NATIONAL MODELLING EXPERT PROCUREMENT NOTICE

Project Title:	"Strengthening Capacity on Climate Change Initiatives in the Industry and Trade sectors" (CCIT).
Description of the assignment:	National expert to cooperate with international consultant and national consultants (i) identify and recommend greenhouse gas mitigation potential and GHG reduction targets in energy sub-sector for drafting the MOIT Green Growth Action Plan (ii) support MOIT in formulating the Green Growth Action Plan implementing the Green Growth Strategy during 2014-2020.
Duration of assignment:	30 working days (UN-EU cost norm 2013 will be referred to apply).

1. Interested consultant must submit the following documents and information to demonstrate their qualifications:
   - A technical proposal: Signed Curriculum vitae, cover letter expression of interest, explaining why he/she is the most suitable for the work.
   - A financial proposal: all-inclusive fixed Lump Sum contract price.
2. Proposals should be should be sent by email to: ccitisea@gmail.com or submitted at: CCIT Project Office, Unit 401, 30 Nguyen Du, Hai Ba Trung District, Hanoi no later than 17:00 hrs. September 24th 2014, with subject line: Application for the National Modelling Expert post. **Proposals must remain valid for a minimum of 90 days.**
3. Please find attached the detailed Term of Referrence for the post.

Terms of Reference

National Modelling Expert to support MOIT develop Green Growth Action Plan by proposing quantitative GHG emission baseline(s) and reduction target(s) in Coal Fired Power Generation

1) Background and context

The Government of Vietnam has made significant efforts in responding to the challenges of climate change. An example of this is the Green Growth Strategy takes three strategic directions: low-carbon development trajectories; green production and restoring of natural assets; and the stimulation of green lifestyles. The Green Growth Strategy provides Vietnam's voluntary emission reduction targets and assists to transform current development patterns towards sustainable development.

In July, 2012, the UNDP Project entitled "Strengthening capacity on climate change initiatives in the Industry and Trade sectors" (CCIT) was signed by the Prime Minister of Vietnam and the Industrial Safety Technique and Environment Agency (ISEA) was assigned by the Minister of Industry and Trade as the implementing agency. This four year project will assist Ministry of Industry and Trade (MOIT), as well as other relevant ministries and industry stakeholders, to strengthen capacity and to raise awareness about climate change, undertake analysis of the current environment in which industry operates and work to address the challenges posed by climate change and take advantage of the potential opportunities it offers.

In September 2012, the Prime Minister of Vietnam approved the Vietnam Green Growth Strategy (VGGS) which is now supported by a national Green Growth Action Plan and forthcoming Green Growth Action Plans (GGAPs) for each line ministry under the VGGS.

Presently, MOIT has begun to develop its Action Plan for green growth to contribute to the common national efforts to implement VGGS. A core focus of green growth action plan(s) will be quantitative GHG emission reduction targets set forth for the sectors and industries under MOIT's mandate. ISEA as the implementing agency will lead this assignment in coordination with Department of Science and Technology (DST) of MOIT.

To support MOIT develop its GGAP, the UNDP CCIT project will provide expert inputs for setting GHG emission reduction targets in some key sectors, and for formulation of the MOIT GGAP that will be submitted to MOIT Minister for approval by December 2014. Initially, MOIT will focus on three

sub-sectors (chemical fertilizer, steel, and coal fired power generation). By early 2015, other sub-sectors under MOIT mandate may be added for this work.

An Energy/Modelling Expert (hereinafter referred to as Modelling Expert) will be recruited to work as a member of a team, consisting of one international expert as Team Leader (hereinafter referred to as ITL) and 4 national sector experts, to support MOIT in completing draft GGAP of MOIT.

The work of the team will consist of two components to be implemented from October 1, 2014 to December 30, 2014: 1) Technical Assessment; 2) Result consolidation and development of draft MOIT GGAP.

2. Objective of the assignment

The overall objective is to provide scientific evidences and technical inputs to support MOIT in developing the MOIT Green Growth Action Plan for the period 2014-2020 supporting the implementation of VGGS.

Specific objective of this assignment is:

- To provide technical foundation on modelling and calculation of GHG emission baseline of the energy sector, primarily coal fired power generation and plotting the trajectories based on the selected scenario(s) for MOIT to establish a consolidated GHG baseline and GHG reduction target for the coal fired power generation for the period 2014-2020 With perspectives to 2030.
- To provide additional support to steel and chemical fertilizer experts in developing, selecting and utilizing models to be used for calculation with the fertilizer and steel subsectors.
- To closely work with a national energy technical expert and provide support to national energy expert; and the ITL to produce the deliverables.

