

# NR-286 - Greening Thailand's Government Buildings

## Thailand

### NAMA for Recognition

#### A Overview

A.1 Party

Thailand

A.2 Title of Mitigation Action 

Greening Thailand's Government Buildings

A.3 Description of mitigation action

According to Department of Alternative Energy Development and Efficiency Database, in 2015 government buildings accounted for 21 % of the total energy use by buildings in Thailand with grow projected at 3.3 % per year.

Building new energy efficient/ green buildings or retrofitting existing government buildings is often economically viable and can further stimulate private investment in commercial and residential sectors. Current government policy plans retrofits based on the operational age of buildings and does not take into consideration the potential to achieve higher levels of energy efficiency . Further, there is no support to achieve standards beyond basic Building Energy Code requirements for new government buildings nor is there an existing system to assess and collect operational energy performance data of government buildings. The proposed NAMA engages the Pollution Control Department (PCD) to implement a green building standard and certification scheme for existing government buildings. It will support the National Pollution Control Committee in the development of an energy efficiency standard for existing government buildings. Additional activities include MRV, and capability - building. The financial support is expected via ESCO model (at a later stage). This NAMA seeks to stimulate private buildings to adopt green building standards through public sector leadership.

The actions proposed in this NAMA will support Thailand's INDC of 20% emissions reduction from BAU by 2030. It is also in line with Thailand's national goal of reducing energy intensity by 30% by 2036, compared to 2010 levels.

A.4 Sector

☐ Energy supply

☐ Transport and its Infrastructure

☒ Residential and Commercial buildings

☐ Industry

☐ Agriculture

☐ Forestry

☐ Waste management

☐ Other

A.5 Technology

☐ Bioenergy

☐ Cleaner fuels

☒ Energy Efficiency

☐ Geothermal

☐ Hydropower

☐ Solar Energy

☐ Wind Energy

☐ Ocean Energy

|                                            |                                                                         |                                                                |
|--------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|
| A.6 Type of action                         | <input type="checkbox"/> Carbon Capture and Storage                     | <input type="checkbox"/> Low till / No till                    |
|                                            | <input type="checkbox"/> Land fill gas collection                       |                                                                |
|                                            | <input type="checkbox"/> Other                                          | <input type="text"/>                                           |
|                                            | <input type="checkbox"/> National/ Sectoral goal                        | <input type="checkbox"/> Project: Investment in machinery      |
|                                            | <input type="checkbox"/> Strategy                                       | <input type="checkbox"/> Project: Investment in infrastructure |
|                                            | <input checked="" type="checkbox"/> National/Sectoral policy or program | <input type="checkbox"/> Project : other                       |
|                                            | <input type="checkbox"/> Other                                          | <input type="text"/>                                           |
| A.7 Greenhouse gases covered by the action | <input checked="" type="checkbox"/> CO2                                 | <input type="checkbox"/> CH4                                   |
|                                            | <input type="checkbox"/> N2O                                            | <input checked="" type="checkbox"/> HFCs                       |
|                                            | <input type="checkbox"/> PFCs                                           | <input type="checkbox"/> SF6                                   |
|                                            | <input type="checkbox"/> Other                                          | <input type="text"/>                                           |
|                                            |                                                                         |                                                                |

#### B National Implementing Entity

|        |                  |                                                                                          |
|--------|------------------|------------------------------------------------------------------------------------------|
| B.1.0  | Name             | Pollution Control Department (PCD)                                                       |
| B.1.1  | Contact Person 1 | Ms. Mothinee Aopreeya                                                                    |
| B.1.2  | Address          | 92 Soi Phahon Yothin7, Phahon Yothin Road, Sam Sen Nai Phayathai District, Bangkok 10400 |
| B.1.3  | Phone            | 0 298 2091                                                                               |
| B.1.4  | Email            | mothinee.a@pcd.go.th                                                                     |
| B.1.5  | Contact Person 2 | Ms. Jarinporn Tippamongkol                                                               |
| B.1.6  | Address          |                                                                                          |
| B.1.7  | Phone            | 022982310                                                                                |
| B.1.8  | Email            | jarinpcd@gmail.com                                                                       |
| 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        | <input type="text" value="4"/>    |
| C.2 | Expected start year of implementation | <input type="text" value="2018"/> |

### D Currency

|     |               |                                                  |
|-----|---------------|--------------------------------------------------|
| D.1 | Used Currency | <div>USD ▼</div> <div>Conversion to USD: 1</div> |
|-----|---------------|--------------------------------------------------|

