

Energy Efficiency Improvement in Commercial and High-rise Residential Buildings in Viet Nam (EECB)
 Project Results Framework (updated as resulted from the MTR July 2019)

Strategy	Indicator	Baseline	Targets	Source of Verification	Assumptions
GOAL: Reduced intensity of GHG emissions from the building sector	I0: Cumulative CO2 emission reduction from the building sector by End-Of-Project (EOP, Year 2020), tCO2e	1,568 ¹	EOP: 37,680 ² Year 3: 17,653	<ul style="list-style-type: none"> Project final report Project M&E reports (summarized from the sources of MOC, MOIT, EVN, building managements and developers, project partners and surveys). 	<ul style="list-style-type: none"> Commitment to EE in the building sector by the government remains firm. Economic growth improved or at least remains constant
OBJECTIVE: Improved energy utilization performance of commercial and high-rise residential buildings in Ho Chi Minh and Hanoi	I1: Cumulative energy savings from the commercial building by EOP (Year 2019), MWh	2,528	EOP: 61,137 Year 3: 28,642	<ul style="list-style-type: none"> Project final report; Project M&E reports (summarized from the sources of MOC, MOIT, EVN, building managements and developers, project partners and surveys). 	<ul style="list-style-type: none"> Commitment to EE in the building sector by the government remains firm. Economic growth improved or at least remains constant Institutional capacity to support EEBC enforcement built and sustained

¹ Cumulative CO2 emission reduction in the baseline scenario is a result of 0.5% annual reduction in baseline energy consumption due to adoption of EE technologies and EE investments in commercial and high-rise residential buildings in Viet Nam in absence of GEF intervention. The calculation is based on the guideline and Excel spreadsheet tool published by GEF in March 2013.

² Cumulative CO2 emission reduction in the EECB project scenario is a result of better compliance with the revised building code (from 20% without GEF intervention to 50% at the end of project), together with direct emission reductions from demonstration projects and their replications.

Strategy	Indicator	Baseline	Targets	Source of Verification	Assumptions
	I2: % of new buildings that are fully compliant with the revised Energy Efficiency Building Code by EOP (1)	20 ³	EOP: 50 Year 3: 30	<ul style="list-style-type: none"> Project final reports Project M&E reports (summarized from the sources of DOCs, MOC and surveys). 	<ul style="list-style-type: none"> Commitment to EE in the building sector by the government remains firm. Economic growth improved or at least remains constant Institutional capacity to support EEBC enforcement built and sustained
	I3: % of existing commercial and high-rise residential buildings that adopt EE technologies and practices and achieve at least 10% electricity savings by EOP	Less than 5%	EOP: 20% ⁴ Year 3: 15%	<ul style="list-style-type: none"> Project final reports Project M&E reports Demonstration project reports 	<ul style="list-style-type: none"> Economic growth improved or at least remains constant Electricity tariff to be revised to better reflect generation costs and incentivize EE implementation
	I4: No. of people gainfully employed in EE field of the building sector in Viet Nam by EOP	20 ⁵	EOP: 60 ⁶ Year 3: 40	<ul style="list-style-type: none"> Project final reports Project M&E reports Demonstration project reports 	<ul style="list-style-type: none"> Economic growth improved or at least remains constant
COMPONENT 1: Improvement and enforcement of energy efficiency building code					
OUTCOME 1.1: Enforced, improved and comprehensive policy, legal, and regulatory frameworks on the energy efficient design,	I5: % of DOCs nationwide that reference EEBC compliance toolkits and guideline developed by the projects by EOP	30% of DOCs nationwide	EOP: 70% of DOCs nationwide (at least) Year 3: N/A	<ul style="list-style-type: none"> Survey reports and feedback documented 	<ul style="list-style-type: none"> Provincial governments and DOCs actively respond to the EE commitment made by MOC

³ The revised 2013 EEBC cannot be effectively enforced due to various barriers identified in the ProDoc.

