

REQUEST FOR PROPOSAL (RFP)

From firms/institutes/organizations in Vietnam

Dear Sir / Madam:

We kindly request you to submit your Proposal for **Developing and implementing an online training** course on "LED Advanced Technologies and Applications" (Ref. 2-190101).

Please be guided by the forms attached hereto as Annex 2 (a-b-c), in preparing your Proposal.

Proposals may be submitted on or before **Sunday, January 20, 2019** (Hanoi time) by the following methods:

By email: For green environment, this is preferred submission method

E-mail address for proposal submission: luu.ngoc.diep@undp.org

<u>Separate emails</u> for technical and financial proposals.

With subject: (Ref. 2-190101) RFP for developing and implementing an online training course on "LED Advanced Technologies and Applications" (Email ... of ... emails)

Maximum size per email: **30 MB**. Bidders can split proposal into several emails if the file size is large)

By hard copy: (within working hours 8.00 am - 5.00 pm Monday - Friday only)

Address for proposal submission:

Procurement Unit UNDP Vietnam 304 Kim Ma Street, Hanoi, Vietnam

With envelop subject: (Ref. 2-190101) RFP for developing and implementing an online training course on "LED Advanced Technologies and Applications"

When submitting hard copy proposals, please submit 1 original + 3 copies + CD ROM containing all contents corresponding to hardcopy in PDF format.

One of the following staff can be called to receive hard copy proposals:

- 1. Ms. Luu Ngoc Diep, Procurement Associate Tel: +84-24-38500200
- 2. Ms. Quach Thuy Ha, Procurement Assistant Tel: +84-24-38500143

The bidder is requested to sign a bid submission form when delivering proposal.

Note:

- For both submission methods, please send separate email (without attachment) to <u>procurement.vn@undp.org</u> notifying that you already submitted proposal and the number of email submitted (in case submitted by email). Notification emails should be sent to above address by submission deadline or right after you submit proposals).
- UNDP will acknowledge receipt of the proposals within 2 working days from the submission deadline. In case you do not receive acknowledgement, please contact us within 3 working days after submission deadline.

Your Proposal must be expressed in the English language, and valid for a minimum period of 120 days from the date of bid submission.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all of the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal. At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link: http://www.undp.org/procurement/protest.shtml.

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link: http://www.un.org/depts/ptd/pdf/conduct_english.pdf

Thank you and we look forward to receiving your Proposal.

Sincerely yours, *Tran Thi Hong Head, Procurement Unit* 1/4/2019

DESCRIPTION OF REQUIREMENTS

Context of the Requirement	Please see information in the TOR (Annex 1)
Implementing Partner of UNDP	Please see information in the TOR (Annex 1)
Brief Description of the Required Services	Developing and implementing an online training course on "LED Advanced Technologies and Applications"
List and Description of Expected Outputs to be Delivered	Please see information in the TOR
Person to Supervise the Work/Performance of the Service	Project Manager, National Technical Advisor, UNDP Programme Analyst
Provider	Discourse for the Hor TOD
Frequency of Reporting	Please refer to the TOR
Progress Reporting Requirements	Please refer to the TOR
Location of work	☑ Homebased and Hanoi☑ At Contractor's Location
Expected duration of work	March to December 2019
Target start date	1 March 2019
Latest completion date	30 October 2019
Travels Expected	As per TOR
Special Security Requirements	□ Security Clearance from UN prior to travelling □ Completion of UN's Basic and Advanced Security Training □ Comprehensive Travel Insurance □ Others [pls. specify]
Facilities to be Provided by UNDP (i.e., must be excluded from Price Proposal)	☐ Office space and facilities☐ Land Transportation☐ Others [pls. specify]
Implementation Schedule indicating breakdown and timing of activities/sub-activities	☒ Required☐ Not Required
Names and curriculum vitae of individuals who will be involved in completing the services	☑ Required☐ Not Required
Currency of Proposal	☐ United States Dollars ☐ Euro ☑ VND For the purposes of comparison of all Proposals: UNDP will convert the currency quoted in the Proposal into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the proposal submission deadline.
Value Added Tax on Price Proposal	 ☑ must be inclusive of VAT and other applicable indirect taxes ☐ must be exclusive of VAT and other applicable indirect taxes
Validity Period of Proposals (Counting for the last day of submission of quotes)	☐ 60 days ☐ 90 days ☑ 120 days
	In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.
Partial Quotes	☑ Not permitted☐ Permitted
Payment Terms	As indicated in the TOR.

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	Condition for Payment Release:
	Within thirty (30) days from the date of meeting the following conditions:
	a) UNDP's written acceptance (i.e., not mere receipt) of the quality of
	the outputs; and
	b) Receipt of invoice from the Service Provider.
Person(s) to review/inspect/	Project Manager, National Technical Advisor, UNDP Programme Analyst
approve outputs/completed	
services and authorize the	
disbursement of payment	
Type of Contract to be Signed	☐ Purchase Order
	☐ Institutional Contract
	☐ Contract for Professional Services
	☐ Long-Term Agreement¹ (if LTA will be signed, specify the document
	that will trigger the call-off. E.g., PO, etc.)
	☐ Other Type of Contract [pls. specify]
Criteria for Contract Award	☐ Lowest Price Quote among technically responsive offers
	☐ Highest Combined Score (based on the 70% technical offer and 30%
	price weight distribution)
	☐ Full acceptance of the UNDP Contract General Terms and Conditions
	(GTC). This is a mandatory criteria and cannot be deleted regardless of
	the nature of services required. Non acceptance of the GTC may be
	grounds for the rejection of the Proposal.
Criteria for the Assessment of	Proposal shall be considered technically qualified if it meets specification
Proposal	requirements for equipment and achieves minimum 70% of total
l repeat	obtainable technical points.
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	Weight of technical and financial point:
	Technical Proposal (70%)
	Financial Proposal (20%)
	Financial Proposal (30%) Financial Proposal (30%)
	Financial score will be computed as a ratio of the Proposal's offer to the
	lowest price among the proposals received by UNDP.
	See detailed evaluation criteria in the below table.
UNDP will award the contract to:	☐ One and only one Service Provider
	☐ One or more Service Providers, depending on the following factors:
Annexes to this RFP	☑ Detailed TOR (Annex 1)
	☑ Forms for Submission of Proposal (Annex 2)
	☐ General Terms and Conditions / Special Conditions (Annex 3)²
	☐ General Terms and Conditions de minimis (for contract below US\$
	50k) or General Terms and Conditions (for contract above US\$ 50k)
	(Annex 4)
Contact Person for Inquiries	Ms. Luu Ngoc Diep
(Written inquiries only) ³	Procurement Associate, UNDP Vietnam
(vviitteii iiiquiiles oliiy)	Trocurentent Associate, UNDF Vietnam

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¹ Minimum of one (1) year period and may be extended up to a maximum of three (3) years subject to satisfactory performance evaluation. This RFP may be used for LTAs if the annual purchases will not exceed \$100,000.00.

² Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.

³ This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

	Email: luu.ngoc.diep@undp.org
	Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Other information	Bidders are responsible for checking the UNDP website: http://www.vn.undp.org/content/vietnam/en/home/operations/procurement/procurement notices.html for any addenda and updated deadline to this Request for Proposals. UNDP reserves the right to post addenda up to the closing date for submissions. Hence bidders are advised to check the UNDP website frequently prior to submitting their proposal

EVALUATION CRITERIA

Sumi	mary of Technical Proposal Evaluation Forms	Points Obtainable
1.	Expertise of Firm / Organisation submitting Proposal	500
2.	Proposed Work Plan and Approach	150
3.	Personnel	350
	Total	1000

Technical Proposal Evaluation		Points	Company / Other Entity				ity
Form	11	obtainable	Α	В	С	D	E
Expe	rtise of firm / organization submitting proposal						
1.1	Reputation of Organisation and Staff (In terms of Competence / Reliability in providing training and education in natural sciences and/or engineering technology)	20					
1.2	Litigation and Arbitration history	20					
1.3	General Organisational Capability which is likely to affect implementation (i.e. loose consortium, holding company or one firm, size of the firm / organisation, strength of project management support e.g. project financing capacity and project management controls):	50					
	Having at least, five- year experience in post- graduate education and training						
1.4	Quality assurance procedures, warranty	30					
1.5	Relevance of: - Specialised Knowledge and experience in for graduate or post-graduate education in natural sciences and/or engineering technology - Experience in developing and/or operating comparable online training courses over the last three years with submission of evidence of at least one on-line training programme or link to access to the on-line training designed and operated by the contractor - Experience with ODA or donor supported projects is an advantage	380					
	Total Form 1	500					

Technical Proposal Evaluation	Points	Company / Other Entity			у	
Form 2	Obtainable	A B C D		E		
Proposed Work Plan and Approach						

2.1	To what degree does the Offeror understand the task?	50			
2.2	Is the scope of task well defined and does it correspond to the TOR?	40			
2.3	Have the important aspects of the task been addressed in sufficient detail?	30			
2.4	Is the presentation clear and is the sequence of activities and the planning logical, realistic and promise efficient implementation to the project?	30			
	Total Form 2	150			

Techn	ical Proposal Evaluation	Points	Company / Other Entity					
Form	3		Obtainable	A B C D			E	
Persoi	nnel							
3.1	Team Leader		150					
		Sub- Score						
3.1.1	Bachelor degree (Post-graduate prefered) and knowledge in engineering fields such as electronic, electrical, mechanical, materials, IT, industrial/ production engineering, product design or any such relevant engineering fields.	30						
3.1.2	Minimum 5 years' experience in developing and implementing training programs/courses.	40						
3.1.3	Experience in developing and/or operating at least one comparable online training course over the last two years	50						
3.1.4	Strong experience in leading similar assignment; experience with ODA or donor supported projects is an advantage.	20						
3.1.5	Language Qualifications (English speaking)	10						
3.2	Team members		200					
		Sub- Score						
3.2.1	Bachelor degree and knowledge in engineering fields such as electronic, electrical, mechanical, materials, IT, industrial/ production engineering, product design or any such relevant engineering fields	50						

3.2.2	Experience in developing and implementing training programs/courses and in on-line training courses	80				
3.2.3	Having experience in using technical simulation, computing software and internet network	30				
3.3.4	Experience in the field of LED lighting design and manufacturing and EE lighting system applications is an asset	30				
3.3.5	Language Qualifications (English speaking)	10				
	Total Form 3		350			
	TOTAL		1000			

TERMS OF REFERENCE

Service	Developing and implementing an online training course on "LED Advanced
	Technologies and Applications"
Duty station:	Home-based and Hanoi
Expected Duration:	March – December 2019
Supervision:	Project Manager, National Technical Advisor, UNDP Programme Analyst

1) GENERAL BACKGROUND

Viet Nam Academy of Science and Technology (VAST) is implementing the Project "Local Development and Promotion of LED Technologies for Advanced General Lighting in Viet Nam" funded by GEF/UNDP and cofinancing by Viet Nam agencies/institutions.

The objective of the Project is to mitigate GHG emissions through transformation of the lighting market towards greater usage of locally produced LED lighting products in Viet Nam. This objective will be achieved by removing barriers to increased production and utilization of locally produced LED lighting products in Viet Nam through two components:

- i) The transfer of skills, knowledge and technology for the manufacturing of LED lamps in Viet Nam; and
- ii) The demonstration of cost-effective local commercial production of LED lighting devices.

The Project has been implemented since 2015 over a 4-year period and is expected to achieve GHG emission reductions through the displacement of electricity generation from fossil-fuel power plants.

To strengthen the capacity of relevant partners in the lighting industry, one of the project activities is to develop and implement face-to-face training programs on the following selected subjects: (a) "Basic and Advanced LED Lighting Technologies for General Lighting"; b) "Design, installation, operation, maintenance and management of LED lighting systems". However, the main disadvantage of face-to-face training is the limited number of trainee's, inconvenient training time and high cost.

Meanwhile, in today's fast-paced environment, businesses need to keep improving at an exponential pace, in order to stay competitive. This requires talented and efficient employees with the knowledge, resources, and appropriate skills. Quality, cost, and timing are all in play, and it's up to each organization to equip themselves with the right employees and the tools to train them. But implementing effective corporate training programs for employees can be challenging.