### E Cost

|       |                                                          |                                                                                                                                                                                                          |
|-------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E.1.1 | Estimated full cost of preparation                       | <input type="text" value="14,000"/><br>Conversion to USD: 14,000                                                                                                                                         |
| E.1.2 | Comments on estimated full cost of preparation           | The preparation cost corresponds to the revision of the Green Building Standard Report and evaluation submission to Government Capacity Building activities. Details in the attached files.              |
| E.2.1 | Estimated full cost of implementation                    | <input type="text" value="5,428,571"/><br>Conversion to USD: 5,428,571                                                                                                                                   |
| E.2.2 | Comments on estimated full cost of implementation        | The total estimated full cost of implementation =5,428,571 USD<br><br>The full implementation cost covers maintenance cost of participating buildings during 10 year time.Details in the attached file.  |
| E.3.1 | Estimated incremental cost of implementation             | <input type="text" value="262,858"/><br>Conversion to USD: 262,858                                                                                                                                       |
| E.3.2 | Comments on estimated incremental cost of implementation | Incremental cost : 262,858 USD<br><br>The incremental cost covers policy making, MRV and capacity building<br><br>Policy making : 5714 USD<br>MRV system : 234,286 USD<br>Capacity building : 22,858 USD |

### F Estimated emission reductions

|     |                                                                                            |                                     |
|-----|--------------------------------------------------------------------------------------------|-------------------------------------|
| F.1 | Amount  | <input type="text" value="0.0016"/> |
| F.2 | Unit                                                                                       | <div>MtCO2e/yr ▼</div>              |

|     |                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                          |
|-----|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F.3 | Additional information (e.g. if available, information on the methodological approach followed) | The estimated emission reduction is divided into (1) project emission reduction based on the assumption that 10 buildings per year will join the project and (2) whole potential reduction which targets all large government buildings joining under government policy - Project potential : 1,634 tCO2/ yrs - All large government bldg (639 Bldg.) : 98,808 tCO2/ yrs |
|-----|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### G Other indicators

|     |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G.1 | Other indicators of implementation | <ul style="list-style-type: none"> <li>Green building labelling scheme is set up and applied to existing government buildings.</li> <li>Percentage of designated government buildings to achieve green building label by 2020.</li> <li>Develop MRV framework for collection and reporting of operational energy use in buildings.</li> <li>Develop sustainable financing framework for energy efficiency buildings.</li> <li>No. of trained personnel for the green government buildings.</li> </ul> |
|-----|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### H Other relevant information

|     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H.1 | Other relevant information including co-benefits for local sustainable development | <p>Economic:</p> <p>(1) Reduced utility cost of government budget;</p> <p>(2) Increased energy security from demand - side reductions;</p> <p>(3) Increased market demand for energy efficiency products and business;</p> <p>(4) Increased productivity from a greener and healthier work environment.</p> <p>Environmental:</p> <p>(1) Reduced GHG emissions from reduced electricity generation;</p> <p>(2) Reduced use of water and other natural resources;</p> <p>(3) improved government building environment.</p> <p>Social:</p> <p>(1) Positive health effects from better air quality;</p> <p>(2) Job creation and economic development;</p> <p>(3) Capacity building and skills development.</p> |
|-----|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|     |                            |                                                                                                                                                                                                                                                                                                                 |
|-----|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I.1 | Relevant National Policies | Energy Efficiency Plan (2015 - 2036)<br>Thailand Climate Change Masterplan (2011 - 2050)                                                                                                                                                                                                                        |
| I.2 | Link to other NAMAs        | <div>(none)</div> <div>Sustainable Housing Programme</div> <div>High Integration Program of Wind Energy</div> <div>Implementation of a National Forestry and Climate Change Strategy, including the development and implementation of a Platform for the Generation and Trading of Forest Carbon Credits.</div> |

#### J Attachments

| J                                                           | Attachments                           | <table> <tr> <th>Title</th><th>Description</th><th></th></tr> <tr> <td><b><u>cost and potential.pdf</u></b></td><td>Cost and Potential emission reduction</td><td></td></tr> <tr> <td><b><u>NAMA for recognition Gov Buildings 230118.pdf</u></b></td><td>NAMA description in PDF</td><td></td></tr> <tr> <td><b><u>Project plan.pdf</u></b></td><td>Project Plan</td><td></td></tr> </table> | Title | Description |  | <b><u>cost and potential.pdf</u></b> | Cost and Potential emission reduction |  | <b><u>NAMA for recognition Gov Buildings 230118.pdf</u></b> | NAMA description in PDF |  | <b><u>Project plan.pdf</u></b> | Project Plan |  |
|-------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------|--|--------------------------------------|---------------------------------------|--|-------------------------------------------------------------|-------------------------|--|--------------------------------|--------------|--|
| Title                                                       | Description                           |                                                                                                                                                                                                                                                                                                                                                                                               |       |             |  |                                      |                                       |  |                                                             |                         |  |                                |              |  |
| <b><u>cost and potential.pdf</u></b>                        | Cost and Potential emission reduction |                                                                                                                                                                                                                                                                                                                                                                                               |       |             |  |                                      |                                       |  |                                                             |                         |  |                                |              |  |
| <b><u>NAMA for recognition Gov Buildings 230118.pdf</u></b> | NAMA description in PDF               |                                                                                                                                                                                                                                                                                                                                                                                               |       |             |  |                                      |                                       |  |                                                             |                         |  |                                |              |  |
| <b><u>Project plan.pdf</u></b>                              | Project Plan                          |                                                                                                                                                                                                                                                                                                                                                                                               |       |             |  |                                      |                                       |  |                                                             |                         |  |                                |              |  |

J.1 Attachment description

J.2 File

Choose File

No file chosen

Upload File