

NS-326 - Promoting Up-scaled Use of Energy efficient Air-Conditioning (ACs) and Solar Water Heating Systems (SWHs) in Residential and Commercial Buildings in Viet Nam

Viet Nam

NAMA Seeking Support for Implementation

A Overview		
A.1 Party	Viet Nam	
A.2 Title of Mitigation Action	Promoting Up-scaled Use of Energy efficient Air-Conditioning (ACs) and Solar Water Heating Systems (SWHs) in Residential and Commercial Buildings in Viet Nam	
A.3 Description of mitigation action	The Building sector is one of the fast growing sectors and the largest energy consumers in Viet Nam, accounting for approximately 30% of the total energy cons which residential and commercial buildings are the most prominent energy users. According to the Ministry of Construction, the annual expansion rate of resider commercial buildings is 6-7% and they are recognized as a significant GHG emitter in Viet Nam. In addition, approximately 95% of the commercial and high buil Nam are not yet considered efficient use of energy. There is thus huge potential for GHG emission reduction from the building sector by applying different meas improved energy efficiency of housing cooling and heating systems through technical solutions and comprehensive institutional support from government author environment, buildings and energy sectors with collaboration from private sectors. The NAMA aims to focus on three mitigation actions: (i) conversion to high efficient ACs; (ii) installation of SWHs; and (iii) recovery and destruction of refrigerant in ACs. The actions proposed will achieve 22-25% energy savings compared to BAU scenario. Together with GWP refrigerants total emission reduction from the expected at 7,572,857 t CO₂e over 2019-2030 period, i.e. an annual reduction of 631,071 t CO₂e/year. The NAMA is scheduled to be implemented in three phr: preparation (2018); (ii) pilot implementation (2019-2020); and full scale implementation (2021-2030) in which mid-term implementation (2021-2025) and long-term implementation (2026-2030). Co-benefits of the NAMA will cover economic, social, environmental and technological benefits which include lower demand for ele fossil fuel, enhanced technology transfer, and job creation and improved air quality. The NAMA includes establishment and operation of a system for recovery and thermal destruction of high GWP refrigerants for the first time in Viet Nam. This is fundamental change compared to the normal practice of free discharge to the environment. The financial mechanism for NAMA includes fee and tax system bas labelling system and payment for recovery and thermal destruction services for the first time in Viet Nam. This will induce vital transformational change to raise t of the consumers and technical workers on GHG emission reduction and carbon pricing for equipment for the first time in Viet Nam.	
A.4 Sector	☐ Energy supply ☒ Residential and Commercial buildings ☐ Agriculture ☐ Waste management ☐ Other	
A.5 Technology	☐ Bioenergy ☒ Energy Efficiency ☐ Hydropower ☐ Wind energy ☐ Carbon Capture and Storage ☐ Land fill gas collection ☐ Other	
A.6 Type of action	☒ National/ Sectoral goal ☐ Strategy ☒ National/Sectoral policy or program ☐ Other	
A.7 Greenhouse gases covered by the action	☒ CO ₂ ☐ N ₂ O ☐ PFCs ☐ Other	
B National Implementing Entity		
B.1.0	Name	Ministry of Natural Resources and Environment of Viet Nam
B.1.1	Contact Person 1	Tang The Cuong
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B.1.5	Contact Person 2	Luong Quang Huy
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B.1.9	Contact Person 3	
B.1.10	Address	
B.1.11	Phone	
B.1.12	Email	
B.1.13	Comments	

[Add Additional Entity](#)

C Expected timeframe for the implementation of the mitigation action

C.1	Number of years for completion	12
C.2	Expected start year of implementation	2019

D Currency

D.1	Used Currency	USD
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Conversion to USD: 1

E Cost

E.1.1	Estimated full cost of implementation	1,187,829,746
	Conversion to USD: 1,187,829,746	
E.1.2	Comments on full cost of implementation	Full cost of implementation include investment in equipment (AC&SWHs), recovery and destruction program and enabling activities.
E.2.1	Estimated incremental cost of implementation	1,184,655,746
	Conversion to USD: 1,184,655,746	
E.2.2	Comments on estimated incremental cost of implementation	Total saving cost is 570,386,973 USD. Payback is 5.69 years.

F Support required for the implementation the mitigation action

F.1.1	Amount of Financial support	3,174,000
	Conversion to USD: 3,174,000	
F.1.2	Type of required Financial support	☒ Grant ☐ Guarantee ☐ Loan (sovereign) ☐ Equity ☐ Loan (Private) ☒ Carbon finance ☒ Concessional loan ☐ Other
F.1.3	Comments on Financial support	Financial support mainly to cover cost for enabling activities.
F.2.1	Amount of Technological support	474,000
F.2.2	Comments on Technological support	
F.3.1	Amount of capacity building support	2,280,000
	Conversion to USD: 2,280,000	
F.3.2	Type of required capacity building support	☐ Individual level ☒ Institutional level ☐ Systemic level ☐ Other
F.3.3	Comments on Capacity Building support	Capacity Building Support covers the establishment and operation of NAMA operating Unit and the Carbon Neutral Labelling Office as well as trainings for the

G Estimated emission reductions

G.1	Amount	7.572857
G.2	Unit	MtCO ₂ e
G.3	Additional information (e.g. if available, information on the methodological approach followed)	Estimation of emission reductions is based on CDM methodologies: AM0091 (Energy efficiency technologies and fuel switching in new and existing buildings), / (Demand-side energy efficiency activities for specific technologies) and AMS.I.J (Solar water heating systems)

H Other indicators

H.1	Other indicators of implementation	Policy incentives and financial incentives that require the technical assistance of 320,000 USD
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I Other relevant information

I.1 Other relevant information including co-benefits for local sustainable development

Co-benefits of the NAMA will cover economic, social, environmental and technological benefits which obviously include lower demand for electricity and fossil fuel technology transfer, and job creation and improved air quality. The first-ever establishment of the system for recovery and thermal destruction of high GWP refrigerants financial mechanism includes fee and tax system based on the labelling system and payment for recovery and thermal destruction services will induce transformation changes for Viet Nam

J Relevant National Policies strategies, plans and programmes and/or other mitigation action

J.1 Relevant National Policies

Nationally Determined Contribution to UNFCCC, Law on Energy Efficiency, Building Code, National Strategy for Response to Climate Change, National Green Growth Strategy

J.2 Link to other NAMAs

(none)

K Attachments

K Attachments

Title	Description
20200406_Vietnam_NAMA_building_Final.pdf	

K.1 Attachment description

K.2 File

Choose File

No file chosen

L Support received

L.1 Outside the Registry

L.2 Within the Registry

Support provided	SupportType	Amount	Comment	Date
No records to display.				