Providing employee training in business is extremely important, but as mentioned above, face-to-face trainings such as workshops and seminars can be time-consuming and expensive, and their overall effectiveness can be difficult to measure. Online training (or e-learning, as it's often called), alleviates the negatives of corporate training, such as the logistics of gathering the whole team together or the inability to measure results. The benefits of online training programs/courses for employees are as follow: (i) *Flexibility:* Online training allows employees to learn anywhere, anytime, on <u>multiple devices</u>. This means a learner could start a course on their smartphone during their commute on public transit, and then resume it at their computer later. Each employee has their own preferred learning style, speed, and schedule. With the flexibility that online training provides, employees can better prioritize their time and be more active and engaged with their courses; (ii) *Efficiency:* There are many reasons classroom-based learning can feel outdated in office settings, but inefficiency is high on the list. Online employee training keeps things simple by making course authoring and updating easy; (iii) *Cost-Effectiveness:* With no need to produce and print training materials or outsource instructors, online training is a cost-effective solution to updating staff on the

latest corporate policy changes. And because of e-learning's accessibility, there's no need to book a large conference room or halt daily operations to get the whole team together. We could also avoid or reduce travel costs or large catered lunches; and (iv) *Employee Engagement*: Employee engagement is crucial in the workplace. Not only will employees enjoy the flexibility that online training has to offer, a modern learning management system (LMS) can use interactivity to help learners retain information and content tied to real-life scenarios to help employees clearly understand.

A contractor is to be selected to develop, operate and maintain an online course on "LED Advanced Technologies and Applications" for under-graduate and post-graduate students and for engineers/employees working in the field of lighting technology. The tentative plan is to develop video lectures on the course content indicated in Annexure 1. The contractor should have the infrastructure/facility, legal rights and experiences in planning, designing and implementing online (elearning) programs/courses and to host, operate, maintain and update the course. The contractor will have to sign an MoU with VAST and/or UNDP and a contract: a) a longer-term MoU that defines long term objectives, commitments and possible techno-commercial arrangements for operating the online course; b) a contract to implement the contents of this TOR, under the framework of the MoU.

2) OBJECTIVES

Develop an online training course on "LED Advanced Technologies and Applications", and operate, maintain and update it for under-graduate, post-graduate students, and engineers/employees working in the field of lighting technology.

3) SCOPE OF WORK

The contractor will be responsible for the following tasks and activities:

- 3.1. Prepare the methodology and a work-plan for the course development and implementation.
- 3.2. Conduct surveys and assess the training needs of the online training course including (i) Defining the targeted groups of trainees; (ii) Checking the suggested topics & contents of lectures described in the annex 1 and revise them, if needed; (iii) Selecting the survey method; (iv) Conducting the survey; (v) Analyzing the survey results and assessing the training needs; (vi) Conceptual design of the training in all its aspects within the framework of this TOR and taking into account the training needs, including finalising the course content, training delivery and style, module and course length, the evaluation and certification methods, certification and learning materials, etc.
- 3.3. Describe in every detail the design of the online training course and the tools needed, including a Learning Management System (LMS) to be used for development of the online training course that meets the need of the trainees as identified through the Training Needs Assessment, i.e. (i) Developing e-Learning Tools and adapting a Learning Management System; (ii) Formulating learning objectives; (iii) Formulating online course/lectures content; (iv) Defining the sequencing; (v) Selecting instructional strategy; (vi) Defining evaluation method and format and certification; (vii) Selecting delivery;
- 3.4. Develop the online training course with its contents. Tentatively, the tasks include (i) Identifying & selecting trainers; (ii) Revising course modules and providing preliminary details of the content of lectures to meet the surveyed training need; (iii) Developing storyboard: integrating instructional methods and media elements; (iv) Developing courseware: developing media and interactive components, producing the course in different and interactive formats and integrating the content elements into a learning platform; (v) Preparing, filming, recording and editing lectures of the 1st module; (vi) Preparing, filming, recording and editing lectures of the 3rd module; (viii) Implementing the upload procedures;

- 3.5. Operate, maintain, monitor, evaluate, and report the on-line course: (i) Operating, maintaining and updating the learning platform; (ii) Managing learner's activities; (iii) Conducting/facilitating the testing and certification, as required; (iii) Monitoring, evaluating, and reporting the course.
- 3.6. Prepare the Final Report of the assignment implementation results.

4) DURATION OF ASSIGNMENT, DUTY STATION AND EXPECTED PLACES OF TRAVEL

- Duration and Timing: 260 working days, spread out from February to December 2019.
- <u>Duty station:</u> Homebased and Ha Noi. Travel to provinces if any will be paid by the project or UNDP based on UN-EU cost-norm.

5) EXPECTED PRODUCTS

No	Indicative timeline	Work done and product submitted to PMU
1	15 March 2019	 Putting forward methodologies for the contract implementation and preparing a work-plan for the course development and implementation (Report No1) in English and Vietnamese Conducting surveys and assess the training needs of online training course on "LED Advanced Technologies and Applications" (Report No2) (in Vietnamese with an executive summary in English)
2	30 June 2019	 Describe in every detail online training design/tools including a modern learning management system (LMS) to be used and created for development of an online training course (Report No. 3) in English and Vietnamese; and Final course modules and completed storyboard and courseware for the online training in English and Vietnamese
3	30 August 2019	Developing the online training course and upload it to the website (Report No. 4) (in Vietnamese)
4	30 October 2019	 Implementing, monitoring, evaluating, and reporting the running course and results of its implementation (Report No. 5) in English and Vietnamese Final Report (Report No. 6) including Monitoring, evaluating, and reporting the running course and results of its implementation in both English and Vietnamese

6) PROVISION OF MONITORING AND PROGRESS CONTROLS

The selected contractor will perform tasks as required under the supervision of the National Project Director through the Project Manager and National Technical Advisor. The contractor is required to regularly report to the Project Management Unit (PMU)/HTD-VAST and UNDP on the progress of the work. After the signing of the contract, the selected contractor, PMU and UNDP will agree on the mechanism and actual timeline of the reporting requirement.