3. Expected key deliverables and timeline

Key deliverables

- An Analysis Report in Vietnamese and English on selection of model(s), identification of methodology and data and information required for developing baseline, assessing baseline and GHG emission reduction potentials, and proposing quantitative and achievable GHG emission

reduction targets in coal fired power generation in Vietnam for period 2014-20 with perspectives to 2030.

- Presentations of the result/outputs and foundation to present at technical consultation meetings and workshops.

Milestones and timeline

- October 15, 2014: A written summary in Vietnamese and English, including introduction of existing models applied in MOIT TA/project/task relating to GHG inventory and baseline and mitigation potential assessment in energy sector, methodology and information and data required for setting baseline and GHG reduction targets in coal fired power generation for 2014-20 with perspectives to 2030, to present to ISEA, PMU, DST, UNDP, some external experts and technical focal points in line ministries at a technical consultation meeting.

- November 15, 2015: An initial report in Vietnamese and English, as part of the Technical Report developed by National Energy Technical Expert, to present to PMU, DST, CCIT ITA and UNDP at the monitoring meeting.

- December 15, 2014: A comprehensive Analysis Report in Vietnamese and English on selection of model(s), identification of methodology and data and information for developing baseline(s), assessing GHG emission reduction potentials, and proposing three (low, medium and high) quantitative and achievable GHG emission reduction targets in coal fired power generation in Vietnam for period 2014-2020.

Overall, this expert will primarily focus on Phase I of the Common Plan related to Energy (coal fired power generation) sub-sector; with some contribution to Phase II as it relates to this sub-sector.

4. Scope of work and specific activities

The scope of assignments to Modelling Expert will consist of key following activities:

- To present a summary, including:

    - An introduction of existing models applied in MOIT TA/project/task relating to GHG emission profile, baseline and mitigation potential assessment in coal fired power generation.

- Methodology and information and data required for this assignment, i.e. for setting baseline and GHG reduction targets in coal fired power generation for 2014-20 and beyond.
- A detailed work plan for the assignment.

- To model and calculate GHG emissions for setting baseline and three GHG reduction targets for coal fired power generation in collaboration with technical energy expert. Financial costs for the reduction options and targets should be included where applicable. The reduction targets will be formulated as low, medium and high GHG reduction targets.
- To prepare an analysis report on selection of models and data required towards a set of clear recommendations and quantitative measures to support MOIT for the GHG target setting under the GG AP—as it relates to the coal fired power generation. It should deliver a thorough understanding of the current landscape and completed/on-going activities for the GHG baselines and reduction measurements for energy sub-sector in Viet Nam and shape these activities into the context of MOIT's GG AP. Further research and stakeholder consultations will be conducted, as necessary, on the GHG baseline and reduction targets.

These findings will be the foundation for an assessment for energy sub-sector and for developing clear and well defined recommendations which will enable MOIT in setting ambitious and achievable GHG reduction targets for the GGAP.

5. Assignment duration and proposed work place:

The assignment will start 1 October 2014 and all deliverables will be completed by 30 December 2014. The ITL will have two missions in Hanoi for stakeholder consultation and holding of workshops. The national energy modelling expert will be available for support to the ITL.

6. Team constellation and duration

The review of the coal based power generation consists of three members: one national energy technical expert (separate TOR), one national energy modelling expert (this TOR); and one ITL. The Modelling expert will be contracted for 30 days as his/her involvement is mainly focused on energy modelling (task 5 of phase I). For other tasks, he/she will provide support as needed and including being available for support to chemical fertilizer and steel sub-sector modelling (if needed) This team will also collaborate with

other team members working on Steel and Chemical Fertilizer sub-sectors in terms of delivery of phase II of the assignment.

7. Administrative support and reference documents

The CCIT Project Management Unit and UNDP will assist the consultant on practical issues for carrying out the assignment including collecting various relevant and available documents.

Provision of monitoring and progress controls

The Modelling Expert will work under the guidance and management by the National Project Director (NPD) with quality assurance of CCIT ITA and UNDP staff as per the HPPMG. The PMU staff will be charge of the daily management of the consultants in collaboration with ISEA and UNDP. The Modelling Expert will work closely with the national energy technical expert under the conditions of contract, to provide support to ITL and legal national expert overall and work under supervision of the National Project Director, CCIT ITA, and UNDP. Administrative support will be provided by personnel of Project Management Unit.