⁴ Baseline and EOP indicators based on consultation with local stakeholders and national experts during the ProDoc preparation

⁵ Staff employed by CEEBs, demo projects and certified EE buildings

⁶ See footnote 5

Strategy	Indicator	Baseline	Targets	Source of Verification	Assumptions
construction and operation of commercial and high-rise residential buildings	16: No. of national standards for energy performance promulgated by EOP	0 ⁷	Year 3: 0	<ul style="list-style-type: none"> Standard gazettes published by STAMEQ, MOST 	<ul style="list-style-type: none"> Local stakeholder support in enhancing availability of EE building construction materials remain firm
	17: No. of existing and new commercial buildings and high-rise residential buildings in Viet Nam certified as EE buildings under the pilot certification of EECB Project by EOP	0 ⁸	EOP: 20 Year 3: 0	<ul style="list-style-type: none"> EECB project reports 	<ul style="list-style-type: none"> Economic growth improved and building owners, developers and managers recognize EE as a competitive strategy
OUTCOME 1.2: Strengthened compliance of the energy efficiency building code for commercial and high-rise residential buildings in Hanoi and HCMC	18: % of building practitioners nationwide that reference the EE design guideline to achieve a higher level of EE than the EEBC requirements by EOP	20% ⁹	EOP: 50% Year 3: N/A	<ul style="list-style-type: none"> Survey reports and feedback documented 	<ul style="list-style-type: none"> Involvements of building practitioners remain strong
	19: % of commercial and high-rise residential buildings referencing M&V schemes in EE implementation by EOP	0% ¹⁰	EOP: 70% Year 3: N/A	<ul style="list-style-type: none"> EECB project survey reports Survey reports and feedback documented 	<ul style="list-style-type: none"> Requirements of building owners, developers, managers and practitioners in validating EE remain firm
COMPONENT 2: Building market development support initiatives					
OUTCOME 2: Increased local capacity in the EE design, construction, and operation of commercial and high-rise residential buildings	110: No. of supporting mechanisms and incentives for commercial and high-rise residential buildings approved and implemented by EOP	0	EOP: 1 Year 3: 0	<ul style="list-style-type: none"> EECB project reports 	<ul style="list-style-type: none"> Commitment to EE in the building sector by the key ministries (MOF, MOC and MOIT) remains firm
	111: No of trainees (building project developers, design & appraisal consultants, appraisal officers of DOCs) that are trained on EE building designs, implementation, by EOP	0	EOP: 250 Year 3: 90	<ul style="list-style-type: none"> A training report on adoption and utilization of knowledge from the training program 	
	112: No of trainees (relevant officers of DOCs, energy auditors, building operation managers) that are engaged in building operation, M&V by EOP	0	EOP: 70 Year 3: 0	<ul style="list-style-type: none"> A training report on adoption and utilization of knowledge from the training program 	

⁷ No national testing standards for energy performance of building construction materials

⁸ No development or implementation of EE certification/labeling for commercial and high-rise residential buildings in Vietnam.

⁹ There is no current plan for development of EE design guidelines planned by MOC.

¹⁰ There are no M&V schemes for EE implementation in buildings recommended by MOC.

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COMPONENT 3: Building EE technology applications and replications					
OUTCOME 3: Increased use of EE building materials and application of EE building technologies in Hanoi and HCMC	I13: No. of demonstration projects that adopted EE equipment, building materials and building energy monitoring and management/control systems promoted by the EEBC project by EOP	5	EOP: 21 ¹¹ Year 3: 20	<ul style="list-style-type: none"> Documentation of each demonstration project 	<ul style="list-style-type: none"> Commitments of demonstration project hosts remain strong
	I14: No. of completed M&V exercises in accordance with the guidelines proposed by the project by EOP	0	EOP: 09 Year 3: 0	<ul style="list-style-type: none"> Annual M&V report of each demonstration project 	<ul style="list-style-type: none"> Commitments of demonstration project hosts remain strong

¹¹ This includes 16 demonstration projects to be implemented by the EEBC project and 5 demonstration projects have been implemented by IFC/WB and DEA.