7) DEGREE OF EXPERTISE AND QUALIFICATIONS

Must-have qualification and capacity:

The contractor shall have the infrastructure/facility, legal rights and experiences in planning, designing and implementing online (e-learning) programs/courses and to host, operate, maintain and update the course and including an appropriate Learning Management System, adequate software and hardware facilities, fast and stable internet connections, adequate office and telecommunication facilities required for smooth operations of the online course. The contractor will have to sign an MoU with VAST and/or UNDP and a contract with UNDP: a) a longer-term MoU that defines long term objectives and commitments to host, operate, maintain and update the LED training courses; b) a contract to implement the contents of this TOR.

Minimum qualifications and experience of the contractor are as follows:

- Having an authorization for graduate or post-graduate education in natural sciences and/or engineering technology;
- Having, at least, five-year experience in post-graduate education and training;
- Having the legal right to grant certification to trainees who attend and successfully finish the online training courses
- Have experience in providing training on engineering technology including electricity, electronics or lighting
- Experience in developing and/or operating comparable online training courses over the last three years with submission of evidence of at least one on-line training programme or link to access to the on-line training designed and operated by the contractor;
- Experience with ODA or donor supported projects is an advantage, and
- The contractor must have, at least, three key technical persons that meet the following minimum requirements: (i) bachelor degree and knowledge in engineering fields such as electronic, electrical, mechanical, materials, IT, industrial/ production engineering, product design or any such relevant engineering fields; (ii) experience in developing and implementing training programs/courses and in online training courses; (iii) having experience in using technical simulation, computing software and internet network, and (iv) experience in the field of LED lighting design and manufacturing and EE lighting system applications.
- The team as a whole shall be able to communicate in English
- In addition, the Team Leader should have the following minimum qualifications:
 - (i) Minimum 5 years' experience in developing and implementing training programs/courses;
 - (ii) Experience in developing and/or operating at least one comparable online training course over the last two years;
 - (iii) Strong experience in leading similar assignment, experience with ODA or donor supported projects is an advantage.

8) ADMIN SUPPORT AND REFERENCE DOCUMENTS

Project Management Unit (PMU)/HTD-VAST will assist the selected Contractor with administrative support related to, but not necessarily limited to:

- To assist the contractor in working with official project partners to accomplish the work.
- To organize necessary consultative meeting(s).

9) PAYMENT TERM

The payment amounts will be paid upon implementation of the work and submission of the products with satisfactory acceptance by PMU/HTD-VAST according to the timeline as follows:

No	Work done and product submitted to PMU	Indicative	Payment
		timeline	amount
1	Report No1: Methodologies for the contract	15 March	10%
	implementation and a work-plan for the course	2019	
	development and implementation;		
	Report No2: Results of the survey of training needs and		
	assessment		
2	Report No3: Results of the design of the online training	30 June 2019	30%
	tools; and		
	Completed course modules and storyboard and		
	courseware for the online training		
3	Report No4: Results of developing the online training	30 August	35%
	course including completed training programmes for 3	2019	
	modules		
4	Report No5: Results of the training implementation,	30 October	25%
	monitoring and evaluation and Report No6: Final Report	2019	
	including Monitoring, evaluating, and reporting the		
	running course and results of its implementation in both		
	English and Vietnamese		

✓ NONE □ PARTIAL □ INTERMITTENT □ FULL-TIME

10) CONTRACTOR PRESENCE REQUIRED ON DUTY STATION/PMU/HTD-VAST PREMISES

Annex 1: Recommended Topics and Contents of Lectures to be selected for the Online Training Course "LED Advanced Technologies and Applications"

MODULE 1: BASIC CONCEPTS OF LED LIGHTING SOURCES FOR GENERAL LIGHTING

1. Lecture 1: Basic concepts of Light Emitting Diodes (LEDs) and LED lights

- 1.1. What are LEDs and how do they work?
- 1.2. How are LEDs used in general lighting?
- 1.3. Advantage and disadvantage of LEDs used in general lighting.
- 1.4. Structure and features of LED lamps and luminaires.
- 1.5. Heat and Lifetime of LED Lighting Products.
- 1.6. Color of LED lights.
- 1.7. How is LED lighting different than other light sources?
- 1.8. How to choose LED lights for indoor and outdoor lighting?

2. Lecture 2: Core technologies for LED lighting products manufacturing

- 2.1. Overview of core technologies for blue chip LED manufacturing
- 2.2. InGaN/GaN system
- 2.3. Epitaxy growth: buffer layer
- 2.4. Metal-organic chemical vapor deposition (MOCVD)
- 2.5. Start-of-the-art of blue LED process
- 2.6. Chip frontend process (mesa, transparent conductive layer (TCL), pad and passivation)
- 2.7. Chip backend process (grinding, dicing, binning and sorting)
- 2.8. Exercises

3. Lecture 3: LED chip packaging

- 3.1. Overview of chip LED packaging
- 3.2. Conventional LED packaging: (electrical connection, mechanical protection, integrity, heat dissipation of chip LED)
- 3.3. High power LED packaging: dicing, die binding
- 3.4. Interconnect technology (wire bonding, flip chip, through silicon via (TSV)
- 3.5. Thermal management (sub-mount and substrate, thermal interface material, heat sink)
- 3.6. Exercises

4. Lecture 4: Measurement & testing of LED Lights

- 4.1. Main parameters of LED lights to be measured and tested
- 4.2. Measurements and testing of LED Lights
- 4.3. Failures of LED and LED lights
- 4.4. Exercises

MODULE 2: DESIGN AND INSTALLATION OF LED LIGHTING SYSTEMS

5. Lecture 5: LED Indoor Lighting Design and Installation

- 5.1. Lighting design considerations.
- 5.2. Computer Aided Design (CAD) and lighting software for LED indoor lighting.
- 5.3. Installation of LED indoor lighting systems.