Meetings and progress reports should be conducted with PMU, CCIT ITA and UNDP staff as requested.

Quality management

Qualitative criteria: PMU, CCIT ITA and UNDP staff will be quality reviewers of the ongoing assessment and the draft and final assessment report.

8. Required qualifications

The national consultant must be able to document the following experiences and expertise:

Consultant's experiences/qualification related to the services		
		Max points
1	University degree (MA or equivalent) in environment, energy, economics, engineering or natural science.	**100**
2	Comprehensive technical knowledge and work experience in analyses and technical assessments of implementation of GHG mitigation technologies and	**300**

	options. Related experience in energy sub-sector planning is an advantage. Specific knowledge of coal fired power generation would also be helpful.	
3	Experience in carrying out detailed modelling; technical studies and analysis for identifying cost efficient energy and GHG mitigation options in Vietnam.	**400**
4	A proven track record working with UNDP (or other international organizations) supported projects.	**100**
5	Fluency in written and spoken Vietnamese and English (at least one writing sample must be provided for assessment).	**100**
	Total	**1000**

9. Payment terms

Three instalments after completion of each phase of work; and acceptance of outputs by UNDP, as follows:

- 20% upon acceptance of the detailed implementation plan of the assignment and a summary of the proposed step-wise methodology.
- 40% upon acceptance of draft initial technical Report.
- 40% upon acceptance of final draft technical Report.

Annex 1: Implementation plan for the overall assignment (not only focused on the Modelling Expert)

Phase 1: Technical Assessment (GHG baseline and target setting)

Task 1: Formulation of detailed methodology

- In cooperation with the ITL and technical energy expert, formulate a detailed methodology for identifying the GHG baseline levels, reduction potential and target setting in the energy sub-sector. The methodology will include a detailed analysis of coal fired power generation. In addition to the GHG baseline for 2014-2020 with a vision to 2030, reduction potential and target setting for 2014-2020 with a version for 2030, the methodology will also include an assessment of marginal abatement costs of various reduction options.

Task 2: Desk review of the existing MOIT used models for energy balancing and GHG emission calculation:

- Conduct a comprehensive desk review previous/ ongoing assessments for GHG baseline and reduction options in coal based power generation.

Task 3: Empirical data collection for further detailed analysis

- Provide support to ITA and Technical Energy Expert in collecting/validating international and national data for the GHG baseline setting and identification of reduction target setting for energy.

Task 4: Stakeholder consultations

- Support and guide ITL on stakeholder's consultations with the energy industry experts, state agencies and donors involved in steel related and general climate change mitigation activities in Viet Nam.
    - The consultations will focus on collecting/validating information for the technical assessment, foster knowledge sharing among key stakeholders and create consensus (where possible) on the GHG baseline levels and reduction targets for the MOIT GG AP.
    - The expert will participate in an initial technical consultation workshop discussing methodology and initial data of the whole team (chemical fertilizer, steel and energy sub-sectors).

- The expert will participate in a final workshop reflecting results of Task 5 (targets) of Component I as well results of Component II detailed below.

Task 5: Detailed assessment of steel sub-sector for GHG target setting

- The assessment must incorporate existing studies and develop further quantitative analysis on GHG baselines and reduction options. This task will be performed jointly by two experts: energy technical expert (this TOR) and ITL (separate TOR). The applied analytical approach must be based on internationally recognized methodologies such as LEAP modelling etc. The detailed analysis must include technical GHG reduction potential, recommend/optimal reduction potentials, and estimated costs of the reductions. Provide support to ITL on this.

Phase 2: Result consolidation and development of draft MOIT GGAP towards green growth goals

Task 1: Support national energy expert review and evaluate the legal documents related to energy sector and energy supply, and green growth including 14 activities assigned to MOIT and related activities in the National Action Plan on Green Growth that was approved by the Prime Minister by Decision No. 403/QD-TTg on March 20th, 2014 (as it relates to the energy sub-sector).

Task 2: In cooperation with other team members on steel and chemical fertilizer, where relevant, support selecting models and calculation of GHG emission.

Task 3: Support IC and legal expert incorporate comments/inputs from related stakeholders to modify and supplement contents and complete documents for energy sub-sector.