results Indicators by Components

Component 1. Supporting market-based priority energy efficiency and coal cap control programs				
► Capacity built for M&V system and market-based EE mechanism (Number of people trained) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	104.00	104.00	1,200.00
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	6 international study tours have been conducted. 64 people trained.			



There was a capacity building workshop regarding the MRV held on March 3rd 2021 in NECC. The participants were NECC staffs and the consultants of the activity "Developing MRV principles", about 40 people were trained.
Once MRV methodologies and energy saving trading scheme are finalized, training workshops will be organized to build capacity for the new methodologies and trading schemes.

► Energy savings M&V methodologies and guidelines developed (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	6.00	8.00	25.00
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	8 methodologies have been developed. The PMO submitted a revised procurement plan in December 2021 to launch the procurement of a contract (NDRC-2019-17) to develop further MRV methodologies based on the MRV principles and guidelines formulated under another contract (NDRC-2019-16) signed in May 2020. The new contract is expected to increase the number of MRV methodologies to meet the end target.			

► Energy consumption trading schemes designed and piloted (Yes/No, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	Provincial energy consumption rights trading scheme has been piloted in Sichuan, Zhejiang, Henan, and Fujian since 2017, followed by several other provinces with similar market-based mechanisms for energy efficiency. A proposal for establishing a national energy consumption rights trading scheme has been developed, building on experience from the pilot provinces, and is currently under the review of the government.			

Component 2. Supporting result-based green energy financing in Jing-Jin-Ji Region

► Innovative financial products for green financing developed and piloted (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	3.00	3.00	3.00
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	30-Apr-2022
Comments:	The last innovative financial product-green bond, has been issued and verified in April 2020.			

► Case studies for the JJJ and Hebei PforR operations developed (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1.00	1.00	2.00
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	Huaxia has completed the case study of the operation of JJJ PforR Programs, drawing lessons from successes and difficulties met, resulting in recommendations for future similar projects. Hebei PMO is in the process of procuring the case study of the operation of Hebei PforR Program.			

► CO2 emissions avoided (thousand tons) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
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Value	0.00	2,866.49	2,876.00	1,969.00
Date	16-Mar-2017	23-Jun-2022	24-Mar-2023	31-Oct-2023
Comments:	The JJJ PforR operation was completed in June 2022 and its results verified in December 2022.			
► Annual energy savings(Thousand tce) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,174.79	1,178.69	800.00
Date	16-Mar-2017	23-Jun-2022	24-Mar-2023	31-Oct-2023
Comments:	The JJJ PforR operation was completed in June 2022 and its results verified in December 2022.			
Component 3. Supporting result-based environmental program in Hebei Province				
► Capacity for environmental results monitoring improved (Number of people trained) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	720.00	720.00	480.00
Date	16-Mar-2017	31-Oct-2022	24-Mar-2023	31-Oct-2023
Comments:	The target number 480 is over delivered.			

Performance-Based Conditions

Data on Financial Performance

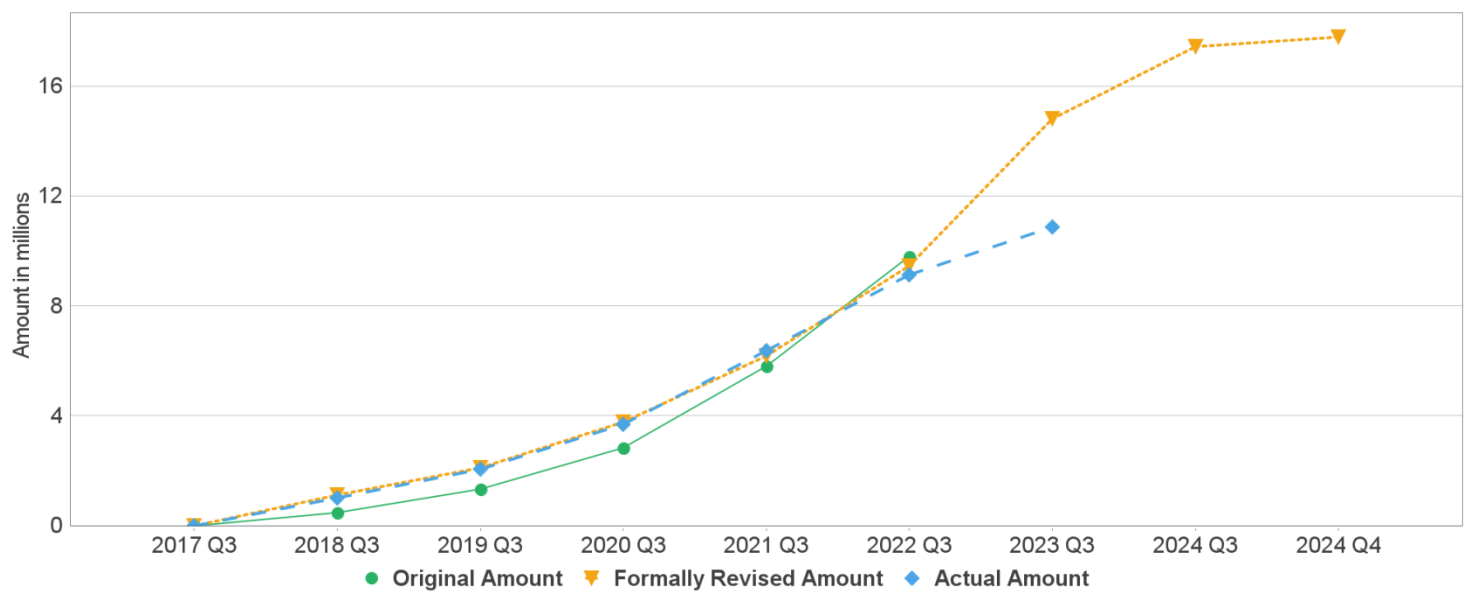
Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P132748	TF-A4256	Effective	USD	17.80	17.80	0.00	10.87	6.93	61%

Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P132748	TF-A4256	Effective	09-Jun-2017	09-Jun-2017	05-Sep-2017	30-Apr-2022	31-Oct-2023

Cumulative Disbursements



Restructuring History

Level 2 Approved on 26-Apr-2022

Related Project(s)

There are no related projects.