- 5.4. Quality evaluation of indoor lighting systems.
- 5.5. Hands-on exercise in CAD utilization for designing LED indoor lighting systems.
- 5.6. Exercises

6. Lecture 6: LED outdoor Lighting Design and Installation

- 6.1. Lighting design considerations.
- 6.2. Computer Aided Design (CAD) and lighting software for LED outdoor lighting.
- 6.3. Installation of LED outdoor lighting systems
- 6.4. Quality evaluation of outdoor lighting systems.
- 6.5. Hands-on exercise in CAD utilization for designing LED outdoor lighting systems.
- 6.6. Exercises

7. Lecture 7: Smart LED lighting - Design and Installation

- 7.1. What is the smart lighting
- 7.2. IoT and smart linghting
- 7.3. Electronic Components/sensors used in the LED smart lighting systems.
- 7.4. Design and Installation of LED smart lifghting systems.
- 7.5. Overvoltage protection for LED lighting systems in general and LED smart lighting systems in particular.
- 7.6. Exercises.

MODULE 3: OPERATION, MAINTENANCE AND MANAGEMENT OF LED LIGHTING SYSTEMS

8. Lecture 8: LED lighting systems operation and maintenance

- 8.1. Measuring and assessing LED lighting systems quality (Measuring illumination; Measuring luminance; Assessing visual comfort; Measuring luminous depreciation; Measuring luminaires utilization factor; Operational seasonal program and etc.....
- 8.2. Supervise the LED lighting systems.
- 8.3. LED Lighting systems maintenance methods (Cleaning; Determining relamping interval; Permanent maintenance policy; Edit Planned lighting maintenance; Lighting Maintenance program.
- 8.4. Exercises.

9. Lecture 9: LED Lighting systems management

- 9.1. Collecting lighting systems information.
- 9.2. Assessing life cycle cost of LED lighting equipments and systems.
- 9.3. Economic and financial aspects in investment and management of LED lighting systems/projects.
- 9.4. Assessing energy saving and CO₂ reduction of LED lighting systems/projects.
- 9.5. Exercises

ANNEX 2: Expected working days recommended for a contract on "Developing and implementing online training course on LED Advanced Technologies and Applications"

No.	Activities	Working days (Man days)	Notes
1	Inception and preparation	08	
1.1	Work with PMU to prepare a Work plan for the whole contract duration	1	
1.2	Collect relevant documents from PMU and UNDP	0.5	
1.3	Study Project documents and relevant documents from PMU and UNDP	1	
1.4	Develop methodologies for data/information collection and assessment that should be suitable to the requirement of an online training course	2	
1.5	Work with PMU and relevant experts to get consensus the methodologies for data/information collection and assessment	1	
1.6	Prepare the Inception Report (Report No.1) and attend the peer review meeting of the inception report and finalize the report	2.5	
2	Conduct survey(s) and assess the training needs	18	
2.1	Defining the targeted groups of trainees	1	
2.2	Revised the recommended topics of lectures for surveys	2	
2.3	Selecting the survey method	2	
2.4	Conducting the survey	9	
2.5	Analyzing survey results and assessing the training needs	2	
2.6	Prepare Report No.2 and attend the peer review meeting of the report and finalize the report	2	
3	Prepare the online training design/tool	36	
3.1	Developing e-Learning Tools and adapting a Learning Management System	10	
3.2	Formulating learning objectives	1	
3.3	Formulating on-line course/lectures content	15	
3.4	Defining the sequencing	2	
3.5	Selecting instructional strategy	2	
3.6	Defining evaluation method	2	
3.7	Selecting delivery format	2	
3.8	Prepare Report No.3 and attend the peer review meeting of the report and finalize the report	2	
4	Develop a training course for e-learning	160	
4.1	Identifying & selecting trainers	3	
4.2	Revising course modules and providing preliminary details of the content of lectures to meet the surveyed training need	6	
4.3	Developing storyboard: integrating instructional methods and media elements	6	

No.	Activities	Working days (Man days)	Notes
4.4	Developing courseware: developing media and interactive components, producing the course in	45	
	different formats and integrating the content elements		
	into a learning platform.		
4.5	Preparing, filming, recording and editing lectures of the 1 st module:	30	
	- Implementing audiovisual activities: filming, film editing, etc.		
	- Implementing lecturer activities: preparing et delivering the lectures		
4.6	Preparing, filming, recording and editing lectures of	30	
	the 2 nd module: - Implementing audiovisual activities: filming, film		
	editing, etc Implementing lecturer activities: preparing et		
	delivering the lectures		
4.7	Preparing, filming, recording and editing lectures of the 3 rd module:	30	
	- Implementing audiovisual activities: filming, film editing, etc.		
	- Implementing lecturer activities: preparing et		
	delivering the lectures		
4.8	Implementing the upload procedure	8	
4.9	Prepare Report No.4 and attend the peer review	2	
5	meeting of the report and finalize the report	33	
5	Operate, maintain, monitor, evaluate and report the on-line training course	33	
5.1	Operating the learning platform	5	
5.2	Managing learner's activities:	15	
	- Receiving and answering student's questions		
	- Preparing middle and final tests, evaluating tests and		
	reporting the results to students		
	- Considering and carrying out certification procedures for trainees		
5.3	Monitoring, evaluating, and reporting the course	10	
5.4	Prepare Report No.5 and attend the peer review	3	
	meeting of the report and finalize the report		
6	Prepare final report No.6 including the results of	5	
	Monitoring, evaluating, and reporting the course;		
	attend the peer review meeting of the report and finalize the report		
	The total number of scheduled work day	260	

FORM FOR SUBMITTING SERVICE PROVIDER'S TECHNICAL PROPOSAL4

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery⁵)

[insert: Location]. [insert: Date]

To: Procurement Unit - UNDP Vietnam

Dear Sir/Madam:

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated [specify date], and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions:

A. Qualifications of the Service Provider

The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating among others the following with appropriate supporting documents:

- a) Profile describing the nature of business, field of expertise, licenses, certifications, accreditations:
- b) Business Licenses Registration Papers, Tax Payment Certification, etc.
- c) Track Record list of clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references

Client	Contract value	Duration of activity	Services/goods provided	References contact (name, phone, email)

- d) Certificates and Accreditation including Quality Certificates, Patent Registrations, Environmental Sustainability Certificates, etc. (if any)
- e) Written Self-Declaration that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.

(Note: Please refer to Form 1 – Evaluation criteria for providing appropriate information and supporting documents to demonstrate the bidders' capacity)

B. Proposed Methodology for the Completion of Services

The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work.

⁴ This serves as a guide to the Service Provider in preparing the Proposal.

⁵ Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

(Note: Please refer to Form 2 – Evaluation criteria for UNDP requirements when preparing this section)

C. Qualifications of Key Personnel

The Service Provider must provide:

- a) Names and qualifications of the key personnel that will perform the services indicating who is Team Leader, who are supporting, etc.;
- b) CVs demonstrating qualifications must be submitted if required by the RFP

(Note: Please refer to Form 3 – Evaluation criteria for UNDP requirements when preparing this section)

We agree to abide by this Proposal for 120 days from the date of proposal submission deadline.

[Name and Signature of the Service Provider's Authorized Person][Designation]
[Date]

FORM FOR SUBMITTING SERVICE PROVIDER'S FINANCIAL PROPOSAL⁶

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery⁷)

The Proposer is required to prepare the Financial Proposal in an envelope separate from the rest of the RFP as indicated in the Instruction to Proposers.

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category.

Any estimates for cost-reimbursable items should be listed separately.

In case of an equipment component to the service provider, the Price Schedule should include figures for both purchase and lease/rent options. UNDP reserves the option to either lease/rent or purchase outright the equipment through the Contractor.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. Cost Breakdown per Deliverable*

	Deliverables [list them as referred to in the RFP]	Percentage of Total Price (Weight for payment)	Price (Lump Sum, All Inclusive)
1	Deliverable 1		
2	Deliverable 2		
3			
	Applicable taxes		
	Total	100%	

B. Cost Breakdown by Cost Component [This is only an Example]:

Description of Activity	Remuneration	Total Period of	No. of	Total Rate
	per Unit of Time	Engagement	Personnel	
I. Personnel Services				
1. Services from Home Office				
a. Expertise 1				
b. Expertise 2				
2. Services from Field Offices				
a . Expertise 1				
b. Expertise 2				
II. Out of Pocket Expenses				
1. Travel Costs				
2. Daily Allowance				
3. Communications				
4. Reproduction				
5. Equipment Lease				

⁶ This serves as a guide to the Service Provider in preparing the Proposal.

⁷ Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

6. Others		
III. Other Related Costs		
Applicable taxes		

We agree to abide by this Proposal for 120 days from the date of proposal submission deadline.

[Name and Signature of the Service Provider's Authorized Person]
[Designation]
[Date]

CHECK LIST OF DOCUMENTS SUBMITTED BY BIDDERS

Note:

- Bidders are required to review carefully this checklist before submitting proposal to ensure complete submission.
- Maximum email size: 07 MB/email. Bidders can split proposal into several emails if the file size is large
- Technical and Financial Proposals are to be submitted in separate envelop/email by Sunday, January 20, 2019 (Hanoi time).
- Email and proposal should indicate clearly the name of tender.

Item	Documents	To be completed by bidders			
		Doc submitted Y/N	Number of pages	Remarks	
1	Fully filled Technical proposal (pls. refer to template in Annex 2-a) with copies/scan of supporting documents				
2	Dully signed Price Schedule (pls. Refer to template in Annex 2-b)				
3	This duly filled, checked, certified submission checklist to be attached to the submission				
4	Send email (without attachment) to procurement.vn@undp.org notifying that you already submitted proposal and the number of email/envelop submitted. Notification emails should be sent to above email address by submission deadline or right after you submit proposals (either by email or hard copy).				

[Name and Signature of the Service Provider's Authorized Person]
[Designation]
[Date]

General Terms and Conditions for Services

1.0 LEGAL STATUS:

The Contractor shall be considered as having the legal status of an independent contractor vis-à-vis the United Nations Development Programme (UNDP). The Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of UNDP or the United Nations.

2.0 SOURCE OF INSTRUCTIONS:

The Contractor shall neither seek nor accept instructions from any authority external to UNDP in connection with the performance of its services under this Contract. The Contractor shall refrain from any action that may adversely affect UNDP or the United Nations and shall fulfill its commitments with the fullest regard to the interests of UNDP.

3.0 CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES:

The Contractor shall be responsible for the professional and technical competence of its employees and will select, for work under this Contract, reliable individuals who will perform effectively in the implementation of this Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.

4.0 ASSIGNMENT:

The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of UNDP.

5.0 SUB-CONTRACTING:

In the event the Contractor requires the services of sub-contractors, the Contractor shall obtain the prior written approval and clearance of UNDP for all sub-contractors. The approval of UNDP of a sub-contractor shall not relieve the Contractor of any of its obligations under this Contract. The terms of any sub-contract shall be subject to and conform to the provisions of this Contract.

6.0 OFFICIALS NOT TO BENEFIT:

The Contractor warrants that no official of UNDP or the United Nations has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.

7.0 INDEMNIFICATION:

The Contractor shall indemnify, hold and save harmless, and defend, at its own expense, UNDP, its officials, agents, servants and employees from and against all suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Contractor, or the Contractor's employees, officers, agents or sub-contractors, in the performance of this Contract. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Contractor, its employees, officers, agents, servants or sub-contractors. The obligations under this Article do not lapse upon termination of this Contract.

8.0 INSURANCE AND LIABILITIES TO THIRD PARTIES:

- **8.1** The Contractor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Contract.
- **8.2** The Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or the equivalent, with respect to its employees to cover claims for personal injury or death in connection with this Contract.
- **8.3** The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.
- **8.4** Except for the workmen's compensation insurance, the insurance policies under this Article shall:
 - **8.4.1** Name UNDP as additional insured;
 - **8.4.2** Include a waiver of subrogation of the Contractor's rights to the insurance carrier against the UNDP;
 - **8.4.3** Provide that the UNDP shall receive thirty (30) days written notice from the insurers prior to any cancellation or change of coverage.
 - **8.5** The Contractor shall, upon request, provide the UNDP with satisfactory evidence of the insurance required under this Article.

9.0 ENCUMBRANCES/LIENS:

The Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with the UNDP against any monies due or to become due for any work done or materials furnished under this Contract, or by reason of any other claim or demand against the Contractor.

10.0 TITLE TO EQUIPMENT:

Title to any equipment and supplies that may be furnished by UNDP shall rest with UNDP and any such equipment shall be returned to UNDP at the conclusion of this Contract or when no longer needed by the Contractor. Such equipment, when returned to UNDP, shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear. The Contractor shall be liable to compensate UNDP for equipment determined to be damaged or degraded beyond normal wear and tear.

11.0 COPYRIGHT, PATENTS AND OTHER PROPRIETARY RIGHTS:

- 11.1 Except as is otherwise expressly provided in writing in the Contract, the UNDP shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Contractor has developed for the UNDP under the Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the Contract, and the Contractor acknowledges and agrees that such products, documents and other materials constitute works made for hire for the UNDP.
- 11.2 To the extent that any such intellectual property or other proprietary rights consist of any intellectual property or other proprietary rights of the Contractor: (i) that pre-existed the performance by the Contractor of its obligations under the Contract, or (ii) that the Contractor may develop or acquire, or may have developed or acquired, independently of the performance of its obligations under the Contract, the UNDP does not and shall not claim any ownership interest thereto, and the Contractor grants to the UNDP a perpetual license to use such intellectual property or other proprietary right solely for the purposes of and in accordance with the requirements of the Contract.
- 11.3 At the request of the UNDP; the Contractor shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring or licensing them to the UNDP in compliance with the requirements of the applicable law and of the Contract.

11.4 Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, and all other data compiled by or received by the Contractor under the Contract shall be the property of the UNDP, shall be made available for use or inspection by the UNDP at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to UNDP authorized officials on completion of work under the Contract.

12.0 USE OF NAME, EMBLEM OR OFFICIAL SEAL OF UNDP OR THE UNITED NATIONS:

The Contractor shall not advertise or otherwise make public the fact that it is a Contractor with UNDP, nor shall the Contractor, in any manner whatsoever use the name, emblem or official seal of UNDP or THE United Nations, or any abbreviation of the name of UNDP or United Nations in connection with its business or otherwise.

13.0 CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION:

Information and data that is considered proprietary by either Party and that is delivered or disclosed by one Party ("Discloser") to the other Party ("Recipient") during the course of performance of the Contract, and that is designated as confidential ("Information"), shall be held in confidence by that Party and shall be handled as follows:

- **13.1** The recipient ("Recipient") of such information shall:
 - **13.1.1** use the same care and discretion to avoid disclosure, publication or dissemination of the Discloser's Information as it uses with its own similar information that it does not wish to disclose, publish or disseminate; and,
 - 13.1.2 use the Discloser's Information solely for the purpose for which it was disclosed.
- Provided that the Recipient has a written agreement with the following persons or entities requiring them to treat the Information confidential in accordance with the Contract and this Article 13, the Recipient may disclose Information to:
 - **13.2.1** any other party with the Discloser's prior written consent; and,
 - 13.2.2 the Recipient's employees, officials, representatives and agents who have a need to know such Information for purposes of performing obligations under the Contract, and employees officials, representatives and agents of any legal entity that it controls controls it, or with which it is under common control, who have a need to know such Information for purposes of performing obligations under the Contract, provided that, for these purposes a controlled legal entity means:
 - **13.2.2.1** a corporate entity in which the Party owns or otherwise controls, whether directly or indirectly, over fifty percent (50%) of voting shares thereof; or,
 - 13.2.2.2 any entity over which the Party exercises effective managerial control; or,
 - 13.2.2.3 for the UNDP, an affiliated Fund such as UNCDF, UNIFEM and UNV.
- 13.3 The Contractor may disclose Information to the extent required by law, provided that, subject to and without any waiver of the privileges and immunities of the United Nations, the Contractor will give the UNDP sufficient prior notice of a request for the disclosure of Information in order to allow the UNDP to have a reasonable opportunity to take protective measures or such other action as may be appropriate before any such disclosure is made.
- 13.4 The UNDP may disclose Information to the extent as required pursuant to the Charter of the UN, resolutions or regulations of the General Assembly, or rules promulgated by the Secretary-General.
- 13.5 The Recipient shall not be precluded from disclosing Information that is obtained by the Recipient from a third party without restriction, is disclosed by the Discloser to a third party without any obligation of confidentiality, is previously known by the Recipient, or at any time is developed by the Recipient completely independently of any disclosures hereunder.

13.6 These obligations and restrictions of confidentiality shall be effective during the term of the Contract, including any extension thereof, and, unless otherwise provided in the Contract, shall remain effective following any termination of the Contract.

14.0 FORCE MAJEURE; OTHER CHANGES IN CONDITIONS

- 14.1 In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Contractor shall give notice and full particulars in writing to the UNDP, of such occurrence or change if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. The Contractor shall also notify the UNDP of any other changes in conditions or the occurrence of any event that interferes or threatens to interfere with its performance of this Contract. On receipt of the notice required under this Article, the UNDP shall take such action as, in its sole discretion; it considers to be appropriate or necessary in the circumstances, including the granting to the Contractor of a reasonable extension of time in which to perform its obligations under this Contract.
- 14.2 If the Contractor is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, the UNDP shall have the right to suspend or terminate this Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.
- **14.3** Force majeure as used in this Article means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force.
- 14.4 The Contractor acknowledges and agrees that, with respect to any obligations under the Contract that the Contractor must perform in or for any areas in which the UNDP is engaged in, preparing to engage in, or disengaging from any peacekeeping, humanitarian or similar operations, any delays or failure to perform such obligations arising from or relating to harsh conditions within such areas or to any incidents of civil unrest occurring in such areas shall not, in and of itself, constitute force majeure under the Contract..

15.0 TERMINATION

- **15.1** Either party may terminate this Contract for cause, in whole or in part, upon thirty (30) days notice, in writing, to the other party. The initiation of arbitral proceedings in accordance with Article 16.2 ("Arbitration"), below, shall not be deemed a termination of this Contract.
- 15.2 UNDP reserves the right to terminate without cause this Contract at any time upon 15 days prior written notice to the Contractor, in which case UNDP shall reimburse the Contractor for all reasonable costs incurred by the Contractor prior to receipt of the notice of termination.
- 15.3 In the event of any termination by UNDP under this Article, no payment shall be due from UNDP to the Contractor except for work and services satisfactorily performed in conformity with the express terms of this Contract.
- 15.4 Should the Contractor be adjudged bankrupt, or be liquidated or become insolvent, or should the Contractor make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Contractor, the UNDP may, without prejudice to any other right or remedy it may have under the terms of these conditions, terminate this Contract forthwith. The Contractor shall immediately inform the UNDP of the occurrence of any of the above events.

16.0 SETTLEMENT OF DISPUTES

16.1 Amicable Settlement: The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of this Contract or the breach, termination or invalidity thereof. Where the parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then obtaining, or according to such other procedure as may be agreed between the parties.

16.2 Arbitration: Any dispute, controversy, or claim between the Parties arising out of the Contract or the breach, termination, or invalidity thereof, unless settled amicably under Article 16.1, above, within sixty (60) days after receipt by one Party of the other Party's written request for such amicable settlement, shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining. The decisions of the arbitral tribunal shall be based on general principles of international commercial law. For all evidentiary questions, the arbitral tribunal shall be guided by the Supplementary Rules Governing the Presentation and Reception of Evidence in International Commercial Arbitration of the International Bar Association, 28 May 1983 edition. The arbitral tribunal shall be empowered to order the return or destruction of goods or any property, whether tangible or intangible, or of any confidential information provided under the Contract, order the termination of the Contract, or order that any other protective measures be taken with respect to the goods, services or any other property, whether tangible or intangible, or of any confidential information provided under the Contract, as appropriate, all in accordance with the authority of the arbitral tribunal pursuant to Article 26 ("Interim Measures of Protection") and Article 32 ("Form and Effect of the Award") of the UNCITRAL Arbitration Rules. The arbitral tribunal shall have no authority to award punitive damages. In addition, unless otherwise expressly provided in the Contract, the arbitral tribunal shall have no authority to award interest in excess of the London Inter-Bank Offered Rate ("LIBOR") then prevailing, and any such interest shall be simple interest only. The Parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute, controversy, or claim.

17.0 PRIVILEGES AND IMMUNITIES:

Nothing in or relating to this Contract shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs.

18.0 TAX EXEMPTION

- 18.1 Section 7 of the Convention on the Privileges and Immunities of the United Nations provides, interalia that the United Nations, including its subsidiary organs, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognize the United Nations exemption from such taxes, duties or charges, the Contractor shall immediately consult with the UNDP to determine a mutually acceptable procedure.
- Accordingly, the Contractor authorizes UNDP to deduct from the Contractor's invoice any amount representing such taxes, duties or charges, unless the Contractor has consulted with the UNDP before the payment thereof and the UNDP has, in each instance, specifically authorized the Contractor to pay such taxes, duties or charges under protest. In that event, the Contractor shall provide the UNDP with written evidence that payment of such taxes, duties or charges has been made and appropriately authorized.

19.0 CHILD LABOUR

- 19.1 The Contractor represents and warrants that neither it, nor any of its suppliers is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical mental, spiritual, moral or social development.
- 19.2 Any breach of this representation and warranty shall entitle UNDP to terminate this Contract immediately upon notice to the Contractor, at no cost to UNDP.

20.0 MINES:

20.1 The Contractor represents and warrants that neither it nor any of its suppliers is actively and directly engaged in patent activities, development, assembly, production, trade or manufacture of mines or in such activities in respect of components primarily utilized in the manufacture of Mines. The term

"Mines" means those devices defined in Article 2, Paragraphs 1, 4 and 5 of Protocol II annexed to the Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects of 1980.

20.2 Any breach of this representation and warranty shall entitle UNDP to terminate this Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind of UNDP.

21.0 OBSERVANCE OF THE LAW:

The Contractor shall comply with all laws, ordinances, rules, and regulations bearing upon the performance of its obligations under the terms of this Contract.

22.0 SEXUAL EXPLOITATION:

- 22.1 The Contractor shall take all appropriate measures to prevent sexual exploitation or abuse of anyone by it or by any of its employees or any other persons who may be engaged by the Contractor to perform any services under the Contract. For these purposes, sexual activity with any person less than eighteen years of age, regardless of any laws relating to consent, shall constitute the sexual exploitation and abuse of such person. In addition, the Contractor shall refrain from, and shall take all appropriate measures to prohibit its employees or other persons engaged by it from, exchanging any money, goods, services, offers of employment or other things of value, for sexual favors or activities, or from engaging in any sexual activities that are exploitive or degrading to any person. The Contractor acknowledges and agrees that the provisions hereof constitute an essential term of the Contract and that any breach of this representation and warranty shall entitle UNDP to terminate the Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind.
- 22.2 The UNDP shall not apply the foregoing standard relating to age in any case in which the Contractor's personnel or any other person who may be engaged by the Contractor to perform any services under the Contract is married to the person less than the age of eighteen years with whom sexual activity has occurred and in which such marriage is recognized as valid under the laws of the country of citizenship of such Contractor's personnel or such other person who may be engaged by the Contractor to perform any services under the Contract.

23.0 AUTHORITY TO MODIFY:

Pursuant to the Financial Regulations and Rules of UNDP, only the UNDP Authorized Official possesses the authority to agree on behalf of UNDP to any modification of or change in this Contract, to a waiver of any of its provisions or to any additional contractual relationship of any kind with the Contractor. Accordingly, no modification or change in this Contract shall be valid and enforceable against UNDP unless provided by an amendment to this Contract signed by the Contractor and jointly by the UNDP Authorized Official.

Contract templates and General Terms and Conditions

> Please find below link to the contract template:

 $\frac{\text{http://www.vn.undp.org/content/dam/vietnam/docs/Legalframework/Contract%20Face%20Sheet%20(Goods%20and-or%20Services)%20UNDP%20-%20Sept%202017.pdf}$

Please find below link to the General Terms and Conditions:

http://www.vn.undp.org/content/dam/vietnam/docs/Legalframework/2.%20UNDP%20GTCs%20for%20Contracts%20(Goods%20and-or%20Services)%20-%20Sept%202017.pdf

http://www.vn.undp.org/content/dam/vietnam/docs/Legalframework/3.%20UNDP%20GTCs%20for%20de %20minimis%20Contracts%20(Services%20only)%20-%20Sept%202017.pdf